

GUITARIMPROV

Improvisation & Comping



**Includes
web access
to audio
and video**

Jim Gleason

Acknowledgements

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Dedication

This is dedicated with love to my wonderful wife, Deborah.

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GET ACCESS TO THE ONLINE VERSION

The table of contents on the following pages shows the contents of the entire course. It is over 3,700 pages with hundreds of hours of audio and video online.

Access to the digital version of the print course, with links to online audio and video content is free.

link for the entire course:

<https://www.dropbox.com/s/9qirb4mbnn9dush/gi.pdf?dl=1>

link for individual chapters: https://drive.google.com/file/d/1mjt1AG2S84STby43wpUU3Enal2W5v1Hu/view?usp=drive_link

WHO SHOULD STUDY THIS COURSE?

This course is not for beginners. You need a little knowledge and ability before studying this course. Usually a year or so of basic study is enough preparation.

HOW LONG WILL IT TAKE?

It's really dependent on your quality of practice and intensity. You could go from beginner to performer in a few years with good smart work.

Think of it as an ongoing study for the rest of your life. You'll get deeper and deeper into it. Call it a few thousand quality hours to get a thorough start on the entire course.

globalizing musical structure and design

View "[Globalizing Musical Structure and Design](#)" to see what is needed for each style.

HOW SHOULD YOU PRACTICE?

High Quality Practice

“dialing up” the emotive intensity of your engagement like an actor

Control the intensity and tone of your practice like an actor calling up an emotion to play a part. Act engaged and alert and you will be that way. Always think positive and “dial it up”.

Practice things you will actually use in playing music. You will do much better if you are engaged in what you are doing. Choose pieces you can get into. Study a few pieces in a row that develop a particular technique or design.

Breathe and use good posture.

repetitions geared for retention

repeating cycles Use high-intensity training as in sports. Practice something you can accomplish within a ten or twenty minute session. You should usually practice repeating phrases that take under a half minute to play once. Perform the phrase over and over with a high degree of focus.

During repetitions of a phrase or exercise, you will usually improve gradually. At some point you will fatigue and start getting worse, usually after a few minutes. Acknowledge the point of fatigue and rest about half the time you practiced. Really rest, don't play. Then repeat the cycle (repeat until fatigue, then rest) five or ten times.

play enough cycles to retain Adjust the number of cycles (a set of a repeated event, followed by rest) so you will remember the item the next time you practice. As you get to know your practice habits you get better at predicting the necessary number of cycles for retention.

multiple contexts

Think the song in terms of how it makes you feel. What it sounds like. The melody. The chord progression. The rhythm. The emotive curve, building to a climax near the end.

If you know the piece well in many of these contexts you'll more easily retain it in your memory and more fluently make enhancements to it.

Build modules into larger knowledge and ability. Break down things you are learning to do into small units and plan on putting the units together. For example, memorize phrase by concentrating on the note pattern with the fretting hand separately from picking or plucking hand. Do whichever first is easier, then add the other. Build the phrases into an entire piece.

Avoid Redundancy and Memory Loss

To avoid redundancy and memory loss, wait an appropriate number of days to practice a song or study again so you have no trouble remembering it and retaining proficiency at playing it. Don't practice an item too soon if there are other songs or studies that need work sooner. Technical studies need to be practiced closer to daily.

Practice each item enough that you will remember it until the next time you practice. Learn to predict how many times you need to repeat something in practice to remember it for a given number of days. The number of repetitions would be different according to the difficulty of the piece and your goal number of days. Hypothetically, if a particular person practiced a particular four bar section fifteen times, and was therefore able to remember it for four days: in three days it would be redundant to practice it and in five days you would experience some memory loss. The periods of time between practice of any particular item should be of increasing lengths of time, as you build a stronger memory.

Practice each phrase with enough repetitions to remember it while you are working on the next phrase. By studying multiple aspects of a piece such as technique, rhythm, phrasing and harmonic theory, you build memories in different parts of your brain and therefore create a greater total awareness of the piece.

Learn the Part Right in the First Place

Get it right in the first place. It is a waste of time to have to go back and re-learn parts.

Practice new material within 48 hours of a lesson or media study, preferably the same day as the lesson or media. Use visual input (tablature, diagrams, standard notation or watching a video with cueing ability) very carefully at first, while you are memorizing the part.

study techniques

Develop principles of study techniques and drills creatively to meet challenges in your playing of songs. Isolate difficult sections and practice them slower at first. Isolate any difficult technique required for each hand, such as practicing chord fingerings with a simple strum.

Learn to make up exercises to overcome difficult sections that trouble you. Break the troublesome part down to components and work on each separately. For example, count and clap the rhythm. Go over the fingering first without rhythm. Then put the two together. If a fretting technique is difficult for you, make up an exercise for it. Always make your exercises musical, so they have some relationship to something you will play.

fingering

Carefully learn each note with good principles of fingering. Take advantage of the more capable fingers, sometimes avoiding fretting with the little finger. When avoiding use of the little finger, you typically will span two frets with the index and middle fingers, with an “empty” fret between them.

Prepare for the occasions when the little finger should be used by heightening the ability to fret with the little finger. This is typical of more complex parts that use four consecutive frets on the same string or patterns like whole step (two frets), half step (one fret) on one string and half step, whole step on the next, as shown below in playing ascending notes from the second through first strings. It doesn't matter what position (fret) you play this at.

			1	1
				2
			3	
			4	4

rhythm

If you are reading tablature or if you are reading music without a great reading ability, be sure to listen to any available recordings to mimic the rhythm. Learn the placement of each note (or group of notes) in relation to the beat. Progressively establish an even tempo.

In three steps: count the rhythm, then vocalize it, then memorize its sound. Start looking at the standard music notation above the tablature to get graphic cues as to the duration of notes, even before you completely understand how to read it.

Progressive Study

Work on music that is a little challenge for you, so you can accomplish in a few weeks at most. Start at a tempo that is slow enough that you make 5-10% errors. Work until perfect, then increase the tempo slightly. A phrase is around 8-20 events (notes or chords). Practice short phrases, then join them together.

learning with recordings

- ✦ Play with the original recording slowed down enough to allow you to play with it. Gradually increase the speed of the recording, so you can keep up with it.
- ✦ Learn to play the melody and chords separately first.
- ✦ If the part you are learning can be sung, sing it along with the original recording and sing the before you play it on the guitar. Then play it while you are singing.

- If you can play the chord progression while singing the melody, do it.

media aids

Software can enable you to slow down songs, change them to the key you need or cue sections of the songs for study.

On an Apple Macintosh computer, you can use Amazing Slow Downer at <http://www.ronimusic.com> or Anytune at: <https://anytune.us/products/anytune-for-mac>

On a PC, you can use Windows Media Player as follows: Begin playing a file. Click the arrow below the “now playing” tab, point to “enhancements”, and then click “play speed settings”. Move the “play speed” slider to the speed at which you want to play the content, or click the “slow, normal, or fast” link. To select speeds between the labeled play speeds, in the “enhancements” pane, clear the “snap” slider to common speeds check box. To hide the settings, click the “close” button in the “enhancements” pane.

Play with a metronome <https://www.onlinemetronome.app/80-bpm-metronome>

Record yourself on one channel with the original recording on the other channel with software like Garageband or Logic Pro X on Mac or with Pro Tools on PC (there’s a free version).

practice with a looper

It’s great to practice with a looper, especially if you re-record the accompaniment every time, so you get better at it. My favorite loopers are the Boss RC-1, Boss RC-2 and the TC Electronics Flashback series.

GOOD THINGS TO STUDY FIRST

Reading Tablature and Chord Diagrams

If you are not already able to read chord diagrams and tablature, see “[Chord Diagram and Tablature Quick Start](#)”.

Chords and Scales

Your first approach to most songs should be strumming or plucking the chords and thinking the melody. To be able to do this, study “[Fingering Common Chords](#)”. Use them in songs and in the progressions used below in “[Learning Keys With Chord Progression](#)”.

Number and Letter Cycles

Study the [number and letter cycles](#) in Note Sets, Structures and Design. You should begin with stepwise, thirds and fourths in numbers in the key of C (all natural notes). Then relearn to rotate each cycle so it aligns each of the other keys with “1” in the cycle and apply the [key signature](#). For example, the cycle of thirds for D major would start with “D” at the “1” and cycle around with the letters “D-F-A-C-E-G-B D”, just like the did in the C major cycle, except sharp the “C” and sharp the “F”.

Octave Shapes and Intervals

Learn at least to identify each of the five [octave shapes](#). Learn the intervals necessary to construct a major chord.

Rhythmic Words and Comping Rhythms

rhythmic words

Like the words that make up our verbal languages, music is made up of common short rhythms, which I call *rhythmic words*. Start building your library of rhythms by memorizing the most common rhythmic words to both recognize them when you need them in playing songs and to improvise rhythms in your own accompaniment and solo parts.

comping rhythms

Comping rhythms are used to create accompaniment parts. Memorize them and learn to vary them. You can memorize them by ear in the [Comping Rhythms](#) section of “[Rhythmic Words And Comping](#)”.

Major Scale Note Names

learn major scale note names first by playing chord progressions

Song are built with scales. Learn the names of the notes in each major scale by playing chord progressions that each use a single major scale. Once you have many memories of chord progressions that each use the notes of a major scale, the note names in every major scale can be more thoroughly memorized with the system of key signatures.

The roots of the songs will teach you the names of the notes in each major scale, starting with chords built on I, IV and V (the first, fourth and fifth steps of each of the keys). Then you can use them to progressively use more keys and chords built on each of the steps of the scale. After I, IV and V, we'll first add VI_m (six minor).

Learn the step to step intervals by number in major scales in the [number and letter cycles](#) section of "Note Sets, Structure and Design". III to IV is one fret. IV to V is two frets. V to VI is two frets, and so on. Each major scale uses all seven letters, A through G. Each letter is used only once.

I, IV and V are easy to figure out in any key. You just need to get a sense of the notes that need sharps or flats. IV to V is two frets, so if IV is B (as in the key of F#), V has to be C#, since B to C is only one fret. In the key of F, IV has to be B_b, since III to IV needs to be one fret, III is A, so B has to be flat to make it one fret from III to IV.

The chart below can be used to figure out each of these progressions in every key. The chart is in the order of keys (going down vertically) you should use to learn the progressions in all keys.

major scale-tone triads in all keys

major scale-tone	1	2	3	4	5	6	7
major scale-tones	1, 3, 5	2, 4, 6	3, 5, 7	4, 6, 1	5, 7, 2	6, 1, 3	7, 2, 4
quality	major	minor	minor	major	major	minor	diminished
formula on root	1, 3, 5	1, b3, 5	1, b3, 5	1, 3, 5	1, 3, 5	1, b3, 5	1, b3, b5
roman numeral name	I	II _m	III _m	IV	V	VI _m	VII _{dim.}
no sharps nor flats							
literal names in C	C	D _m	E _m	F	G	A _m	B _{dim.}
keys with sharps							
literal names in G	G	A _m	B _m	C	D	E _m	F# _{dim.}
literal names in D	D	E _m	F# _m	G	A	B _m	C# _{dim.}
literal names in A	A	B _m	C# _m	D	E	F# _m	G# _{dim.}
literal names in E	E	F# _m	G# _m	A	B	C# _m	D# _{dim.}

literal names in B	Bb	Cm	Dm	Eb	F	Gm	Adim.
literal names in F#	F#	G#m	A#m	B	C#	D#m	E#dim.
literal names in C#	C#	D#m	E#m	F#	G#	A#m	B#dim.

keys with flats

literal names in F	F	Gm	Am	Bb	C	Dm	Edim.
literal names in Bb	Bb	Cm	Dm	Eb	F	Gm	Adim.
literal names in Eb	Eb	Fm	Gm	Ab	Bb	Cm	Ddim.
literal names in Ab	Ab	Bbm	Cm	Db	Eb	Fm	Gdim.
literal names in Db	Db	Ebm	Fm	Gb	Ab	Bbm	Cdim.
literal names in Gb	Gb	Abm	Bbm	Cb	Db	Ebm	Fdim.

Learn the Minor Pentatonic Scale and a Few Licks

Short melodic ideas called licks, riffs, motifs or cells are the building blocks of improvisation by ear. Cells are the shortest ones. You'll learn to modify the ones you've memorized and adapt them to fit on new songs.

Study some of the solos in "[Improv Level 1-Improv By Ear](#)", learn a [pentatonic scale fingering](#) or two and start experimenting with licks you'll find in "[Blues Rock and Swing Blues Cells](#)".

PLAYING POSTURE

I like the combination of my player-specific point of view on guitar playing posture and Ethan Kind's anatomical point of view. Ethan wrote a series of books, curiously available only in Kindle book format on [Amazon.com](https://www.amazon.com). You can get a free Kindle reader from Amazon for your PC or Mac. Check out [An Alexander Technique Approach to Jazz and Rock Guitar Technique](#).

Feel your body and relax all the muscles you don't need for your activity. The most common cause of fatigue, stress and injury on the guitar is caused by tightening muscles that you don't need. Use only the pressure needed for fretting, adequate tension for form, no more, no less.

Keep your lower back in its nearly straight, naturally-curved shape. Since you are reaching around in a circular manner (seen from an aerial view), your upper back is slightly rounded. Your shoulders should not be forward of the clavicle by more than about a half inch.

Keep the head of the guitar at least as high as the bridge. I keep the neck at more than 45° to the floor.

Sitting Posture

Sit where your knees are at least as high as your hips. The rounded part of the guitar in the middle of its body is meant to rest on your leg. In classical guitar style, you can raise the knee on the fretting hand side with a foot stool to allow the fretting hand arm to bend less at the wrist. Flamenco players put the ankle on the fretting hand side on top the leg on the fretting hand side, just before the knee.

Using a foot stool or similar device, elevate your fretting-hand foot six to nine inches to raise your upper leg on your fretting hand side. Put the other foot flat on the floor. I built a wood block assembly with 4"X4" wood, strapped it together with cable ties, screwed it to a 1" solid wood base. I got tired of foot stools breaking.

Avoid bending your fretting-hand wrist. When you need to bend it, try to make it momentary.

Tilt the upper part of the guitar body toward you about two to six inches (from a vertical position). Don't lean over and look at the fretboard much. Learn to look at the edge of the fretboard and feel where your fingers are on the fretboard. You won't develop a good spacial sense otherwise.

Keep the neck of the guitar about one open hand span away from your fretting hand shoulder. This will help in keeping your fretting hand wrist straight. Rather than keeping your fretting hand fingers parallel to the frets, generally play with your fingers angled to the frets about 10° to 20°, so the tip of the index finger is right up against the fret, but the base of the index finger is over half way toward the next fret on the head side. This is very similar to the fingering hand posture of a violinist.

tweaking of the distance between the neck and the fretting hand shoulder

The distance can be tweaked by fretting four-finger G chord (sixth through first string GBDGDG), then moving it to the seventh fret (first finger at the seventh fret). Start with the neck three or four inches from your fretting hand shoulder. Unless you have extreme hyper-extension in your fingers (one of my students can bend each finger tip to a full 90°!), when you get to around six to ten inches between your fretting hand shoulder and the guitar neck, the fifth string should become muted by the fretting hand second finger. Find the “tipping point” distance where this begins and use the distance and inch or two closer to your shoulder as a safety margin.

Standing Posture

Sitting posture should generally mimic standing posture in regard to the angle of the neck, the distance from the fretting-hand shoulder and the distance in tilting the guitar back from the imaginary vertical plane.

Most of us sit too much. I had major back surgery a few years ago, primarily caused by too much sitting. Alternate your playing between sitting and standing. Take a five minute break every 20-30 minutes.

Globalizing Musical Structure And Design

- **The Creative Power of The Mind**
- **Globalization Defined**
- **Theme and Variation by Globalizing**
- **Globalization Style Tables**

This course is about melodic and harmonic (chordal) improvisation. You will learn how to quickly expand what you know. The first part six parts of the course cover Melodic Improv, followed by two parts on Harmonic Improv. The last part has studies on Favored Songs and has Quizzes.

THE CREATIVE POWER OF THE MIND

Our Uncanny Ability to Apply Designs

As long as the set of notes or rhythms is straightforward, like a scale or a regular rhythm, we have an amazing ability to learn a pattern on one scale or arpeggio and apply it to another, or play a rhythm starting on one beat, then play the same one starting on a different beat. For example, if you learn the fragment pattern “1234” on a pentatonic scale, you can then apply it to any scale or arpeggio without much of an adjustment. The main task was learning the treatment of the scale.

Let’s say we play a “1234” fragment with three notes per beat, starting on the beat. The pattern doesn’t begin on the beat again until we have played twelve notes (three times four). We then can begin to hear that entire sequence of twelve notes as a new fragment pattern. Further, it doesn’t matter so much what scale or arpeggio we play it on, we understand the treatment and can hear the 12-note sequence.

Improvised Ideas Can Be Very Complex

Once we know sets of notes like scales and units of rhythm like rhythmic words and ways to design them, we can start creating abstractly. We can learn to predict the sound of each individual note in a scale, then let the mind predict the sound of a group of them, telling us what to play.

When we analyze what our right brain has created in free association with our mathematical/logical left brain, it usually gets very complicated. Improvising on a blues with minor pentatonic scale seems really simple to do and easy to hear. But, when you analyze what has been done to contradict some of the chords and find relationships common to a few chords, it gets really complex. See the chapter “[Modes](#)”/ [Modes On I IV V Blues](#).

Learning and Practicing a Design

It is time-efficient to practice a number of consecutive instances of a design, going up or down a scale, for example. But when you use the design in improvising, you usually don’t want more than one or two in a row.

GLOBALIZATION DEFINED

In 1996, after studying improvisational music for decades, it occurred to me that there is a common process of applying what an improviser learns. Each significant musical idea should be memorized, categorized, then modified as necessary to reapply to appropriate styles and situations. The categories can be conceived in many different ways.

In a broad view, the main categories are shown below as Pitch, Melody And Harmony, Rhythm And Form, Comping Design and Solo Design. Attributes are listed in a table below each. At the end of this Globalizing Musical Structures And Design section, tables are shown in a timeline fashion, with the timeline labeled at the top, moving forward in time to the right and with the three main categories “comping designs”, “solo designs” and “pitch variables”. The index to the course that follows this section shown another categorization.

When your attention is drawn to a musical idea, become aware of its appropriate variations as shown below. Learn the rules for each genre by learning what musical elements have been used so far. If you are introducing something new to the genre, take care to introduce it to the listeners. People generally like what they know, so new things necessarily need introduction. Be crafty. Bring in something new along with other elements from the genre that the listener knows and likes.

When you perform or arrange a song, be aware of which of all the attributes and designs shown below. The attributes are listed in the tables below each category, such as “Pitch, Melody And Harmony”.

Pitch, Melody and Harmony

key	chord type	fingering
mode or scale	chord progression and cadences	slur type

Rhythm and Form

straight versus swing	phrasing and rhythmic displacement	melodic elaboration & abbreviation
rhythmic words	rhythmic layers	harmonic elaboration & abbreviation

Comping Designs

rhythmic strumming	bass guitar	open position chords
linear arpeggios	left, right and reggae muting	close-voiced triads
thumb bass, index strum	harmonized & walking bass	open-voiced triads
thumb bass, fingers pluck	EDCAGE movable triads	cadences
bass, mid, top: piano style	accents	pedal tone progression
patterned arpeggios	ornamented chords	voice leading (chapter)

Solo Designs

minor pentatonic solo	double stops	open position chords
major pentatonic solos	theme and variation	close-voiced triads
combing six pentatonics	slide guitar	open-voiced triads
combine four heptatonics	fragment patterns	cadences
arpeggios and turnarounds	octaves, optional inner interval	pedal tone progression
two-note harmony	pivot tone	top-voice leading

THEME AND VARIATION BY GLOBALIZING

This is an outline of material that should be studied thoroughly in repertoire. For each attribute and design shown above, you should typically play and study the relative parts of three or more songs as examples.

Changing Comping Design

By using different styles of accompaniment (strumming, finger picking, arpeggiating, etc.), you can greatly vary the feel of the music.

Changing Solo Design

While retaining the core melodic theme, the solo design can be changed between all of the following:

arpeggio fragment patterns (include rhythmic word options)

- arpeggios with pivot tone (include rhythmic word options)
- heptatonic scales and heptatonic subsets with chord tone emphasis (include rhythmic word and slurring options) (after pentatonic for rock and blues)
- heptatonic fragment patterns (include rhythmic word options), (after pentatonic for rock and blues)
- heptatonic scales with pivot tone (include rhythmic word options), (after pentatonic for rock and blues)
- improv themes and schemes, substitution/secondary roots and darkening melodic cells
- blues rock cells
- swing blues cells
- 12 bar blues endings

- ✦ cadences (turnarounds)
- ✦ see the chapter: [“Relating Chord Tones to the Beat”](#)
- ✦ chromaticized arpeggios and the basic lower chromatic embellishment (largely omit for rock and blues) (include rhythmic word and slurring options)
- ✦ pentatonic chord scales and pentatonic subsets of heptatonic scales (include rhythmic word and slurring options)
- ✦ pentatonic fragment patterns (include rhythmic word and slurring options)
- ✦ pentatonic scales with pivot tone (include rhythmic word and slurring options)
- ✦ theme and variation, “duality tones” common to tonic chord and current chord (include rhythmic word and slurring options)
- ✦ 1235, 1345 and scalar V7b9 and bII9 cadences to target chord*, IIm7b5b9 to V7b9 target chord (include rhythmic word and slurring options)(largely omit for rock and blues)
- ✦ double stops (include slurring options)
- ✦ thirds and sixths (include rhythmic word and slurring options)
- ✦ octaves, octaves with inner thirds or inner sixths (include rhythmic word and slurring options)
- ✦ pedal tone progression, including I-IV-I7 and I6n5 to I9nrn3 (include rhythmic word and slurring options)
- ✦ quartal and quintal harmony (omit for typical rock and blues)
- ✦ serial melody: moving structures chromatically; major triad-base structures in serial intervals, including perfect fourths, minor thirds and diminished fifths (include rhythmic word options)(omit for rock and blues)
- ✦ pedal steel bends (primarily country music)
- ✦ slide guitar (primarily blues and blues rock)
- ✦ bebop ornamentation (similar to baroque ornamentation)
- ✦ internal [voice leading \(chapter\)](#)
- ✦ elaborate or abbreviate chord progressions

*target chord: a chord which is preceded by melody or chord progression that leads to it.

Changing Attributes of Pitch, Melody and Harmony

changing key

Convert the theme to numbers in relation to the tone center of the original theme.

changing mode or scale

Change the versions of the numbers in relation to a major scale named after the key, but retain the numbers. For example, in changing from major mode to Mixolydian mode, the seventh is flatted, so any melody in major mode would be converted to Mixolydian by changing any note on the seventh step of the scale named after the key to a flat seven.

changing chord type

Change chord types, usually retaining the same numbers generically, but flatting or sharpening certain notes in relation to the root of the chord. In some cases, the number type of a chord can be varied, such as changing a sixth chord (-3-5-6) to a seventh chord with 1-3-5-b7.

changing chord progression and cadences

Cadences are short chord progressions that punctuate the beginning or ending of a section. Cadences may be changed to involve different sets of chords, or a cadence may be used to elaborate on a single chord. Each chord in a progression could be represented instead with a cadence of three or more chords. Common cadences involve root movement ascending in fourths, such as V-I, II-V-I, VI-II-V-I, or any part of the major scale-tone series of perfect fourths 7-3-6-2-5-1-4.

changing fingering: octave shape

There are five octave shapes, named and designed after the open position major chords E, D, C, A and G. The fingering for most melodies can be played in any of the five octave shapes and that should be explored, since certain attributes of the melody can be more easily and more fluently played in some octave shapes. Each octave shape has different possibilities in slurring and ease of fingering.

changing fingering: forward slash versus back slash

Most melodies and especially pentatonic and jazz arpeggio melodies that have a range of one octave or less have two basic versions. Viewing the guitar fretboard in an upright position (as in a chord diagram, with the head at the top and the neck vertically below), one version occurs in an octave in the shape of a back slash and one in the shape of a forward slash.

changing fingering: index, middle (or ring) or little finger on low octave root or tone center

Most melodies based on a seven tone scale with the range of an octave or less and arpeggios of four or more notes have three fingering possibilities per octave: one with the index finger on the low octave tone center, one with a middle finger (middle or ring) and one with the little finger on the low octave tone center.

changing slur type

Change between hammer-on/pull-off, slide and bend. When two notes are on the same string, they can be slurred with a hammer, pull-off, slide or bend. The same two notes cannot be slurred when fretted in an adjacent fretboard position where they are on different strings. When playing a melody that originated on acoustic guitar on electric guitar instead, hammers, pull-offs and slides can be converted to bends and releases and vice versa.

Changing Attributes of Rhythm and Form

straight versus swing rhythm

Straight rhythm divides the beat into two equal parts. In standard practice, swing rhythm divides the beat into two parts, the first part two thirds of a beat and the second part one third of a beat.

There are subtle variations of swing rhythm where the beat can be divided into a long first part in between one half and three quarters of a beat, giving the second part the remainder. Closer to 50% can be called *light swing*, while closer to 75% can be called *heavy swing*. See [“Rhythmic Words and Comping”/Degrees of Swing](#).

Master musicians can interpret and closely match one another's swing percentage and can even “fade” from one approximate percentage to another!

changing rhythmic words

Rhythmic words are short selections of pulses that divide the beat into two, three, four, six or eight parts. They make up the vocabulary of rhythm from which we build the language of music rhythmically.

Where a theme features a particular rhythmic word, the theme can change to another rhythmic word of the same number of notes.

phrasing and rhythmic displacement

Core melodic tones are chord tones of the current chord. The most important chord tones are the triad tones on which the chord is based. They can functionally be called *target tones*. Generally, you want to

target chord tones on the first beat of the bar. A target chord is a chord which is preceded by melody or chord progression that leads to it.

Phrases can begin on, before or after the first beat of a bar. It is very effective to make patterns of phrases starting in sometimes the same and sometimes different places in relation to the first beat of a bar. Repletion and variation are both good, but don't overuse either. Start a few phrases the same way (*before* the beat, for example), then vary the phrases start by starting at a different location in relation to the beginning of the bar (*on* the first beat of the bar, for example).

To punctuate a phrase, leave a silence or sustain at the end of it, at the end of two bars or four bars.

Vary your phrasing by moving the entire phrase earlier or later in time. It may have originally started on beat three of four beats, and you could change it to start on beat one. It may originally have notes primarily on the beat and, by displacing all of the notes a half beat earlier, you could change it to having the notes primarily before the beat (syncopated). Each of these interpretations has a "sound" which you can conceive to help predict and create phrases.

melodic elaboration and abbreviation

Elaboration. Phrases can be enhanced by adding decorations with slurs, neighboring tones, scale or arpeggio passages, etc., while retaining the core melody.

Abbreviation. A melody is abbreviated by going closer to its essence or omitting repetition and omitting less important chords. It is a form of summarizing.

Sequential variations. Vary a single note or small group of notes with a pattern of variations in mind.

harmonic elaboration and abbreviation

Elaboration. Chord progressions with long durations of each chord can be enhanced with cadences that strengthen the temporary tonality of the main chords.

Abbreviation. When chords are changing very rapidly, it is a chore both to listen to and to play. To make it more palatable to the listener and player, the chord progressions can be summarized. That is a whole art within itself. You need to recognize where groups of two or more chords can largely be treated as a single chord.

rhythmic layers

By using different styles of accompaniment (strumming, finger picking, arpeggiating, etc.), you can greatly vary the feel of the music.

themes in rhythmic layers

As with the tonal aspect of music, rhythm is layered. Each section of music uses rhythmic themes. The simplest thematic rhythms involve the fewest accents during a bar or two, while the more complex layers add more to the simple layers.

For each bar of three or four beats, there are usually two or three main accents. These make up the primary layer. Simultaneously, there are more layers. The next layer adds less important accents. A third layer can add still less important accents (usually at a faster rhythmic level), and/or adds more detail through variation during multiple bars.

compatibility

Musical parts need to be rhythmically compatible. Each added part needs to be discernible to the listener as one of three things:

- ✦ a duplication, elaboration or abbreviation of an existing part
- ✦ an ensemble component which can be combined in a “gear-like” or “dovetail” manner to create an ensemble part
- ✦ a part at a faster or slower rhythmic level (by a simple ratio such as doubling, halving or tripling) that is comprehensible at the same time as the other parts

GLOBALIZATION STYLE TABLES

Blues

Structure Or Design	acoustic blues			electric blues				
	ragtime/Piedmont	1920-50	1965-	minor pentatonic	blues rock	uptown	jazz blues	
	Lonnie Johnson Rev. Gary Davis Blind Blake Jorma Kaukonen	Robert Johnson Son House Charlie Patton Bob Brozman	Eric Clapton Taj Mahal Ry Cooder Keb' Mo'	mojo voodoo: Howlin' Wolf, John Lee Hooker, Muddy Waters Hendrix	Elmore James Albert King ZZ Top	Freddie King Jimi Hendrix Allman Bros. Johnny Winter, S.R. Vaughan	T' Bone Walker B.B. King Eric Clapton, Robben Ford	Kenny Burrell Wes Montgomery Joe Pass
comping designs								
open chords								
left, right & reggae muting								
linear arpeggios								
patterned arpeggios								
thumb bass, index strum								
thumb bass, fingers pluck								
bass/mid/top: five fingers								
bass guitar								
harmonized & walking bass								
edcage movable arpeggios								
rhythmic strumming								
internal accent								
ornamented chords								
cadences								
pedal tone progression								
close-voiced triads								
open-voiced triads								
voice leading								
solo designs								
minor pentatonic solos								
major pentatonic solos								
combine pentatonic types								
combine heptatonic types								
arpeggios & turnarounds								
two-note harmony								
double stops, incl. blues DS								
theme and variation								
slide guitar								
fragment patterns								
octaves (opt. inter. interval)								
pivot tone								
chromaticizing arpeggios								
quartal & quintal harmony								
polytonal melody								
tapping								
harmonics								
pitch variables								
change of key								
change of mode								
change of chord type								
change of fingering								
change of slurs								
rhythm variables								
straight versus swing								
rhythmic words								
rhythmic displacement								
repetition								
adding chords								
summarizing chords								

Rock

Structure Or Design	fifties (and early sixties)		sixties (and early seventies)			classic and modern		
	rockabilly	R&B	surf	folk rock	soft rock	punk	hard rock	metal
	Elvis Presley Buddy Holly Jerry Lee Lewis	Chuck Berry Bo Diddley Ray Charles Little Richard Motown	Dick Dale The Beach Boys The Ventures	Bob Dylan The Byrds The Beatles Crosby, Stills & Nash The Eagles	The Beatles The Rolling Stones Elton John James Taylor Dire Straits Pink Floyd The Police	The Clash The Sex Pistols The Ramones Green Day	Cream/Clapton Led Zeppelin Rolling Stones AC/DC Deep Purple Van Halen Guns 'N' Roses	Black Sabbath Metallica Iron Maiden Ozzy Osbourne Yngwie Malmsteen Nirvana Foo Fighters Red Hot Chili Peppers
comping designs								
open chords								
left, right & reggae muting								
linear arpeggios								
patterned arpeggios								
thumb bass, index strum								
thumb bass, fingers pluck								
bass/mid/top: five fingers								
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double stops, incl. blues DS								
theme and variation								
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fragment patterns								
octaves (opt. inter. interval)								
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polytonal melody								
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harmonics								
pitch variables								
change of key								
change of mode								
change of chord type								
change of fingering								
change of slurs								
rhythm variables								
straight versus swing								
rhythmic words								
rhythmic displacement								
repetition								
adding chords								
summarizing chords								

Jazz

Structure Or Design	New Orleans	swing	bebop		cool and modal jazz		modern jazz	
	ragtime/Dixieland	big band	forties bebop	hard bop	cool jazz	modal jazz	smooth jazz	jazz rock/fusion
	Scott Joplin Jelly Roll Morton James P. Johnson Louis Armstrong	Cab Calloway Charlie Christian Benny Goodman Duke Ellington Count Basie	Charlie Parker Thelonius Monk Dizzy Gillespie Bud Powell Barney Kessel	Miles Davis Art Blakey Cannonball Adderley Kenny Burrell Grant Green Pat Martino Jimmy Raney	Miles Davis Chet Baker Dave Brubeck Bill Evans Modern Jazz Quartet Wes Montgomery	Miles Davis John Coltrane Bill Evans George Russell Herbie Hancock Wayne Shorter Jim Hall	Wes Montgomery George Benson Larry Carlton Pat Metheny	Chick Corea Mike Stern John Scofield John McLaughlin Alan Holdsworth
comping designs								
open chords								
left, right & reggae muting								
linear arpeggios								
patterned arpeggios								
thumb bass, index strum								
thumb bass, fingers pluck								
bass/mid/top: five fingers								
bass guitar								
harmonized & walking bass								
edcage movable arpeggios								
rhythmic strumming								
internal accent								
ornamented chords								
cadences								
pedal tone progression								
close-voiced triads								
open-voiced triads								
voice leading								
solo designs								
minor pentatonic solos								
major pentatonic solos								
combine pentatonic types								
combine heptatonic types								
arpeggios & turnarounds								
two-note harmony								
double stops, incl. blues DS								
theme and variation								
slide guitar								Derek Trucks: Afro Blue
fragment patterns								
octaves (opt. inter. interval)								
pivot tone								
chromaticizing arpeggios								
quartal & quintal harmony								
polytonal melody								
tapping								Holdsworth
harmonics								
pitch variables								
change of key								
change of mode								
change of chord type								
change of fingering								
change of slurs								
rhythm variables								
straight versus swing								
rhythmic words								
rhythmic displacement								
repetition								
adding chords								
summarizing chords								

Chord Diagram and Tablature Quick Start

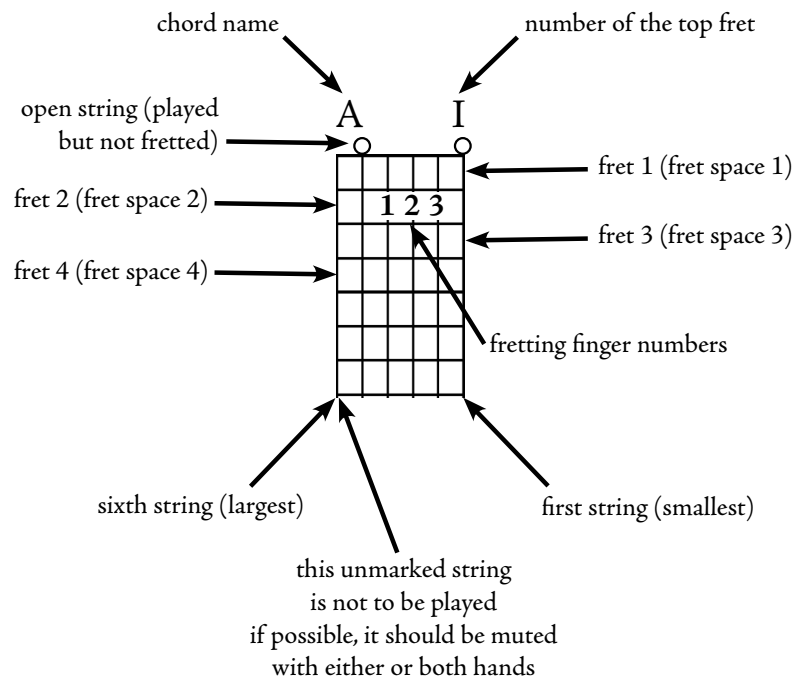
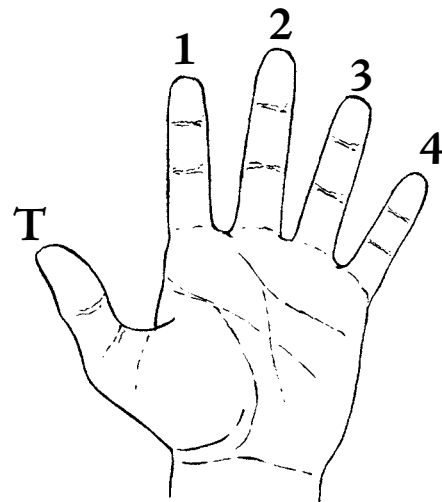
- **Chord Diagrams**
- **Tablature**

CHORD DIAGRAMS

physical relationship
of a fretboard diagram
to a guitar

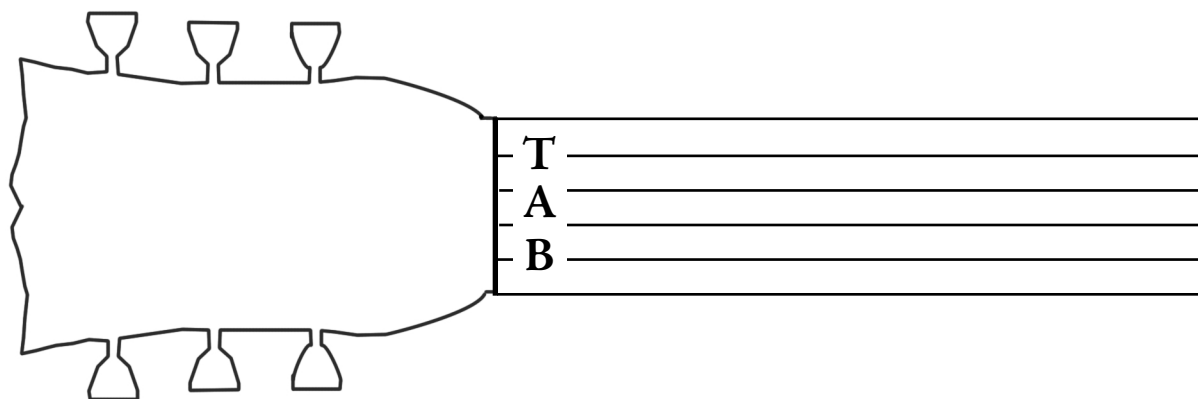


symbols for the fingers
of the fretting hand



TABLATURE

This system of notation is a graph of the guitar strings from the perspective of looking down on the guitar as you're playing it. The tablature indicates where each note is fretted. Numbers on the strings indicate frets and are written from left to right in the sequence they are to be played.



Symbols above each tablature number indicate the suggested fretting finger. In reading the tablature, remember that the top string on the tablature is the smallest, first string.

A diagram showing a hand with fretting finger numbers 1-4. The hand is shown from the side, with the thumb (T) and fingers 1-4. The fingers are numbered 1, 2, 3, and 4 from the thumb to the pinky. The thumb is labeled T.

Below the hand is a musical score with a treble clef and a 3/4 time signature. The score consists of a single line of music with notes and rests. Above the notes are chord names: C, G⁷, Am, C, D⁷, and G. Below the notes are fretting finger numbers: 1, 3, 4, 3, 1, 1, 1, 3, 1, 3, 4, 1. Arrows point from the finger numbers to the notes. Below the musical staff is a tablature system with six strings labeled T, A, and B from top to bottom. The tablature shows fret numbers for each string: T (5, 7, 8, 7, 5), A (5, 5, 3, 5, 2, 9, 5), and B (5, 7, 8, 7, 5). Arrows point from the fret numbers to the notes. A large curved arrow points from the first string (smallest) to the sixth string (largest). A large curved arrow points from the first string (smallest) to the sixth string (largest). A large curved arrow points from the first string (smallest) to the sixth string (largest). A large curved arrow points from the first string (smallest) to the sixth string (largest).

Labels and arrows:

- fretting finger numbers
- first string (smallest)
- sixth string (largest)
- fret numbers
- downstrokes and upstrokes downward-pointing arrows mean strum toward the floor

Chord Serial Numbers

The chord serial number system described in “[Chord Archetypes](#)”/The Chord Serial Number System provides a means of identifying any chord without open strings as a unique fingering, expressing it with numbers. The numbers are often shown in this course at the bottom of a chord diagram as you see below. You can ignore these numbers for now, if you like, until to learn their theoretical background.

chord name	Cm	VIII	C7	VIII	Cm7	VIII
chord fingering						
serial number	151b351	10b7350	10b7b350			

Practice and Learning

- **Three Step Song Development**
- **Playing It Right**
- **Practice Plan**

THREE STEP SONG DEVELOPMENT

Build a Song List

finding songs

Make a list of songs you would like to learn. Use your music collection. Go online and try youtube, iTunes or Amazon to audition songs. Try music streaming services like Pandora, Google Music, Apple and Spotify. Talk to friends and family and get suggestions.

order by difficulty

Prioritize your song list so you can work on the easier songs first. You could make multiple lists according to difficulty. On a computer, you could make an editable list of the songs by difficulty.

batching songs

It is very useful to study songs in batches, where the songs share an attribute such as a particular technique, fingering or rhythm. By studying a particular technique such as picking on a number of songs, you will come across many aspects of the technique and be prepared for a wider range of picking styles and challenges.

Three Steps to Learn a Song

step 1. basic version

First listen to the song. Music usually has one, two or three significant parts that require your attention to understand, such as a vocal melody and an interesting bass part. In a band recording, two or more of the instruments, like the bass and drums may be playing versions of the same idea.

Listen to the music multiple times. Focus on the vocal or instrumental melody a few times through the song. Separately, listen with your focus on a second part, like a bass part (or the bass/drum composite).

Find a way to play the chords in as simple manner as necessary to get through the song right away. Simplify the chords. Simplify the rhythm, as much as strumming each chord only once, if necessary. However you do it, find a version you can play right away.

Think the melody while you play, humming it or singing it. If you can find the melody on a guitar or piano, it is very useful to sing it while playing it.

step 2. parts: structure and design

Learn versions of accompaniment and solo parts for the song, copied from recordings, read from books or periodicals.

Break down step two into three stages by playing studies on the chord progression:

stage 1: chords with comping rhythms

stage 2: arpeggios with melodic rhythms

stage 3: scales and melody with harmonic and rhythmic variation

For any key, the fretboard can be segmented into five areas, called octave shapes. Preview the five octave shape areas of the fretboard for the song in stage 1, stage 2 and stage 3, then focus on one octave shape (for the key) first. Choose the octave shape area that is easiest. The [Little Wing Study](#) in “[Pentatonic Scales and Octave Shapes](#)” shows this way of thinking.

In stage 1, you are playing the chord progression in an area of the fretboard, using appropriate [comping rhythms](#). This will build your memory of rhythms and fingerings. The chord fingerings will give you a memory of groups of notes that are part of each chord.

In stage 2, arpeggio fingerings give you a more complete knowledge of the chord tones in a fretboard area and show build a library of melodic rhythms in your mind. See “[Triad Arpeggio Exercises](#)”.

In stage 3, you use scales and arpeggios with harmonic and rhythmic variation to create melody. See “[Theme and Variation](#)”.

The ability to create reasonably sophisticated melodic design on one chord should occur early in your development. This both makes it more fulfilling for you and builds memories of ultimately more useful melody.

Chord progression is commonly abbreviated by the improviser. For example, “II-V” chord changes such as Dm7 to G7 in C major can be played discretely as V7 (G7), playing in the temporary key of the V chord (G7) or in the temporary key of the II chord (Dm7). Melody should generally be strong enough to stand alone on one chord before using it on many. So, if you intend to use a melody that sounds V7 over IIm7 - V7 chord changes, it should sound well just on the V7. It should also be reasonably sensitive to the differences between the IIm7 and the V7, so its part played over the IIm7 sounds good also.

Making the melody viable in each style require the appropriate devices and color.

- ✦ Rock and blues use hammer, pull-off and bend slurring, more minor pentatonic scales (and less major pentatonic scales), triads with some seventh chords and darkening tones (blue notes), some chromatics, syncopation and a few tonal and rhythmic layers.

- Country music uses more major pentatonic scales (and less minor pentatonic), triads, few chromatics, little syncopation and few tonal and rhythmic layers.
- Jazz uses less slurring, more colorful chords like ninths and altered dominant chords, many chromatics, many tonal layers through varying interpretations of the chord progression through elaboration and abbreviation, much syncopation and many rhythmic layers.

step 3. performability

Maintain a lists of songs you like to play and purposed ones like “dream band song list” or “corporate gigs song list”. Delete songs that you won’t play again.

This is where you can test out the elements you have worked out in step 2: parts. You will often take a song back to step 2 and develop it further.

When You Think You Can’t Do It

You probably have a perfectly good brain and since you’re reading this, you’re probably motivated. If you don’t understand or can’t do something, break it down to components. If you don’t understand or can’t do a component, break it down... and so on.

PLAYING IT RIGHT

How Do You Know You're Playing It Right?

Improvising guitarists commonly practice songs with errors in rhythm, notes and with bad technique. They think they are playing correctly and repeat errors over and over. This is bad. This creates strong memories of the errors.

you can't erase an inaccurate memory

Once you have practiced something with errors many times, you have created an inaccurate memory of a musical part. Without brain damage (not recommended), you cannot erase the bad memory. You can only overpower it with a new correct memory. It is also difficult to prevent the incorrect memory from coming to mind when you play the piece in the future.

get auditory feedback

Make sure you have the part you are practicing in mind correctly and that you are playing it correctly. Record yourself playing it and listen to it played back. An excellent way to do this is to make a stereo recording with a correct version on one channel and your rendition on the other.

In recording programs like Garageband, Logic Pro X, Pro Tools, Logic or Digital Performer, you can put a reference recording like the original artist you are coping in one track and record yourself on another track. Then play back the recording and pan the reference recording track to the left and your track to the right. Adjust the volume so you can clearly hear both at the same time.

Figure out how to slow down the original to 50-70% speed and record yourself playing with it at. Make successive recordings at increased speeds. Go up to 110%, so you can easily play at 100%.

If you don't use a recording program, at least play with the reference recording well-balanced with the volume of your guitar, so you can clearly hear both. Start at slower speeds.

Think It Correctly First with "Air Guitar"

Think through the piece first without actually playing guitar. Whenever you can, sing or hum your guitar part, even if only its rhythm in a monotone voice. Then do the same with "air guitar and, upon repetitions, gradually "fade in" touching the guitar until you are actually playing the part.

PRACTICE PLAN

Hopefully, you will see the need for structure in your practice early on, before wasting hundreds of hours of practice by creating bad memories, not building retention and playing redundantly. It is typical that a guitarist will play for years and finally realize that they are not using their practice time efficiently.

Bruce Lee, Jerry Rice, Yo Yo Ma, Tom Cruise, Michael Phelps

Do you think these people randomly practice their art, or do they have a plan? Does Tom Cruise do all his own stunts just banking on the abilities he gained as an athlete in high school and college, or does he have a regimen? Does Yo Yo Ma play whatever he feels like every day, or does he look for areas of improvement and work on them with a plan?

When Eric Clapton recorded with the Bluesbreakers for John Mayall in 1965, he was hired to work eight hours a day on the project. One day, they finished the session after three or four hours. Eric asked his employer, John Mayall what he should do for the rest of the eight hours. John said, “go practice”. Eric did.

In the Clint Eastwood film, *Bird*, Charlie Parker, the phenomenal bebop alto sax player is shown in Kansas City playing at a “cutting” contest (informal improv competition). Charlie had practiced hard for the competition, but apparently not hard enough. In the middle of his solo, the drummer gestured the ultimate insult by removing the mounting screw from his crash cymbal and throwing it onto the stage (meaning Charlie was no good). Of course, Charlie was devastated. In the next scene, Charlie has returned to the club after months of practice and enters another cutting contest. No one has ever heard a soloist so good, like he was from another planet!

Daily Technique

Technical studies need to be practiced daily. Neuromuscular connections require regular practice. Look for both weak and strong points in your performance and use technical studies to strengthen weak points and take advantage of strong ones.

Work At the Edge of Your Ability

Repeat phases or technical exercises in a looped fashion at a level of difficulty and tempo high enough to cause your performance to be slightly flawed. Correct the flaws during repetitions, then increase the level of difficulty and tempo. In this manner, you are increasing your capability by working at the “edge” of your ability.

Acknowledge Fatigue and Take a Break

As you repeat a phrase or section, you will increasingly improve. Then at some point, you will fatigue. Recognize when flaws in your performance are caused by fatigue. Take a break for a minute, or for about half the period of time you were looping the exercise.

Every 15-30 minutes, take a five-minute break. Leave the area. Relax.

Build Strong Memories

Many guitarists play the same thing when they first pick up a guitar every day for many days. Recognize when you have mastered a piece and give yourself the opportunity to experience something new. Continually find new “pick up” songs.

There are a limited number of songs you can retain in your practice over each period of days or weeks.

build phrases into sections

A single-note phase is typically 8-20 notes, usually 2-4 bars. Build your memory of a phrase (two to four bars) by repeating it. When you think you can remember it while working on the next phrase, go onto the next phrase. Then combine the two phrases. If you cannot remember the first phrase, you should have given it more repetitions.

Likewise built longer sections of music and entire songs, memorize smaller regions of music and joining them together to make larger regions.

section or song repetitions and schedule

Each section or song you practice has to be repeated enough times that you can remember it until the next time you will practice it, no more (redundant), no less (memory loss). Without knowing when you will practice it next, you won't know the necessary number of repetitions. This is the purpose of a practice plan: to know how well you have to memorize each item.

separate the rhythm and pitch

The picking and plucking hand typically plays rhythmically. Isolate the rhythm that it plays by muting the strings with the fretting hand or holding a single chord and playing just the picking or plucking part without the changing notes. Even if you don't read music, use standard music notation as a graphic guideline for the rhythm and listen to any available recording.

The fretting hand generally makes the pitch changes. Memorize the sequence of notes by reading the tablature or standard music notation, keeping the picking/plucking hand idle.

Once the rhythmic and pitch components are strong by themselves, multi-task and put them together, playing the full version of the piece.

separate the melodic and accompaniment components

Guitar parts will often combine melody, accompaniment figures (like arpeggios), bass lines and rhythm-keeping parts. Isolate each part and practice it alone, then combine the parts.

Outline Your Practice

Most musicians don't experience using a record of their practice, but they should. The best approach is to use a written record on paper or in a computer to develop the concept of scheduled and monitored practice for a few weeks or months. As you get more proficient at using the plan, you will need less and less of it written down and can eventually do it in your head or with a brief outline.

cycle in all of the elements during a broad period of time

During every few weeks or months, you should incorporate all the necessary components of your musical performance: expression, melody, rhythm, technique, chord progression, fingering and theory.

a practice log

Making a record of your practice can be very productive. Recording your exercise sets to monitor the growth of your muscles in weight training since muscles grow when exercised at the right frequency, some daily, some every two days or more. Likewise, recording your practice can build memories of musical parts to use in performance.

In a diet program, a written record makes sure you are getting all the proper nutrition. In music practice, you should monitor the components (expression, melody, rhythm, etc.) to make sure they are all getting covered.

a sample log

These instructions are given:

“We will modify the log as necessary to represent songs and studies you enjoy and are designed to attain your long term goals in music. To the right of each forward slash, enter a number from 0 to 9 to indicate how intensely and intelligently you worked, where “9” is the highest (best) rating. Ideally, you would attain ratings of “9” early on and consistently. Low ratings can be raised by choosing music you enjoy and by making difficult tasks easier by including more progressive steps.”

Note: the links (blue, underlined) in the table below are not live.

exercise, song or design ✓	Thu,8/1		Fri,8/2		Sat,8/3		Sun,8/4		Mon,8/5		Tue,8/6		Wed,8/7	
song ratings comping design solo design guitar improv (quizzes) more log items	min	rate	min	rate	min	rate	min	rate	min	rate	min	rate	min	rate
TECHNICAL WARM-UPS FORM. close&clear , chromatic rolling on 2 strings PENTATONIC. locating , warm-ups , blues rock cell develop. MAJOR SCALE. warm-ups ,	5		5		5		5		5		5			
FIRST STEP: BASIC COMPING & MELODIC AWARENESS Californication Sultans Of Swing	20						20						10	
SECOND STEP: PARTS . Comping and solo structures and designs (incl. copied rhy. guitar + solos from original and solo or comping studies). Three stages: chords/comping rhythms, arpeggios/melodic rhythms, scales/melody with harmonic/ rhythmic variation. Preview five octave shapes, focus on one octave shape (for the key) first. Under The Bridge study Day In The Life Arpeggios Cliffs Of Dover main themes			20		20				20		20		10	
THIRD STEP: PERFORMABILITY review song list														
	25		25		25		25		25		25		20	

Memorizing Fretboard Letter Names

- **Memorizing The Open Position and Two Bass Strings**

- Open String Names Repeat at the Twelfth Fret

- Root Locations of Open Position Chords

- Duplicate Notes at the Fifth Fret

- Notes Alphabetically up the Strings

- Relating to the Piano

- Memorizing the Letter Names on the Two Bass Strings

- **Memorizing Letters On All Strings**

- "G" fed "CBA"

- Sharps and Flats

- Multiple Instances of Each Note

- Note Names at the Fifth and Twelfth Frets

- The Other Notes

- Notes by Letter Name on One String

- Full-Fretboard Letter Names

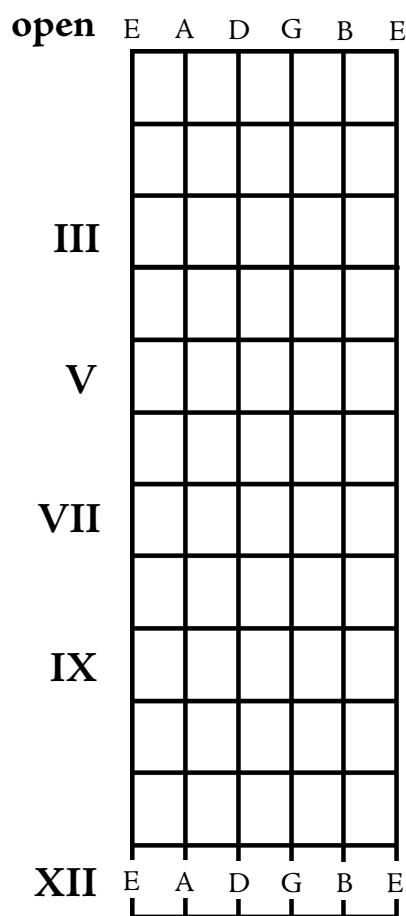
- All Natural Notes (C major scale)

- Building Major Scales in the Bass

- **Songs in Every Key**

MEMORIZING THE OPEN POSITION AND TWO BASS STRINGS

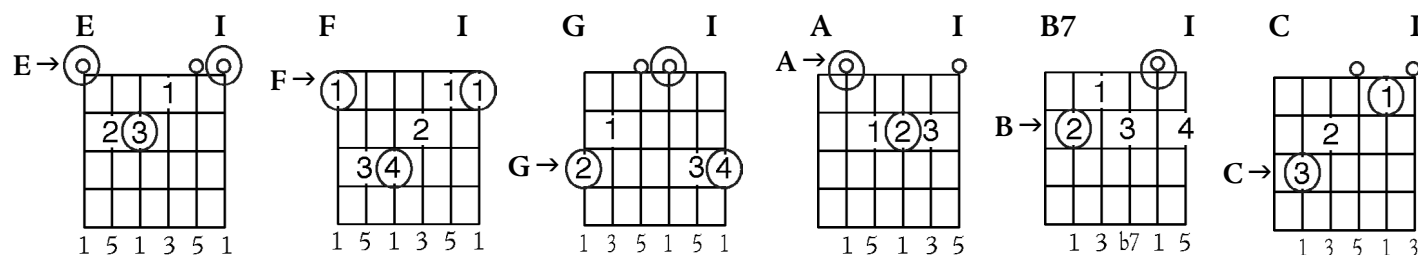
Open String Names Repeat at the Twelfth Fret



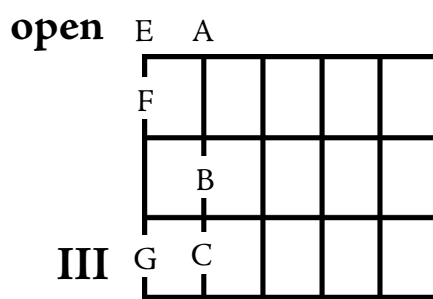
The open string letter names repeat at the twelfth fret. The names of the three bass open strings are "E", "A" and "D" (6 = E, 5 = A, 4 = D). So, the twelfth fret names on strings 6, 5 and 4 are E, A and D.

Root Locations of Open Position Chords

The root of a chord is the letter name after which it is named (E is the root of an "E" chord). On each of the chord diagrams below, the multiple occurrences of the same root are enclosed in large circles. The large circle on the largest string (on the left of the diagram) is used as a reference. Learn the locations of the largest-string roots for the chords E, F, G, A, B7 and C. The letter name may include a sharp (making it one fret close to the guitar body) or a flat (making it one fret closer to the head of the guitar).



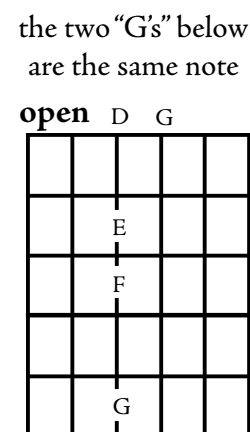
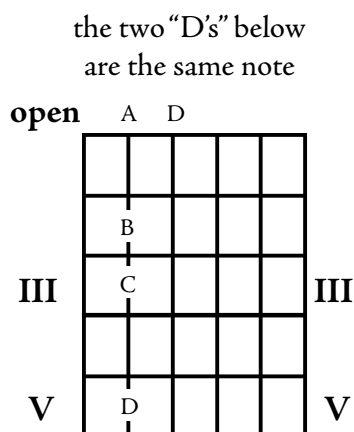
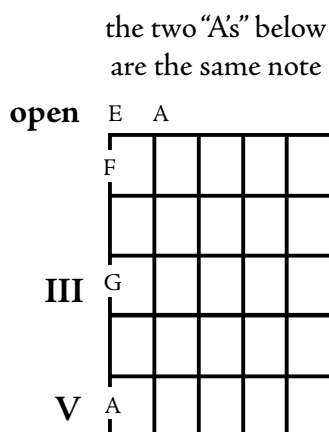
If you have these chords memorized, additionally memorizing the bass note (on the largest string involved in the chord) can provide a method of memorizing the lowest three notes on each string, as diagramed below.



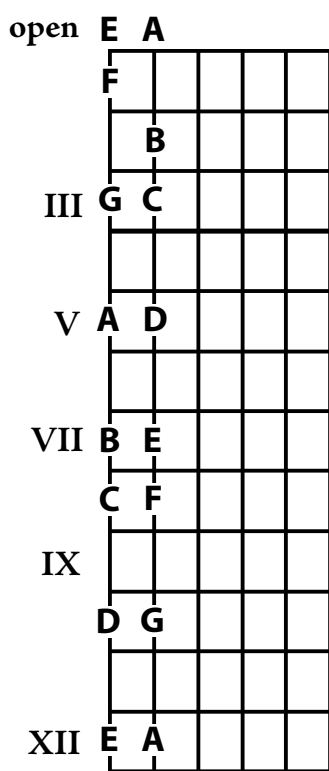
Duplicate Notes at the Fifth Fret

The sixth string, fifth fret is “A”, the same note as the fifth string open. The fifth string, fifth fret is “D”, the same note as the fourth string open. The fourth string, fifth fret is “G”, the same note as the third string open.

One method of tuning, compares the pitch of each string fretted at the fifth fret to the next smaller string open (except the third string, which is not relevant here).



Notes Alphabetically up the Strings

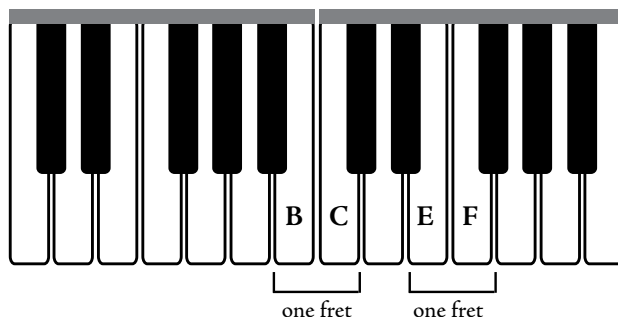


Name the notes alphabetically up the strings, toward the guitar body. In alphabetical order, each note is two frets to the next (with a fret between them), except B to C and E to F which are one fret apart (with no note between them).

Relating to the Piano

The white keys on the piano use letter names with no sharp or flat, called natural notes. The white keys progress in ascending alphabetical order from left to right. The white keys are periodically interrupted with a black key forming a pattern of two black keys beginning to the right of C, then three black keys to the right of F.

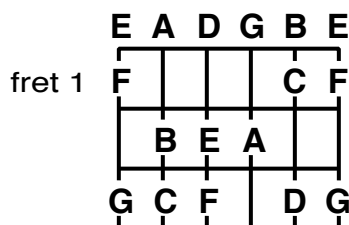
Middle C is immediately to the left of the pair of black keys (see the labeled drawing). B is to the left of C, showing that there is no note between B and C. Following the alphabet to the right from C, E is to the right of the pair of black keys. F is to the right of E, showing that there is no note between E and F and that they would be one fret apart on the guitar.



Memorizing the Letter Names on the Two Bass Strings

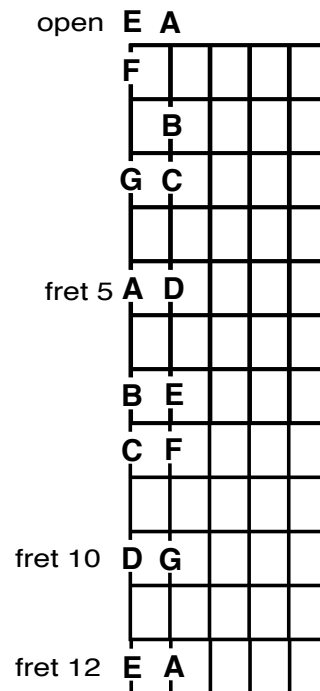
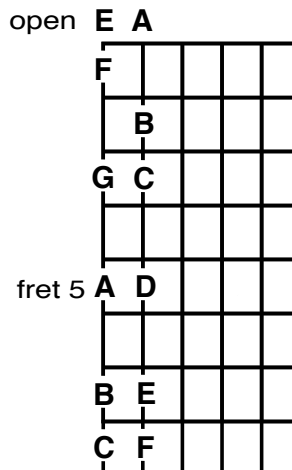
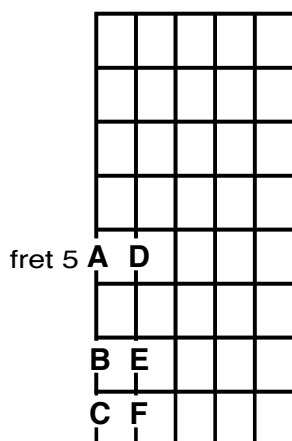
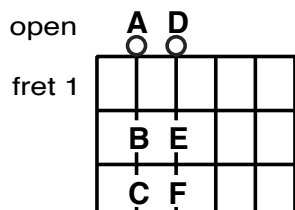
This will show you how to memorize the natural letter names (with no sharps nor flats) on the two bass strings in three steps. Once you have memorized the natural letter names, it is easy to learn the locations for the sharp and flat versions of each letter.

1. Learn the open position note names.



2. Learn the open position notes A, B, C, D, E, F on the fifth and fourth strings as a group (the first diagram below) to the fifth position on the sixth and fifth strings (the second diagram below). Then add that to the notes you've learned in first position (they are added together on the third diagram below).
3. The notes on the twelfth fret are the same names as the open strings (last diagram below). Two frets below each of the notes at the twelfth fret, the note at the tenth fret is the next lower letter in the alphabet. "E" is on the sixth string twelfth fret and "D", the next lower letter in the alphabet is at the tenth fret. "A" is at the fifth string, twelfth fret and "G" is at the tenth fret.

Now you have memorized all the natural notes on the sixth and fifth strings.

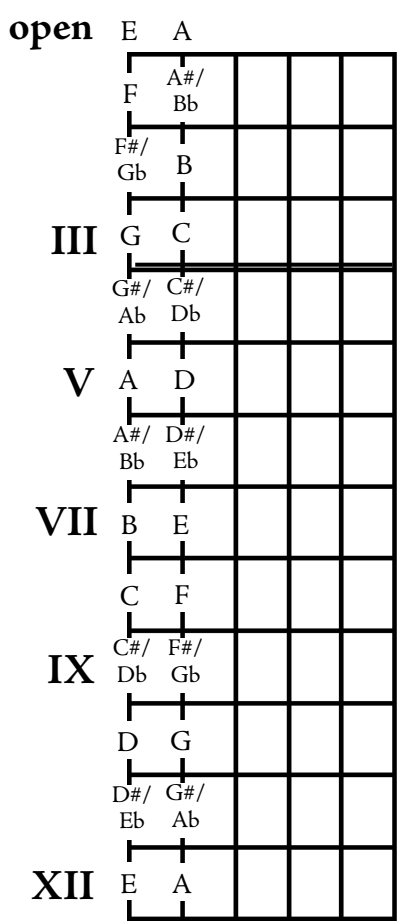


MEMORIZING LETTERS ON ALL STRINGS

"G" Fed "Cba"

Naming the notes alphabetically down the strings (toward the head of the guitar) spells "G" FED "CBA". Think this guy named "G" fed his cat named "CBA". Practice naming the notes on each string, as on the previous page from the twelfth fret down to the open string.

Sharps And Flats



Natural notes have no sharps nor flats. They are A, B, C, D, E, F, G.

The sharp version of any note is one fret toward the guitar body. "A" is on the sixth string, fifth fret. So, A# (A sharp) is on the sixth string, sixth fret.

The flat version of any note is one fret toward the guitar head. "A" is on the sixth string, fifth fret. So, Ab (A flat) is on the sixth string, fourth fret.

Use the rule that any note on the sixth string occurs also five frets lower on the fifth string. The sixth string "C" is on the eighth fret and the fifth string "C" is on the third fret (minus five). Conversely, any note on the fifth string occurs also five frets higher on the sixth string.

Multiple Instances of Each Note

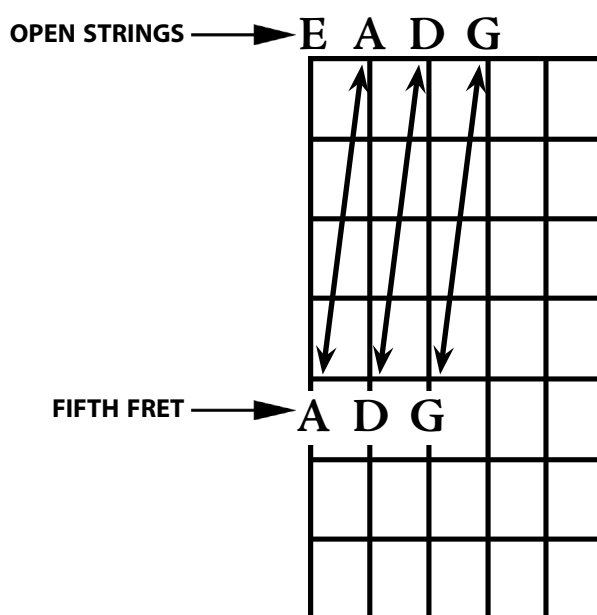
Search for all the occurrences of the note "A" on the diagram above. It is on the sixth string open and twelfth frets, as well as the fifth string seventh. Search for all the occurrences of any other note and you'll discover that every note occurs in two or three places on the sixth and fifth strings.

Note Names at the Fifth and Twelfth Frets

To locate chords anywhere on the fretboard, you need to know the location of all the letter names above on the sixth, fifth and fourth strings (Notes By Letter Names On One String). That's a lot to memorize. Get started by memorizing the note names at the fifth and twelfth frets.

You probably know the names of the open strings (not fretted). The series of letters in the sentence "Eat A Darn Good Breakfast Early" (E-A-D-G-B-E) represents the open string note names from the largest (sixth) to the smallest (first) strings. The note names at the twelfth fret are the same as the open strings. That part is easy!

At the fifth fret on the three largest strings (sixth, fifth and fourth), the note name is the same as the next smaller string open:



The Other Notes

Using the fifth and twelfth frets as points of reference, you can figure out the location of all the other letter-named notes by moving alphabetically up and down a string from a known note. Beyond that, sharpened versions of notes are one fret toward the guitar body (from the un-sharped or *natural* versions) and flatted versions of notes are one fret toward the head of the guitar (from the un-flatted or *natural* versions).

Notes by Letter Name on One String

In alphabetical order, each note is two frets apart from the next, except “B” to “C” and “E” to “F” are one fret apart. As you can see by the tablature below, this is true on any string. Notice that where the alphabet starts over with “G” to “A”, it is also two frets.

sixth string natural notes

Musical notation for the sixth string natural notes in 4/4 time. The notes are E, F, G, A, B, C, D, E, F, G, A, G, F, E, D, C, B, A, G, F, E. The tablature below shows the fret numbers for each note: 0, 1, 3, 5, 7, 8, 10, 12, 13, 15, 17, 15, 13, 12, 10, 8, 7, 5, 3, 1, 0.

0	1	3	5	7	8	10	12	13	15	17	15	13	12	10	8	7	5	3	1	0
---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---

fifth string natural notes

Musical notation for the fifth string natural notes in 4/4 time. The notes are A, B, C, D, E, F, G, A, B, C, D, E, B, A, G, F, E, D, C, B, A. The tablature below shows the fret numbers for each note: 0, 2, 3, 5, 7, 8, 10, 12, 14, 15, 17, 15, 14, 12, 10, 8, 7, 5, 3, 2, 0.

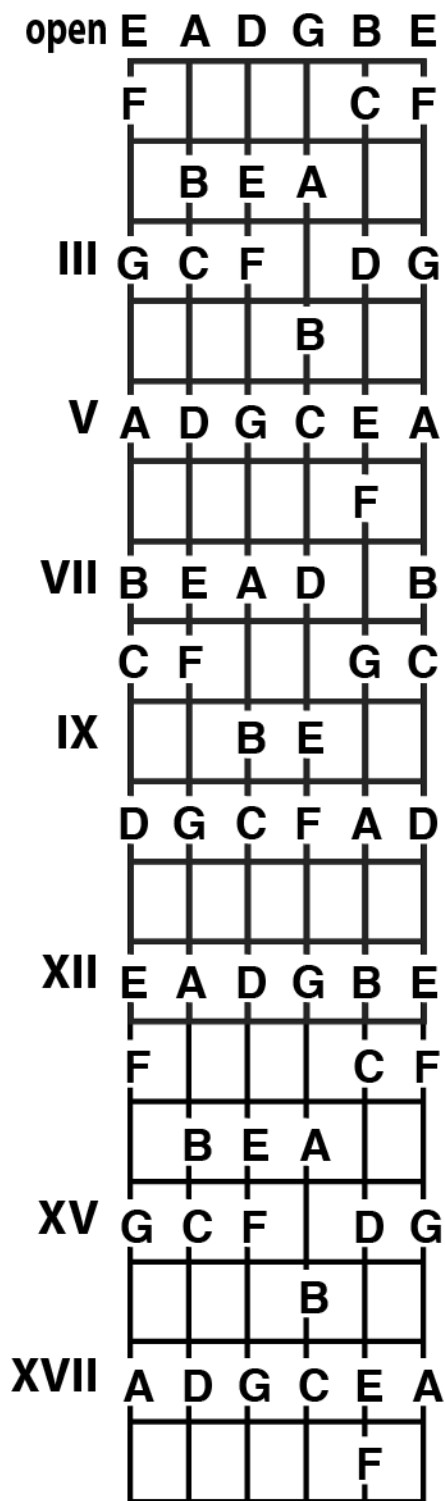
0	2	3	5	7	8	10	12	14	15	17	15	14	12	10	8	7	5	3	2	0
---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---

fourth string natural notes

Musical notation for the fourth string natural notes in 4/4 time. The notes are D, E, F, G, A, B, C, D, E, F, G, F, E, D, C, B, A, G, F, E, D. The tablature below shows the fret numbers for each note: 0, 2, 3, 5, 7, 9, 10, 12, 14, 15, 17, 15, 14, 12, 10, 9, 7, 5, 3, 2, 0.

0	2	3	5	7	9	10	12	14	15	17	15	14	12	10	9	7	5	3	2	0
---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	---	---	---	---	---	---

Full-Fretboard Letter Names



All Natural Notes (C Major Scale)

E to F is one fret and B to C is one fret

Eat A Darn Good Breakfast Early

up & down

1 note below and above each note at the fifth fret (3 notes per string) makes FINGERING 5

up

2 notes above each (3 notes per string) makes FINGERING 6

down

2 notes below each (3 notes/string) makes FINGERING 4

up

2 notes above each (3 notes per string) makes FINGERING 2

up

2 notes above each (3 notes per string) makes FINGERING 3

down

2 notes below each (3 notes per string) makes FINGERING 7

down

2 notes below each (3 notes per string) makes FINGERING 1

Don't Go Crazy For A Dog

Eat A Darn Good Breakfast Early

flats move natural notes one fret toward the head of the guitar

sharps move natural notes one fret toward the body of the guitar

open strings

"open" position

fingering 5

fingering 6

fingering 2

fingering 3

fingering 4

fingering 7

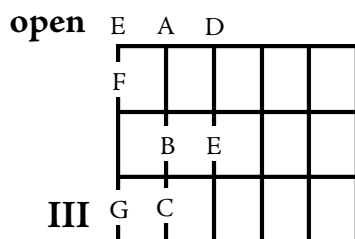
fingering 1

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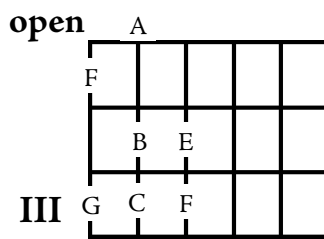
Building Major Scales in the Bass

The C major scale uses all natural notes, no sharps nor flats. Fingerings for it are shown below, each ranging eight notes of the scale. Most of them won't start and end on the note "C", so they may not sound like a major scale to you. They are very useful in playing and constructing melodies and musical parts and to learn the names of the notes. Be sure to use the roman numerals to get oriented to the fret numbers where each scale fingering occurs.

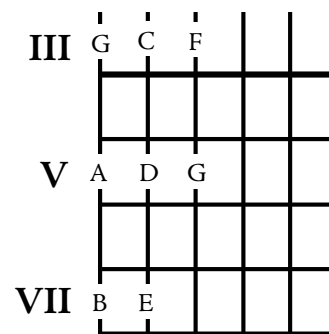
E to E



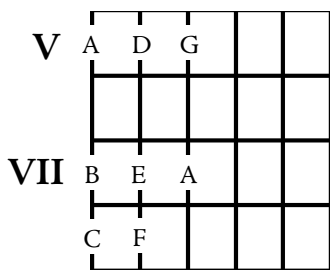
F to F



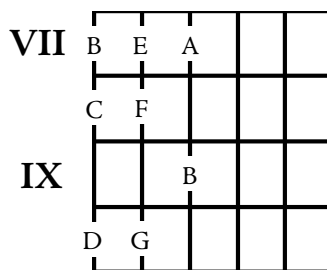
G to G



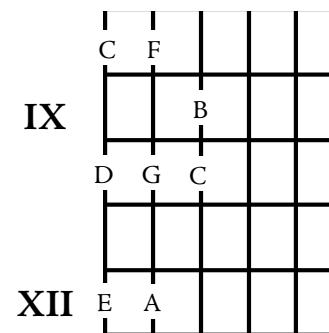
A to A



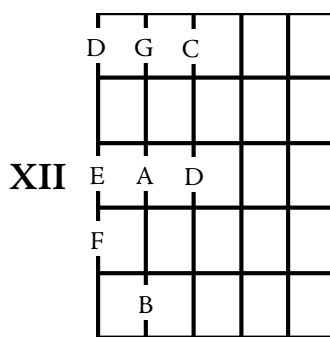
B to B



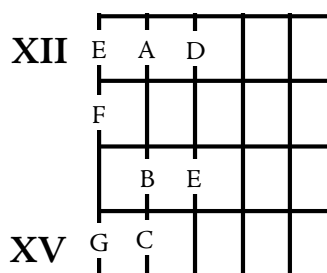
C to C



D to D



E to E



SONGS IN EVERY KEY

(youtube links)

Songs in every key, demonstrating the twelve note names:

E	Not Fade Away
F	Beverly Hills
F#	She
G	Walking Alone
Ab	American Idiot
A	God Save the Queen
Bb	Human
B	Jumpin' Jack Flash
C	Sheena is a Punk Rocker
C#	Gimmie Shelter
D	Whatshername
Eb	Basket Case

Reading Notation

- **Reading Fretboard Diagrams**
- **Reading Tablature**
- **Reading Standard Music Notation**
- **Time Signatures**
- **Rhythmic Reading**
- **Beginning to Read Music Notation**
- **Repeats, Segno, Endings & Coda, etc.**

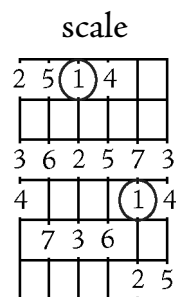
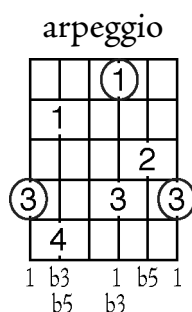
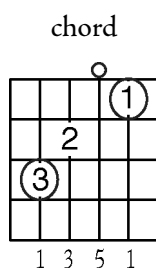
READING FRETBOARD DIAGRAMS

fretboard diagrams for chords, arpeggios and scales

Fretboard diagrams are more commonly used for chords, but often used for scales. Chords sound only one note on each string at a time. When you see more than one note on a string in a fretboard diagram, it is not a chord.

Arpeggios play the notes of chords, one at a time. They may be played as a held chord, but are more often fingered like scales, one note at a time.

Arpeggios have one or two notes per string, rarely three on a string. Scales have two, three or more notes on each string

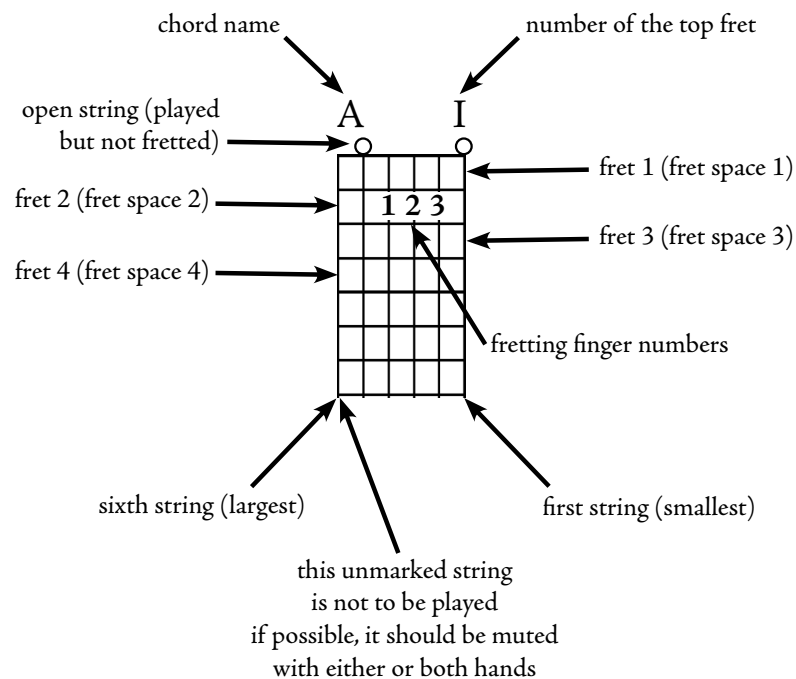
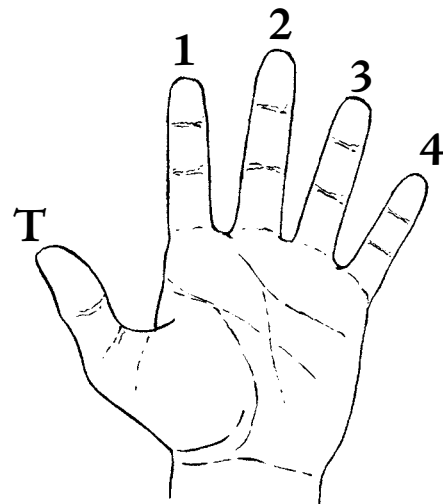


Anatomy of a Fretboard Diagram

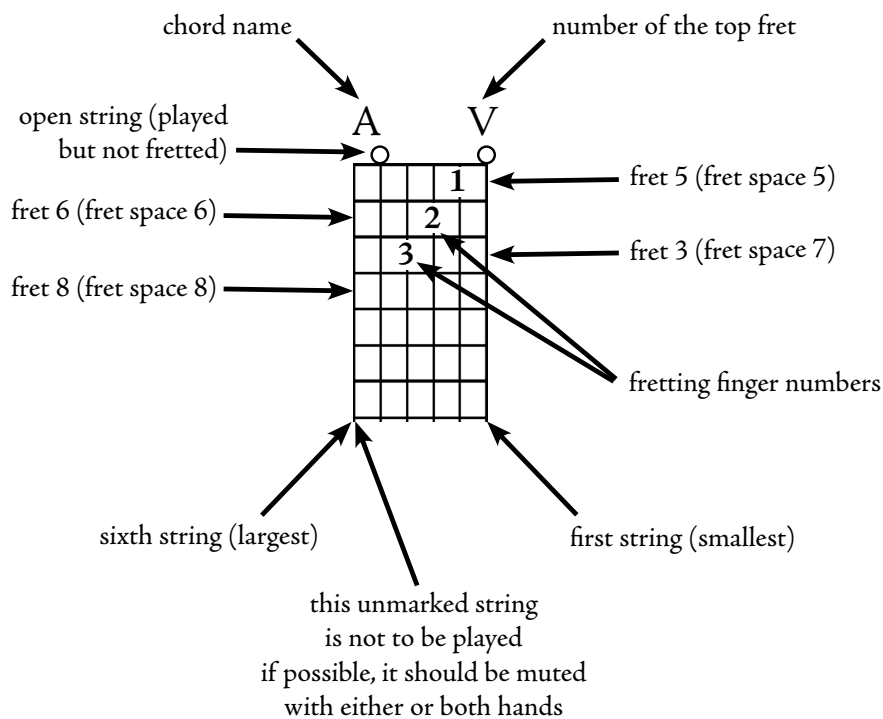
physical relationship of a fretboard diagram to a guitar



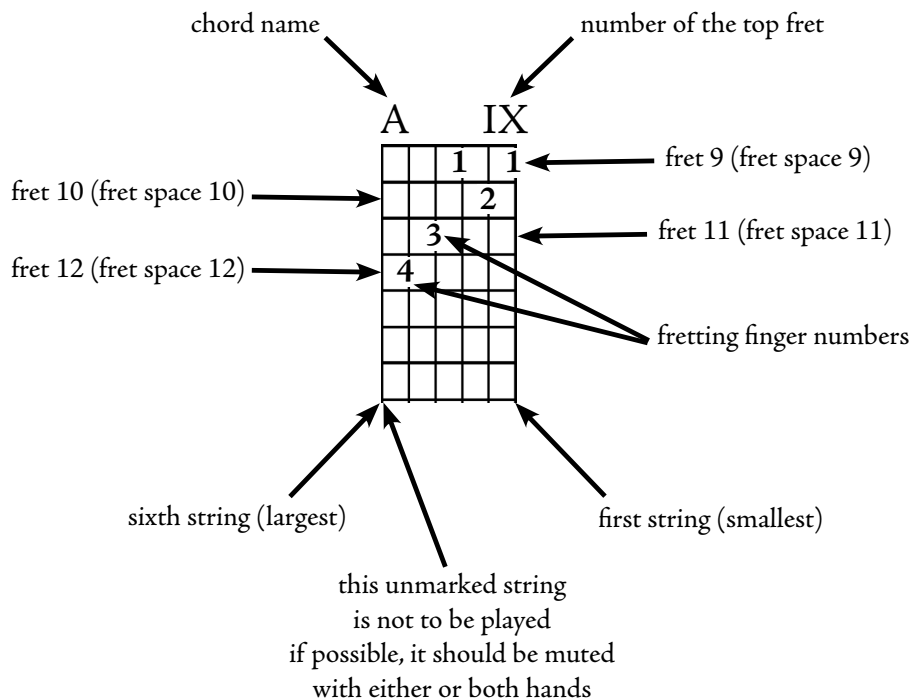
**symbols for the fingers
of the fretting hand**



Fifth Position



Ninth Position



Chord Names and Roman Numerals

roots and tone centers

At the upper left of a grid diagram, the chord, arpeggio or scale is named with a letter. On the diagram, I usually enclose the notes that name the chord, arpeggio or scale in a large circle. Letter names may have a flat or sharp immediately after the letter, like “Bb” (B flat) or “F#” (F sharp).

A plain letter name, such as “B” or Bb (B flat) indicates a major chord. A small “m” after a letter name indicates a minor chord. “Bb” means “B flat major”, while “Bbm” means “B flat minor”. A few more common chord symbol abbreviations are shown later in this section.

A chord root is the note after which a chord is named (“D” is the root of a D major chord). Each arpeggio has a chord root also, since it is a chord played one note at a time (“D” is the root of a D major arpeggio).

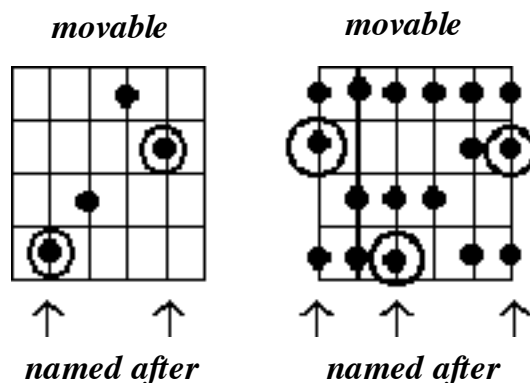
A tone center is the note after which a scale is named (“C” is the tone center of a C Lydian scale).

roman numerals

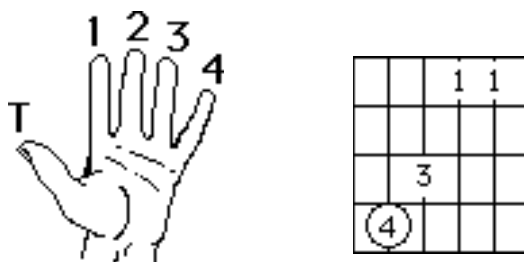
A roman numeral above the top right of the diagram indicates the number of the top fret on the diagram. Roman numerals are used elsewhere in text about music to number the steps of a major scale, especially in regard to which numbered step (from I to VII) a chord is built on.

Movable Diagrams

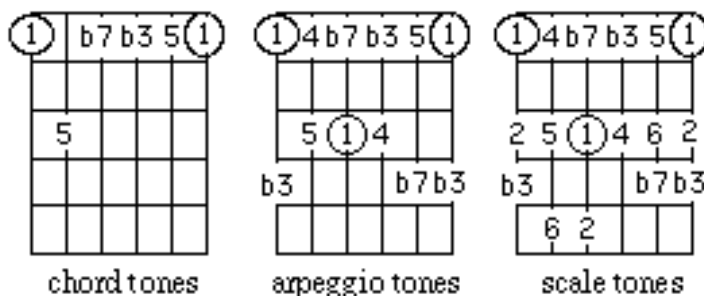
Movable diagrams have no roman numeral on their upper right and therefore have no specified top fret number. They may be placed anywhere on the fretboard according to their chord root(s) or tone center(s). If notes on a diagram are indicated by dots, a circled or enlarged dot indicates the chord root or tone center.



The numbers 1, 2, 3 and 4 within diagrams indicate left hand fingers. The finger number on the chord root or tone center may be circled.

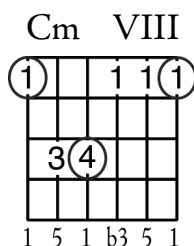


When numbers higher than 4 are used in a diagram, all of the numbers indicate scale, chord or arpeggio tones.



Chord Tones by Number

Most of my chord diagrams show the numbered tone of a major scale in the same key as the chord for each note. Below each string (the vertical lines) on the diagram a number is shown for each note. "b3" would be a flatted third in the key of the chord. So, for a C minor chord, which has a flatted third, "b3" indicates a flatted third, , which is "Eb" (E flat) in the key of C.



Fretboard Diagram Reading Procedure

You read the previous pages and may be anxious to play songs. How complicated can it be? True, chord diagrams are a simple graphic representation of fingers on the fretboard, but be careful not to make an error in reading them. It is quite common that someone new to reading chord diagrams “thinks” they have read a diagram correctly, and doesn’t find out until much later (if at all) that they have made an error.

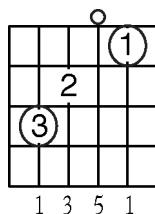
take your time and read chord diagrams right the first time.

- Thoroughly review *Fretboard Diagrams For Chords, Arpeggios and Scales* and *Anatomy Of A Fretboard Diagram* at the beginning of this section.
- Read the header (Gm III) with the chord name and roman numeral for position.
- Read chord diagrams from left to right *slowly*, one string at a time from the sixth (largest) string to the first string (smallest).
- Allow two to three seconds to read each string, until you experience no errors in reading, then read faster.
- Recognize when strings are “skipped” or frets are “empty” (see below).
- Recognize when fingering patterns in scales repeat on adjacent strings and when they change on adjacent strings.

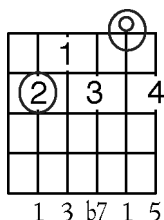
“skipped” strings

When a string is played open or muted in-between fretted notes, it can be called a “skipped” string. Each chord or scale below each has one or more skipped strings.

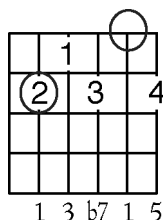
skipped third string



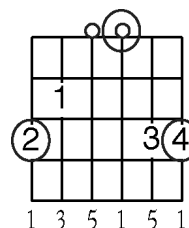
skipped (open) second string



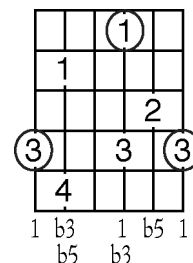
skipped (muted) second string



skipped third and fourth strings

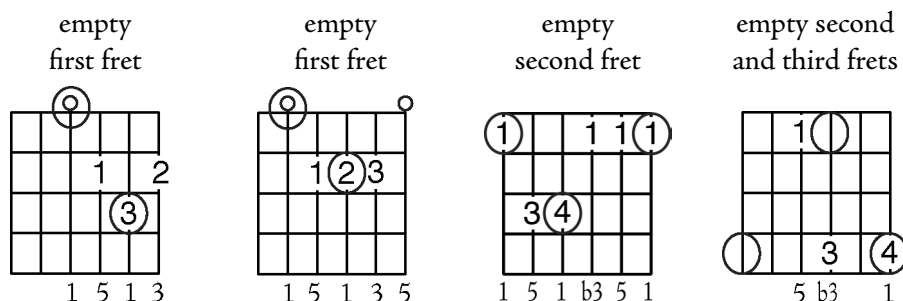


skipped fourth string



“empty” frets

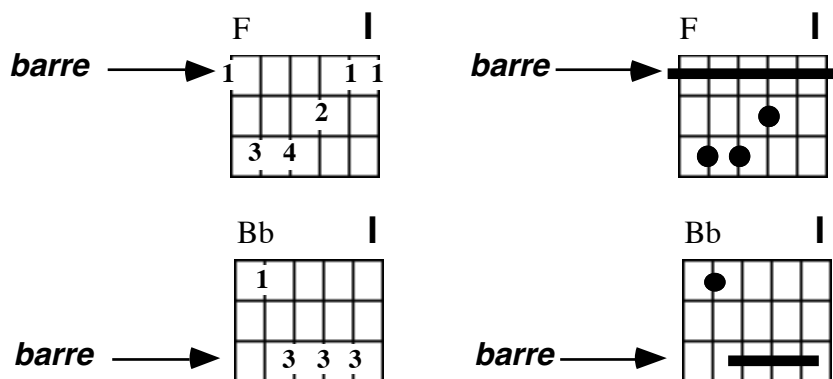
Where a fret in-between your fingers on a chord or scale is not fretted, it can be called an “empty” fret. Each chord or scale below each has one or more “empty” frets.



the barre

The barre is a group of notes all on the same fret of two or more strings. It is fingered with a straight portion of one finger. It uses the classical wrist position, with the base of the fingers parallel to the fretboard. Fret the barre with the harder edge of your finger when you can. Avoid the creases opposite your knuckles (by adjusting the positing of your finger vertically), since they can mute notes.

In the “F” chord shown below with finger numbers, it is left up to the reader to interpret that the first finger is placed across all six strings (as shown by the diagram to it’s right).



guitarists playing left-handed guitars

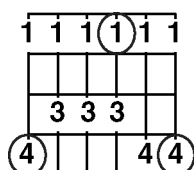
For the left-handed guitarist, all diagrams should be imagined in “mirror image”. Guitarists playing left-handed guitars should interpret references to the right hand as left and vice-versa.

fingering patterns for scales

Recognize when fingering patterns for scales repeat and when they change.

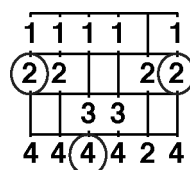
fingers "1, 4" on strings 6, 2 and 1

fingers "1, 3" on strings 4, 3 and 2

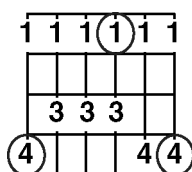


fingers "1, 2, 4" on strings 6, 5 and 1

fingers "1, 3, 4" on strings 4 and 3

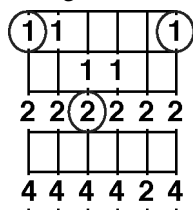


A whole step is a "two fret" interval, spanning three consecutive frets, where the middle fret is "empty". Strings 5, 4 and 3 in the diagram below use a whole step interval.

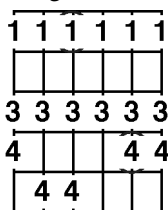


A "double whole step" refers to part of a scale fingering uses two consecutive whole steps on the same string. They can be fingered with fingers "1, 2, 4" or "1, 3, 4". Players with a wider span between their ring and little fingers tend to prefer the "1, 3, 4" fingering. The fingerings below have double whole steps.

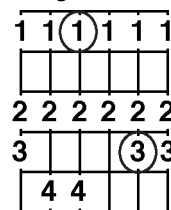
double whole step
on strings 6,5 and 1
with fingers 1, 2 and 4



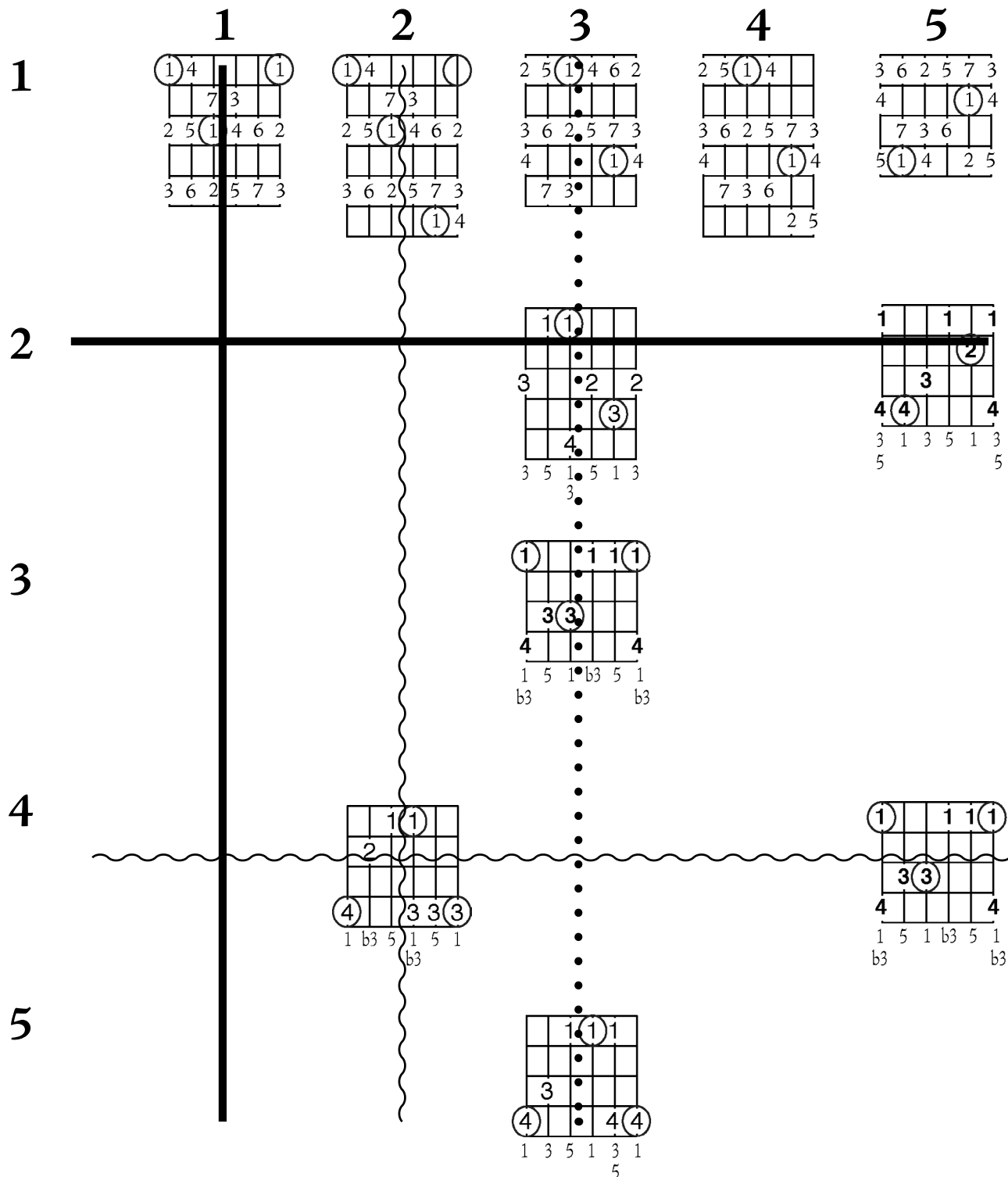
double whole step
on strings 5 and 4
with fingers 1, 2 and 4



double whole step
on strings 5 and 4
with fingers 1, 2 and 4



Columns are vertical. Rows are diagonal. The first column and the second row below each have a straight line drawn through them. The second column and the fourth row each have a wavy line drawn through them. The third column has a dotted line drawn through it.



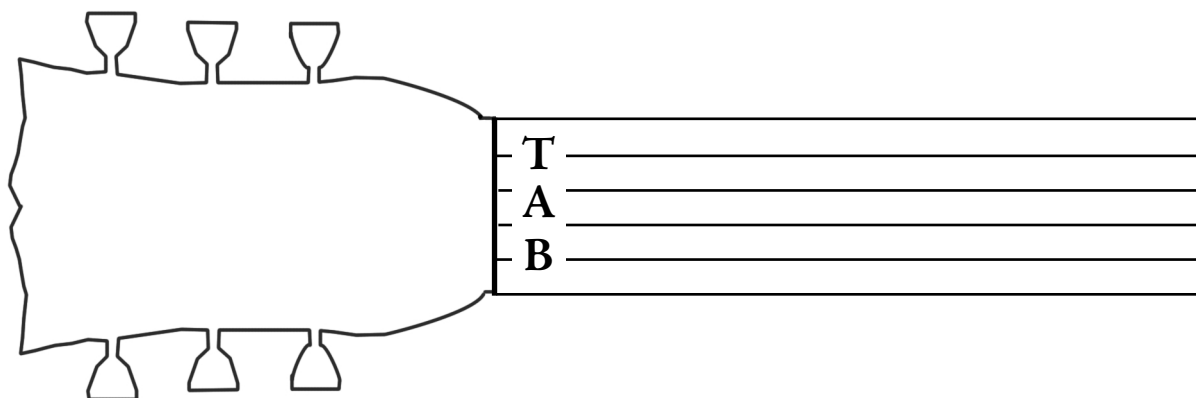
Chord Abbreviations and Symbols

7	= seventh chord (dominant)	9	= ninth chord
7#5	= seventh sharp five chord (dominant)	9#5	= ninth sharp five chord (dominant)
7b5	= flat five chord (dominant)	9b5	= ninth flat five chord (dominant)
7#9	= seventh sharp nine chord (dominant)	°7	= diminished seventh chord
C	= C major chord	Cm	= C minor chord
6	= sixth chord (major sixth chord)	m6	= minor sixth chord
6/9	= sixth add nine chord	m6/9	= minor sixth add nine chord
Δ7	= major seventh chord	m7	= minor seventh chord
Δ9	= major ninth chord	m9	= minor ninth chord
/9	= major add nine chord	m/9	= minor add nine chord
m7b5	= minor seventh flat five chord	sus. 4	= suspended fourth chord
m(ma7)	= minor, major seventh	sus. 2	= suspended second chord
n3	= no third		
n5	= no fifth		

See the chapter [“Chord-Naming Conventions”](#).

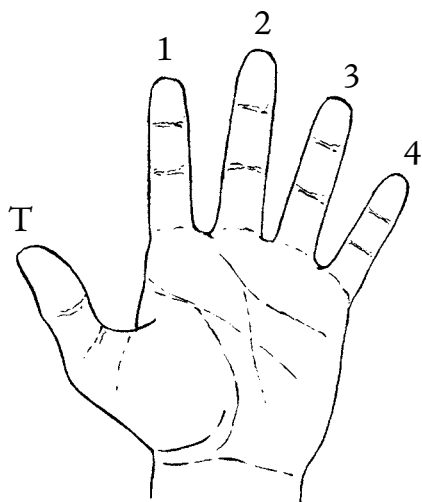
READING TABLATURE

This system of notation is a graph of the guitar strings from the perspective of looking down on the guitar as you're playing it. The tablature indicates where each note is fretted. Numbers on the strings indicate frets and are written from left to right in the sequence they are to be played.



symbols for fingers

The symbols that indicate the fingers of each hand are shown below. They are typically placed below the standard music notation, between the music notation and the tablature. The plucking hand finger symbols are abbreviations for Spanish words, such as *anular* as in annual ring around the sun.



fretting hand

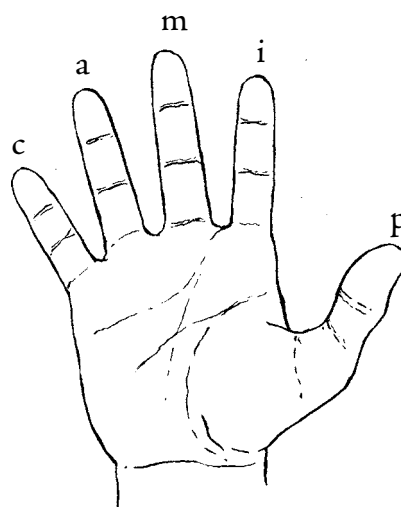
T = thumb

1 = index finger

2 = middle finger

3 = ring finger

4 = little finger



plucking hand

p = thumb (pulgar)

i = index finger (indice)

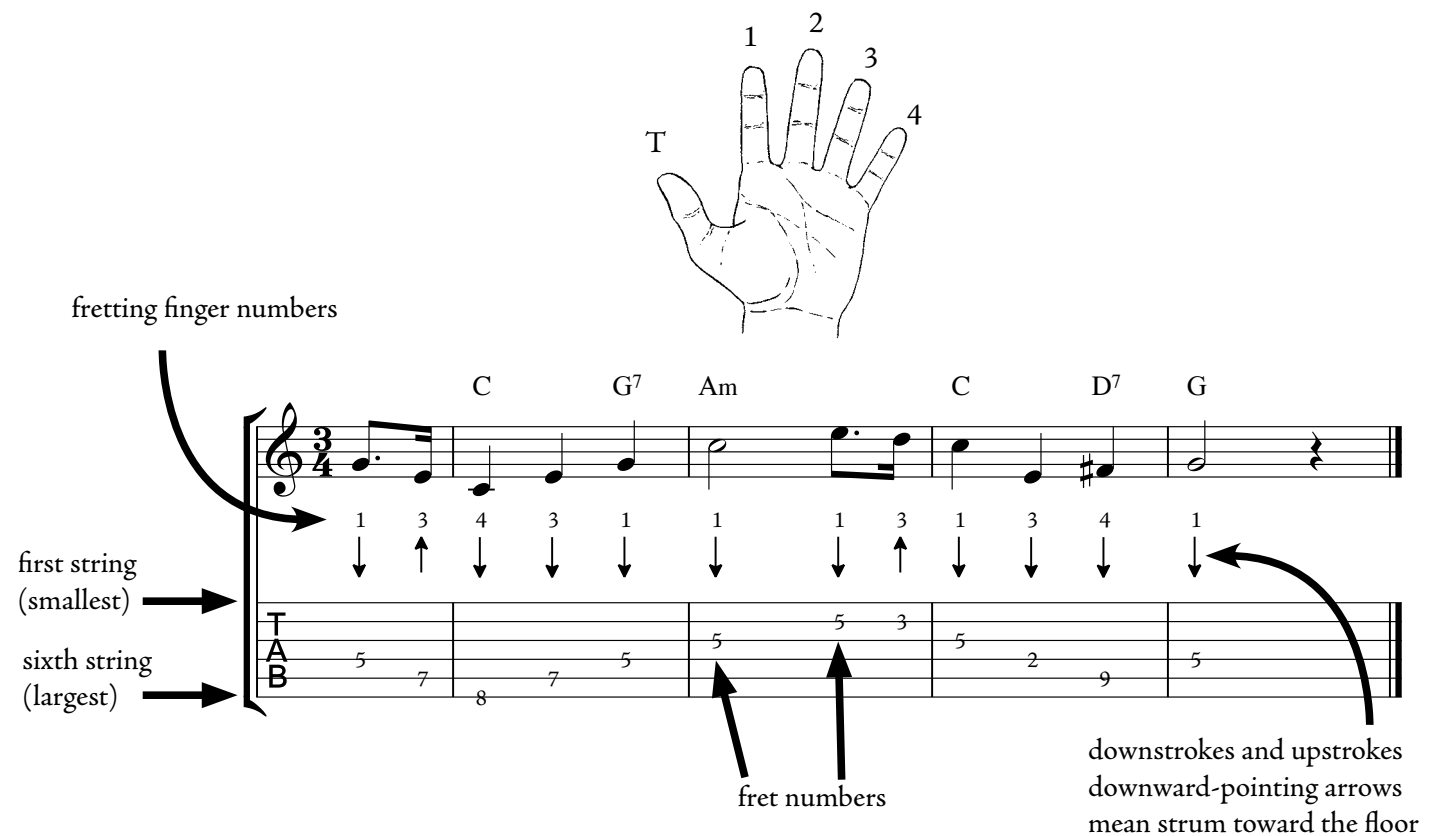
m = middle finger (medio)

a = ring finger (anular)

c = little finger (chiquita)

symbols above the tablature

Symbols above each tablature number indicate the suggested fretting finger. In reading the tablature, remember that the top string on the tablature is the smallest, first string.

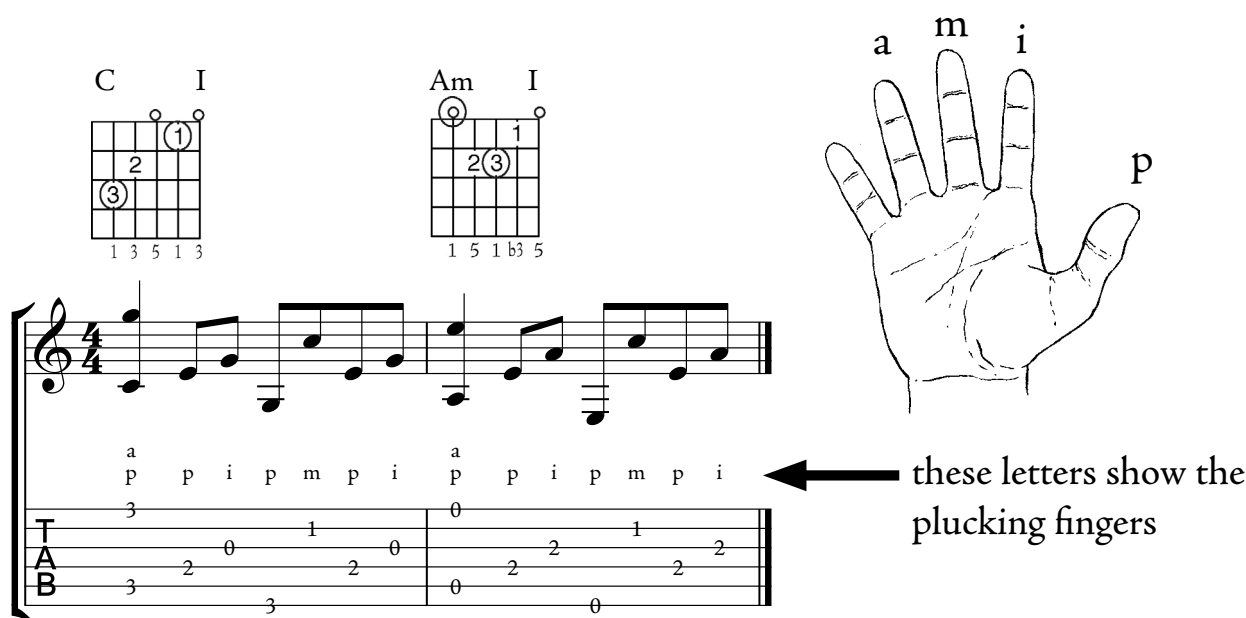


chord diagrams and plucking fingers

The fretboard chord diagrams shown above the music notation in the diagram below are aids in reading the tablature. Instruction on reading these diagrams is in the earlier section [Reading Fretboard Diagrams](#).

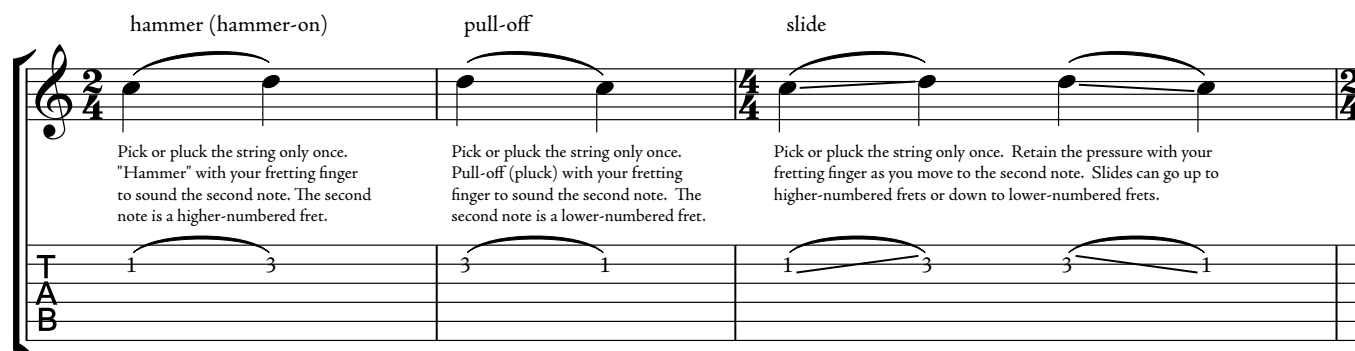
Fretboard chord diagrams are used in this course where the fretting hand mainly retains a particular chord fingering. You should still read the guitar part in the tablature, since it shows the exact sequence of notes.

Right hand symbols are shown above or below notes in the standard music notation. The right hand finger symbols are “p” (pulgar = thumb in Spanish), “i” (indice = index finger in Spanish), “m” (medio = middle finger in Spanish) and “a” (anular = ring finger in Spanish).



The diagram illustrates the relationship between fretboard chord diagrams, right hand finger symbols, and musical notation. At the top left, two fretboard diagrams are shown: a C major chord (frets 1, 3, 5, 1, 3) and an Am major chord (frets 1, 5, 1, b3, 5). To the right is a diagram of a right hand with finger symbols: 'a' for the ring finger, 'm' for the middle finger, 'i' for the index finger, and 'p' for the thumb. Below these is a musical score in 4/4 time. The score includes a treble clef staff with notes, a bass clef staff with tablature (T, A, B strings), and a series of plucking finger symbols (a, p, p, i, p, m, p, i, a, p, p, i, p, m, p, i) written below the notes. An arrow points from the text 'these letters show the plucking fingers' to the plucking symbols.

Special Tablature Symbols



The diagram illustrates three special tablature symbols: hammer (hammer-on), pull-off, and slide. Each technique is shown with a musical staff and a corresponding tablature staff. The hammer-on technique involves picking the first note and then hammering the fretting finger onto the second note. The pull-off technique involves picking the first note and then pulling the fretting finger off the string to sound the second note. The slide technique involves picking the first note and then sliding the fretting finger to the second note. The tablature shows the fret numbers for each note and the specific techniques used to play them.

hammer (hammer-on)
Pick or pluck the string only once. "Hammer" with your fretting finger to sound the second note. The second note is a higher-numbered fret.

pull-off
Pick or pluck the string only once. Pull-off (pluck) with your fretting finger to sound the second note. The second note is a lower-numbered fret.

slide
Pick or pluck the string only once. Retain the pressure with your fretting finger as you move to the second note. Slides can go up to higher-numbered frets or down to lower-numbered frets.

bend 1/2 step (one fret) bend a whole step (two frets) bend a 1 1/2 steps (3 frets) bend a 2 steps (4 frets)

Pick or pluck the string only once. Retain the pressure with your fretting finger as bend the string toward the middle of the fretboard enough to change to the same pitch as the note one fret toward the guitar body.

Change to the same pitch as the note two frets toward the guitar body.

Change to the same pitch as the note three frets toward the guitar body.

Change to the same pitch as the note four frets toward the guitar body.

Play the note on the smaller string unbent while simultaneously playing and bending the note on the larger string to the same pitch.

1/2 full 1 1/2 2 full

TAB

pre-bend pre-bend and release pre-bend and silent release double bend double bend and release

Bend the note before picking or plucking it.

Bend the note before picking or plucking it and release the bend while sustaining pressure.

Bend the note before picking or plucking it, then mute it by abruptly releasing pressure before the next note.

1/2 1/2 1/2

TAB

linear bend curve (bend a whole step) quick start bend curve (bend a whole step) slow start bend curve (bend a whole step) microtonal bend (blue note)

Bend the note normally, but distribute the bend evenly over the period of time.

Bend the note normally, but change the pitch early in the period of time.

Bend the note normally, but change the pitch late in the period of time.

Pick or pluck the string only once. Retain the pressure with your fretting finger as bend the string toward the middle of the fretboard enough to change to the same pitch as the note one fret toward the guitar body.

full full full 1/4

TAB

vibrato wide vibrato glissando down glissando up

Repeatedly bend and release the note, bending very slightly, about 1/8 of a tone (1/4 fret), so the note is not noticeably sharp. Use a regular pulse, thinking 2, 3, 4 or more pulses per beat.

Repeatedly bend to the next higher scale tone and release the bend. Use a regular pulse, thinking 2, 3, 4 or more pulses per beat.

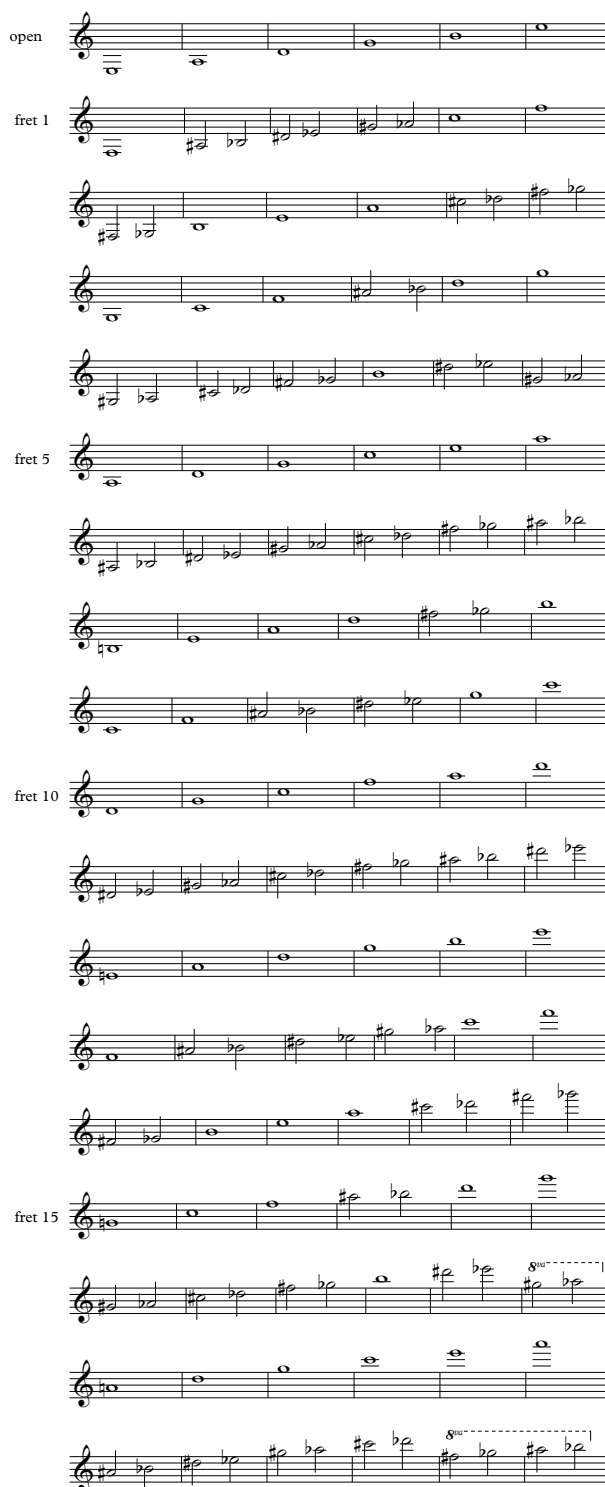
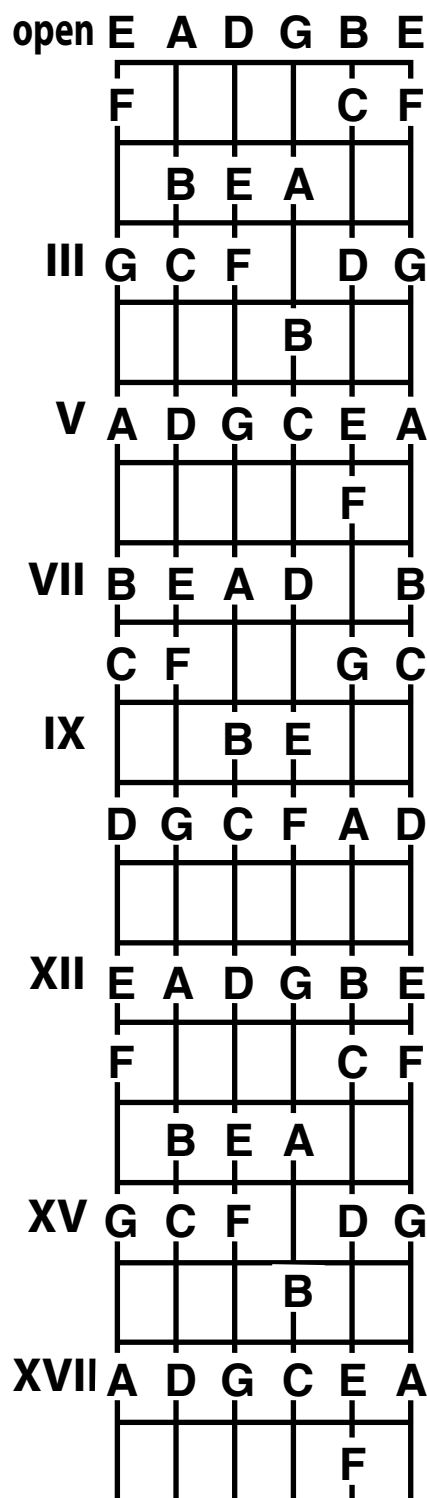
After playing the note normally, retain the pressure as you slide down to a random point (or a scale tone). Fade the pressure to the point of muting the note.

After playing the note normally, retain the pressure as you slide up to a random point (or a scale tone). Fade the pressure to the point of muting the note.

TAB

READING STANDARD MUSIC NOTATION

Fretboard Note Names and Staff Locations



First Position Natural Notes

Play the notes below and speak the letter names. Notice that each pair of notes “E” to “F” and “B” to “C” are one fret apart, meaning there is no note between them. The other alphabetical pairs of notes; (“A-B”, “C-D”, “D-E”, “F-G” and “G-A”) are two frets apart. Remember, the musical alphabet starts over after “G” (which are also two frets apart).

E F G A B C D E F G A B C D E F G

T
A
B

0 1 3 0 2 3 0 2 3 0 2 0 1 3 0 1 3

duplications at the fifth and fourth frets

The example below shows the locations of fretted notes which are the same pitch and note names as the next smaller string open. Except for the third string, this occurs at the fifth fret. The third string, fourth fret, is the same pitch as the second string, open.

A A D D G G B B E E

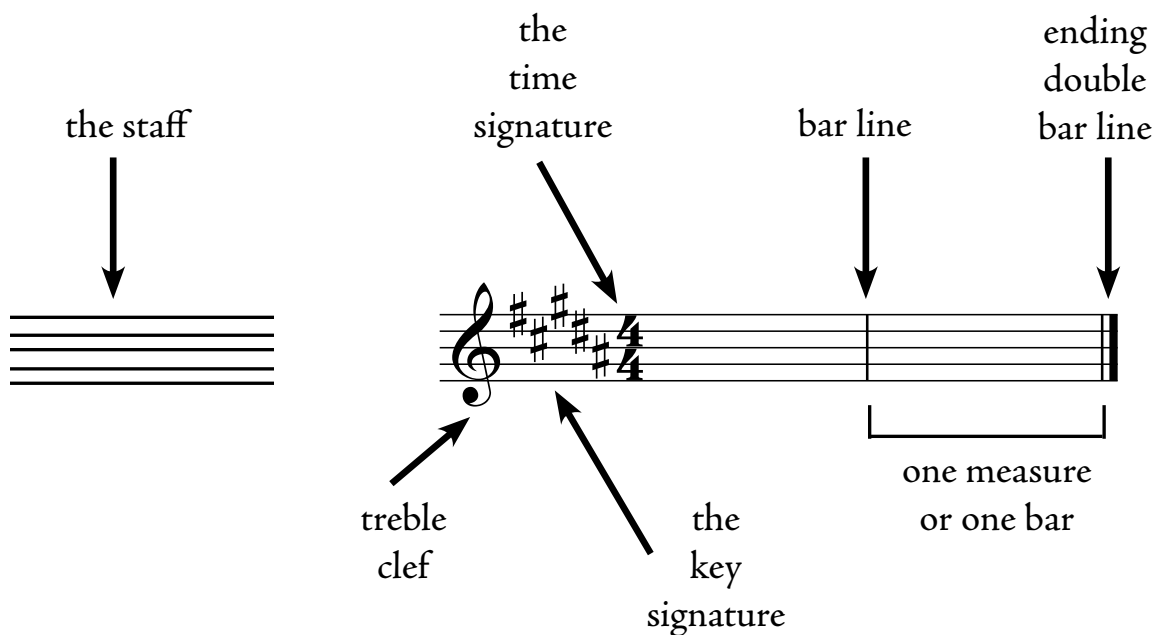
T
A
B

5 0 5 0 5 0 4 0 5 0

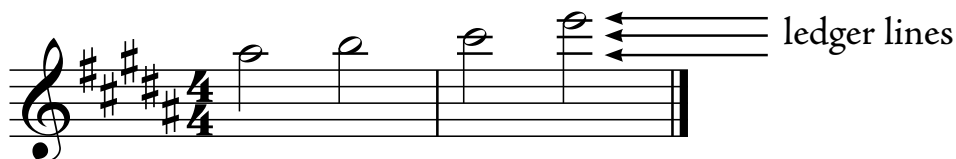
The Staff and Note Parts

the staff

The staff is a group of five horizontal lines on which music is written. The plural is usually “staves”, but may be “stuffs”. Bar lines (above) are vertical lines written across the staff to divide it into groups of beats. Each group of beats is called a bar. Time signatures indicate the number of beats in the bars that follow it, as well as the relative beat value of each note.

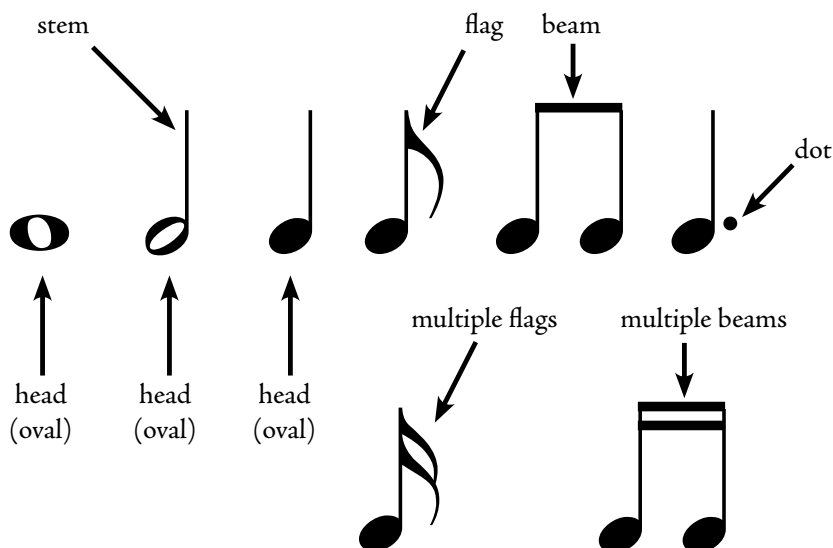


Ledger lines are short lines placed above or below the staff to add to its range.



note parts

The parts of notes are the head, stem, flag, beam and dot. The head of a note is an oval. It is centered vertically on or between the lines of the staff. The whole note's only part is its head.



The stem of a note is a vertical line connected to the head. It connects to the left if it goes down from the head and to the right if it goes up. Stems on note heads above the middle of the staff are usually written down. Stems on heads below the middle of the staff are usually written up. Stems on the center line of the staff can be written up or down.

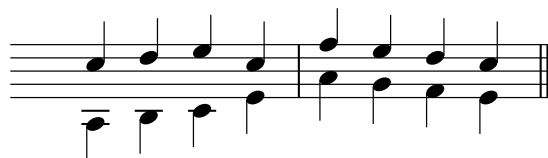


A flag or a beam halves the time value of a note. Each additional flag or beam cuts the value in half again. A dot multiplies the value of a note by one and a half. Two dots multiply the value of a note by one and three quarters.

Learn the time values implied by all these symbols in [“Rhythmic Words and Comping”/Times Signatures](#) and [Rhythmic Reading](#).

up and down stems

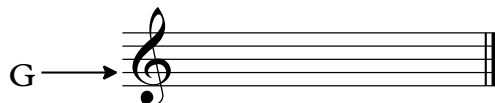
When two voices (two instrument or voice parts) are written on the same staff, the upper part is usually written with all stems up and the lower part with all stems down:



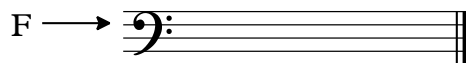
treble and bass clefs

A clef is a sign placed on the staff at the beginning of a piece of music to indicate the placement of the letters. The letters used in music include “A, B, C, D, E, F, and G.”

The treble clef or “G” clef assigns the letter “G” to the second line from the bottom of the staff. Guitar music is written on the treble clef, although *the guitar sounds one octave lower than written*. Notes on the treble clef are completely above those on the bass clef in pitch.



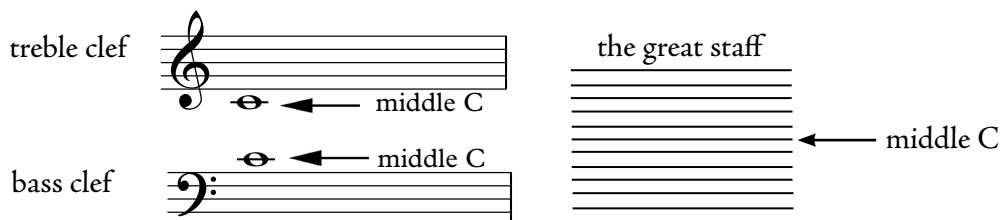
The bass clef or “F” clef assigns the letter “F” to the second line from the top of the staff. Notes on the bass clef are completely below those on the treble clef in pitch.



middle C

Middle C is the C nearest the middle of the piano keyboard (full 88 key version). It is the “dividing line” between the treble and bass clefs. It is on the first ledger line below a staff using the treble clef and the first ledger line above a staff using the bass clef.

The treble and bass clefs are conceptually part of the great staff, which has eleven lines. The top five lines are extracted to make the treble clef, and the bottom five lines are extracted to make the the bass clef. The center line of the great staff is middle C.

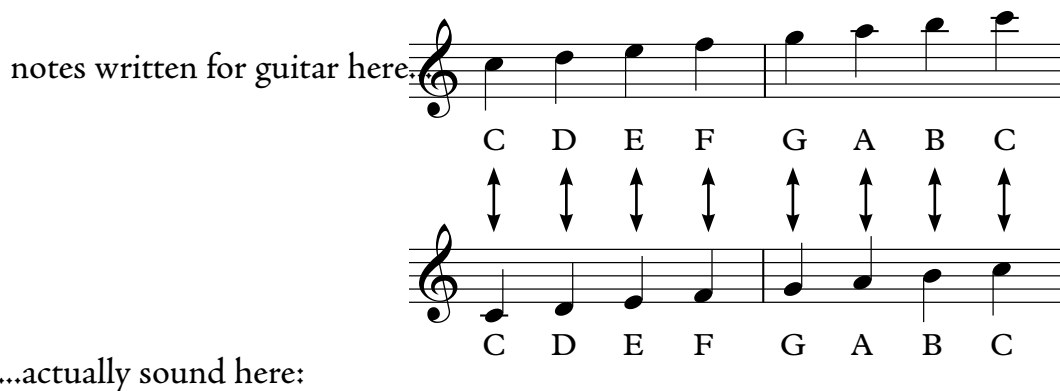


The notes on the staves are in alphabetical order:



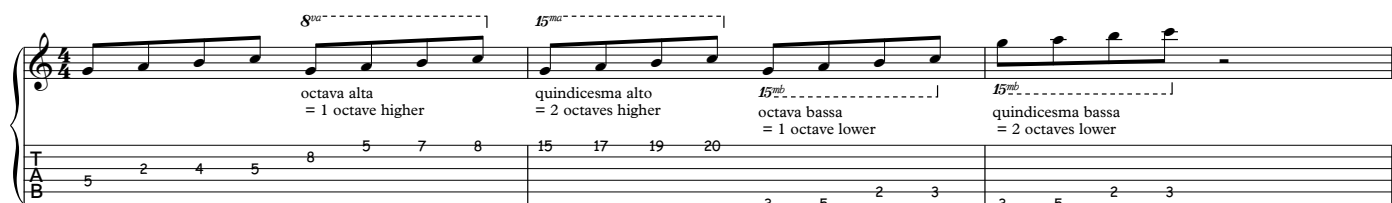
guitar transposes one octave

Guitar is usually written on the treble clef, transposed down one octave.



...actually sound here:

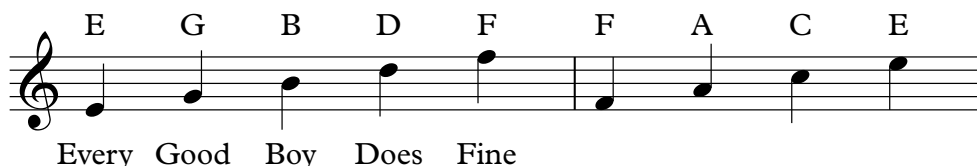
octave symbols



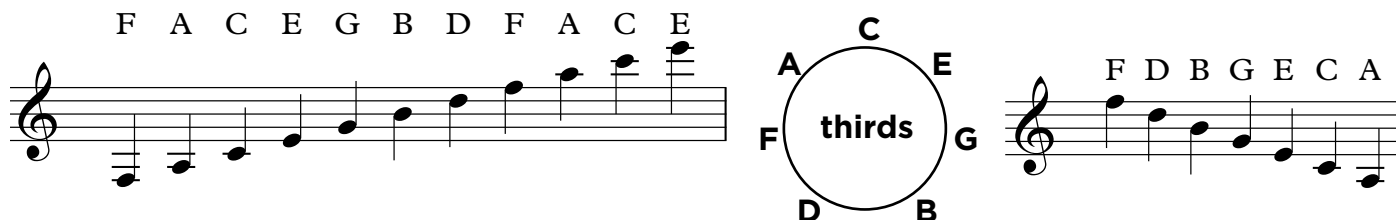
Memorizing Note Names

See also “[Memorizing Fretboard Letter Names](#)”.

The letter names on the treble clef are easy to memorize with the use of a few associations. From bottom to top, the notes on the lines of the staff are the first letters of the words in this sentence: Every Good Boy Does Fine. From bottom to top, the notes on the spaces of the staff spell the word “face.”



The notes on the lines (including ledger lines) are in an alternate alphabetical pattern: A, C, E, G, B, D, F, A, C, etc. Likewise, the notes on the spaces are in the same alternate alphabetical pattern: A, C, E, G, B, D, F, A, C, etc. Memorize the alternate alphabetical cycle (thirds) shown below.

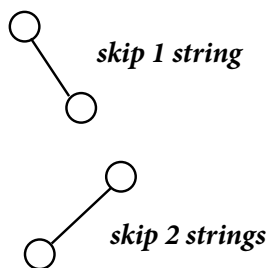
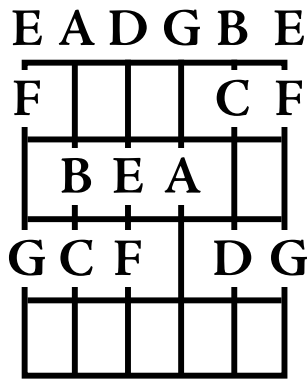


note names in reverse order (“gfedcba” or “gee-fed-cee-bah”)

Most of us were only taught to think the alphabet forward, not forward and backward. In music, whenever notes descend (go down) a seven tone scale such as the major scale, you will need to think the letters backward. As a memory device, think of someone named “G” who “FED” his cat named “CBA” (pronounced: “cee-bah”). Of course, the notes continue down the scale after “A”, forming the cycle “G-F-E-D-C-B-A-G-F-E-D”, etc.” Thirds in reverse order spell “F-D-B-G-E-C-A”.

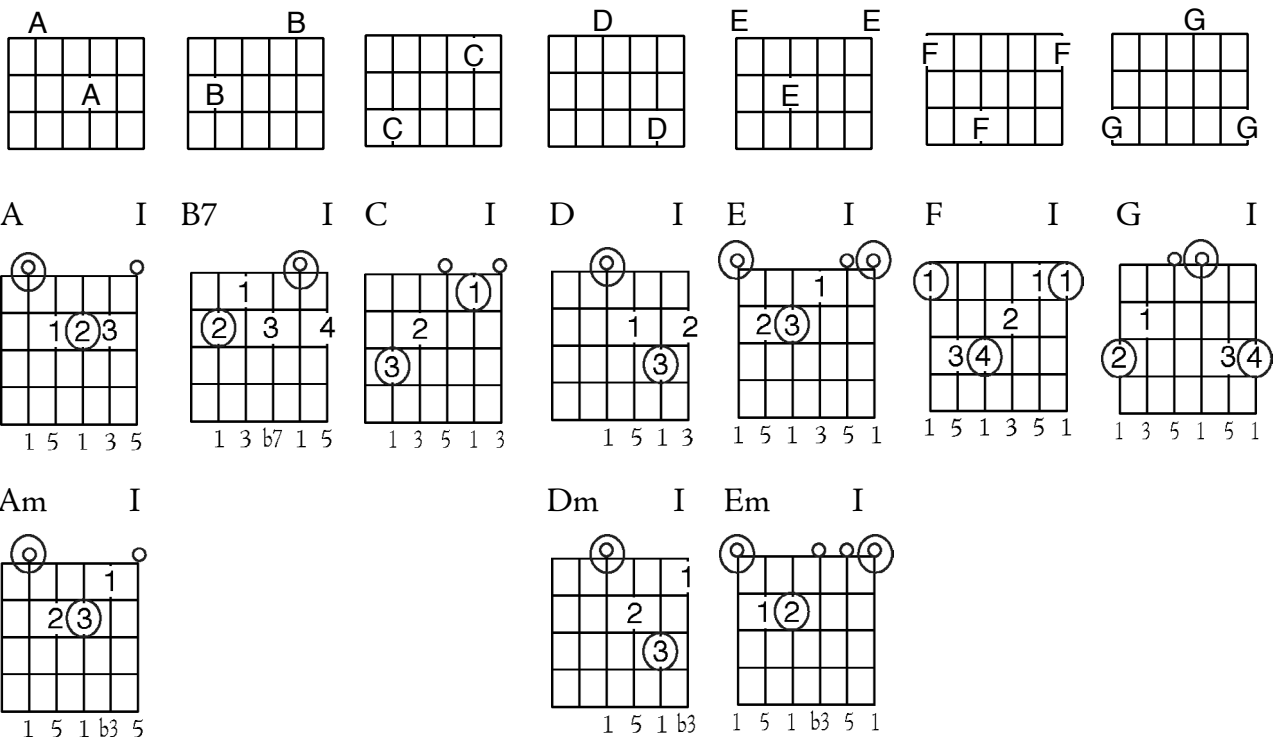


memorizing first position note names on the guitar



- ✦ The open strings, from sixth to first string are Eat A Darn Good Breakfast Early (E A D G B E).
- ✦ E to F is one fret. B to C is one fret.
- ✦ A-B, C-D, D-E, F-G and G-A are each two frets apart.
- ✦ There are three each of the notes E, F and G.
- ✦ The note name at any fret on the sixth string is the same at that fret on the first string.
- ✦ Octaves “skip” one or two strings, depending on their angle. Octaves are notes which have the same name, but are eight letter names apart (counting the starting and ending notes). See the diagrams at the left below.
- ✦ Octaves of A, B, D, E and G each include an open string.
- ✦ The fingering pattern on strings 1, 2 and 6 is open, 1, 3.
- ✦ The fingering pattern on strings 5 and 4 is open, 2, 3.
- ✦ The fingering pattern on string 3 is open, 2.
- ✦ Memorize the locations of the notes after which each chord is named below
- ✦

The top fret on all of the diagrams below is the first fret. The tiny circles above the chord diagrams indicate open strings (not fretted). Notes enclosed in the large circles below enclose the letter names after which the chord is named. In each diagram, the notes enclosed in the large circles are octaves (eight letter names apart, inclusively). Letter names for notes above the diagrams indicate open strings.



TIME SIGNATURES

Music is divided into regular units called bars. In common time, there are four beats to a bar. The top number on a time signature tells you how many notes there are per bar. The bottom number gives you the value in beats for the whole note. The half note gets half as much. The quarter note gets one quarter as much, and so on, in a system of halving. See the halving chart on the next page.



















The image displays three musical staves, each with a time signature and a sequence of notes and rests. Below each staff is a counting pattern.

- Staff 1 (4/4):** The time signature is 4/4. The notes are: a whole note (bar 1), two half notes (bar 2), four quarter notes (bar 3), and a sequence of eighth notes (bar 4). The counting pattern is: 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 + 2 + 3 + 4 +, 1 e + a 2 e + a 3 e + a 4 e + a.
- Staff 2 (3/4):** The time signature is 3/4. The notes are: a half note and a quarter note (bar 1), two half notes (bar 2), three quarter notes (bar 3), and a sequence of eighth notes (bar 4). The counting pattern is: 1 2 3, 1 2 3, 1 + 2 + 3 +, 1 e + a 2 e + a 3 e + a.
- Staff 3 (6/8):** The time signature is 6/8. The notes are: a half note and a quarter note (bar 1), two half notes (bar 2), three quarter notes (bar 3), and a sequence of eighth notes (bar 4). The counting pattern is: 1 2 3 4 5 6, 1 2 3 4 5 6, 1 2 3 4 5 6, 1 + 2 + 3 + 4 + 5 + 6 +.

RHYTHMIC READING

The three math operations in rhythm notation are halving, dotting and triplets.













Halving

<i>name</i>	<i>single</i>	<i>beamed</i>	<i>rest</i>	<i>calculation</i>	<i>x/4 value</i>	<i>x/8 value</i>	<i>x/2 value</i>
whole				all of whole note	4 beats	8 beats	2 beats
half				$\frac{1}{2}$ of whole note	2 beats	4 beats	1 beat
quarter				$\frac{1}{4}$ of whole note	1 beat	2 beats	$\frac{1}{2}$ beat
eighth	 or 			$\frac{1}{8}$ of whole note	$\frac{1}{2}$ beat	1 beat	$\frac{1}{4}$ beat
sixteenth	 or 			$\frac{1}{16}$ of whole note	$\frac{1}{4}$ beat	$\frac{1}{2}$ beat	$\frac{1}{8}$ beat
thirty-second	 or 			$\frac{1}{32}$ of whole note	$\frac{1}{8}$ beat	$\frac{1}{4}$ beat	$\frac{1}{16}$ beat

The complete name in each case ends with the word “note”, such as whole note and half note. Two or more notes can be beamed.





Dotting

Dotted notes receive one and one half their value. Think of it as adding half of the value of the note for the dot. All calculations are 1.5 times the whole note.

<i>name</i>	<i>note</i>	<i>rest</i>	<i>x/4 value</i>	<i>x/8 value</i>	<i>x/2 value</i>
dotted whole			6 beats	12 beats	3 beats
dotted half			3 beats	6 beats	$1\frac{1}{2}$ beats
dotted quarter			$1\frac{1}{2}$ beats	3 beats	$\frac{3}{4}$ beat
dotted eighth	 or 		$\frac{3}{4}$ beat	$1\frac{1}{2}$ beats	$\frac{3}{8}$ beat
dotted sixteenth	 or 		$\frac{3}{8}$ beat	$\frac{3}{4}$ beat	$\frac{3}{16}$ beat

Dotted notes can be beamed and secondary beams can be attached to single notes:  .

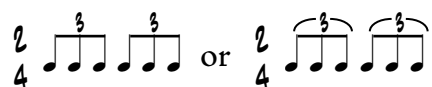
Double-dotted notes. When notes are followed by two dots, the second dot adds half as much as the first dot added. This comes out to one and three quarters times the note ($\times 1.75$).

name	note	rest	$\times/4$ value	$\times/8$ value	$\times/2$ value
double dotted half			$3 \frac{1}{2}$ beats	7 beats	$1 \frac{3}{4}$ beats
double dotted quarter			$1 \frac{3}{4}$ beats	$3 \frac{1}{2}$ beats	$\frac{7}{8}$ beat

Tuplets

Pulses occur at different rhythmic levels. They occur at the beat level and in subdivisions, where the beat is divided into equal parts. The subdivisions, such as half beats, can be further subdivided, such as half beats into quarter beats.

Typically, notes of equal value in subdivisions of the beat are joined by beams in groups of two, three or four notes. The most common tuplet is the eighth note triplet, where three notes are played in the time of two:

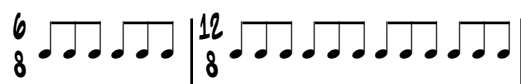


In $\frac{4}{4}$ or $\frac{3}{4}$ time, there are two eighth notes or four sixteenth notes per beat:



compound time signatures

In compound time signatures, such as $\frac{6}{8}$ or $\frac{12}{8}$ time, there is one eighth notes per beat, but they are grouped in twos or threes. In $\frac{6}{8}$ or $\frac{12}{8}$ time, eighth notes are usually joined by beams in groups of three:



changing subdivision

Where a portion of a measure can be subdivided into a number of notes of equal value, tuplets change the subdivision with a bracket or beam and a number indicating a different number of notes in the portion. The number indicates a new number of notes that equally divide the specified portion of the measure.

duplets

This duplet in $\frac{6}{8}$ or $\frac{12}{8}$ time would indicate two notes played in the time of three:



quadruplets

These quadruplets in $\frac{6}{8}$ or $\frac{12}{8}$ time would indicate four notes played in the time of three:



clarified tuplets

A modern convention for tuplets can clarify the new and old number of notes in the subdivision. Since this is rarely used, the notation could include numbers separated by a colon to indicate four notes in the time of three:



irregular durations within a subdivision

A number of notes in a tuplet may be represented by a single note, such as using a quarter note to represent two eighth notes. Notice that a bracket must be used for the irregular durations, but is optional for the complete tuplets (such as the triplets with three eighth notes).



tuplet limits

When the number of notes in the tuplet exceeds twice the number of equal-valued notes in the subdivision, notes of half the value should be used.

Five notes within a beat in $\frac{4}{4}$ would not be indicated with eighth notes, since five is over twice as many as the two eighth notes that would normally constitute one beat:



They would instead be indicated with sixteenth notes:

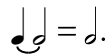


They could also be clarified by numbers separated with a colon:

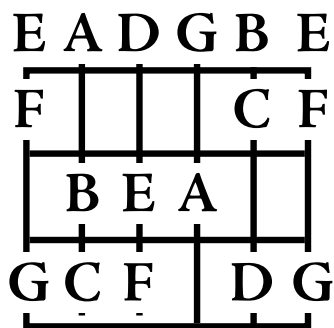


Ties

Ties add notes of any time value together. They can be applied to any two consecutive notes of the same pitch.



BEGINNING TO READ MUSIC NOTATION



Read the diagram at the left and play the notes from “G” on the third string to “G” on the first string. Then, play the notes from “G” to “G” again as you read the last eight notes on the staff below. Think the letter names as you focus on the notes on the staff.



read songs

Ode To Joy



House Of The Rising Sun

The musical notation is written in 3/4 time on a single staff. It consists of four lines of music, each starting with a measure number and a guitar chord. The notes are as follows:

- Line 1 (Measures 1-4):** Measure 1: A4 (quarter), G4 (quarter), F4 (quarter). Measure 2: E4 (quarter), D4 (quarter), C4 (half). Measure 3: B3 (quarter), A3 (quarter), G3 (half). Measure 4: F3 (quarter), E3 (quarter), D3 (half). Chords: Am, C, D, F.
- Line 2 (Measures 5-8):** Measure 5: C4 (quarter), B3 (quarter), A3 (half). Measure 6: G3 (quarter), F3 (quarter), E3 (half). Measure 7: D3 (quarter), C3 (quarter), B2 (half). Measure 8: A2 (quarter), G2 (quarter), F2 (half). Chords: Am, C, E. A slur covers measures 7 and 8.
- Line 3 (Measures 9-12):** Measure 9: C4 (quarter), B3 (quarter), A3 (half). Measure 10: G3 (quarter), F3 (quarter), E3 (half). Measure 11: D3 (quarter), C3 (quarter), B2 (half). Measure 12: A2 (quarter), G2 (quarter), F2 (half). Chords: Am, C, D, F. A slur covers measures 11 and 12.
- Line 4 (Measures 13-16):** Measure 13: C4 (quarter), B3 (quarter), A3 (half). Measure 14: G3 (quarter), F3 (quarter), E3 (half). Measure 15: D3 (quarter), C3 (quarter), B2 (half). Measure 16: A2 (quarter), G2 (quarter), F2 (half). Chords: Am, E, Am. A slur covers measures 15 and 16.

A fretting instruction is located at the end of the first line: "A", first string fifth fret.

Fur Elise

accidentals (sharps and naturals)
needed for Fur Elise

D sharp D natural G sharp G natural

4 3 1 0

Am E Am

Am E Am

Am E Am

Am E Am

C G⁷ Am E

Am E Am Am E Am

Greensleeves

accidentals (sharps and naturals)
needed for Greensleevers

G sharp G natural F sharp F sharp F natural

T 2 4

A 1 0

B 4

Am G Am E

(F natural) (G natural)

Am G Em F E Am

(F natural) (G natural) (G sharp)

C G Em Am E

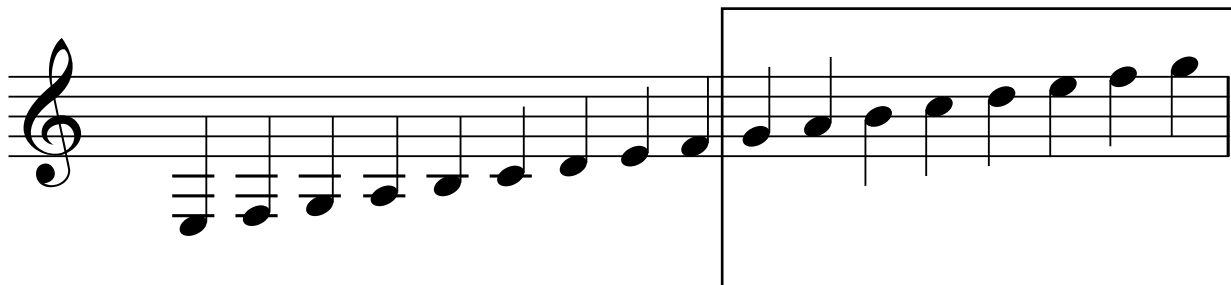
(G natural) (G natural) (G natural)

C G Em F E Am

(G natural) (G natural) (G natural)

self test

Starting with the notes enclosed in the box, look at any note (without looking at the chart below). Speak its name and play it. Confirm you have played it correctly by looking at the chart below.



E F G A B C D E F G A B C D E F G

T
A
B

0 1 3 0 2 3 0 2 3 0 1 3 0 1 3

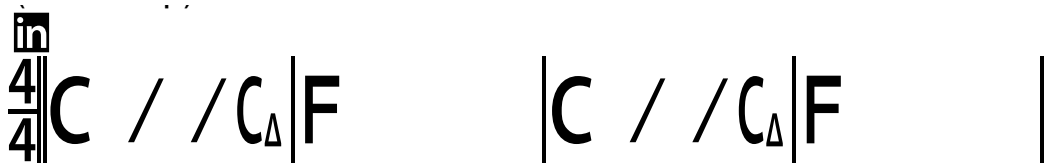
REPEATS, SEGNO, ENDINGS & CODA, ETC.

Beat or Bar Repeats

bar lines

The vertical lines (|) in the examples below separate the music into bars. In Imagine intro, the first bar contains “C” and “CΔ” (CΔ means C major 7). The second bar contains “F”.

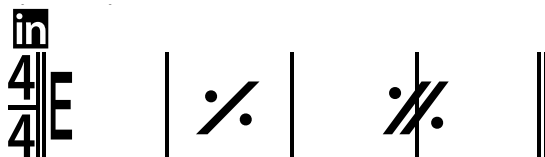
Imagine intro



a forward slash indicates each repeated beat

Each forward slash (/) in the Imagine intro chord progression notation above indicates the chord should be played another beat. In bar 1, the first beat is indicated by the chord name (“C”). Beats two and three of bar 1 should each play the C chord another beat. Beat four of bar 1 is “CΔ7” (C major 7).

And Your Bird Can Sing intro



a forward slash with dots indicates a repeated bar

The forward slash symbol with dots on the lower left and lower right (⋈) in the And Your Bird Can Sing intro chord progression notation above indicates the chord should be played for another bar.

the double forward slash with dots directs you to repeat the previous two bars

The double forward slash with dots that draw across the barline between bars 3 and 4 of the And Your Bird Can Sing intro indicates that the “E” chord should be played for two more bars (in bars 3 and 4).

Left and Right Repeat Signs

Eleanor Rigby *without* begin repeat



Eleanor Rigby *with* begin repeat



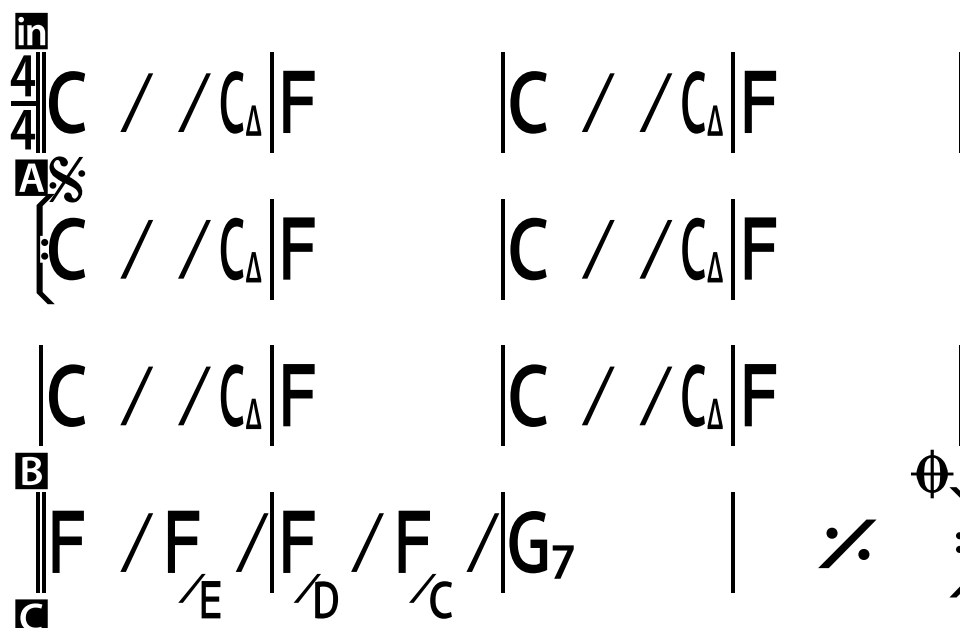
the right repeat (end repeat)

The right repeat sign (||) indicates that you repeat from the beginning if there is no left repeat (||:), as shown in Eleanor Rigby *without* begin repeat.

the left repeat (start repeat)

As shown below in Imagine, the left repeat sign (||:) indicates that once you get to the right repeat sign (||), you would play the content again from the left repeat to the right repeat.

Imagine with left and right repeat for bars 5-12



in chord symbol notation

As in standard music notation, repeat signs indicate a section is played twice. Chord names can be in letter name version or roman numerals, making no difference in the effect of the repeats.

The symbol “||:” is the left repeat shown at the beginning of the repeated section. The symbol “:||” is shown at the end of the repeated section. See the example below, where four bars are to be played twice.

||: I | IV | bVII6 | I :||

When more repetitions are needed, it can be indicated in text. This examples tells us to play the four bars four times.

4X: ||: C | F | Bb6 | C :||

Double Bar Lines

thin double barlines

A thin pair of barlines (||) indicates the end and/or beginning of a section. It has no effect on the duration of notes in performance.

thin then thick pair of barlines

A thin then thick pair of barlines (|||) indicates the end of a song.

Multiple Endings

Chains

The notation for 'Chains' is as follows:

Row 1: $\text{in } \frac{4}{4} \text{ B}^b$ | /: | /: | /: AS^b | /: | /: | /: |

Row 2: | E_9^b | /: | B^b | /: | F_9 | E_9^b | B^b | $\text{F} \text{ } \left. \vphantom{\text{F}} \right\} \text{1.}$ |

Row 3: | B_7^b | E_9^b | /: | B^b | B_7^b | E_9^b | /: | F |

Row 4: | /: | B_7^b | E_9^b | /: | B^b | B_7^b | E_9^b | /: |

Row 5: | F | /: ||

Below Row 5: D.S. al Coda

Row 6: B_7^b | B^b | /: | /: | /: | E^b |

Row 7: | E^b | B^b ||

numbered endings

In Chains, shown above, there are three numbered endings. Once you get to the first ending with “1.” enclosed in an angle bracket, you play up the repeat sign (/:), then go back to the left repeat sign (||:) and continue up to (but not including) the first ending. Skip the first ending and go on to the second ending with “2.” enclosed in an angle bracket. If there is another right repeat sign (/:) after the “2.”, as there is in *Chains* above, you should go back *again* to the left repeat then go back to the left repeat sign (||:) and continue up to (but not including) the first ending again. Now go to the third ending (the second bar in the fourth row in *Chains*). If there weren’t further instructions, you would go on to the end. But there *are* further instructions. Read about D.S. al Coda below.

Endings with Special Instructions

⌘ (Segno)

Segno is a sign indicating the location you go to, earlier in the song, to then proceed to the end or coda as instructed. Details below.

D.S. (dal segno)

If only “D.S.” is shown, you should go to the location of the “⌘” (segno) and proceed from there, following any further instructions that may come up.

⌘ (Coda)

The ⌘ (coda) symbol shows where you depart from the main body of music and go on to the ending section which bears another ⌘ (coda) symbol and/or the word “Coda”. You might see it any of the three ways (⌘, Coda or both). See D.S. al Coda below.

D.S. al coda (dal segno al coda)

Where “D.S. al Coda” is shown, like in the fourth row of *Chains* at the end of the third ending (3.), you should go to the location of the “⌘” (segno) and proceed from there to the ending section which bears another ⌘ (coda) symbol and/or the word “Coda”. You might see it any of the three ways (⌘, Coda or both).


D.C. (Da Capo)

D.C. means go back to the beginning. “Capo” means “head” as in the “top” or beginning.

Fine

“Fine” marks the end.

D.S. al fine (dal segno al fine)

Where “D.S. al Fine” is shown, you should go to the location of the “” (segno) and proceed from there to the ending, where the word “fine” should appear.

D.C. al fine (da capo al fine)

Go back to the beginning and proceed to the end at “fine”.

(Fermata)

Sustain the note or chord shown under this symbol approximate double the duration or until cued by the bandleader.

Play x Times Versus Repeat X Times

When “play 3 times” is written in the last bar of a repeated section (with left and right repeats), play the section three times. It can be written simply “3x”, as commonly done in iReal Pro.

When “repeat 3 times” is written in the last bar of a repeated section (with left and right repeats), play the section *four* times (once for the initial notation, then repeat three times). Avoid this notation, it can be misunderstood.

Note Sets, Structures and Design

- **Number and Letter Cycles**
- **Octaves, Scales and Chords**
- **Note Sets**
- **Musical Structure and Design**
- **Song Sections**
- **Triad Arcs**
- **Note Names**
- **Octave Shapes**
- **Intervals**
- **Numbered Tones (Formulas)**
- **The Intervals Necessary to Construct a Major Chord**

NUMBER AND LETTER CYCLES

Half and Whole Steps

the alphabetical sequence of notes

A half step is one fret, such as fret three to fret four. A whole step is two frets, such as fret three to fret five. European and American music is based on the major scale. The major scale is the common reference for scales, chords and melodies. Letters occur in alphabetical order with two frets between each letter, including G-A where the alphabet starts over. Two exceptions: E to F and B to C are one fret. See [Intervals and Formulas](#).

Solely on the second string, ascend (move toward the guitar body) the alphabetical sequence C-D-E-F-G-A-B-C, starting on the second first fret "C". That is the C major scale.

1	3	5	6	8	10	12	13	12	10	8	6	5	3	1
---	---	---	---	---	----	----	----	----	----	---	---	---	---	---

Solely on the second string, play the alphabetical sequence D-E-F-G-A-B-C-D, starting on the second string third fret, "D". That is the D Dorian mode, a mode of the C major scale. See [Modes](#).

3	5	6	8	10	12	13	15	13	12	10	8	6	5	3
---	---	---	---	----	----	----	----	----	----	----	---	---	---	---

the major scale sequence of notes

With the major scale, numbers occur in numerical order with two frets between each number, with two exceptions: 3 to 4 and 7 to 1 are one fret. The next numbered tone above 7 is "1", where "1" repeats an octave higher. A typical example of the major scale would be to ascend (toward the guitar body) from any note (starting on one of the first four frets fits well on the guitar) 1-2-3-4-5-6-7-1, then descend 7-6-5-4-3-2-1, See [Formulas: Numbering the Major Scale Tones](#), [Recognizing Half Steps in the Major Scale](#) and [Play the Major Scale on One String](#).

Solely on the second string, thinking in “C”, where “C” is “1” play the numerical sequence 1-2-3-4-5-6-7-1, starting on the second string first fret “C” (1), then descend 7-6-5-4-3-2-1. Be sure to use a one fret interval between 3-4 and 7-1. That is the C major scale in numbers.

The musical notation shows a sequence of notes on a single string, with fret numbers indicated above the notes. The sequence is as follows:

Measure	Fret	Tab
1	1	1
2	2	3
3	3	5
4	4	6
5	5	8
6	6	10
7	7	12
8	1	13
9	7	12
10	6	10
11	5	8
12	4	6
13	3	5
14	2	3
15	1	1

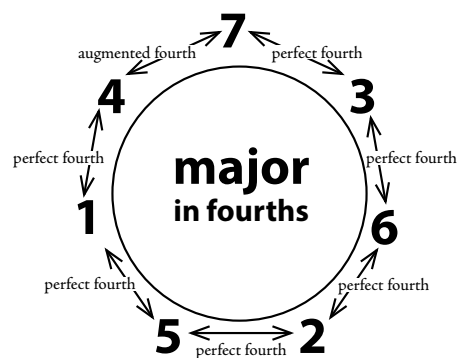
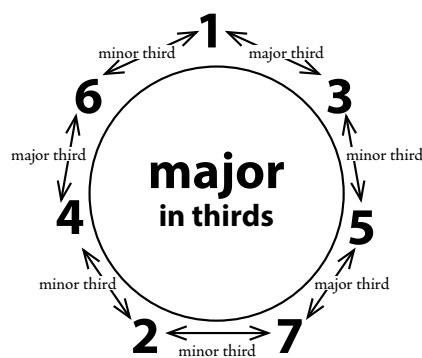
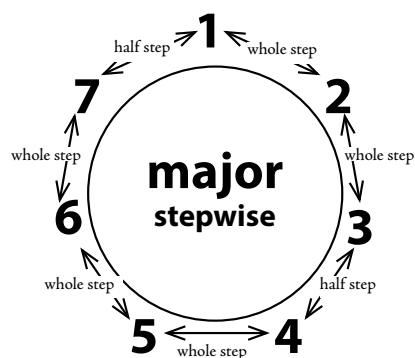
Solely on the second string, thinking in “D”, where “D” is “1” play the numerical sequence 1-2-3-4-5-6-7-1, starting on the second string third fret “D” (1), then descend 7-6-5-4-3-2-1. Don’t play the same C major scale, a couple of these notes are different. Be sure to use a one fret interval between 3-4 and 7-1. That is the D major scale in numbers.

Pitch Cycles In Music

The number and letter cycles shown in this section are essential to think and converse all pitch structures in music: chords, chord progression, scales and melody. Memorize the three cycles: stepwise, thirds and fourths. They are the order in which chord roots (notes that name chords) progress.

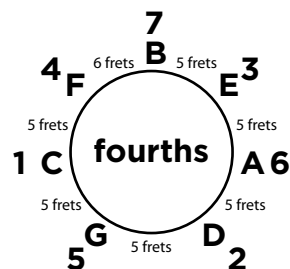
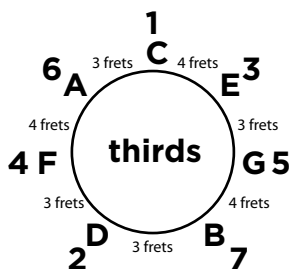
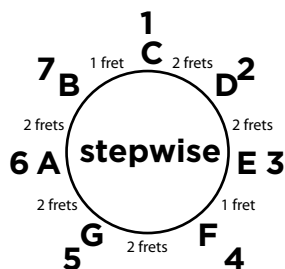
Thirds are the primary structure of building chords. “1-3-5-7” builds a four-note chord on “1”. “2-4-6-1” builds a four-note chord on “2”. Study all possible pairs of scale-tone triads, looking for unique pairs and duplicate pairs.

Number Cycles

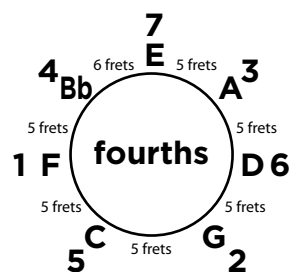
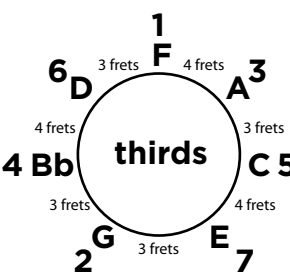
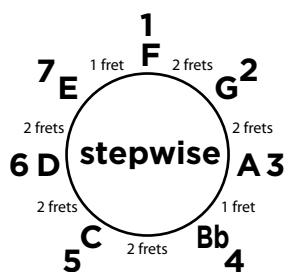


Stepwise, Thirds and Fourths Letter Cycles

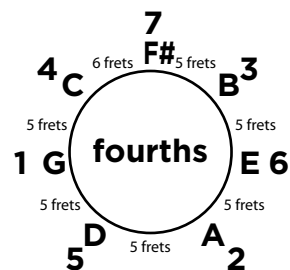
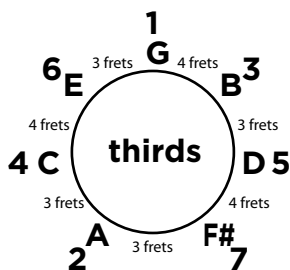
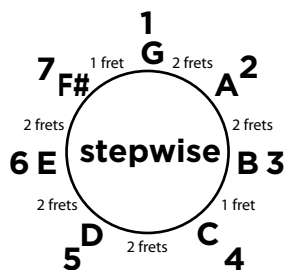
C major scale cycles



F major scale cycles

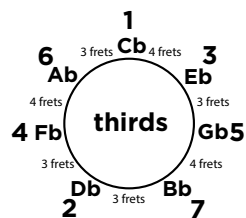
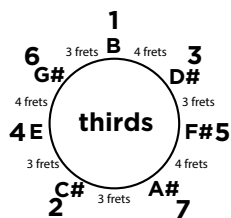
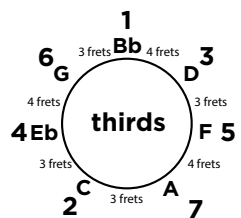
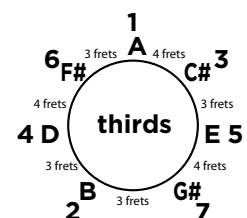
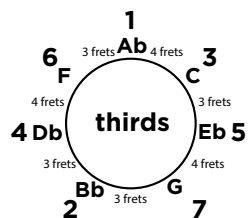
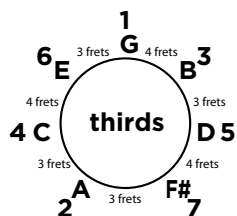
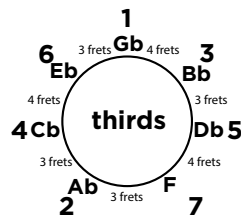
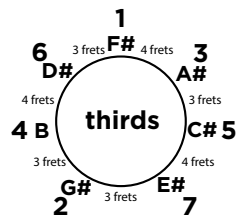
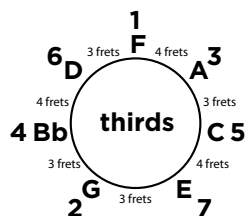
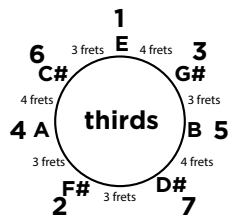
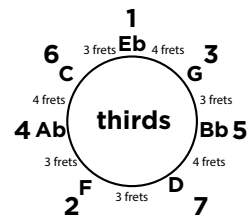
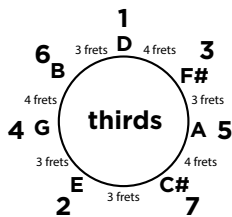
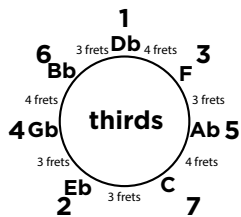
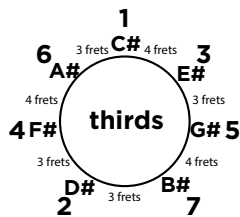
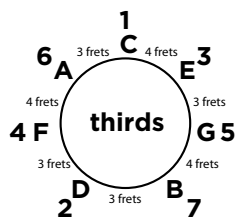


G major scale cycles



Thirds Letter Cycles in All Keys

For each cycle, the key letter name is below the number “1”.



OCTAVES, SCALES AND CHORDS

What is an Octave?

When notes are arranged in ascending or descending alphabetical order, every eighth note repeats. This range between the first and eighth notes in this alphabetical order is called an octave.

C major scale, range one octave

a range of eight notes inclusively

numbered tones	1	2	3	4	5	6	7	1	1	1
lettered tones	C	D	E	F	G	A	B	C	C	C

TAB: 3 0 2 3 0 2 0 1 1 3

G major scale, range one octave

one octave,
a range of eight notes inclusively

numbered tones	1	2	3	4	5	6	7	1	1	1
lettered tones	G	A	B	C	D	E	F#	G	G	G

TAB: 3 0 2 3 0 2 4 0 0 3

What is a Scale?

A scale is a collection of between five and twelve notes (inclusive) that spans an octave. Scales commonly involve step-to step intervals of one, two or three semi-tones (half steps or one-fret intervals).

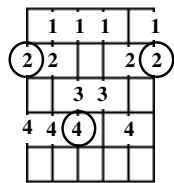
Pentatonic scales have five notes per octave and are common to popular music, especially in blues, rock and country guitar solos. *Heptatonic scales* have seven notes per octave and are common to classical music and jazz. Common heptatonic scales are the major scale and its seven modes, harmonic minor scale and the mode on its fifth (Phrygian major), melodic minor and the modes on its fourth step

(Lydian dominant) and seventh step (super Locrian or Locrian flat four).

When playing the notes of a scale in ascending or descending order, they repeat at the octave.

C major scale, seven notes per octave

C major scale VIII



letter names:

C D E F G A B C D E F G A B C

T 4/4

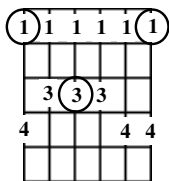
A 4/4

B 4/4

8 10 7 8 10 7 9 10 7 9 6 8 10 7 8

C minor 7/11 pentatonic scale, five notes per octave

Cm7/11 VIII



letter names:

C Eb F G Bb C Eb F G Bb C

T 4/4

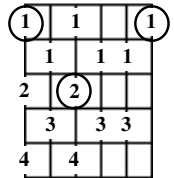
A 4/4

B 4/4

8 11 8 10 8 10 8 10 8 11 8

C whole tone scale, six notes per octave

C whole tone VII



letter names:

C D E F# G# Bb C D E F# G# Bb C

T 4/4

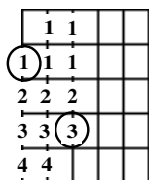
A 4/4

B 4/4

8 10 12 9 11 8 10 12 9 11 9 11 8

C chromatic scale, twelve notes per octave

C chromatic VII



letter names:

C C# D D# E F F# G G# A A# B C

T 4/4

A 4/4

B 4/4

8 9 10 11 7 8 9 10 11 6 8 9 10

What is a Chord?

A chord is two or more notes played at the same time. Any chord tone may be doubled. A chord with three *different* notes may have four notes, where one note occurs twice. Two note chords are typically referred to as intervals.

two note chords

perfect fifth minor sixth minor sixth major sixth

T 4/4
A 4/4
B 4/4

7 8 7 8

three note chords

C III F V Am V G III A5 II

T 3/4
A 3/4
B 3/4

3 5 5 3 5

three note chords with note doubling

The diagram illustrates five three-note chords with note doubling on a fretboard grid (6 strings, 5 frets). Each chord is represented by a 3x3 grid where notes are placed in specific frets. Below each grid is a musical staff in 3/4 time, showing the notes as whole notes. A tablature staff is also provided at the bottom for each chord.

- C Major:** Notes C (1st fret), E (2nd fret), G (3rd fret). Tab: 1 2 3
- F Major:** Notes C (1st fret), F (1st fret), A (2nd fret). Tab: 1 1 2
- A minor:** Notes A (2nd fret), E (2nd fret), C (3rd fret). Tab: 2 2 3
- G Major:** Notes G (3rd fret), D (3rd fret), B (2nd fret). Tab: 3 3 2
- A5:** Notes A (2nd fret), E (2nd fret), A (5th fret). Tab: 2 2 5

NOTE SETS

Collections of two to twelve unique notes are *note sets*. They are distinguished from unrelated single notes by being specific collections of notes that make intervals, chords and scales.

A pair of unique notes played at once (sustained together) or sequentially is called an *interval*. Three or more unique notes played at once are called a *chord*. Five or more unique notes spanning less than an octave played in ascending or descending order are called a *scale*. Most note sets encompass an interval of an octave or less, but larger intervals and larger chords span more than an octave.

Chords and Arpeggios

Chords are usually constructed with intervals of a minor third (three half steps or frets) or larger. When chords are played one note at a time, they are called *arpeggios*. Like a chord, an arpeggio can span more than an octave.

Arpeggios can be played in order of pitch, ascending up or down. Chords can be held (their notes sustained together, usually with multiple fingers sustaining pressure) while picking their notes in a *patterned arpeggio* pattern (commonly called *fingerpicking* or *Travis Fingerpicking*). See [“Comping Design”/Linear Arpeggios](#) and [Travis Fingerpicking and Piedmont Blues](#).

chord and scale names

You should learn the names of all types of chords and scales common to the music you want to play. Chord types and names can be learned in [“Chord-Naming Conventions”](#) and [“All Scale-tone Chords”](#). Scale types and names can be learned in [“Modes”](#) and in [“Key Scales, Chord Scales and Parent Scales”](#).

chord construction

The primary method of constructing chords is with every other note. This is called *tertian harmony*, meaning made of thirds (each note to the next is three notes, inclusively).

Chords with three notes are called triads. The every-other number or ever-other letter pattern is called thirds (1-3-5-7-2-4-6-1- or F-A-C-E-G-B-D-F). Tertian chords are built in thirds. Due to the varied spacing between the notes of the major scale, tertian triads are of varying qualities, some major, some minor and one of them diminished.

So, a three-note chord built on the first step of a major scale (or other seven tone scale) uses scale tones 1, 3 and 5. A three-note chord built on the second step of a major scale uses scale tones 2, 4 and 6; and so on. Since a C major scale has all natural notes (no sharps or flats, just C-D-E-F-G-A-B), a tertian chord build on “C” (with ever-other note) would have the notes C, E and G. A triad on “F” would have F, A and C (remember, the alphabet starts over after “G”).

Read more about this in [“Introduction To Chord Progression”](#), especially [Basic Definitions](#).

MUSICAL STRUCTURES AND DESIGN

Note sets ascending or descending in linear order make scales or arpeggios. Their order is more whimsical and abstract when we create interesting music.

A musical structure is a note set conceived in a timeline. When you see a scale or an arpeggio written in ascending or descending order, it creates a structure. That structure can then be designed abstractly. The design of the structure can be expressed visibly by viewing the pattern of note heads in written music, which makes a *melodic curve*. See [“Theme and Variation”/Harmonic Theme And Variation](#) and [Melodic Curve Exercises](#).

The consecutive order of note sets of primarily half and whole steps makeup scales. Consecutive order of note sets primarily thirds makeup arpeggios. The distance between two notes is called an interval. Major third intervals are equivalent the distance from the first to third step of a major scale (four frets, like frets five to nine). Minor third intervals are a half step smaller (like frets five to eight).

[“Melodic cells”](#) are the smallest units of melody of three to seven notes, rarely more. When you combine cells or repeat a cell on different notes, you are creating musical design.

SONG SECTIONS

verse

The verse tells the story. It is almost always softer and calmer than the chorus and is commonly in the same key as the chorus, and is usually in what is considered the overall key of the song. Two or more verses commonly occur before the first chorus. Verses don't have to come before the chorus.

Verse comes from the Latin word *versus*, which means a line of writing and is based on the Proto-Indo-European root *wer*, meaning to turn or bend. Think of "a turn of phrase", "bending the listener's ear" or "bending the truth" to tell a story.

chorus

The title of the song is usually sung in the chorus and commonly summarizes the story. It is usually louder and fuller than the verse, with more harmony vocals. Etymologically, chorus is an extension of "court" referring to an enclosed area where people assemble to play and sing music or theatrical performance. The chorus comes after the verses a little more commonly, but sometimes songs start with the chorus.

The *refrain* is the line of words that is repeated during the chorus.

pre-chorus, pre-verse, post-chorus, post verse

Around 1990, I started seeing "*pre-chorus*" in printed sheet music. It seemed a strange term to me at first, but I've accepted it over time. As you would think, it comes before the chorus, and usually builds excitement into the chorus. *Post chorus* likewise applies an addendum to the end of the chorus without changing to another section.

The term could be likewise applied to content that precedes the verse: a pre-verse.

Post verse could apply the same principle as post chorus in applying an addendum to the end of a verse without changing to another section.

bridge or middle eight

The section that connects the verse and chorus is called the bridge. It might not occur until the second time the verses and chorus are played. It more commonly follows the chorus. The bridge is more often in a different key from the verse and chorus, typically a key a perfect fourth (five frets) higher than the verse.

The *middle eight* is a type of bridge that occurs between two choruses using different melody and usually different chord progression. The middle eight can choose from a wide variety of chord progression types.

intro

The intro (abbreviation for introduction), is played at the beginning of a piece. Songs don't always have intros. Intros are often borrowed from the end of one of the main sections of the song, the verse or chorus (A or B sections in an instrumental piece). They are typically based on the end of the verse or chorus (A or B section) and followed by the same section they go into in the song.

For example, at the end of the chorus, the music flows into the verse. The intro starts with the end of the chorus, then goes into the first verse. A twelve bar blues commonly begins with the last four bars of the twelve bar chord progression, followed by the twelve bar progression from its beginning.

Intros are typically hooks (see [Theme and Variation](#)/Hooks), thematic material or a guitar solo. When an intro has the nature of a guitar solo, it is usually more brief and simpler, but not always. Here are a few examples of pop songs that begin with a guitar solo: All Along the Watchtower, Can't You Hear Me Knocking, Cliffs of Dover, Fun Fun Fun, Gravity, I Know a Little, Johnny B. Goode, Little Wing, Oh Well part 1, Purple Haze, Red House, Reeling In the Years, Someday After a While (From the Cradle), Strangle Brew, Texas Flood, Thunderstruck, Voodoo Child and the live version of [Midnight in Harlem](#) by the Tedeschi-Trucks Band on the album Everybody's Talkin'.

ending

Like an intro, an ending should be based on content borrowed from the verse or chorus. It is often the last four bars of a verse or chorus played three times, followed by an ending chord. The ending is expected to complete with the chord named after the key, but can use a deceptive cadence, ending on an unexpected chord.

fade-in

A song sometimes begins with a fade-in. An intro or vamp is usually used for the fade-in and usually occurs in recorded music, not live music. The volume swells up from silence, usually to the level standard for the song. Fade-in is not used often, probably because, like fade-outs, it is dynamically and expressively weak.

vamp

A rhythm section with a repeating chord progression (or on a single chord), without any significant thematic material. Vamps are used as "filler" between other sections. They are typically used to setup the section that follows them by establishing the "groove", rhythmic nature, mood, chord sound, etc (any or all of these).

solo

We're used to hearing a guitar solo (or other instrument, if they insist) two-thirds of the way through a song. In this section, the guitar player improvises, or ad-libs. The melodic content may be based on the

vocal part in the verse or chorus, or may be [theme and variation](#). It is important to have some structure to the solo and not just play a bunch of dis-related licks.

The accompaniment is usually simpler during a solo, so the listeners focus can be on the solo content. If the accompaniment has melodic themes, it makes it more challenging for the soloist to make their melody understandable at the same time as the themes in the accompaniment.

interlude or instrumental break

An interlude is a brief instrumental section between main sections like verse and chorus. It is similar to a vamp but usually has thematic material (melody) that is less important than that of the main sections.

An instrumental break is usually improvised or composed to sound more improvisational.

“A” section and “B” section, etc.

In instrumental music, there are usually two, sometimes three or more main sections. The sections are traditionally labeled with letters: section A, section B, section C, etc.

AABA form

The most common song structure is thirty two bars, with two eight-bar A sections, an eight-bar B section and an eight-bar A section. Sections may be of different lengths, but eight, twelve and sixteen bar sections are most common.

a cappella (in the manner of the chapel)

When vocals are sung without instruments, they are called a’ cappella, meaning “in the manner of the chapel”. In early western religion, it was thought unholy to have musical instruments in the place of worship. Overtime, instruments have been accepted in churches, along with every imaginable style of music.

drop sections or drop beats

Like the middle eight, drop sections can follow a chorus to increase intensity with a abruptly lowered volume with an optional change in rhythm. This has become popular in EDM (Electronic Pop Music) and other pop styles since 2010.

elision (also called collision or phrase overlap)

An elision is a song section where different sections overlap one another, usually briefly. It is mostly used in up-tempo music to create tension and drama and to keep the song from losing its energy during resting points (held sustain) at cadences, typically on a tonic or dominant chord.

With an elided cadence, you can bring the section to a cadence on the tonic and immediately begin a new section of music which overlaps with the cadence. The elided cadence may borrow thematic material from other sections of the song.

In Cyndi Lauper's *Time After Time*, the last word of the first verse is omitted, singing "time after ..." (omitting "time"). In place of the missing "time", she sings "sometimes" the first word of the second verse.

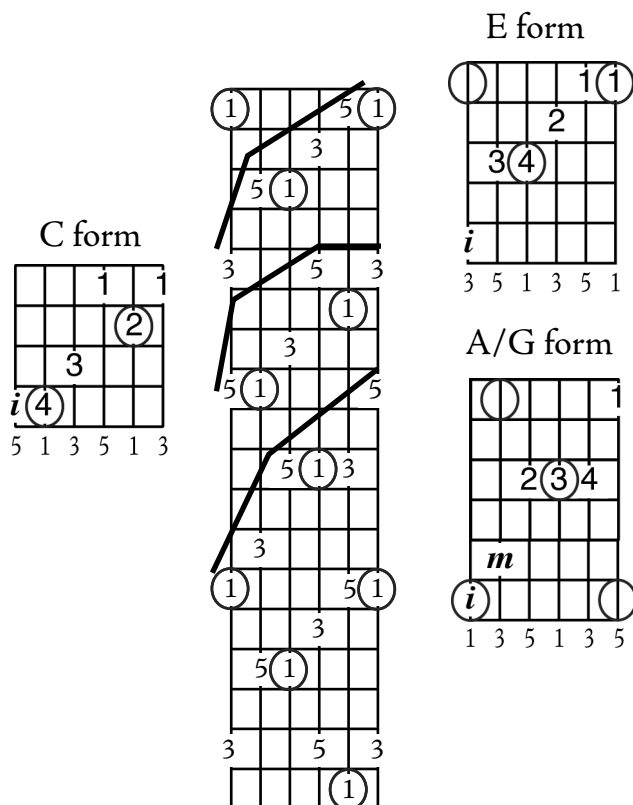
TRIAD ARCS

Triads are chords made up of three different notes. The notes may be repeated in octaves. Major triads combine the first, third and fifth steps of a major scale. Minor triads combine the first, flatted third (one fret toward the head of the guitar from the third) and fifth of a major scale.

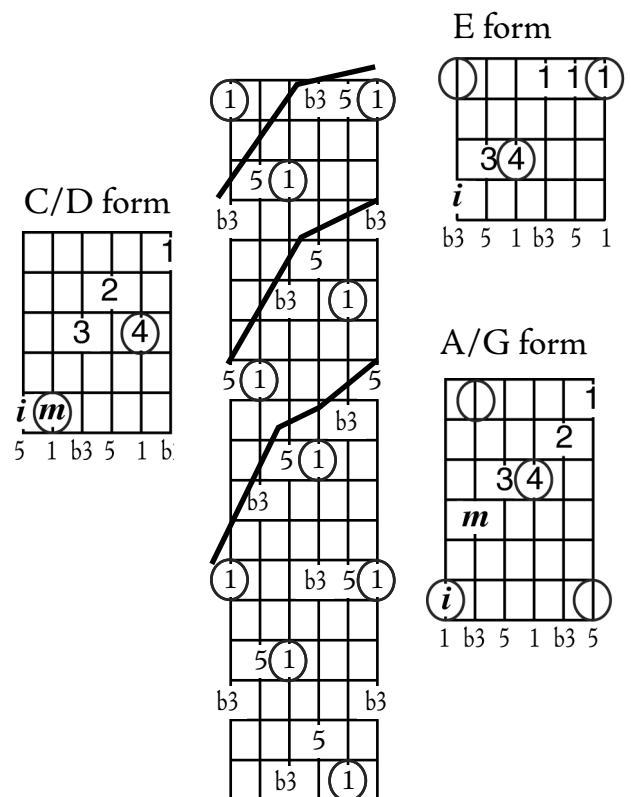
I refer to the three groups of notes that represent all major chord tones or all minor chord tones on the fretboard as *arcs*, since they are the notes conceptually embraced by an arc, as shown below. Notice that since all of the notes cannot be fretted with the fretting hand, some of the notes on the smaller diagrams below are to be fretted with the *picking* hand. On those smaller diagrams, the “*i*” represents fretting with the picking hand index finger and the “*m*” represents fretting with the picking hand middle finger.

All the diagrams below are movable and may be placed on the fretboard for any key. The notes in large circles are the roots of the chord, the notes after which the chord is named, such as “D” for a D minor chord. Even where a large circle is empty, it shows the location of a chord root.

major chord tone arcs



minor chord tone arcs



NOTE NAMES

Also see the chapter “[Memorizing Fretboard Letter Names](#)”.

Natural Notes in Open Position

An open string is a note played without fretting, such as the sixth string open “E” and the fifth string open “A” commonly used in tuning. Open position refers to playing in the first position, where the first finger hovers over the first fret and where open strings are involved.

The open strings are named “E, A, D, G, B, E”, which can be memorized with the sentence “Eat A Darn Good Breakfast Early” (the first letter of each word). The distance from each note to the next in alphabetical order is two frets (leaving an “empty” fret between them), except “B” to “C” and “E” to “F”, which are one fret. If you know the names of the notes on the piano, you know that the pairs of notes “B” to “C” and “E” to “F” each have no black key between them. So, on the guitar there is likewise no note between them.

Name these natural notes shown below in open position as you play them. There are three notes on each string except the third string where there are only two.

E F G A B C D E F G A B C D E F G F E D
 0 1 3 0 2 3 0 2 3 0 2 0 1 3 0 1 3 1 0 3

C B A G F E D C B A G F E
 1 0 2 0 3 2 0 3 2 0 3 1 0

Natural Notes on the Sixth, Fifth and Fourth Strings

Notes with their letter name followed by a sharp (#) are raised in pitch one fret and moved one fret toward the body of the guitar (or to an equivalent pitch on the next smaller string). Notes with their letter name followed by a flat (b) are raised in pitch one fret and moved one fret toward the head of the guitar (or to an equivalent pitch on the next larger string). A “natural” (“plain”) note has no sharp nor flat.

Name these natural notes on the sixth, fifth and fourth strings as you play them:

sixth string natural notes

E F G A B C D E F G A G F E D C B A G F E

0 1 3 5 7 8 10 12 13 15 17 15 13 12 10 8 7 5 3 1 0

fifth string natural notes

A B C D E F G A B C D E B A G F E D C B A

0 2 3 5 7 8 10 12 14 15 17 15 14 12 10 8 7 5 3 2 0

fourth string natural notes

D E F G A B C D E F G F E D C B A G F E D

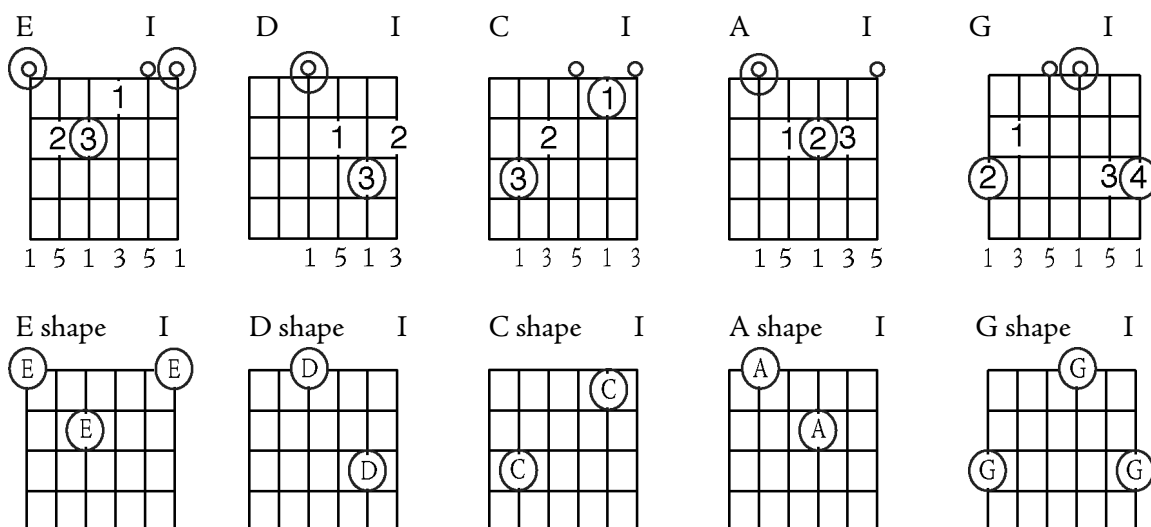
0 2 3 5 7 9 10 12 14 15 17 15 14 12 10 9 7 5 3 2 0

Notice above that notes in alphabetical order are two frets apart, including G to A (where the alphabet starts over), except B to C and E to F which are one fret apart.

OCTAVE SHAPES

Octave Shapes from Open Position Major Chord Roots

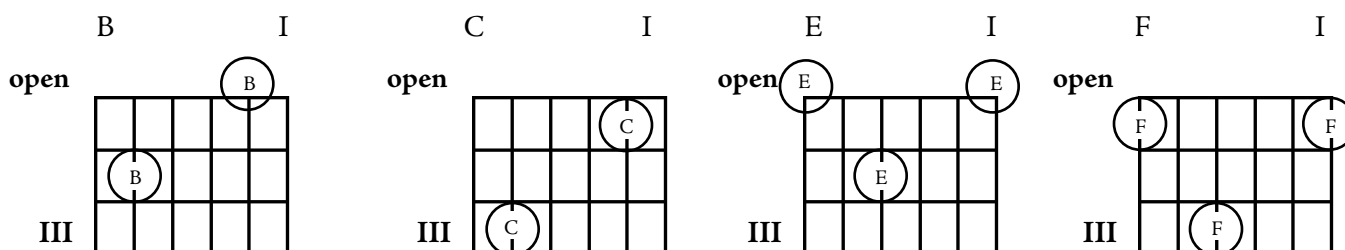
The root of a chord is the letter after which it is named. A “C” chord has a “C” root. An “Am” chord has an “A” root. A “Bbm” (B flat minor) chord has a “Bb” root. On the diagrams in the first row below, the roots are in the large circles. In each of the five chord diagrams in the first row below, the circled notes are the notes after which the chord is named. The circled octave shapes E, D, C, A and G in the second row below are the basis of fretboard orientation for keys, chords and melodies. .



“B” and “F” octave shapes are unnecessary

The octave shapes for “B” and “F” are not used as standard references because those letters make octave shapes already represented by other letters. The octave of the note “B” in open position makes the same shape as the note “C”. The octave of the note “F” in open position makes the same shape as the note “E”.

There is no practical fingering for a “B” chord in open position, so “C” was used instead. “E” is better to use than “F”, since it is an easier chord to fret for those just starting guitar and has a more parallel relationship to the other chords “A” and “D” that also have an open string root (bass note on the largest string that names the chord).



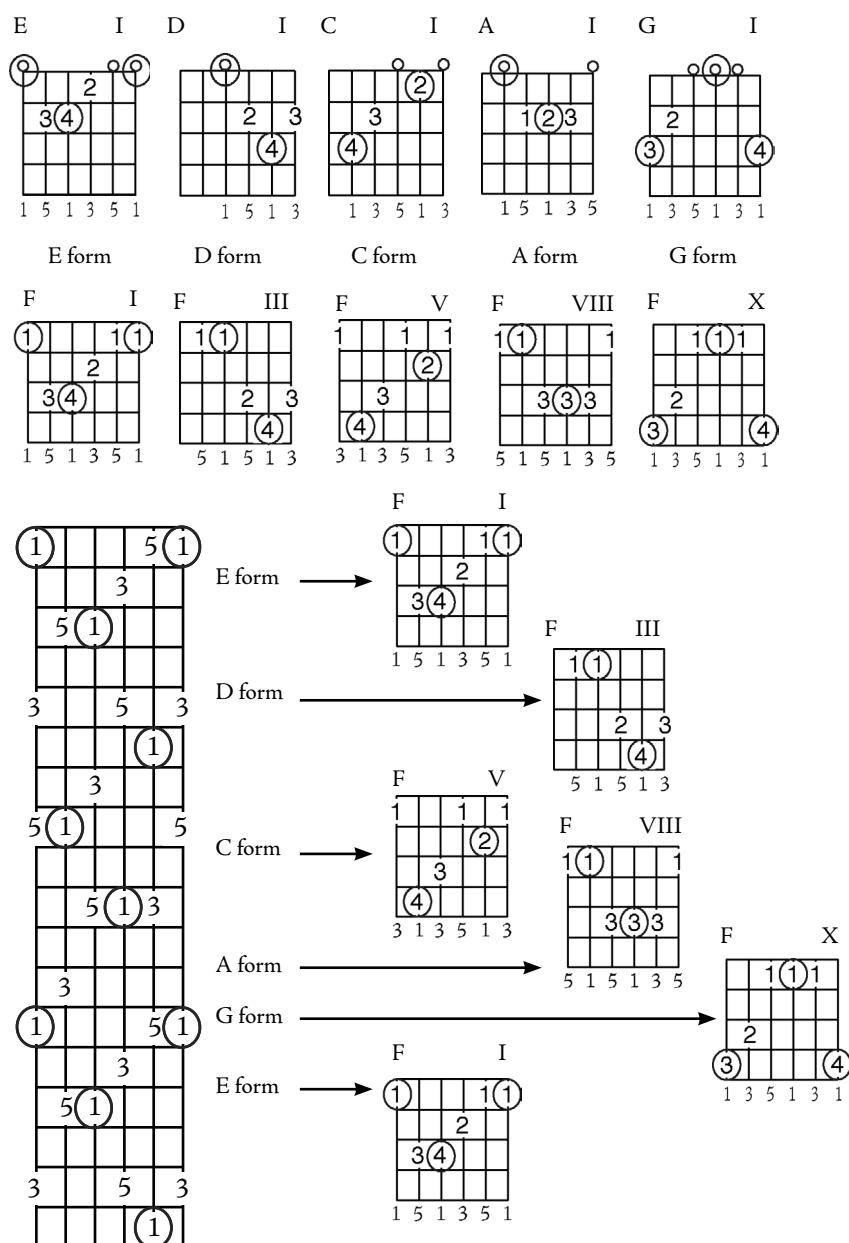
octaves of all natural notes horizontally on the fretboard

<p>E I</p> <p>1 5 1 3 5 1</p>	<p>E notes I</p>	<p>F notes I</p>	<p>G notes III</p>	<p>A notes V</p>	<p>B notes VII</p>	<p>C notes VIII</p>	<p>D notes X</p>	<p>E notes XII</p>
<p>G I</p> <p>1 3 5 1 5 1</p>	<p>G notes I</p>	<p>A notes II</p>	<p>B notes IV</p>	<p>C notes V</p>	<p>D notes VII</p>	<p>E notes IX</p>	<p>F notes X</p>	<p>G notes XII</p>
<p>A I</p> <p>1 5 1 3 5</p>	<p>A notes I</p>	<p>B notes II</p>	<p>C notes III</p>	<p>D notes V</p>	<p>E notes VII</p>	<p>F notes VIII</p>	<p>G notes X</p>	<p>A notes XII</p>
<p>C I</p> <p>1 3 5 1 3</p>	<p>C notes I</p>	<p>D notes III</p>	<p>E notes V</p>	<p>F notes VI</p>	<p>G notes VIII</p>	<p>A notes X</p>	<p>B notes XII</p>	<p>C notes XIII</p>
<p>D I</p> <p>1 5 1 3</p>	<p>D notes I</p>	<p>E notes II</p>	<p>F notes III</p>	<p>G notes V</p>	<p>A notes VII</p>	<p>B notes IX</p>	<p>C notes X</p>	<p>D notes XII</p>

Ed Cage Movable Octave Shapes

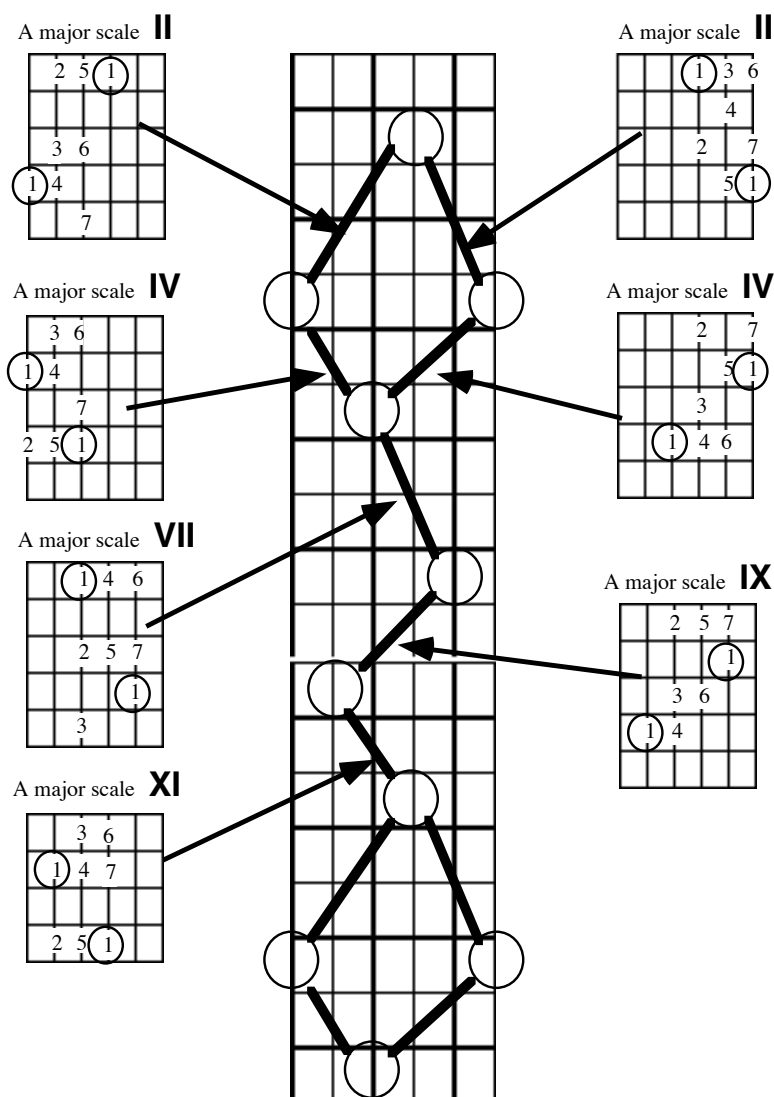
Moving all of the notes of any chord up an equal number of frets transposes the chord to a new key, but with the same quality, as demonstrated with each chord in the first row below and the transposed chord beneath it in the second row. When you transpose, the octave shape (E, D, C, A or G) does not change. Notice that for each chord in the first row, it shares the same octave shape with its transposed version in the second row.

In a single key, such as “F”, shown below, the octave shapes occur in the order E-D-C-A-G, then repeat. To signify that the order repeats, I refer to the order as “Ed Cage”. It could also be called “caged” in starting the cycle on “C” or “Aged C” to start on “A”. I prefer “E” as the point of reference, since its tone center and root is the lowest note relative to your hand.



Single Octaves

Notes repeat every eight notes apart in a major scale, so they are called *octaves* (“okto” is Greek for eight). Each of the smaller diagrams below shows an eight note range of a major scale fingering, spanning an *octave*. Play the notes in numerical order, from “1” to “1” on each of the small major scale diagrams below. The circled notes are one octave apart.



If you can play a major scale in any particular octave area and modify it to make any other scale or chord, arpeggio or melodic phrase. All scales, chords, arpeggios and melodic phrases can be represented with the numbers and altered numbers of the major scale.

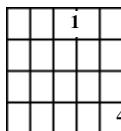
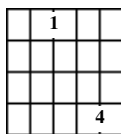
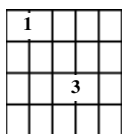
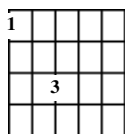
Playing all of the diagrams above on the fretboard relative to the large diagram, with the top fret on the large diagram assigned to a specific fret (and note), would make major scale fingerings in one key all over the fretboard. The key would be named after the note on which the “1’s” occurred (which would all be the same note).

The Seven Octave Fingerings

The diagrams below can be played in any position (at any fret). Numbers within the diagrams indicate fretting fingers.

Primary Octave Fingerings

These are "two string, two fret" octaves.

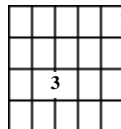
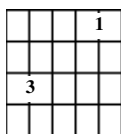
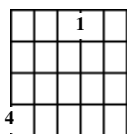


These are "two string, two fret" octaves with compensation for tuning on the smallest two strings.

Notes on the smallest two strings must relatively be moved up one fret (higher in pitch), when combined with the larger four strings..

Secondary Octave Fingering

The only un-compensated "three string, three fret" octave (compensated versions are shown at the right).

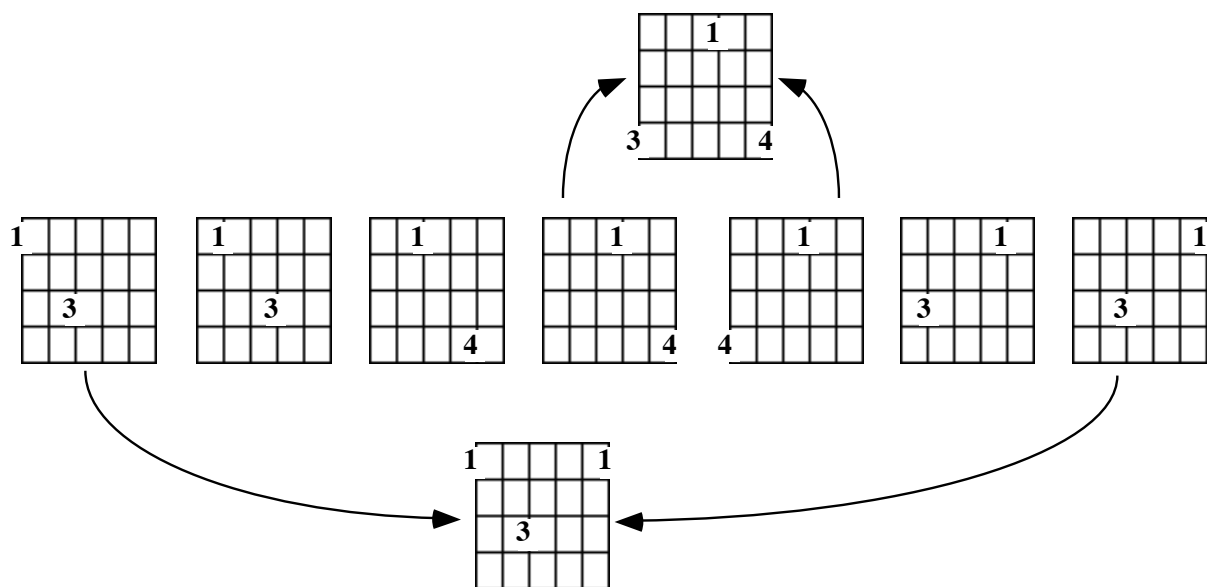


These are "three string, three fret" octaves with compensation for tuning on the smallest two strings.

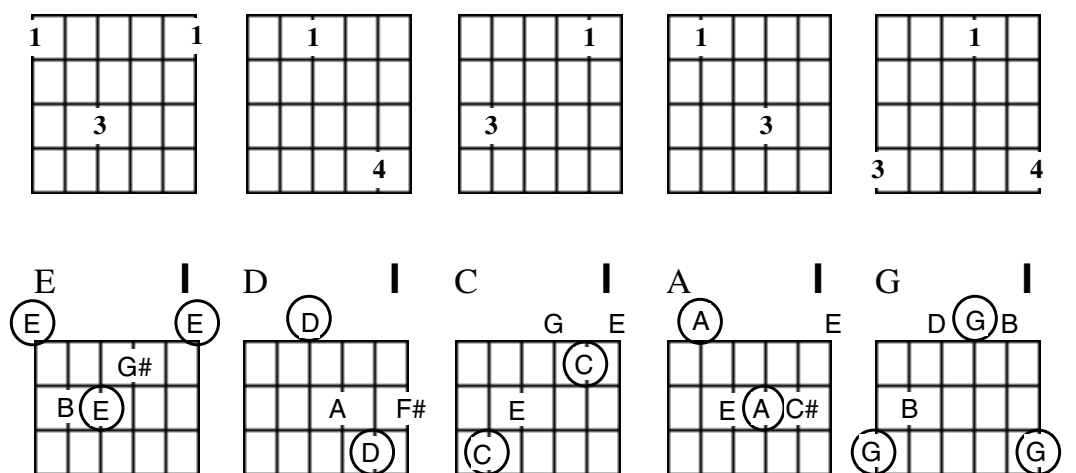
Notes on the smallest two strings must relatively be moved up one fret (higher in pitch), when combined with the larger four strings.

Five Octave Shapes From Seven Octave Fingerings

We can comfortably reach a span of four or five frets, so the full-fretboard pattern of octaves needs to be conceived in sections. Sections of three or four frets can be related to octaves. By combining two pairs of the seven octaves and using the other three octaves unchanged, five octave shapes are produced.



Here are the five octave shapes. Notice how each one occurs as the roots of an open string chord:



What's Significant about the Repetition of Each Note?

To master the fretboard, you need to learn to finger scales, chords, arpeggios and melodies in two ways:

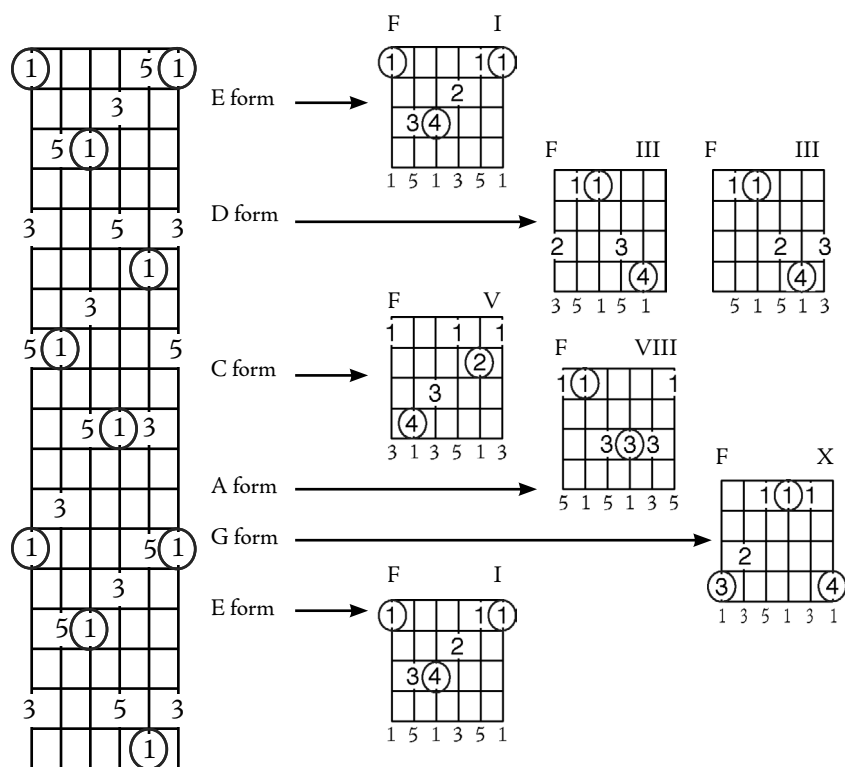
- ♦ playing in one key all over the fretboard
- ♦ playing all keys in one area of the fretboard

Playing in One Key All Over the Fretboard

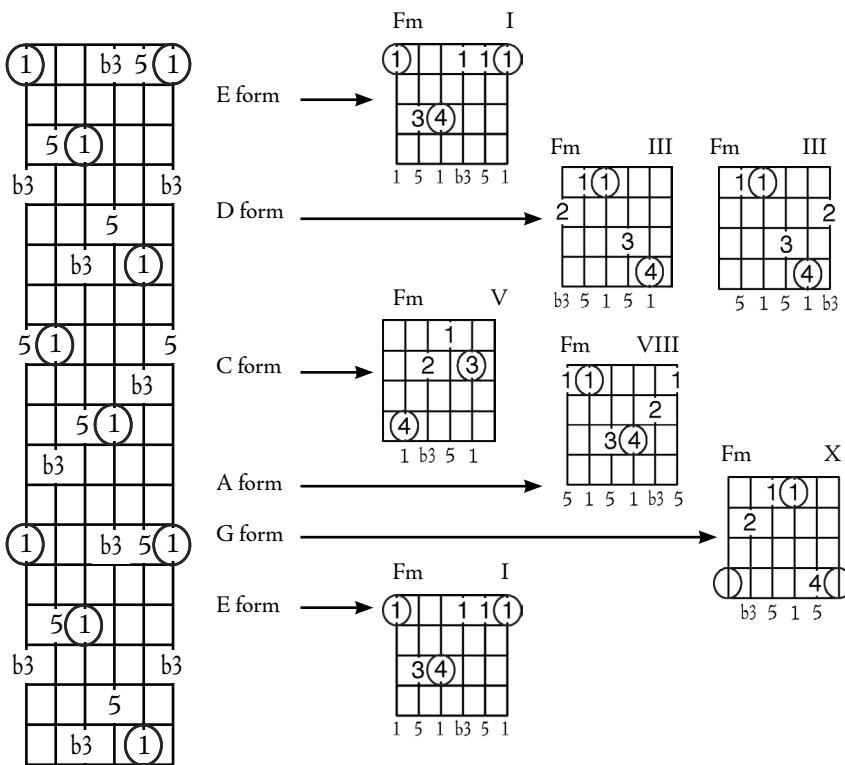
When playing a scale, arpeggio or melodic phrase at any particular location on the fretboard, you need to orient your current octave shape to the sequence of them, having memorized other fingerings categorized by their octave shape.

Full-fretboard F major and full-fretboard F minor chord tones below demonstrate chord tones on the entire fretboard on a single chord root (“F”).

Full-Fretboard F Major Chord Tones



Full-Fretboard F Minor Chord Tones



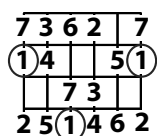
Playing in All Keys in One Area of the Fretboard

You can also use octave shapes to conceive playing chords, scales or melodies in all keys in one area of the fretboard. All of the fingerings below are in the fourth or fifth position, meaning the index finger is hovering over the fourth or fifth fret.

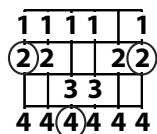
Fingerings one through seven are numbered in relation to the lowest-pitched tone fretted with the index finger on the sixth string. In fingerings 7, 6, 3 and 2, the position is numbered in relation to the lowest-pitched tone on the sixth string., In fingerings 5, 4 and 1, the position is one fret higher than the lowest-pitched tone on the sixth string. Read the chapter [“Playing in Position”/Strict Vertical Position](#).

A major IV

fingering 7
scale tones

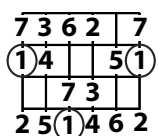


fingers

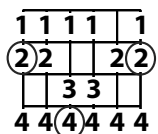


Bb major V

fingering 7
scale tones

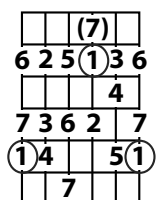


fingers

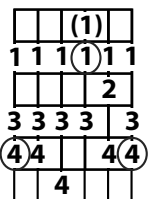


B major III

fingering 6
scale tones

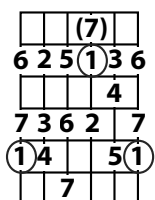


fingers

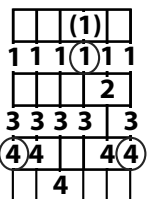


C major IV

fingering 6
scale tones

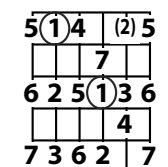


fingers

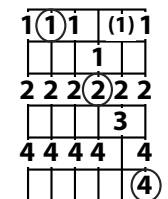


C# major IV

fingering 5
scale tones

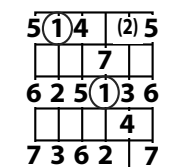


fingers

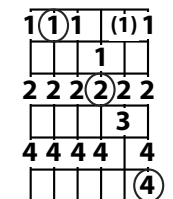


Db major IV

fingering 5
scale tones

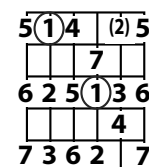


fingers

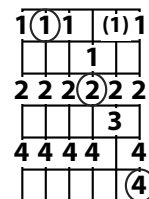


D major V

fingering 5
scale tones

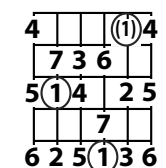


fingers

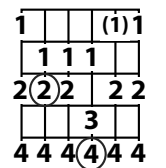


Eb major IV

fingering 4
scale tones

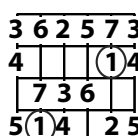


fingers

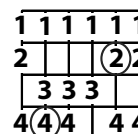


E major IV

fingering 3
scale tones

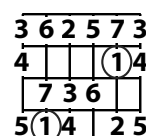


fingers

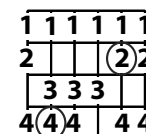


F major V

fingering 3
scale tones

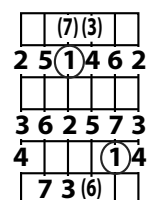


fingers

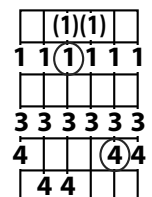


F# major III

fingering 2
scale tones

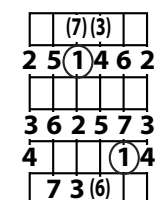


fingers

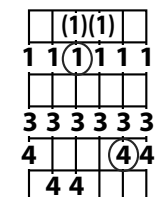


Gb major III

fingering 2
scale tones

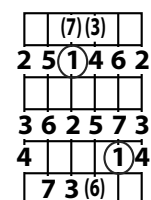


fingers

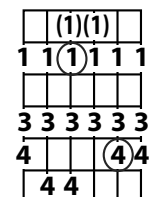


G major IV

fingering 2
scale tones

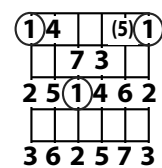


fingers

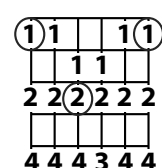


Ab major IV

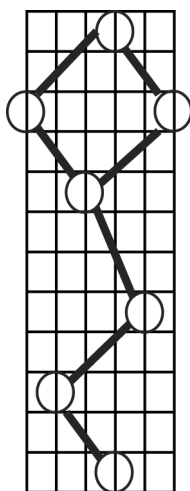
fingering 1
scale tones



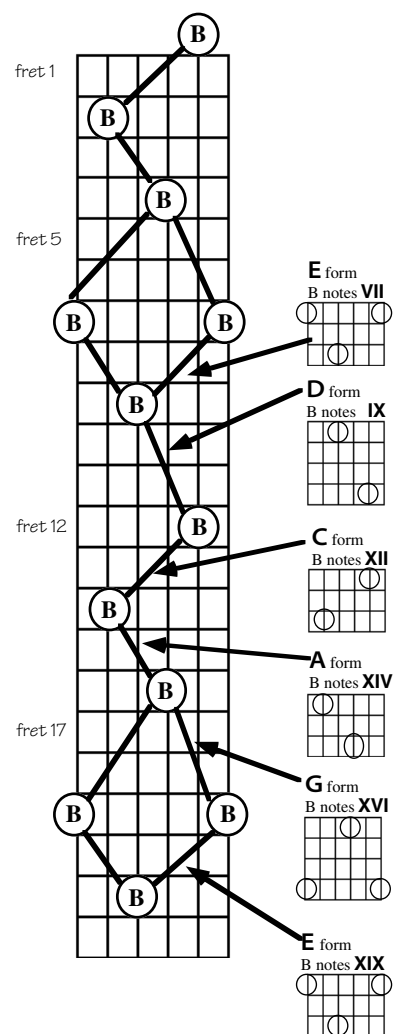
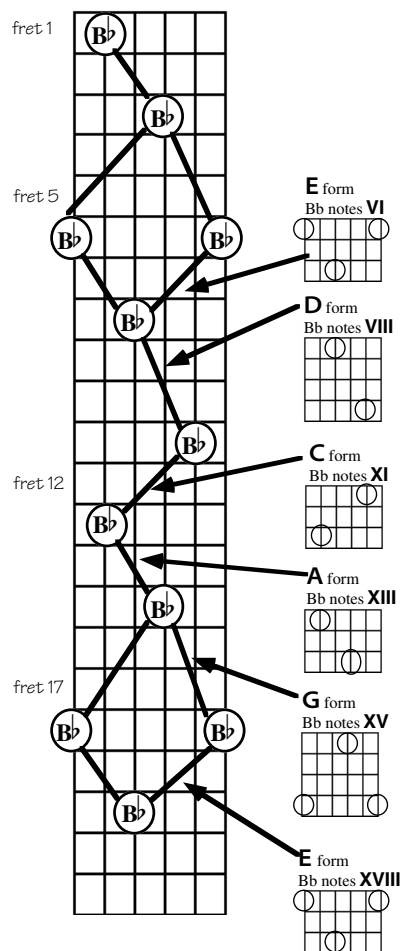
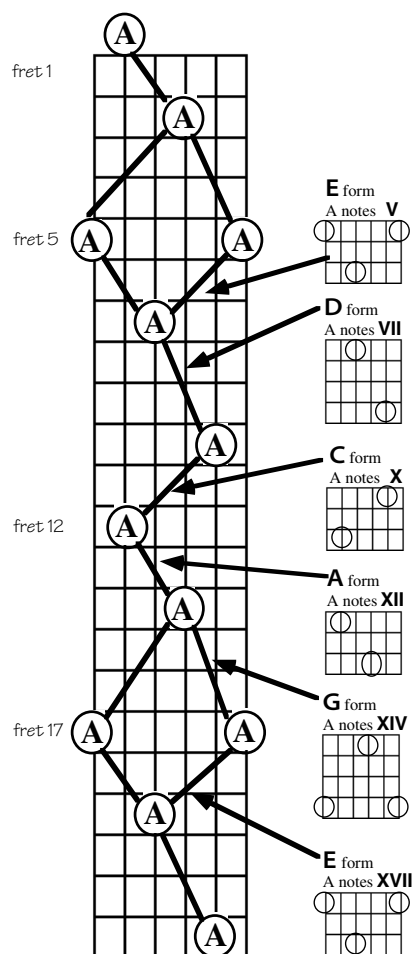
fingers

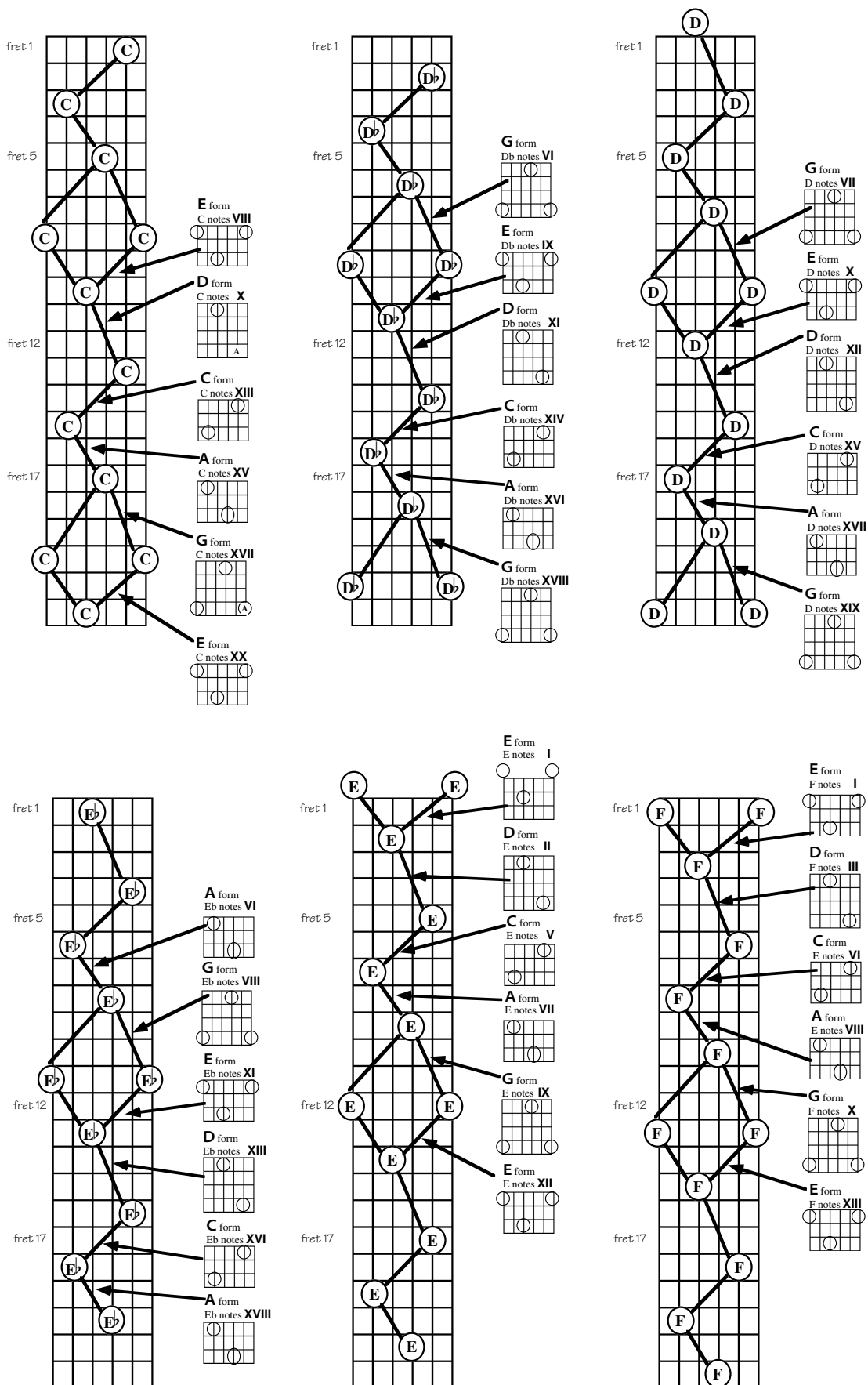


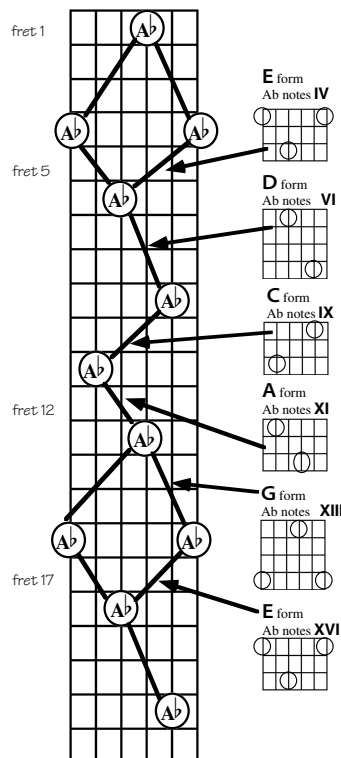
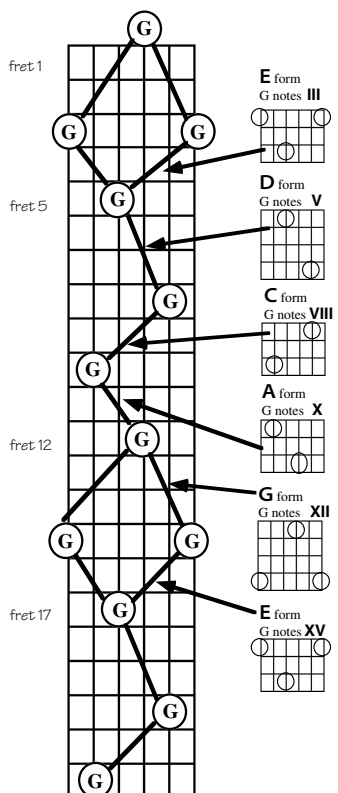
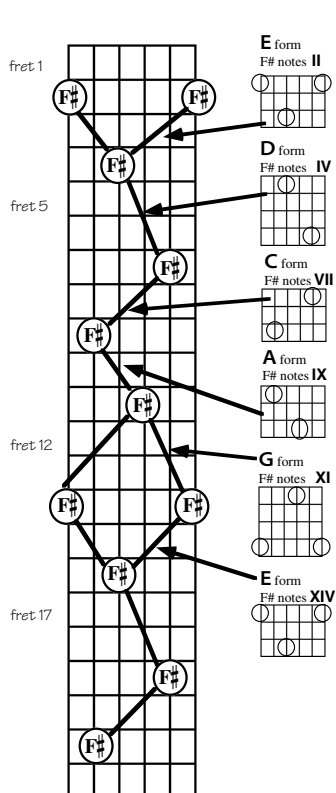
The Full-Fretboard “Diamond and “Z” Pattern



The “diamond and Z” pattern shown at the left occurs in the octaves of every note. Compare the diagrams below. Be able to visualize the “diamond and Z” pattern on any note.







INTERVALS

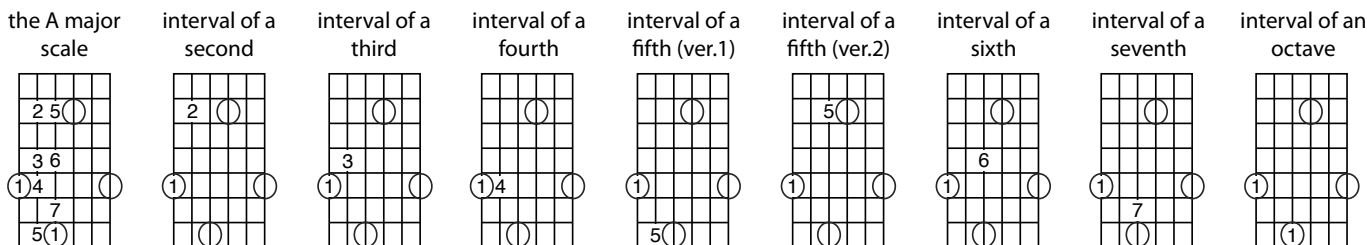
What is an Interval?

An interval is a measurement of the difference in pitch between two notes. Intervals are compared to distances between notes in the major scale. Before discussing the major scale, you'll need to know about the units used to measure the distances between its notes. The *whole step* is a standard unit of measurement that indicates a distance of two frets. The *half step* indicates a distance of one fret.

Fingering Intervals

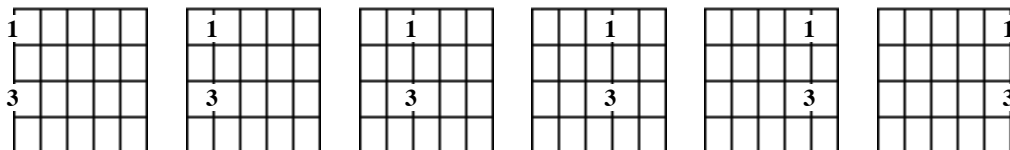
introduction: intervals of an A major scale in the bass

The major scale fingering at the left shows an A major scale in the bass. Scale tone five is shown with an option on both the fifth and fourth strings. The pairs of notes on the diagrams that follow show the basic intervals from a second (1 and 2) through an octave ("1" and "1" eight notes higher).



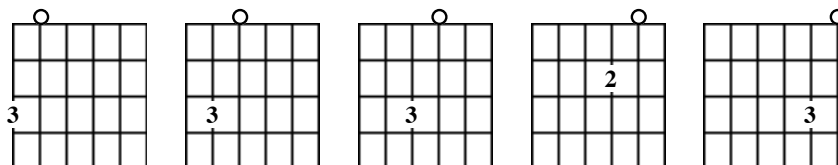
whole steps on a single string

These can be fretted in any position (anywhere up and down each string). Notice that this fingering is the same for each pair of strings. Of course, the notes could be fretted with any combination of fingers.



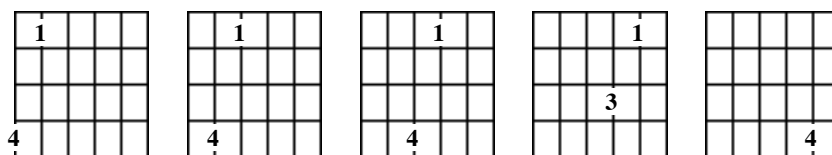
whole steps with one note on an open string

This fingering is the same for each pair of strings. The fretted notes could be fretted with any finger.



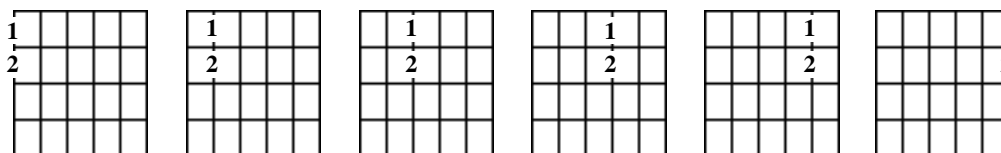
whole steps fretted on each of two adjacent strings

This fingering is the same for each pair of strings *except* the third and second string, where it is fretted with one “empty” fret between the fingers, instead of two. The notes could be fretted with any practical combination of fingers.



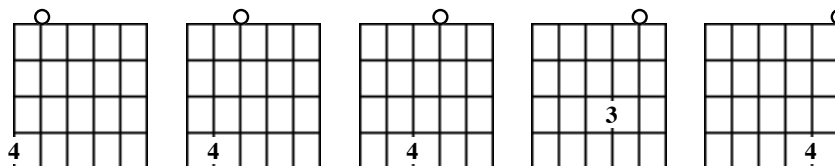
half steps on a single string

These can be fretted in any position (anywhere up and down each string). Notice that this fingering is the same for each pair of strings. Of course, the notes could be fretted with any combination of fingers.



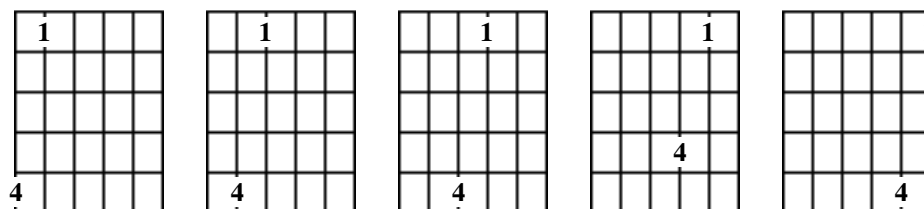
half steps with one note on an open string

This fingering is the same for each pair of strings. The fretted notes could be fretted with any finger.



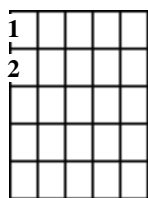
half steps fretted on each of two adjacent strings

This fingering is the same for each pair of strings *except* the third and second string, where it is fretted with two “empty” frets between the fingers, instead of three. The notes could be fretted with any practical combination of fingers.

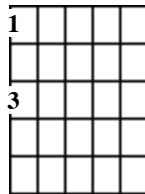


three ways to finger half and whole steps

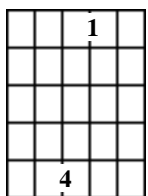
There are three ways to finger half steps and three ways to finger whole steps (not involving open strings):



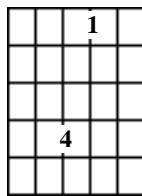
a half step on one string
may be on any string,
at any position,
with any fingers



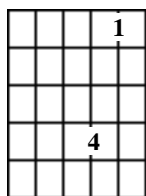
whole step
may be on any string,
at any position,
with any fingers



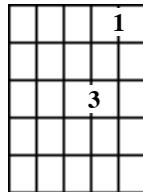
a half step on two strings
may be on adjacent pair of strings
except NOT the second and third strings,
at any position, with any fingers
(as long as you can reach!)



whole step on two strings
may be on adjacent pair of strings
except NOT the second and third strings,
at any position, with any fingers
(as long as you can reach!)



a half step on two strings
the unique fingering
on the second and third strings,
at any position, with any fingers



whole step on two strings
the unique fingering
on the second and third strings,
at any position,
with any fingers

Formulas: Numbering the Major Scale Tones

In the solfeggio system, the intervals of the major scale are labeled with the syllables “do, re, me, fa, sol, la, ti”. Here is a C major scale, played in the first position (with the first finger at the first fret) and labeled both with the solfeggio syllables and the numbers 1 through 7:

letter names: 1 2 3 4 5 6 7 1

sofeggio: do re me fa sol la ti do

T 4

A 4

B 4

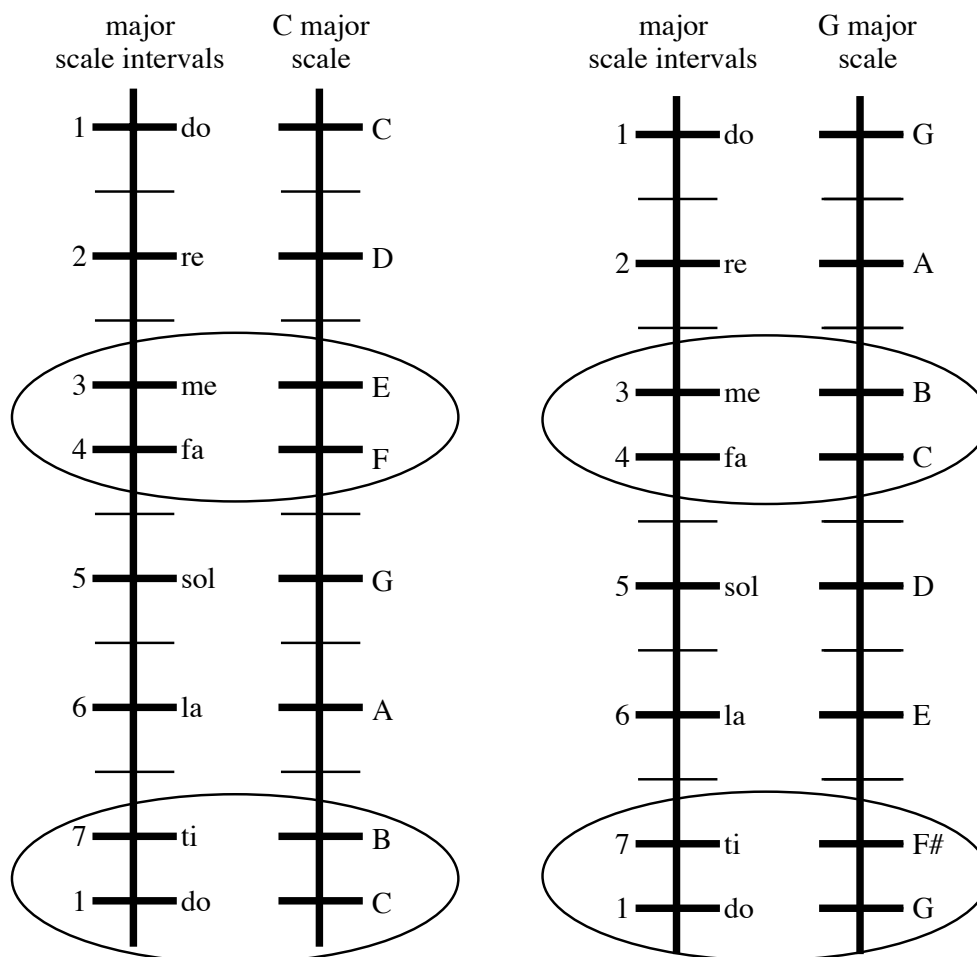
3 0 2 3 0 2 0 1 1 0 2 0 3 2 0 3

See [Numbered Tones \(Formulas\)](#), the next section.

Recognizing Half Steps in the Major Scale

In making up major scale fingerings, each note is assigned a number, one through seven. The half steps (one fret intervals) occur between numbered major scale tones 3 and 4 and between 7 and 1 (ascending in pitch). These scale steps are circled in the example below. The remaining steps of the major scale are whole steps apart, which include the intervals between the following pairs of numbered scale tones: “1 to 2”, “2 to 3”, “4 to 5”, “5 to 6” and “6 to 7”.

The intervals between the numbered tones of the major scale are illustrated using the “string diagrams” shown below.



Play the Major Scale on One String

This is an E major scale, named after “E”, the note on which it begins and ends. A traditional set of names for the notes of a major scale is “do, re, me, fa, sol, la, ti, do.” The eighth note has the same name as the first one and is referred to as being an *octave* higher than the first note. Speak their names of the notes below as you play them.

The musical notation shows the E major scale on a guitar. The treble clef and 4/4 time signature are indicated. The notes are: do (E), re (F#), me (G#), fa (A), sol (B), la (C#), ti (D#), do (E). The fret numbers for the T, A, and B strings are: T (0, 2, 4, 5, 7, 9, 11, 12), A (0, 2, 4, 5, 7, 9, 11, 12), B (0, 2, 4, 5, 7, 9, 11, 12).

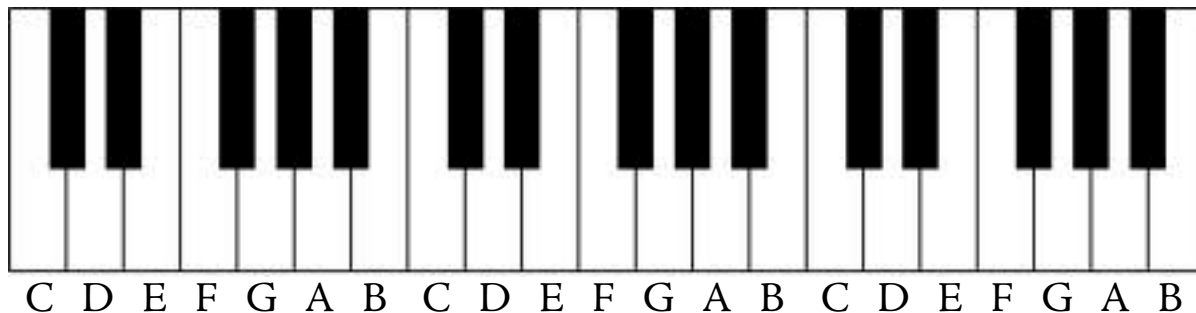
The tones of the major scale can also be labeled with the numbers “1-2-3-4-5-6-7-1”. Speak the numbers as you play the notes.

Notice that the distance between the tones are whole steps, except half steps between “3” and “4” and between “7” and “1” (where “1” begins the next octave).

The musical notation shows the E major scale on a guitar. The treble clef and 4/4 time signature are indicated. The notes are: 1 (E), 2 (F#), 3 (G#), 4 (A), 5 (B), 6 (C#), 7 (D#), 1 (E). The fret numbers for the T, A, and B strings are: T (0, 2, 4, 5, 7, 9, 11, 12), A (0, 2, 4, 5, 7, 9, 11, 12), B (0, 2, 4, 5, 7, 9, 11, 12). The intervals between the notes are circled to show the whole steps and half steps.

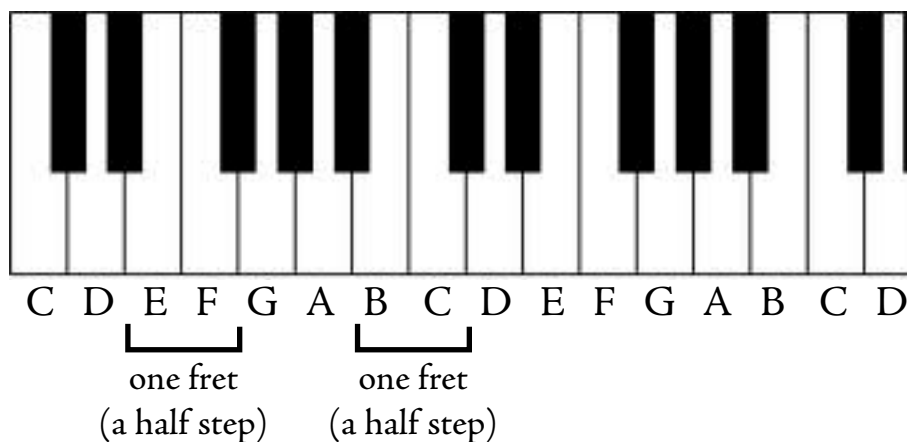
Perspective for Piano Players

If you've played piano, you know "C" is to the right of each pair black keys (see below). You also would know that the white keys are named in order alphabetically to the right.



Each white key is represented on the guitar with a note given a plain letter name like "A," "B" or "C". Each black key represents a note between the letter names. So, on the guitar, the black keys are represented by notes in between most alphabetical pairs of letters, including "G" and "A", which are consecutive in the cycle "A - B - C - D - E - F - G - A, etc."

Where there is no black key on the piano, there is no note on the guitar, so "B - C" and "E - F" are one fret apart (see the piano diagram below).



See the chapter "[Major Scale Fingering](#)", especially the section: [Major Scale Fingering Numbers](#).

NUMBERED TONES (FORMULAS)

Reference Major Scales for Note Numbers

The tones of any melody, scale, arpeggio, chord or bassline can be expressed in numbers. The universal reference is the major scale. The major scale needs to be conceived in the key of the melody, scale bassline or on the root of the chord or arpeggio. By using sharped and flatted versions of the major scale, any chromatic note can be defined with a number. A “C” note in a melody or in a chord in the key of “C” would be numbered “1”. A “D” note would be “2”. An “Eb” would be flat three.

Chord Formulas

The number expression for a chord can be called its *formula*. The formula for a dominant seventh chord such as C7 is 1-3-5-b7. You can learn more about chord formulas in [“Chord Naming Conventions”](#) and [“All Scale-Tone Chords”](#) and [“Chord Archetypes”](#).

all tones by number in all keys, including hypothetical keys

Key	1	b2	2	#2/b3	3	4	#4/b5	5	#5/b6	6	b7	7
C	C	Db	D	D#/Eb	E	F	F#/Gb	G	G#/Ab	A	Bb	B
C#	C#	D	D#	D##/E	E#	F#	F##/G	G#	G##/A	A#	B	B#
Db	Db	Ebb	Eb	E/Fb	F	Gb	G/Abb	Ab	A/Bbb	Bb	Cb	C
D	D	Eb	E	E#/F	F#	G	G#/Ab	A	A#/Bb	B	C	C#
D#	D#	E	E#	E##/F#	F##	G#	G##/A	A#	A##/B	B#	C#	C##
Eb	Eb	Fb	F	F#/G	G	Ab	A/Bbb	Bb	B/Cb	C	Db	D
E	E	F	F#	F##/G	G#	A	A#/Bb	B	B#/C	C#	D	D#
Fb	Fb	Gbb	Gb	G/Abb	Ab	Bbb	Bb/Cbb	Cb	C/Dbb	Db	Ebb	Eb
F	F	Gb	G	G#/Ab	A	Bb	B/Cb	C	C#/Db	D	Eb	E
F#	F#	G	G#	G##/A	A#	B	B#/C	C#	C##/D	D#	E	E#
Gb	Gb	Abb	Ab	A/Bbb	Bb	Cb	C/Dbb	Db	D/Ebb	Eb	Fb	F
G	G	Ab	A	A#/Bb	B	C	C#/Db	D	D#/Eb	E	F	F#
G#	G#	A	A#	A##/B	B#	C#	C##/D	D#	D##/E	E#	F#	F##
Ab	Ab	Bbb	Bb	B/Cb	C	Db	D/Ebb	Eb	E/Fb	F	Gb	G
A	A	Bb	B	B#/C	C#	D	D#/Eb	E	E#/F	F#	G	G#
A#	A#	B	B#	B##/C#	C##	D#	D##/E	E#	E##/F#	F##	G#	G##
Bb	Bb	Cb	C	C#/B	D	Eb	E/Fb	F	F#/Gb	G	Ab	A
B	B	C	C#	C##/D	D#	E	E#/F	F#	F##/G	G#	A	A#

numbering chord tones may involve double sharps or double flats

Numbering the tones in a chord or arpeggio may involve uncommon major scales with double sharps and double flats. For example, the flatted ninth in Ab7b9 is B double flat. The formula for a seven flat nine chord is 1-3-5-b7-b9. “b9” is the same note as “b2”. In the table above, you can see that the “b2” in the key of Ab is “Bbb” (B double flat).

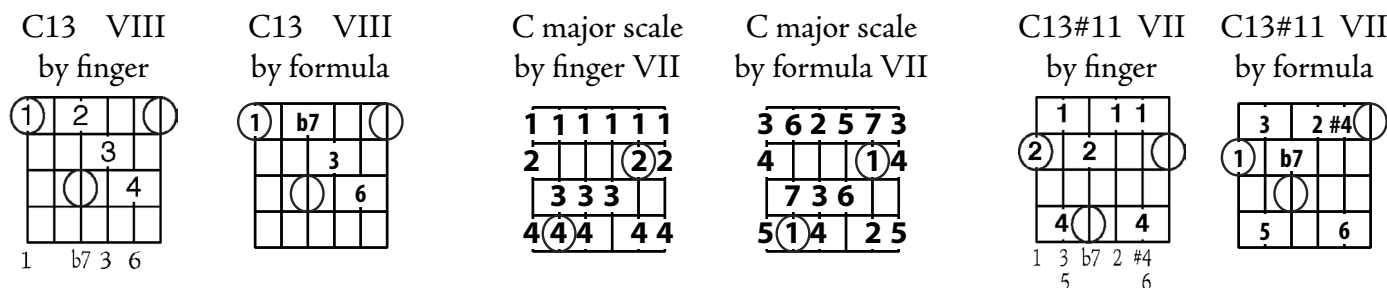
Reference major scales include redundant major scales not used in performance, such as “D#” (D sharp) major, where “Eb” is used instead, with the same pitches. “D#” may be a chord root in the key of B major, where you would think in the hypothetical key of D# to number tones in the D# chord. D sharp major would have five notes with a sharp name and two with a double sharp. See the table above.

chord tones in the upper octave

In chords, numbers above eight can be used to imply chord tones in the upper octave. “9” is “2”, “11” is “4” and “13” is “6”. To quickly convert the numbers “8” and above, subtract seven. [“Chord Naming Conventions”/Chord-Naming Rules by Chord Tone/Numbered Tones Above Seven.](#)

Tones by Number on Diagrams

The numbered tones on chord diagrams may be finger numbers, where you’ll find the numbers “1, 2, 3 or 4” (or “T” for thumb). Or, the numbered tones on the diagram may include numbers above “4” and numbered tones with flats or sharps, such as “b3” or “5”. On chord or arpeggio diagrams, such as “C13” and “C13#11” below, the numbers below the diagram are the formula numbers.



Reference Major Scale Fingerings

seven in-position fingerings, numbered by scale tones

Major scale fingerings are numbered in this course according to the number of lowest note fingered with the index finger on the sixth string. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the an alternate string. Head-reach (index) options are generally preferred for scale and melody, while body-reach (pinky) options are preferred for arpeggios.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

in-position major scale fingerings by finger number

“1” is the index finger, “2” is the middle finger, “3” is the ring finger and “4” is the little finger. Head-reach (index) options are generally preferred for scale and melody, while body-reach (pinky) options are preferred for arpeggios.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

THE INTERVALS NECESSARY TO CONSTRUCT A MAJOR CHORD

why is this important?

If you know the location of all the tones of a major chord in the area of the fretboard in which you are playing, any other two is two frets (half steps) up or down.

major is 1, 3 and 5

A major chord contains tones 1, 3 and 5 of a major scale on its chord root. You will need to know how to finger the intervals from the root ("1") to the each of the other chord tones. Play each of the major scale fingerings below. Next, isolate scale tones 1, 3 and 5 and play them in ascending and descending order. When you play major scale tones 1, 3 and 5, you are playing a major chord arpeggio named after the note on "1".

Notice that the "1" after which each major chord arpeggio is named occurs in one of five octave shapes. The octave shapes are shown by the circled notes below. Review Chapter 4: Octave Shapes.

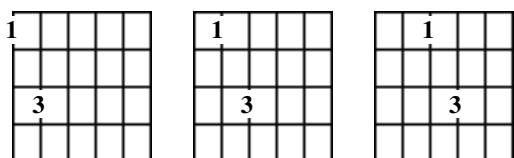
fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
↑	↑	↑	↑	↑	↑	↑
the shape of the "1"s above matches the shape of the circled "E"s below	the shape of the "1"s above matches the shape of the circled "D"s below	the shape of the "1"s above matches the shape of the circled "C"s below	the shape of the "1"s above matches the shape of the circled "A"s below	the shape of the "1"s above matches the shape of the circled "A"s below	the shape of the "1"s above matches the shape of the circled "G"s below	the shape of the "1"s above matches the shape of the circled "E"s below
↓	↓	↓	↓	↓	↓	↓
E | D | C | A | A | G | E |						

Perfect Fifth Fingerings

Perfect fifth intervals are equal to the distance between major scale tones “1” and “5”. If you locate the lower-pitched note of any perfect fifth fingering below as the number “1” in a major scale fingering, you should be able to locate “5” as the higher-pitched note in the fingering.

Primary Perfect Fifth Fingerings

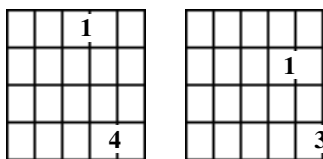
(compensated versions are shown at the right).



This primary perfect fifth fingering

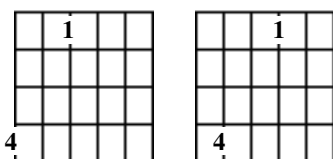
is compensated for tuning on the smallest two strings.

Notes on the smallest two strings must relatively be moved up one fret (higher in pitch), when combined with the larger four strings..



Secondary Perfect Fifth Fingerings

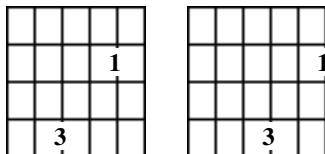
(compensated versions are shown at the right)



These secondary perfect fifth fingerings

are compensated for the tuning on the smallest two strings

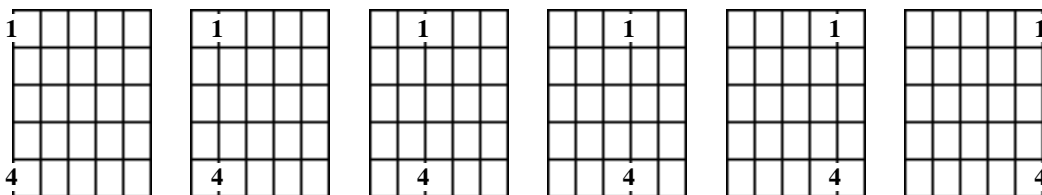
Notes on the smallest two strings must relatively be moved up one fret (higher in pitch), when combined with the larger four strings.



Major Third Fingerings

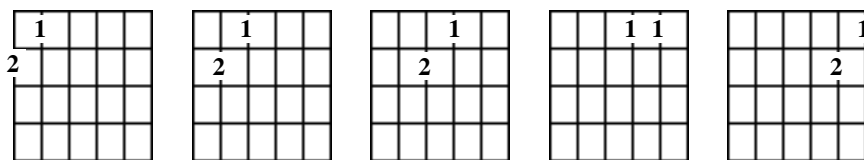
Major third intervals are equal to the distance between major scale tones “1” and “3”. If you locate the lower-pitched note of any major third fingering below as the number “1” in a major scale fingering, you should be able to locate “3” as the higher-pitched note in the fingering.

a major third is fingered the same on each string



Major Third Fretted on Adjacent Strings

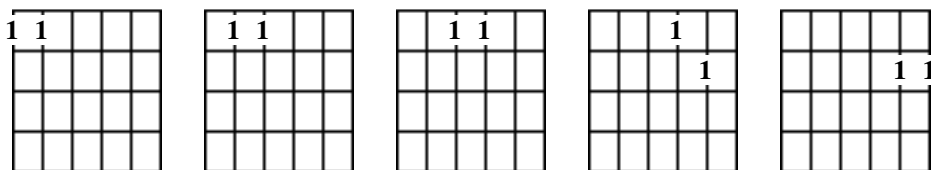
Note the unique fingering on the second and third string.



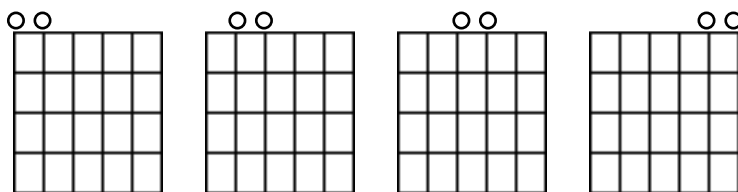
Perfect Fourth Fingerings

In constructing a major chord, you'll often need to know a perfect fourth fingering to locate the fifth of the chord below the root. Perfect fourth intervals are equal to the distance between major scale tones "1" and "4". If you locate the lower-pitched note of any major third fingering below as the number "1" in a major scale fingering, you should be able to locate "4" as the higher-pitched note in the fingering. Perfect fourth intervals also occur in major scale fingerings between scale tone "5" and the next higher-pitched scale tone "1", where they demonstrate the relationship between the fifth ("5") and the root ("1") of a chord.

perfect fourths fretted on adjacent strings



perfect fourth fingerings on adjacent open strings



fourths and guitar tuning

The guitar is tuned in fourths with one exception. If any note on strings six, five, four and two is considered as the first step of a major scale, the fourth step of that scale is on the next smaller string at the same fret. This applies to open strings as well. For the first string, the "next smaller string" is not available, unless hypothetically. The exception is the third string. If any note on the third string is considered to be the first step of a major scale, the third step of that scale is at the same fret on the second string.

Rhythmic Words and Comping

- **Rhythmic Words**
- **Time Signatures**
- **Rhythmic Reading**
- **Metering Rhythmic Audio Memories**
- **Hearing Beat Subdivisions**
- **Degrees of Swing**
- **Hearing Rhythmic Words**
- **Four-Pulse Rhythmic Words**
- **Three-Pulse Rhythmic Words**
- **Six-Pulse Rhythmic Words**
- **Hearing Pickups and Pushes**
- **Strumming Rhythms**
Eighths in 4/4, Eighths in 3/4, Sixteenths in 4/4, Triplets in 4/4
- **Building Comping Rhythms**
- **Kick and Snare Rhythms**
- **Comping Rhythms (contents-usable as melodic rhythms also)**
Keeping Time Rhythms, Varying Rhythm, Charleston Family, Evil Ways Family, Reggae Family, Clave Family, Bossa Nova Family, Funk Family, Offbeat, Pushes, Cadence Pickups, Pickups, Triplets and Swing Eighths, Triplets and Swing Eighths with Backbeat, Polyrhythmic Afro-Cuban
- **Pop Song Themes Usable as Melodic Rhythms**
- **Building Melodic Rhythms**
- **Melodic Rhythms (contents)**
Primary Eighth Note Triplets, Primary Sixteenth Note Rhythms, Two-Note Rhythms, Three-Note Rhythms, Four-Note Rhythms, Five-Note Rhythms, Six-Note Rhythms in Eighth Triplets, Six-Note Rhythms in Sixteenth Notes, Seven-Note Rhythms, Swing Sixteenth Exercises, Syncopated Series for Improv, Rhythm in Bebop Ornamentation
- **Progressive Rhythmic Words**

RHYTHMIC WORDS

Sensing a Regular Pulse

In music, *meter* is the measure of regular periods of time. Poetic meter in Greek, Latin, Arabic and Persian cultures has been the basis of rhythm in music. Sections of Greek plays alternated spoken and sung form. The spoken sections used a regular pulse or beat. This tradition carried over to symphonic music and to modern music with regular groups of beats called bars.

Most music is based on a regular pulse or *beat*. Listeners can sense the pulse and are accustomed to tapping their foot, snapping their fingers or moving their torsos (dancing) in time with the beat (pulse). The rate of this pulse or beat is measured in beats per minute and is called the *tempo*.

Dividing the Pulse Evenly

dividing time into regular intervals

Humans have the ability to conceive short periods of time (similar to the pace of walking) divided into two, three or four equal periods. Our concepts of rhythm in music are based on this ability. We use three basic math operations in notating music rhythmically: halving, multiplying by one and a half and dividing into a specified number of equal subdivisions. These could be called halving, dotting and triplets.

beats and bars

Beats are analogous to footsteps in walking or running. Beats are regular pulses of time. Beats are usually arranged in regular groups called bars. The most typical number of beats per bar are four or three, sometimes two.

compound time

When there are more than four beats per bar, it is usually thought in *compound time* by thinking of a bar as a combination of smaller numbers of beats. Five-beat bars are usually thought as three beats plus two beats, like Dave Brubeck's "Take Five". Six-beat bars, as in Miles Davis' "All Blues" or John Coltrane's "Afro Blue" are divided into two groups of three beats. Twelve-beat bars, like a slow blues (Albert King's "Same Old Blues") or rhythm and blues ballad (Otis Redding's "I've Been Loving You Too Long") are divided into four groups of three beats.

dividing the beat into any number of equal parts

Each beat can be divided into equal parts, most commonly two, three or four parts. Halving can divide the beat into two parts. Halving again can divide it into four parts. Dividing the beat into three parts creates triplets.

Selecting From a Regular Pulse

ducks in an arcade analogy

Imagine shooting ducks (fake ones, to re-assure you bird lovers) in an arcade. A conveyor belt rotates past your field of vision with mounts attached to it at regular intervals (equal distances apart). Each mount has a duck attached to it with a hinge, but most of them have the duck folded back, so it is out of view. Occasionally, a duck is flipped forward, toward you, on its hinge. It is your goal to respond and pull the trigger and project a bullet onto the duck.

To accurately shoot a duck on the conveyor, you need to focus straight ahead at a fixed point where the conveyor passes by your field of vision. While you focus on the fixed point, you also have peripheral vision to help you anticipate and predict precisely when a duck will arrive at your focal point. Relax your mind previous to seeing a duck peripherally. When you see a duck peripherally, wait until just before the duck will pass by your focal point to heighten your attention. This will give you the highest power of concentration.

In targeting the performance of a note (or chord) at a specific point in time, you think in terms of counted pulses to anticipate and predict. You keep the number of the beat (or its subdivision, such as the third quarter) in mind as your focal point. Like with the duck, when you sense your counting is peripherally nearing the targeted beat (or subdivision), wait until just before the target to heighten your attention.

Halving, Dotting and Triplets

halving

The most basic rhythmic notation involves a series of values that keep cutting the duration in half. The upper number on a time signature such as $\frac{3}{4}$ indicates the number of beats per regular period, where each period is called a bar.

The lower number on a time signature indicates the value of the whole note. Whatever number of beats is assigned to a whole note, half that number is assigned to a half note, one fourth as many beats to a quarter note, one eighth as many to an eighth note, and so on.

dotting

Dotting multiplies any note durations in the “halving” system by 1.5, making the value half again as much. A note value of two beats becomes three when dotted. A note value of a half a beat becomes three quarters of a beat when dotted, and so on.

tuplets

With tuplets, the divisions of a period of time can be other than dividing by two or four. A triplet divides a beat into three equal parts. A quintuplet divides it into five. A modern expression of tuplets is specifically indicate the new number of notes played in place of the original number of notes with two numbers separated by a colon, such as “3:2” to indicate three notes in the time of two.

Triplets occur where a period of time was previously divided into two parts, an enclosing notation like a bracket with the number “3” can indicate that it should be divided into three parts instead.

Duplets occur where a period of time was previously divided into three parts, an enclosing notation like a bracket with the number “2” indicates the beat should be divided into two parts instead.

Other tuplets. Triplets and duplets are tuplets, as are all other changes of division.

Counting time

traditional counting syllables

Count beats with whole numbers, such as four beat bars counted: “1-2-3-4, 1-2-3-4” etc. Divide beats into two parts by speaking “and” after each number. In written form the “and” may be shown as the mathematical plus symbol (“+”): “1 + 2 + 3 + 4 +”.

Up until about 1970, we used a lowercase ampersand to notate the “and” more commonly than the “+” symbol, but the lowercase ampersand is no longer included in our typographical characters. It was drawn as follows:



Three parts per beat should be counted with each beat number, followed by the syllables “trip” and “let”: “1 trip let 2 trip let three trip let four trip let”. Alternately, the three parts for each beat could be counted “1-2-3”, so four beats of triplets would be spoken “1-2-3, 1-2-3, 1-2-3, 1-2-3”. Though the “one-trip-let, two-trip-let, three-trip-let, four-trip-let” method of counting is a bit more tedious to speak, it does designate the beats.

Four parts per beat are counted “1, e, and, a, 2, e, and, a” etc., written “1 e + a 2 e + a 3 e + a 4 e + a”. Four parts for each beat could also be counted “1-2-3-4”, but without designating the beats.

Other divisions of the beat, such as five or six parts can be counted with an entire set of numbers for each beat, such as counting “1-2-3-4-5” during a beat to represent its five parts.

Rhythmic Words Defined

A rhythmic word is a group of notes that represents a selection of the three or four parts per beat.

four-pulse rhythmic words

Make a down-up-down-up strumming motion for each beat. Start with these selections:

	all four	Jingle Bells	gallop	Creedence	2-3-4
strum motion	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑
strum contact	↓ ↑ ↓ ↑	↓ ↑ ↓	↓ ↓ ↑	↓ ↑ ↑	↑ ↓ ↑
count whole beats	1 2 3 4	1 2 3	1 3 4	1 2 4	2 3 4
count half beats	1 + 2 +	1 + 2	1 2 +	1 + +	+ 2 +
count quarter beats	1 e + a	1 e +	1 + a	1 e a	e + a

	1-2	1-3	1-4	2-3	2-4
strum motion	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑
strum contact	↓ ↑	↓ ↓	↓ ↑	↑ ↓	↑ ↑
count whole beats	1 2	1 3	1 4	2 3	2 4
count half beats	1 +	1 2	1 +	+ 2	+ +
count quarter beats	1 e	1 +	1 a	e +	e a

	3-4	1	2	3	4
strum motion	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑	↓ ↑ ↓ ↑
strum contact	↓ ↑	↓	↑	↓	↑
count whole beats	3 4	1	2	3	4
count half beats	2 +	1	+	2	+
count quarter beats	+ a	1	e	+	a

three-pulse rhythmic words

strum all down	all three	swing	Afro-Cuban	waltz	1	2	3
count whole beats	1 2 3	1 3	1 2	2 3	1 2 3	1 2 3	2 3
count triplets	1 trip let	1 let	1 trip	trip let	1 trip let	1 trip let	trip let

With four parts per beat (sixteenth notes) for example, a two-beat rhythm may choose all four parts on the first beat and parts 1-3-4 of the second beat. In making a down-up-down-up strumming motion for each beat, you would contact the strings all four times for the “1-2-3-4” rhythmic word. For the “1-3-4” rhythmic word, you would still make the down-up-down-up strumming motion, but not contact the

strings with the pick (or finger) on the first “up” (the second of the four motions in down-up-down-up). So, 1-3-4 is usually strummed down-down-up, with a space of time with no strum on the second of the four pulses.

vocalizing rhythm with “Ba Ahh Um Bop” Syllables

Phrases of music that are based on equal divisions of the beat, such as half beats, can be conceived in terms of on, off and hold. When a note or chord is played, that’s an “on”. When that note or chord is sustained (continued through one or more additional pulses without stopping), it is a “hold”. When there is a silence, it is an “off”. In music notation, rests indicate “offs”.

Vocalizing a rhythmic word helps you to understand it. I use “ba” for “ons”, “ahh” for “holds” (continuing the same breath for the “ba” that preceded it, but surging the breath) and “umm” for “offs”. Additionally, I often use “bop” for the last note before an “off” (remember, an off is a rest).

To get started, a simplified version of vocalizing can use just “ba” for “ons” and “umm” for rests or holds. Once you are comfortable with the simplified “ba” and “umm” system, you can add “ah” and “bop”.

Changing Rhythmic Level. In counting whole beats, say in 4/4, you can count “1-2-3-4, 1-2-3-4, etc.”

Counting half beats can use “1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +, etc.” Remember, “+” is pronounced “and”.

Where no note occurs on an “and” (+), it can be unspoken, as long as a space in time is left for it. So, in changing from whole beats to half beats (one bar after the other), you can count: “1, 2, 3, 4, 1 + 2 + 3 + 4 +”.

The Rhythmic Level Game. In this game, the leader would count regular bars with whole numbers, randomly speaking “and” after some of the numbers, but always leaving a space in time for the “and”. In time with the next beat after the leader completes a bar, the follower resumes by attempting to replicate the leader’s bar. If the follower fails, the leader would resume with the same bar again. This would repeat until the follower replicates the bar.

The Follower Fails. The game is not necessarily to only test the leader, because if the follower fails (which they may do intentionally), the leader must be prepared to speak their bar again. In the linked example, the follower erroneously says “and” after two, so the leader repeats the example.

Mixed Rhythmic Levels. The game can similarly be played with triplets or sixteenths. Sixteenths are typically four parts per beat. It can even mix two, three and four parts per beat, which can become difficult.

Omitting Redundant Vocalizations. Through the Rhythmic Level Game, you can learn to omit redundant parts of a beat. If a rhythm involves two parts per beat by having whole beat notes on each of the first three beats, then a pair of half beat notes on the fourth beat, you could simply count “1, 2, 3, 4, +”, as long as you are leaving a space in time for each of the unspoken “ands” after 1, 2 and 3.

Perform the Rhythm You Hear Accurately

Ultimately, you should be able to hear a short musical example and recognize the rhythmic words that make it up and be able to replicate the rhythm in time with another musician or in time with a beat imaged by the listener. Optionally, learn to also be able to conceive such an example in music notation, interpret the rhythmic words as a musical sound and play it in time with another musician or in time to a listener.

The process of learning a rhythmic word should begin with an auditory memory of the rhythmic word. Next you need to be able to play the rhythmic word against a metronome or other regular pulse, conceiving the selection of the notes from a continuous pulse. Train yourself to hear a metronomic pulse in your imagination.

Swing Eighths and Swing Sixteenths

Swing eighths and swing sixteenths change the ratio of pairs of notes from two halves to two-thirds and one third, typical of a slow blues, as a standard practice. The $2/3+1/3$ ratio is variable with degrees of swing. Heavy swing may be as exaggerated as $3/4+1/4$ divisions of the beat. The words “Swing Eighths” or “Swing Sixteenths” will appear above the time signature when such a ratio is desired.

Rhythm can be thought of in a digital sense as selections from regular groups of pulses, such as four per beat. Each pulse is performed one of three ways: on, off, or hold, representing a note, a silence and a sustain (of the previous note), respectively.

counting regular swing eighths (2/3 and 1/3 ratio)

When counting swing eighth pairs, use one of these methods:

1. Conceive the division of the beat into three equal parts. Count them in 4/4 (four-beat bars) by vocalizing “1-trip-let, 2-trip-let, 3-trip-let, 4-trip-let”. Next, vocalize the triplets with the middle “trip” syllables silent: “1 let, 2 let, 3 let, 4 let”.
2. Conceive the division of the beat into three equal parts, counting them in 4/4 (four-beat bars) by vocalizing “1-2-3, 1-2-3, 1-2-3, 1-2-3”. Next vocalize the triplets with the middle “2” syllables silent: “1 3, 1 3, 1 3, 1 3”.
3. Once you have an aural concept of the regular swing eighth note rhythm from either or both steps 1 and 2 above, you may be able to use the standard method of vocalizing swing eighths by counting numbers and “ands” with a one-third beat space between them: “1 + 2 + 3 + 4 + (swing)”.

counting regular swing sixteenths ($2/3$ and $1/3$ ratio between each pair of sixteenths)

When counting swing sixteenth pairs (two pairs, making four notes per beat), use one of these methods:

1. Conceive the division of the beat into six equal parts. Count them in 4/4 (four-beat bars) by vocalizing “1 2 3 4 5 6” for each beat. Next, vocalize the six parts per beat with the second and fifth syllables silent: “1 3 4 6”.
2. Once you have an aural concept of the regular swing sixteenth note rhythm from steps 1 (immediately) above, you may be able to use the standard method of vocalizing swing sixteenths by counting “1e+a, 2e+a, 3e+a, 4e+a” with a one-sixth beat space before each “e” and “a”.

TIME SIGNATURES



















Music is divided into regular units called bars. In common time, there are four beats to a bar. The top number on a time signature tells you how many beats there are per bar. The bottom number gives you the value in beats for the whole note. The half note gets half as much. The quarter note gets one quarter as much, and so on, in a system of halving. See the halving chart on the next page.

The image displays three musical staves, each representing a different time signature. Below each staff is a sequence of rhythmic counts corresponding to the notes and rests on the staff.

- Staff 1 (4/4):** Shows a sequence of notes and rests. The counts below are: 1 2 3 4, 1 2 3 4, 1 2 3 4, 1 + 2 + 3 + 4 +, 1 e + a 2 e + a 3 e + a 4 e + a.
- Staff 2 (3/4):** Shows a sequence of notes and rests. The counts below are: 1 2 3, 1 2 3, 1 + 2 + 3 +, 1 e + a 2 e + a 3 e + a.
- Staff 3 (6/8):** Shows a sequence of notes and rests. The counts below are: 1 2 3 4 5 6, 1 2 3 4 5 6, 1 2 3 4 5 6, 1 + 2 + 3 + 4 + 5 + 6 +.

RHYTHMIC READING







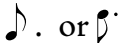


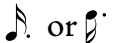


Halving

<i>name</i>	<i>single</i>	<i>beamed</i>	<i>rest</i>	<i>calculation</i>	<i>x/4 value</i>	<i>x/8 value</i>	<i>x/2 value</i>
whole				all of whole note	4 beats	8 beats	2 beats
half				1/2 of whole note	2 beats	4 beats	1 beat
quarter				1/4 of whole note	1 beat	2 beats	1/2 beat
eighth	 or 			1/8 of whole note	1/2 beat	1 beat	1/4 beat
sixteenth	 or 			1/16 of whole note	1/4 beat	1/2 beat	1/8 beat
thirty-second	 or 			1/32 of whole note	1/8 beat	1/4 beat	1/16 beat

The complete name in each case ends with the word “note”, such as whole note and half note. Two or more notes can be beamed.





Dotting

Dotted notes receive one and one half their value. Think of it as adding half of the value of the note for the dot. All calculations are 1.5 times the whole note.

<i>name</i>	<i>note</i>	<i>rest</i>	<i>x/4 value</i>	<i>x/8 value</i>	<i>x/2 value</i>
dotted whole			6 beats	12 beats	3 beats
dotted half			3 beats	6 beats	1 1/2 beats
dotted quarter			1 1/2 beats	3 beats	3/4 beat
dotted eighth	 or 		3/4 beat	1 1/2 beats	3/8 beat
dotted sixteenth	 or 		3/8 beat	3/4 beat	3/16 beat

Dotted notes can be beamed and secondary beams can be attached to single notes:  .

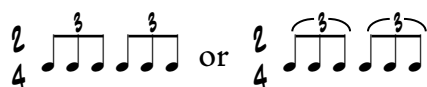
Double-dotted notes. When notes are followed by two dots, the second dot adds half as much as the first dot added. This comes out to one and three quarters times the note ($\times 1.75$).

name	note	rest	$\times/4$ value	$\times/8$ value	$\times/2$ value
double dotted half			$3 \frac{1}{2}$ beats	7 beats	$1 \frac{3}{4}$ beats
double dotted quarter			$1 \frac{3}{4}$ beats	$3 \frac{1}{2}$ beats	$\frac{7}{8}$ beat

Tuplets

Pulses occur at different rhythmic levels. They occur at the beat level and in subdivisions, where the beat is divided into equal parts. The subdivisions, such as half beats, can be further subdivided, such as half beats into quarter beats.

Typically, notes of equal value in subdivisions of the beat are joined by beams in groups of two, three or four notes. The most common tuplet is the eighth note triplet, where three notes are played in the time of two:



In $\frac{4}{4}$ or $\frac{3}{4}$ time, there are two eighth notes or four sixteenth notes per beat:



compound time signatures

In compound time signatures, such as $\frac{6}{8}$ or $\frac{12}{8}$ time, there is one eighth notes per beat, but they are grouped in twos or threes. In $\frac{6}{8}$ or $\frac{12}{8}$ time, eighth notes are usually joined by beams in groups of three:



changing subdivision

Where a portion of a measure can be subdivided into a number of notes of equal value, tuplets change the subdivision with a bracket or beam and a number indicating a different number of notes in the portion. The number indicates a new number of notes that equally divide the specified portion of the measure.

duplets

This duplet in $\frac{6}{8}$ or $\frac{12}{8}$ time would indicate two notes played in the time of three:



quadruplets

These quadruplets in $\frac{6}{8}$ or $\frac{12}{8}$ time would indicate four notes played in the time of three:



clarified tuplets

A modern convention for tuplets can clarify the new and old number of notes in the subdivision. Since this is rarely used, the notation could include numbers separated by a colon to indicate four notes in the time of three:



irregular durations within a subdivision

A number of notes in a tuplet may be represented by a single note, such as using a quarter note to represent two eighth notes. Notice that a bracket must be used for the irregular durations, but is optional for the complete tuplets (such as the triplets with three eighth notes).



tuplet limits

When the number of notes in the tuplet exceeds twice the number of equal-valued notes in the subdivision, notes of half the value should be used.

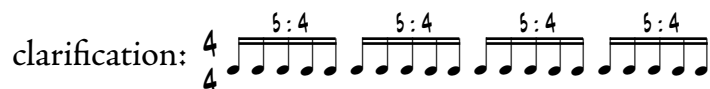
Five notes within a beat in $\frac{4}{4}$ would not be indicated with eighth notes, since five is over twice as many as the two eighth notes that would normally constitute one beat:



They would instead be indicated with sixteenth notes:

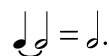


They could also be clarified by numbers separated with a colon:



Ties

Ties add notes of any time value together. They can be applied to any two consecutive notes of the same pitch.



METERING RHYTHMIC AUDIO MEMORIES

Four Common Activities

A guitarists typically has to multi-task four things: (1) imagine a metronomic beat and its subdivisions, (2) set the melodic or comping rhythm you are playing to that your conceptual metronome, (3) determine the pitches you are playing, usually with your fretting hand and (4) determine the strings you are playing the notes on with your picking and plucking hand.

Count, Vocalize, Audio Memory

Use this three-step process to obtain audio memories: (1) count the rhythm (counting and clapping is a good procedure), (2) vocalize the rhythm, using “ba” for long notes, “bop” notes before a rests, “ah” for sustained pulses and “um” for silent pulses.

In a digital sense, rhythm is generally chosen from a continuous pulse and notes are either “on”, “hold” or “off” decisions for each pulse.

Audio Memories Must Be Accurately Metered

To be able to communicate with other musicians and your listeners, you need to play events accurately placed on a “rhythmic grid” or metronomic pulse that is imagined in common with the other musicians and listeners.

HEARING BEAT SUBDIVISIONS

Humans Can Easily Divide Beats into Two, Three or Four Parts

Humans are very capable of dividing a regular pulse into subdivisions. Non-musicians can immediately divide beats near the pace of walking (80-140 beats per minute) into two, three or four parts. I have demonstrated subdividing to non-musicians over the years and have found that they can mimic what I have done with relative ease.

Common Beat Subdivision

In common time signatures where the *whole note* is defined as four beats (by the bottom number in the time signature), a *quarter note* would get one quarter of four beats: one beat. The symbols for these notes and the ones that follow were shown earlier in [Rhythmic Reading](#).

Dividing beats into two parts (in time signatures with four on the bottom like 3/4 and 4/4) is represented with eighth notes. So, there are two eighth notes per beat. With eighth notes, two or more notes can be joined with a beam (a thick horizontal line) at the end of the note stem; or a flag (a wavy appendage) can extend from each eighth note. Eighth note triplets have three eighth notes embraced with a bracket labeled "3" or have the number "3" above or below the beam joining the three notes. Sixteenth notes would have two flags. Beams or flags have the same effect on the time value.

[click to play the examples below](#)

four quarter notes	play 3 times	three quarter notes	play 3 times
four pairs of eighth notes	play 3 times	three pairs of eighths	play 3 times
four sets of eighth triplets	play 3 times	three sets of eighth triplets	play 3 times
four sets of four sixteenths	play 3 times	three sets of four sixteenths	play 3 times

DEGREES OF SWING

straight versus swing rhythm

Straight rhythm divides the beat into two equal parts. Its sound is typical of rudimentary drumming, the military regimen that, along with African tribal rhythm, has been the basis of jazz rhythm. f

Swing rhythm divides the beat into two parts of variable duration. As a standard practice, swing rhythm divides the beat into a first part of two thirds of a beat and a second part one third of a beat.

There are subtle variations of swing rhythm where the beat can be divided into a long first part in-between one half and three quarters of a beat, giving the second part the remainder. Closer to 50% is called *light swing*, while closer to 75% is called *heavy swing*. Master musicians can interpret and closely match one another's swing percentage and can even "fade" from one approximate percentage to another! Drummer [Chris Stanton demonstrates fading from straight to swing](#) on Youtube.

Apple's Logic Pro X recording software provides six degrees of swing in quantizing: A- 50%, B 54%, C 58%, D 62%, E 66%, F 71%.

Dr. Betotte's metronome software allows setting eighth note swing from 50% (50% for the first part of the beat, 50% for the last part of the beat) variably to 75% (75% for the first part of the beat, 25% for the last part of the beat). For sixteenth swing, Dr. Betotte's metronome allows setting the first and third quarters of the beat each to a single percentage from 50% to 75%, leaving the second and fourth quarters each to the remainder of 100%.

HEARING RHYTHMIC WORDS

Like with verbal language, rhythmic words are the components that make up the musical language of rhythm. The most important three-pulse and four-pulse rhythmic words are shown below.

Basic Three-Pulse Rhythmic Words

eighth triplets and swing eighths

Eighth triplets (labeled “triplet” below) play three notes of equal time per beat. Swing eighths play the first and third notes in a triplet (and sustain through the second one). You could sound swing eighths by speaking “1 um and”, “2 um and”, etc., where the “um” is the unplayed middle part of the triplet.

Notice that the “swing eighths” below are first “written out” in triplets and then shown as eighth notes with the interpretation “swing eighths”, which means the same thing: play the first and third note in the triplet.

click to play

triplet (three notes on each beat)

play four times

1 trip let 2 trip let 3 trip let 4 trip let

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑

Swing Eighths

swing eighths - literal notation
(the first and third part of each triplet)

play four times

1 trip let 2 trip let 3 trip let 4 trip let

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑

swing eighths - interpretive notation
(the first and third part of each triplet)

play four times

1 + 2 + 3 + 4 +

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑

Afro-Cuban and waltz

The “Afro-Cuban” selects the first two parts of a triplet. Triplets can be counted “one trip let”, “two trip let” and so on. The “Afro-Cuban” could be represented by speaking “one trip um”, “two trip um”, etc., to represent the unplayed third part of the triplet with “um”.

The “waltz” selects the last two parts of a triplet. In order to still note the numbered beats, you might could the waltz by speaking the number softly, then “trip let” loudly for each beat. The soft number could indicate the un-played note at the beginning of each triplet. The formal meaning of waltz is a European dance song form in 3/4, typically with a bass on beat one and higher-pitched notes or chords on beats two and three. The term is used loosely here to imply selecting the last two parts of a beat.

click to play

Afro Cuban

(the first and second part of each triplet)

play four times

1

trip

let

2

trip

let

3

trip

let

4

trip

let

↓

↑

↓

↑

↓

↑

↓

↑

waltz

(the second and third part of each triplet)

play four times

1

trip

let

2

trip

let

3

trip

let

4

trip

let

↓

↓

↓

↓

↓

↓

↓

↓

eighth note triplets and Afro Cuban

play four times

1

trip

let

2

trip

let

3

trip

let

4

trip

let

↓

↓

↓

↓

↓

↓

↓

↓

swing eighths and Afro Cuban

play four times

1

trip

let

2

trip

let

3

trip

let

4

trip

let

↓

↑

↓

↑

↓

↑

↓

↑

eighth note triplets and waltz

play four times

1

trip

let

2

trip

let

3

trip

let

4

trip

let

↓

↓

↓

↓

↓

↓

↑

↓

swing eighths and waltz

play four times

1

trip

let

2

trip

let

3

trip

let

4

trip

let

↓

↓

↓

↓

↓

↓

↓

↓

Basic Four-Pulse Rhythmic Words - click to play

all four (sets of four equal pulses, here in eighth notes)

play four times

1

+

2

+

3

+

4

+

↓

↑

↓

↑

↓

↑

↓

↑

jingle bells (parts 1-2-3 of four pulses)

play four times

1

+

2

+

3

+

4

+

↓

↑

↓

+

↓

↑

↓

+

gallop (parts 1-3-4 of four pulses)

play four times

1

+

2

+

3

+

4

+

↓

+

↓

↑

↓

+

↓

↑

Creedence (parts 1-2-4 of four pulses)

play four times

1

+

2

+

3

+

4

+

↓

↑

+

↑

↓

↑

↓

↑

all four, gallop

play four times

1

+

2

+

3

+

4

+

↓

↑

↓

↑

↓

+

↓

↑

jingle bells, gallop

play four times

1

+

2

+

3

+

4

+

↓

↑

↓

+

↓

↑

↓

↑

gallop, jingle bells

play four times

1

+

2

+

3

+

4

+

↓

+

↓

↑

↓

↑

↓

+

Creedence, jingle bells

play four times

1

+

2

+

3

+

4

+

↓

↑

+

↑

↓

↑

↓

+

Creedence, gallop

play four times

1

+

2

+

3

+

4

+

↓

↑

+

↑

↓

+

↓

↑

Creedence, all four

play four times

1

+

2

+

3

+

4

+

↓

↑

+

↑

↓

↑

↓

↑

FOUR-PULSE RHYTHMIC WORDS

“Air Guitar” Strumming while Speaking

Start by moving your hand in the air, in evenly-timed sets of down-up-down-up. The hand should move very regularly like a metronome or pendulum. Speak the selections you intend to make of each set of four. Start by speaking “down-up-down-up”, and “1-2-3-4” alternately. Gradually touch the strings and strum a single chord.

Now repeat the procedure for gallop. Speak the selections you intend to make of each set of four. Start by speaking “down-(miss)-down-up”, and “1-um-3-4” alternately. Gradually touch the strings and strum a single chord. You should be missing the strings on the first “up”, which is “2”.

Clap and Count

the strumming stroke length to three strings, then one string for single-note themes. Players often find it easier to strum all-fretted chords (no open strings) continuously, contacting the strings with every stroke and selecting which pulses will sound by pressing down on the strings with the fretting hand.

After picking a single note theme on one string (muted with your fretting hand) with the same down up directions as when strumming, apply it to the strings you’ll actually be using to play the part. Mute the strings with your fretting hand. So far, you’re not playing the actual pitches, but strumming on the right strings. If you’re reading the tab, learn to interpret the part according to which string numbers each note is written on. The bottom tab line is the largest string, the top one is the smallest string.

Finally, play the actual part, including the fretting. Take care to meter the part, meaning make it as even as if played on selected pulses of a metronome. Metering is especially important where you slur: hammer, pull-off, slide or bend. In those cases, the fretting hand is responsible for part of the rhythm. The hands have to work together to make a rhythm selected from a regular pulse.

All Possible Four-Pulse Rhythmic Words

music notation versions in half beats

The versions shown below in standard music notation are in half beats. Each of these four-pulse rhythmic words are shown in two beats in the music notation, counted “one-and-two-and” (1, +, 2, +).

shown with no rests, except the first division of the beat

For the sake of simplicity, all of these are shown with no rests (silences), unless the rest occurs at the beginning. “2-3-4”, “2-3”, “2-3-4”, “2-3”, “3-4”, “2”, “3” and “4” each start with a rest.

nickname →	all four	jingle bells	gallop	Creedence	“234”
3 or 4 selections →	1 2 3 4	1 2 3	1 3 4	1 2 4	2 3 4
graphic & strum →					
music notation → eighth note pulse					
music notation → sixteenth note pulse					

two selections

1 2	1 3	1 4	2 3	2 4	3 4

one selection →	1	2	3	4
graphic & strum →				
music notation → eighth note pulse				
sixteenth version (1 e + a)				

Strumming Four-Pulse Rhythmic Words

all four paired with all others (video examples are A major to D major barre chords in V position)

all four / all four

all four	all four
1 2 3 4	1 2 3 4
↓ ↑ ↓ ↑	↓ ↑ ↓ ↑
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / gallop

all four	gallop
1 2 3 4	1 3 4
↓ ↑ ↓ ↑	↓ ↓ ↓ ↑
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / jingle bells

all four	jingle bells
1 2 3 4	1 2 3
↓ ↑ ↓ ↑	↓ ↑ ↓
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / Creedence

all four	Creedence
1 2 3 4	1 2 4
↓ ↑ ↓ ↑	↓ ↑ ↓ ↑
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "2-3-4"

all four	"234"
1 2 3 4	2 3 4
↓ ↑ ↓ ↑	↑ ↓ ↑
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "1-2"

all four	1 2
1 2 3 4	1 2
↓ ↑ ↓ ↑	↓ ↑
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "1-3"

all four	1 3
1 2 3 4	1 3
↓ ↑ ↓ ↑	↓ ↓
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "1-4"

all four	1 4
1 2 3 4	1 4
↓ ↑ ↓ ↑	↓ ↓
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "2-3"

all four	2 3
1 2 3 4	2 3
↓ ↑ ↓ ↑	↑ ↓
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "2-4"

all four	2 4
1 2 3 4	2 4
↓ ↑ ↓ ↑	↑ ↓
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "3-4"

all four	3 4
1 2 3 4	3 4
↓ ↑ ↓ ↑	↓ ↑
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "1"

all four	1
1 2 3 4	1
↓ ↑ ↓ ↑	↓
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "2"

all four	2
1 2 3 4	2
↓ ↑ ↓ ↑	↑
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "3"

all four	3
1 2 3 4	3
↓ ↑ ↓ ↑	↓
1 + 2 +	1 + 2 +
1 e + a	1 e + a

all four / "4"

all four	4
1 2 3 4	4
↓ ↑ ↓ ↑	↑
1 + 2 +	1 + 2 +
1 e + a	1 e + a

gallop paired with all others (video examples are A major to D major barre chords in V position)

gallop / all four

gallop

all four

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

1 2 3 4

↓

↑

↓

↑

1 + 2 +

1 e + a

gallop / gallop

gallop

gallop

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

gallop / jingle bells

gallop

jingle bells

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

1 2 3

↓

↑

↓

1 + 2 +

1 e + a

gallop / Creedence

gallop

Creedence

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

1 2 4

↓

↑

↑

1 + 2 +

1 e + a

gallop / "2-3-4"

gallop

"234"

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

2 3 4

↑

↑

↑

↑

1 + 2 +

1 e + a

gallop / "1-2"

gallop

1 2

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

1 2

↓

↑

1 + 2 +

1 e + a

gallop / "1-3"

gallop

1 3

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

1 3

↓

↓

1 + 2 +

1 e + a

gallop / "1-4"

gallop

1 4

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

1 4

↓

↑

1 + 2 +

1 e + a

gallop / "2-3"

gallop

2 3

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

2 3

↑

↓

1 + 2 +

1 e + a

gallop / "2-4"

gallop

2 4

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

2 4

↑

↑

1 + 2 +

1 e + a

gallop / "3-4"

gallop

3 4

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

3 4

↓

↑

1 + 2 +

1 e + a

gallop / "1"

gallop

1

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

1

↓

1 + 2 +

1 e + a

gallop / "2"

gallop

2

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

2

↑

1 + 2 +

1 e + a

gallop / "3"

gallop

3

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

3

↓

1 + 2 +

1 e + a

gallop / "4"

gallop

4

1 3 4

↓

↓

↑

1 + 2 +

1 e + a

4

↑

1 + 2 +

1 e + a

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jingle bells paired with all others (video examples are A major to D major barre chords in V position)jingle bells / all four

jingle bells	all four
1 2 3	1 2 3 4
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / gallop

jingle bells	gallop
1 2 3	1 3 4
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / jingle bells

jingle bells	jingle bells
1 2 3	1 2 3
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / Creedence

jingle bells	Creedence
1 2 3	1 2 4
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "2-3-4"

jingle bells	"234"
1 2 3	2 3 4
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "1-2"

jingle bells	1 2
1 2 3	1 2
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "1-3"

jingle bells	1 3
1 2 3	1 3
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "1-4"

jingle bells	1 4
1 2 3	1 4
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "2-3"

jingle bells	2 3
1 2 3	2 3
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "2-4"

jingle bells	2 2 4
1 2 3	2 4
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "3-4"

jingle bells	3 4
1 2 3	3 4
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "1"

jingle bells	1
1 2 3	1
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "2"

jingle bells	2
1 2 3	2
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "3"

jingle bells	3
1 2 3	3
1 + 2 +	1 + 2 +
1 e + a	1 e + a

jingle bells / "4"

jingle bells	4
1 2 3	4
1 + 2 +	1 + 2 +
1 e + a	1 e + a

Creedence paired with all others
(video examples are A major to D major barre chords in V position)

Creedence / all four

Creedence

all four

Creedence / gallop

Creedence

gallop

Creedence / jingle bells

Creedence

jingle bells

Creedence / Creedence

Creedence

Creedence

1 2 4

1 2 3 4

1 2 4

1 3 4

1 2 4

1 2 3

1 2 4

1 2 4

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

Creedence / "2-3-4"

Creedence

"234"

Creedence / "1-2"

Creedence

1 2

Creedence / "1-3"

Creedence

1 3

Creedence / "1-4"

Creedence

1 4

1 2 4

2 3 4

1 2 4

1 2

1 2 4

1 3

1 2 4

1 4

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

Creedence / "2-3"

Creedence

2 3

Creedence / "2-4"

Creedence

2 4

Creedence / "3-4"

Creedence

3 4

Creedence / "1"

Creedence

1

1 2 4

2 3

1 2 4

2 4

1 2 4

3 4

1 2 4

1

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

Creedence / "2"

Creedence

2

Creedence / "3"

Creedence

3

Creedence / "4"

Creedence

4

1 2 4

2

1 2 4

3

1 2 4

4

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

↓ ↑

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 + 2 +

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a

1 e + a









THREE-PULSE RHYTHMIC WORDS

Air Guitar, Count and Clap

See “Air Guitar” Strumming while Speaking and Clap and Count in Four-Pulse Rhythmic words section. The same ideas apply to three-pulse rhythmic words.







All Possible Three-Pulse Rhythmic Words

At slow tempos, these are based on all-down. At fast tempos, these are based on alternating down-up-down ($\downarrow \uparrow \downarrow$) and up-down-up ($\uparrow \downarrow \uparrow$).

nickname →	all three*	swing	afro-cuban	waltz
2 or 3 selections →	1-2-3*	1-3	1-2	2-3
graphic selections →				
music notation →				
	1 trip let	1 trip let	1 trip let	1 trip let
first half of six	$\downarrow \uparrow \downarrow$	$\downarrow \quad \downarrow$	$\downarrow \uparrow$	$\uparrow \downarrow$
last half of six	$\uparrow \downarrow \uparrow$	$\uparrow \quad \uparrow$	$\uparrow \downarrow$	$\downarrow \uparrow$
counting by “threes”	1 2 3	1 3	1 2	2 3
one trip let and trip let	1 trip let	1 let	1 trip	trip let

*Sequences of “1-2-3” can be strummed alternating down-up-down ($\downarrow \uparrow \downarrow$) and up-down-up ($\uparrow \downarrow \uparrow$).

one selection

one selection →	1	2	3
graphic selections →			
music notation →			
	1 trip let	1 trip let	1 trip let
first half of six	\downarrow	\uparrow	\downarrow
last half of six	\uparrow	\downarrow	\uparrow
counting by “threes”	1	2	3
one trip let and trip let	1	trip	let

SIX-PULSE RHYTHMIC WORDS

Three Two-Pulse Words

A quarter note on a beat will be called “whole”. A pair of eighth notes on a beat is “pair”. An eighth rest on the beat and an eighth note on the “and” will be called “and”. A quarter note rest on a beat is “rest”. The graphics express where the notes are played. Un-played parts of the beat may be rests or sustain.

quarter note (“whole”) on the first beat

whole, whole, whole

whole, whole, pair

whole, whole, and

whole, whole, rest

whole, pair, whole

whole, pair, pair

whole, pair, and

whole, pair, rest

whole, and, whole

whole, and, pair

whole, and, and

whole, and, rest

whole, rest, whole

whole, rest, pair

whole, rest, and

whole, rest, rest

pair of eighth notes ("pair") on the first beat

pair, whole, whole

↓ ↑ ↓ ↓
1 + 2 3

pair, whole, pair

↓ ↑ ↓ ↓ ↑
1 + 2 3 +

pair, whole, and

↓ ↑ ↓ ↑ ↑
1 + 2 (3) +

pair, whole, rest

↓ ↑ ↓ ↑
1 + 2 (3)

pair, pair, whole

↓ ↑ ↓ ↑ ↓
1 + 2 + 3

pair, pair, pair

↓ ↑ ↓ ↑ ↓ ↑
1 + 2 + 3 +

pair, pair, and

↓ ↑ ↓ ↑ ↑
1 + 2 + (3) +

pair, pair, rest

↓ ↑ ↓ ↑ ↑
1 + 2 + (3)

pair, and, whole

↓ ↑ ↑ ↓
1 + (2) + 3

pair, and, pair

↓ ↑ ↑ ↓ ↑
1 + (2) + 3 +

pair, and, and

↓ ↑ ↑ ↑
1 + (2) + (3) +

pair, and, rest

↓ ↑ ↑ ↑
1 + (2) + (3)

pair, rest, whole

↓ ↑ ↓
1 + (2) 3

pair, rest, pair

↓ ↑ ↓ ↑
1 + (2) 3 +

pair, rest, and

↓ ↑ ↑
1 + (2) (3) +

pair, rest, rest

↓ ↑ ↑
1 + (2) (3)

on the and ("+") after the first beat (the "and of one")

and, whole, whole

↑ ↓ ↓

(1) + 2 3

and, whole, pair

↑ ↓ ↓ ↑

(1) + 2 3 +

and, whole, and

↑ ↓ ↑

(1) + 2 (3) +

and, whole, rest

↑ ↓

(1) + 2 (3)

and, pair, whole

↑ ↓ ↑ ↓

(1) + 2 + 3

and, pair, pair

↑ ↓ ↑ ↓ ↑

(1) + 2 + 3 +

and, pair, and

↑ ↓ ↑ ↑

(1) + 2 + (3) +

and, pair, rest

↑ ↓ ↑

(1) + 2 + (3)

and, and, whole

↑ ↑ ↓

(1) + (2) + 3

and, and, pair

↑ ↑ ↓ ↑

(1) + (2) + 3 +

and, and, and

↑ ↑ ↑

(1) + (2) + (3) +

and, and, rest

↑ ↑

(1) + (2) + (3)

and, rest, whole

↑ ↓

(1) + (2) 3

and, rest, pair

↑ ↓ ↑

(1) + (2) 3 +

and, rest, and

↑ ↑

(1) + (2) (3) +

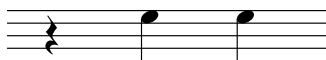
and, rest, rest

↑

(1) + (2) (3)

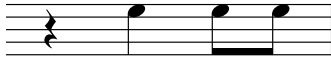
rest on the first beat

rest, whole, whole



↓ ↓
(1) 2 3

rest, whole, pair



↓ ↓ ↑
(1) 2 3 +

rest, whole, and



↓ ↑
(1) 2 (3) +

rest, whole, rest



↓
(1) 2 (3)

rest, pair, whole



↓ ↑ ↓
(1) 2 + 3

rest, pair, pair



↓ ↑ ↓ ↑
(1) 2 + 3 +

rest, pair, and



↓ ↑ ↑
(1) 2 + (3) +

rest, pair, rest



↓ ↑
(1) 2 + (3)

rest, and, whole



↑ ↓
(1) (2) + 3

rest, and, pair



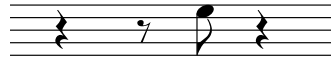
↑ ↓ ↑
(1) (2) + 3 +

rest, and, and



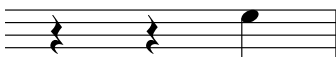
↑ ↑
(1) (2) + (3) +

rest, and, rest



↑
(1) (2) + (3)

rest, rest, whole



↓
(1) (2) 3

rest, rest, pair



↓ ↑
(1) (2) 3 +

rest, rest, and



↑
(1) (2) (3) +

rest, rest, rest



(1) (2) (3)



Six-Pulse Words Made with Two Three Pulse Words

At slow tempos, these are based on all-down. At fast tempos, these are based on alternating down-up-down (↓↑↓) and up-down-up (↑↓↑).



all three*

123*

graphic selections →

music notation →

all down →

1 trip let

1 trip let

alternating →

↓ ↓ ↓

↓ ↓ ↓

count 123 →

1 2 3

1 2 3

count triplets →

1 trip let

and trip let



*Pairs of "123" can be strummed alternating down-up-down (↓↑↓) and up-down-up (↑↓↑)


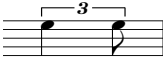
triplet with others

triplet, swing

1-2-3

1-3

1 trip let

1 trip let

↓ ↓ ↓

↓ ↓ ↓

↓ ↑ ↓

↑ ↑ ↑

1 2 3

1 3



1 trip let



and let

triplet, Afro-Cuban

1-2-3

1-2

1 trip let

1 trip let

↓ ↓ ↓

↓ ↓ ↓

↓ ↑ ↓

↑ ↓ ↓

1 2 3

1 2



1 trip let



and trip

triplet, waltz

1-2-3

2-3

1 trip let

1 trip let

↓ ↓ ↓

↓ ↓ ↓

↓ ↑ ↓

↓ ↑ ↓

1 2 3

2 3



1 trip let



trip let

triplet, one

1-2-3

1

1 trip let

1 trip let

↓ ↓ ↓

↓ ↓ ↓

↓ ↑ ↓

↑ ↑ ↑

1 2 3

1



1 trip let



and

triplet, two

1-2-3

2

1 trip let

1 trip let

↓ ↓ ↓

↓ ↓ ↓

↓ ↑ ↓

↓ ↑ ↓

1 2 3

2



1 trip let



trip

triplet, three

1-2-3

3

1 trip let

1 trip let

↓ ↓ ↓

↓ ↓ ↓

↓ ↑ ↓

↓ ↑ ↓

1 2 3

3

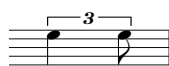
1 trip let

let

swing with others

swing, triplet

1-3



1 trip let

↓ ↓

1 3

1 let

1-2-3



1 trip let

↓ ↓ ↓

1 2 3

and trip let

swing, Afro-Cuban

1-3



1 trip let

↓ ↓

1 3

1 let

1-2



1 trip let

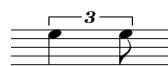
↓ ↓

1 2

and trip

swing, waltz

1-3



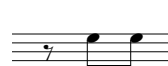
1 trip let

↓ ↓

1 3

1 let

2-3



1 trip let

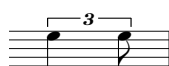
↓ ↓

2 3

trip let

swing, one

1-3



1 trip let

↓ ↓

1 3

1 let

1



1 trip let

↓ ↑

1

and

swing, two

1-3



1 trip let

↓ ↓

1 3

1 let

2



1 trip let

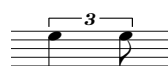
↓ ↓

2

trip

swing, three

1-3



1 trip let

↓ ↓

1 3

1 let

3



1 trip let

↓ ↑

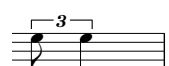
3

let

Afro-Cuban with others

Afro-Cuban, triplet

1-2



1 trip let

↓ ↓

1 2

1 trip

1-2-3



1 trip let

↓ ↓ ↓

1 2 3

and trip let

Afro-Cuban, swing

1-2



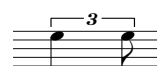
1 trip let

↓ ↓

1 2

1 trip

1-3



1 trip let

↓ ↓

1 3

and let

Afro-Cuban, waltz

1-2



1 trip let

↓ ↓

1 2

1 trip

2-3



1 trip let

↓ ↓



2 3



trip let

Afro-Cuban, one

1-2

1

1 trip let

1 trip let

↓ ↓

↓

↓ ↑

↑

1 2

1



1 trip



and

Afro-Cuban, two

12

2

1 trip let

1 trip let

↓ ↓

↓

↓ ↑

↓

1 2

2



1 trip



trip

Afro-Cuban, three

1-2

3

1 trip let

1 trip let

↓ ↓

↓

↓ ↑

↑

1 2

3

1 trip



let



waltz with others

waltz, triplet

2-3

1-2-3

1 trip let

1 trip let

↓ ↓

↓ ↓ ↓

↑ ↓

↑ ↓ ↑

2 3

1 2 3



trip let


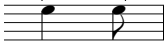
and trip let

waltz, swing

2-3

1-3

1 trip let

1 trip let

↓ ↓

↓

↑ ↓

↑ ↑

2 3

1 3



trip let



1 let

waltz, Afro-Cuban

2-3

1-2

1 trip let

1 trip let

↓ ↓

↓ ↓

↓ ↑

↑ ↓

2 3

1 2



trip let


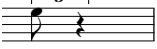
and trip

waltz, one

2-3

1

1 trip let

1 trip let

↓ ↓

↓

↑ ↓

↑

2 3

1



trip let



1

waltz, two

2-3

2

1 trip let

1 trip let

↓ ↓

↓

↑ ↓

↓

2 3

2



trip let


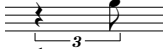
trip

waltz, three

2-3

3

1 trip let

1 trip let

↓ ↓

↓

↑ ↓

↑

2 3

3

trip let

let

"one" with others**one, triplet**

1	1-2-3
1 trip let	1 trip let
↓	↓ ↓ ↓
↓	↑ ↓ ↑
1	1 2 3
1	and trip let

one, swing

1	1-3
1 trip let	1 trip let
↓	↓ ↓
↓	↑ ↑
1	1 3
1	1 let

one, Afro-Cuban

1	1-2
1 trip let	1 trip let
↓	↓ ↓
↓	↑ ↓
1	1 2
1	and trip

one, waltz

1	2-3
1 trip let	1 trip let
↓	↓ ↓
↓	↓ ↑
1	2 3
1	trip let

one, two

1	2
1 trip let	1 trip let
↓	↓
↓	↓
1	2
1	trip

one, three

1	3
1 trip let	1 trip let
↓	↓
↓	↑
1	3
1	let

"two" with others**two, triplet**

2	1-2-3
1 trip let	1 trip let
↓	↓ ↓ ↓
↓	↑ ↓ ↑
2	1 2 3
trip	1 trip let

two, swing

2	1-3
1 trip let	1 trip let
↓	↓ ↓
↓	↑ ↑
2	1 3
trip	1 let

two, Afro-Cuban

2	1-2
1 trip let	1 trip let
↓	↓ ↓
↑	↑ ↓
2	1 2
trip	and trip

two, waltz

2

1 trip let

↓

↑

2

trip

2-3

1 trip let

↓

↓

↓

↑

2

3

trip

let

two, one

2

1 trip let

↓

↑

2

trip

1

1 trip let

↓

↑

1

1

two, three

2

1 trip let

↓

↑

2

trip

3

1 trip let

↓

↑

3

let

“three” with others

three, triplet

3

1 trip let

↓

↓

3

let

1-2-3

1 trip let

↓

↓

↓

↑

1

2

3

1

trip

let

three, swing

3

1 trip let

↓

↑

3

let

1-3

1 trip let

↓

↓

↑

1

3

1

let

three, Afro-Cuban

3

1 trip let

↓

↓

3

let

1-2

1 trip let

↓

↓

↑

1

2

and

trip

three, waltz

3

1 trip let

↓

↓

3

let

2-3

1 trip let

↓

↓

↓

↑

2

3

trip

let

three, one

3

1 trip let

↓

↓

3

let

1

1 trip let

↓

↑

1

1

three, two

3

1 trip let

↓

↓

3

let

2

1 trip let

↓

↓

2

trip

HEARING PICKUPS AND PUSHES

Anticipating the Next Beat

Pickups and pushes both anticipate the next beat by playing something at the end of the previous beat.

pickup

In the example below, think of it as four beats, each divided into four parts, making sixteenth notes in 4/4. The four sixteenth notes on each beat are labeled in the row “sixteenth-note counting”. The fourth division of the second beat, labeled “a”, anticipates the third beat. This is called a *pickup*.

pickup to beat three

strum/pick	↓				↓				↑	↓					↓	
selection	1				2				a	3					4	
full groups of four	1	e	+	a	2	e	+	a	3	e	+	a	4	e	+	a

push

The example below is identical to the one above, except it *doesn't* play on beat three. This is called a *push*. This is often done where a chord is expected to begin on a particular beat (like beat three) and it is played early. Pushes make the music more interesting and contradicts the “tyranny of the bar line”, which can make music too march-like. There is an art to coordinating pushes. See [Comping Strategies](#).

The stroke on the last division *could* be a downstroke, since there are so many un-played pulses. If you replace a downstroke with an upstroke for that reason, you should test your rhythm by selecting from a continuous down-up motion, to make sure you are playing the rhythm correctly (see [air guitar strumming](#)).

push beat three

strum/pick	↓				↓				↑							
selection	1				2				a							
full groups of four	1	e	+	a	2	e	+	a	3	e	+	a	4	e	+	a
chord changes	C7								F7							

Note that the “F7” chord is played “early” on the “a” after “4”. Modern composition has established this push (F7 on the “a” after “4”) associates the chord with the second bar.

You can also read about pickups and pushes in Comping [Rhythm/Varying Rhythm](#).

multiple note pickups and pushes

Pickups commonly involve two or more notes of each value at the end of the previous beat. Here are examples of two-note and three-note pickups and pushes:

original: strumming on beats and and three

	
strum/pick	↓ ↓
selection	1 1
sixteenth counting	1 e + a 2 e + a 3 e + a 4 e + a
chords	C7 F7

two-note pickup to beat three

↓ ↓ ↑ ↓

1 + a 3

1 e + a 2 e + a 3 e + a 4 e + a

two-note push to beat three

↓ ↓ ↑

1 + a

1 e + a 2 e + a 3 e + a 4 e + a

three-note pickup to beat three

↓ ↑ ↓ ↑ ↓

1 e + a 3

1 e + a 2 e + a 3 e + a 4 e + a

three-note push to beat three

↓ ↑ ↓ ↑

1 e + a

1 e + a 2 e + a 3 e + a 4 e + a

irregular pickups and pushes

Pushes and pickups can also be irregular rhythms, not consecutive pulses. The example of a pickup below occurs on the fifth beat and is the “124” rhythmic word, nicknamed “Creedence”.

irregular three-note pickup to beat one

[illegible]

STRUMMING RHYTHMS

Eighth Note Strumming in 4/4 [click to play: straight](#) [swing](#)

strum with E, Em, A, Am or C chords

Swing Eighths

quarters with one pair of eighths

1 ♩ = 100

1 play 4 times 2 play 4 times 3 play 4 times 4 play 4 times 5 play 4 times

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

quarters with two pairs of eighths

6 play 4 times 7 play 4 times 8 play 4 times 9 play 4 times 10 play 4 times 11 play 4 times

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

quarter and three pairs of eighths

12 play 4 times 13 play 4 times 14 play 4 times 15 play 4 times

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

one push

16 play 4 times 17 play 4 times 18 play 4 times 19 play 4 times

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

20 play 4 times 21 play 4 times 22 play 4 times 23 play 4 times 24 play 4 times

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

two pushes

25 play 4 times 26 play 4 times 27 play 4 times 28 play 4 times

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

three pushes

29 play 4 times 30 play 4 times 31 play 4 times 32 play 4 times

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Eighth Note Strumming in 3/4 click to play: straight swing

strum with E, Em, A, Am or C chords

♩ = 80

a half and one pair of eighths

play 4 times

three pairs of eighths

play 4 times

quarters with one pair of eighths

play 4 times

quarters with two pairs of eighths

play 4 times

one push

play 4 times

play 4 times

play 4 times

play 4 times

two pushes

play 4 times

BUILDING COMPING RHYTHMS

[click to play a video of Building Comping Rhythms](#)

$\text{♩} = 120$

dividing the bar

whole note half notes all four (quarter notes) jingle bells gallop Creedence

8 dotted half note swing at the bar level all three (quarters) Afro Cuban (bar level) waltz

13 whole note half notes whole note all four (quarter notes)

17 whole note jingle bells whole note gallop whole note Creedence

23 half notes whole note half notes all four (quarter notes)

27 half notes jingle bells half notes gallop half notes Creedence

33 dotted half swing at the bar level dotted half all three (quarters)

37

dotted half

Afro Cuban (bar)

dotted half

waltz

41

swing (bar)

dotted half

swing (bar)

all three (quarters)

45

swing (bar)

Afro Cuban (bar)

swing (bar)

waltz

49

all three (quarters)

dotted half

all three (quarters)

swing (bar)

53

all three (quarters)

Afro Cuban (bar)

all three (quarters)

waltz

57

Afro Cuban (bar)

dotted half

Afro Cuban (bar)

swing (bar)

61

Afro Cuban (bar)

all three (quarters)

Afro Cuban (bar)

waltz

65

waltz

dotted half

waltz

swing at the bar level

69 waltz all three (quarters) waltz Afro Cuban (bar)

dividing beats

73 all four all four gallop gallop jingle bells jingle bells

Note that the eighths notes can be beamed (with the thick horizontal line) in pairs or quads. It sounds the same.

76 gallop all four gallop jingle bells jingle bells all four jingle bells gallop

80 Creedence Creedence Creedence all four Creedence gallop Creedence jingle bells

Note that the second event is a whole beat, written as a quarter note or two eighths tied. It sounds the same either way.

84 three pairs of eighths quarter, pair, pair pair, quarter, pair pair, pair, quarter

88 quarter, quarter, pair quarter, pair, quarter pair, quarter, quarter

91 quarter, Creedence Creedence, quarter "one" and "three ands" "one" and "three ands" "one" and "three ands"

mixing divided bars

96 whole note half notes whole note all four (quarter notes)

100 whole note jingle bells whole note gallop whole note Creedence

106 half notes whole note half notes all four (quarter notes)

110 half notes jingle bells half notes gallop

114 half notes Creedence dotted half note swing at the bar level

118 dotted half note all three (quarters) dotted half note Afro Cuban (bar level) dotted half note waltz

Detailed description: This section contains musical notation for measures 96 through 118. Each measure is written on a single staff with a treble clef and a key signature of one flat. The notation includes various note values (whole, half, quarter, eighth, dotted half) and rests. Above the staff, rhythmic patterns are labeled with words like 'whole note', 'half notes', 'all four (quarter notes)', 'jingle bells', 'gallop', 'Creedence', 'swing at the bar level', 'Afro Cuban (bar level)', and 'waltz'. Below the staff, numbers 1 through 4 are placed under specific notes or rests, with arrows pointing down to them, indicating a specific rhythmic count or division of the bar.

mixing divided bars and divided beats (dual rhythmic levels)

124 whole note gallop gallop half notes gallop all four

128 Creedence gallop all four Creedence Creedence gallop

Detailed description: This section contains musical notation for measures 124 through 128. The notation is similar to the previous section, with various note values and rests. Above the staff, rhythmic patterns are labeled with words like 'whole note', 'gallop', 'half notes', 'all four', and 'Creedence'. Below the staff, numbers 1 through 4 are placed under specific notes or rests, with arrows pointing down to them. In some measures, there are additional symbols like '+' and '-' between the numbers, indicating a specific rhythmic count or division of the bar.

KICK AND SNARE RHYTHMS

Octopus' Garden verse

Rock And Roll Ain't Noise Pollution (98), The Furor (98),
Octopus' Garden verse (90), Enter Sandman theme (122)



Day Tripper Verse

Day Tripper verse (140)



Day Tripper Theme

Day Tripper theme (140), Last Child (87)



Green River

Green River (140)



Louie Louie

Louie Louie (123), Pork And Beans (120), If I Fell (110),
The Night Before (168)



You Shook Me All Night Long chorus

You Shook Me All Night Long chorus (125)



Taxman

Taxman (122)



Just a Girl verse

Just A Girl verse (105)



No Sleep Tonight



Just A Girl bridge

Just A Girl bridge (210), A Hard Day's Night verse (142), I'll Play
The Blues For You (96), Oh! Pretty Woman (106), More Than A
Feeling Theme (108), Shake It Up (148), Fortunate Son (134)



Smells Like Teen Spirit

Smells Like Teen Spirit verse (118),
All The Small Things theme & verse (148)



Come as You Are



COMPING RHYTHMS

“Keeping Time” Rhythms - [click to play](#)

Straight Eighths

♩ = 120

0

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

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1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Straight Eighths

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Swing Eighths

♩ = 120

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

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1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Swing Eighths

Charleston

Charleston, add four

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↑ ↓ ↑ ↓

Clave 3-2

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↑ ↓ ↓ ↓

♩ = 120

eighth triplets alternating down-up strumming

1 trip let 2 trip let 3 trip let 4 trip let

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑

eighth triplets with all-down strumming

1 trip let 2 trip let 3 trip let 4 trip let

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

quarters with triplet on 1

1 trip let 2 trip let 3 trip let 4 trip let

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

quarters with triplet on 2

1 trip let 1 trip let 3 trip let 4 trip let

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

quarters with triplet on 3

1 trip let 2 trip let 3 trip let 4 trip let


↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

quarters with triplet on 4

1 trip let 2 trip let 3 trip let 3 trip let

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓


triplet, quarter (twice) play 4 times



1 trip let 2 trip let 3 trip let 4 trip let

↓ ↓ ↓ ↓ ↓

quarter, triplet (twice) play 4 times



1 trip let 2 trip let 3 trip let 4 trip let

↓ ↓ ↓ ↓ ↓

Varying Rhythm

Learn to elaborate rhythms with pushes and pickups; insertions on “empty” beats (in place of rests); replacing quarter notes with pairs of eighth notes or triplets; omitting ties. Where there is enough space in time, use consecutive syncopations. Learn more in [Rhythmic Themes and Layers](#).

push

When a note or chord is played a half beat early, on the “and” before the numbered beat, it is called a *push*. For example, a chord would be played on the “and after two” (also called the “and after 2”) before three, instead of on “3”, not additionally on “3”.

A “rest push” is played before the beat (usually on the “and”) where there is a silence on the beat it precedes. A “sustain push” is played before the beat (usually on the “and”) and sustains onto the next beat.

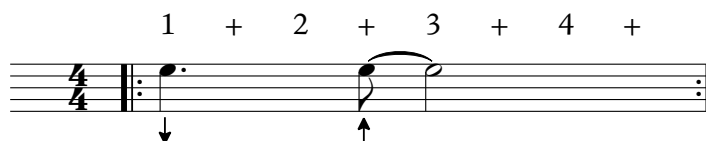
accent on 3

push 3

In the “Charleston” example below, the note on the “and” after two pushes the third beat by playing the second note “early” on the and after two. Notice that the beats could be divided evenly with straight eighths or with a two-thirds and one third ratio with swing eighths.

Charleston, Steppin’ Out - (straight eighths)

Charleston, Steppin’ Out *(swing eighths)



pickup

A pickup is similar to a push. They both anticipate the next beat. With the push, you don’t play on the next beat. With the pickup, you *do* play on the next beat. If a chord is played on the “and after 2” and on “3” as well, it would be called a pickup. So a pickup for beat “2” would play on the “and after 1” and also on “2”, while a “push” for beat two would only play on the “and after 1” and not on “2”.

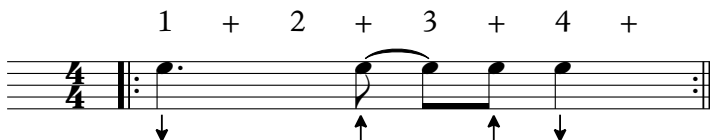
pickup to three

pickup to one

Now we'll play before beat "4", as well as on beat "4" in the example below.

Blues by Five with Pickup To Four (straight eighths)

Blues by Five with Pickup To Four (swing eighths)

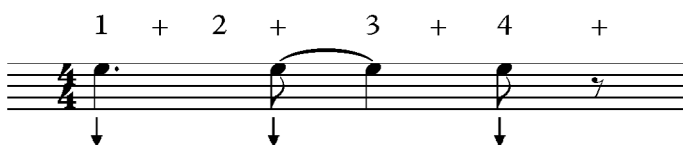


add a note on an "empty" beat

In the Charleston example above, there is no note on "4". The "Blues By Five" example below adds a note on "four". Like the Charleston, it is shown both with straight eighths and swing eighths.

Blues by Five (straight eighths)

Blues by Five *(swing eighths)



replacing quarter notes with eighths or triplets

In the clave 3-2 rhythm below, there is a note on the second beat of the second bar.

(son) clave 3-2 (straight eighths)

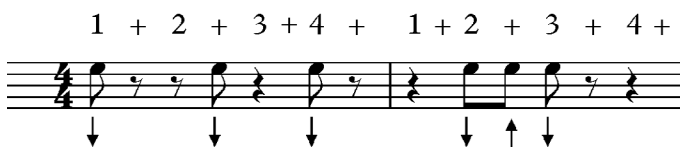
(son) clave 3-2 (swing eighths)



Now the quarter note (a one beat note) on the second beat of the second bar is replaced with a pair of eighth notes (a half beat each). This makes the "I Shot The Sheriff chorus" rhythm.

I Shot the Sheriff chorus (3-2 clave var.) *(straight) (clave 3-2 straight eighths with pair of eighths on beat 2 of second bar)

I Shot the Sheriff chorus (3-2 clave var.) (swing) (clave 3-2 swing eighths with pair of eighths on beat 2 of second bar)

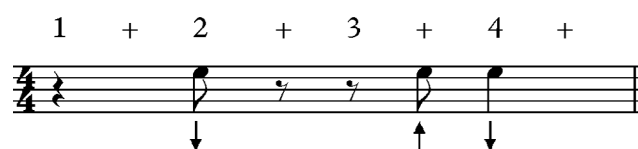


converting pickups to pushes (tie the offbeat to the next beat)

A pickup and a push both anticipate the target beat. In the “Backbeat, Pickup To Four” example below, there is a pickup to the fourth beat. The note on the “and after three” (the “+” after three) anticipates the note on the fourth beat. Evil Ways, is similar, but does not play a note on beat four. Instead, it sustains the note from the “and after three” immediately before, onto beat four. So, “Backbeat, Pickup To Four” can be converted to “Evil Ways” by playing on the target beat (four), instead of pushing it.

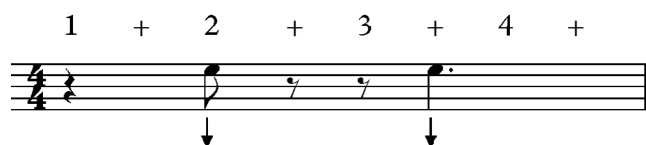
Evil Ways is written below ending with a dotted quarter note, which begins on the “and after three” and sustains through beat four.

Backbeat, pickup To four (straight eighths)



Backbeat, pickup To four (swing eighths)

Evil Ways chorus *(straight eighths)



Evil Ways chorus (swing eighths)

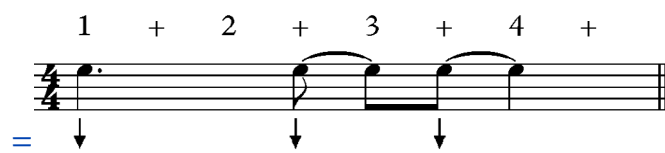
converting pushes to pickups (omit ties)

Remember, a pickup and a push both anticipate the target beat. In the Blues By Five examples below, the push version does not play a note on beat four. Instead, it sustains the note from the “and after three” immediately before, onto beat four. The “pickup to four” version also anticipates beat four, but plays a note on beat four. You could say that the “push four” version was converted to the “pickup to four” version by playing on the target beat (four), instead of pushing it.

A *tie* is a curved line that connects two notes horizontally in music notation to indicate that they sustain continuously, without an attack on the second note. In other words, they functionally become one note. The Blues By Five Push Four rhythm below has ties both on the “and after two” (the “+” after two sustains to the beginning of beat three) and the “and after three” (the “+” after three sustains through beat four).

Blues By Five, push four (straight eighths)

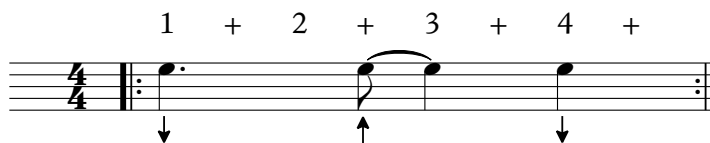
Blues By Five, push four (swing eighths)



By omitting the tie on the “and after three” in the Blues By Five Push Four example, you then play both on the “and after three” and on four, making one note into two (shown earlier). This is shown below.

Blues by Five (straight eighths)

Blues by Five *(swing eighths)

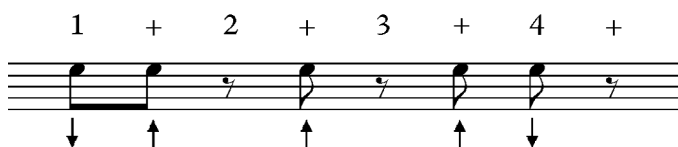


consecutive syncopations

Syncopation is the most significant rhythmic attribute than African music added to American music. It involves playing on the normally unaccented part of the beat, such as on the “and” or upbeat instead of on the downbeat (numbered beat). Syncopation is a modern (nineteenth century and forward) and “cool” stylization. The Brown-Eyed Girl intro. example below makes this variation on the Charleston rhythm.

Brown-Eyed Girl intro *(straight eighths)

Brown-Eyed Girl intro (swing eighths)



Duple Time Comping Rhythms in Straight and Swing Eighth

The Charleston Family - [click to play video](#)

Charleston, Steppin' Out

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Blues by Five

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Bomba (La Bomba)
(Blues by Five add three)

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Blues by Five with push four

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Blues by Five with pickup to four

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Brown-Eyed Girl intro

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Brown-Eyed Girl intro
rest on one

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Brown-Eyed Girl,
rest on four

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Brown-Eyed Girl,
stop on three

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Brown-Eyed Girl,
rest at three

Straight Eighthths play 4 times Swing Eighthths play 4 times

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

"and, and, three"

Straight Eighths

1 + 2 + 3 + 4 +

play 4 times

Swing Eighths

1 + 2 + 3 + 4 +

play 4 times

Blues By Five,
pair on four

Straight Eighths

1 + 2 + 3 + 4 +

play 4 times

Swing Eighths

1 + 2 + 3 + 4 +

play 4 times

Blues By Five,
pair on one

Straight Eighths

1 + 2 + 3 + 4 +

play 4 times

Swing Eighths

1 + 2 + 3 + 4 +

play 4 times

Black Magic Woman,
electric piano

Straight Eighths

1 + 2 + 3 + 4 +

play 4 times

Swing Eighths

1 + 2 + 3 + 4 +

play 4 times

Mister Magic

Straight Eighths

1 + 2 + 3 + 4 +

play 4 times

Swing Eighths

1 + 2 + 3 + 4 +

play 4 times

Time of Your Life

Straight Eighths

1 + 2 + 3 + 4 +

play 4 times

Swing Eighths

1 + 2 + 3 + 4 +

play 4 times

Blue Monk

Straight Eighths

1 + 2 + 3 + 4 +

play 4 times

Swing Eighths

1 + 2 + 3 + 4 +

play 4 times

Free Fallin'

Straight Eighths

1 + 2 + 3 + 4 +

play 4 times

Swing Eighths

1 + 2 + 3 + 4 +

play 4 times

The Evil Ways Family - [click to play the family](#)

♩ = 140

Evil Ways chorus

1 + 2 + 3 + 4 + Swing Eighths

1 + 2 + 3 + 4 +

↓ ↑ play 4 times

↓ ↑ play 4 times

backbeat, pickup to four

1 + 2 + 3 + 4 + Swing Eighths

1 + 2 + 3 + 4 +

↓ ↑ ↓ play 4 times

↓ ↑ ↓ play 4 times

Corcovado, Favela,
Once I Loved

Straight Eighths 1 + 2 + 3 + 4 + Swing Eighths

1 + 2 + 3 + 4 +

↓ ↓ ↑ play 4 times

↓ ↓ ↑ play 4 times

Flintstones

Straight Eighths 1 + 2 + 3 + 4 + Swing Eighths

1 + 2 + 3 + 4 +

↓ ↓ ↑ ↑ play 4 times

↓ ↓ ↑ ↑ play 4 times

Evil Ways/
Charleston

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↑ ↓ ↑ play 4 times

↓ ↑ ↓ ↑ play 4 times

The Reggae Family - [click to play the family](#)

♩ = 140

reggae guitar

Swing Eighthths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

D'Yer Ma'ker

Swing Eighthths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

I Shot the Sheriff
verse

Swing Eighthths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

The Clave Family - [click to play](#)

(son)clave 3-2

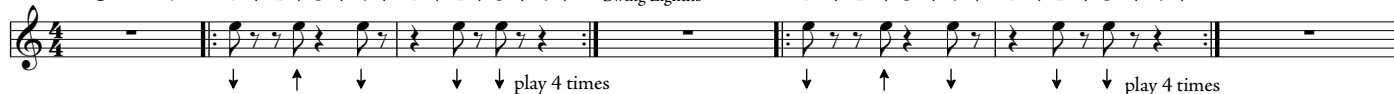
(Not Fade Away
-Rolling Stones)

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



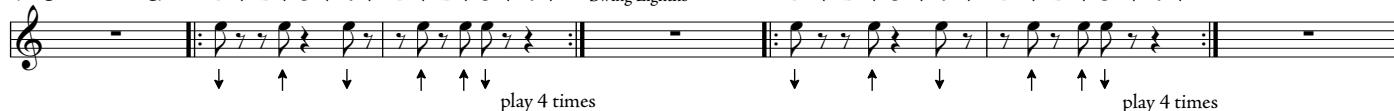
Rosanna-kick
(orig, was swung)

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



Rosanna-guitar intro

(orig, was swung)

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



Faith

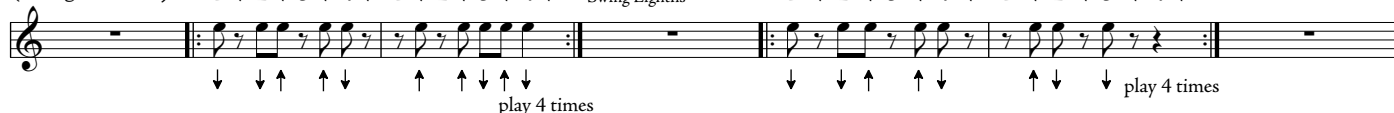
(George Michael)

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



Magic Bus

Straight Eighths

1 + 2 + 3 + 4 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 1 + 2 + 3 + 4 +



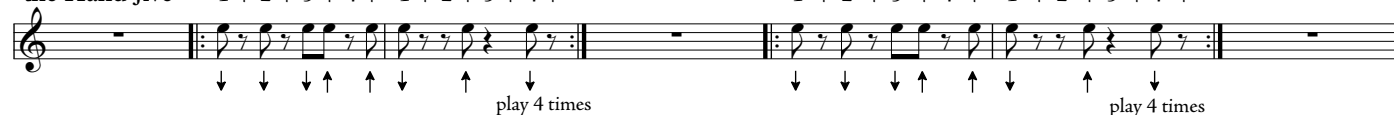
Willie and
the Hand Jive

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



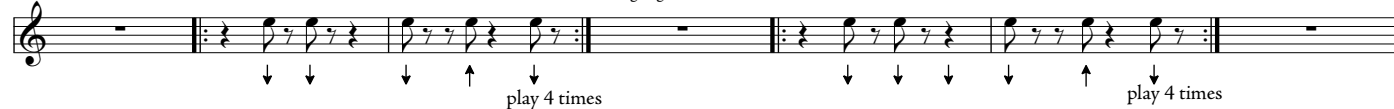
(son) clave 2-3

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



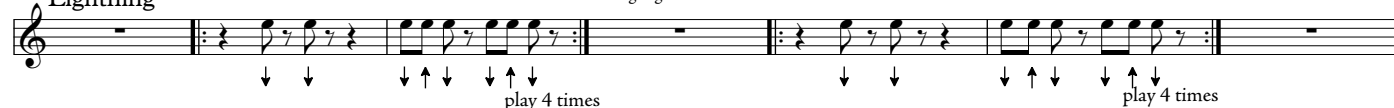
Smokestack
Lightning

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



rumba clave 3-2

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



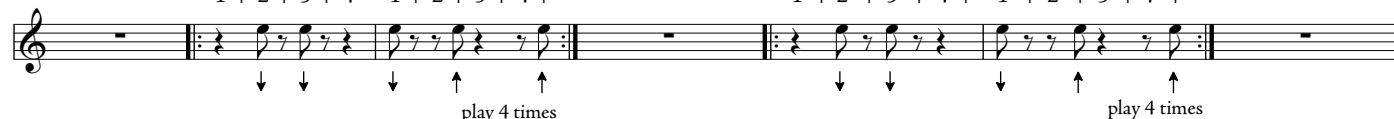
rumba clave 2-3

Straight Eighths

1 + 2 + 3 + 4 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



Brazilian clave 3-2

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times

Brazilian clave 2-3

Straight Eighths

1 + 2 + 3 + 4 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 1 + 2 + 3 + 4 +

play 4 times

I Shot the Sheriff chorus

Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times

I Shot the Sheriff "flipped"

Straight Eighths

1 + 2 + 3 + 4 1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 1 + 2 + 3 + 4 +

play 4 times

The Bossa Nova Family - [click to play video](#)

♩ = 140

Bossa Nova/ Samba

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

Wave

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

Gitl From Ipanema

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

Triste, Oye Como Va

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

guanguanco bell

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

Cold Sweat (Jimmy Nolan, guitar)

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

Lust for Life

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

Are You Gonna Be My Girl

Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play 4 times play 4 times

No Sleep Tonight

Straight Eighths

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

play 4 times

play 4 times

Torn

Straight Eighths

1 + 2 + 3 + 4

1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4

1 + 2 + 3 + 4 +

play 4 times

play 4 times

Look to the Sky

Straight Eighths

1 + 2 + 3 + 4

1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4

1 + 2 + 3 + 4 +

play 4 times

play 4 times

Walk on the Wild Side

Straight Eighths

1 + 2 + 3 + 4

1 + 2 + 3 + 4 +

Swing Eighths

1 + 2 + 3 + 4

1 + 2 + 3 + 4 +

play 4 times

play 4 times

The Funk Family - [click to play video](#)

♩ = 105

Flashlight/ The Hustle

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓

play 4 times play 4 times

Squib Cakes

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓

play 4 times play 4 times

Red Baron

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↑ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↑ ↓ ↓

play 4 times play 4 times

Give It Up, Pick Up the Pieces (Golub)

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓ ↓

play 4 times play 4 times

Super Bad

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↑ ↑ ↓ ↓ ↓ ↑ ↑ ↓ ↓

play 4 times play 4 times

Come Dancing

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓ ↓

play 4 times play 4 times

A Go Go

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓ ↓

play 4 times play 4 times

Le Freak, Elephant Talk

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓ ↓

play 4 times play 4 times

Can't Stop

Straight Sixteenths Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓

play 4 times play 4 times

Mister Magic

Straight Sixteenths

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a

1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↓

↓ ↓ ↓ ↓

play 4 times

play 4 times

You Know What I Mean

Straight Sixteenths

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a

1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↓

↓ ↓ ↓ ↓

play 4 times

play 4 times

Use Me

Straight Sixteenths

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a

1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↓

↓ ↓ ↓ ↓

play 4 times

play 4 times

You Got to Funkifyze

Straight Sixteenths

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a

1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↓

↓ ↓ ↓ ↓

play 4 times

play 4 times

Cissy Strut (Scofield)

Straight Sixteenths

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a

1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↓

↓ ↓ ↓ ↓

play 4 times

play 4 times

4 Soul Vaccination

Straight Sixteenths

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a

1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↓

↓ ↓ ↓ ↓

play 4 times

play 4 times

Good Times

Straight Sixteenths

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a

1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↓

↓ ↓ ↓ ↓

play 4 times

play 4 times

Funk in the Hole

Straight Sixteenths

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a

1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↓ ↓

↓ ↓ ↓ ↓

play 4 times

play 4 times

Dog Party

Straight Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↓

play 4 times

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↓

play 4 times

Cold Sweat

Straight Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↓ ↓

play 4 times

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↓ ↓

play 4 times

Chank

Straight Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↑ ↓ ↓ ↓ ↓ ↑

play 4 times

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↑ ↓ ↓ ↓ ↓ ↑

play 4 times

Jungle Boogie

Straight Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↑ ↓ ↑ ↓ ↑ ↑ ↓

play 4 times

Swing Sixteenths

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

↓ ↓ ↑ ↓ ↓ ↑ ↓ ↑ ↓ ↑ ↑ ↓

play 4 times

C-Jam Blues Straight Eighths
1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +
play 4 times

C-Jam Blues Swing Eighths
1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +
play 4 times

Stolen Dance Straight Eighths 1 + 2 3 + 4 + Swing Eighths 1 + 2 3 + 4 +
play 4 times

You Got To Funkafize (bar 3 of V chord) Straight Eighths 1 + 2 3 + 4 + Swing Eighths 1 + 2 3 + 4 +
play 4 times

I Got You, arpeggio on V chord Straight Eighths 1 + 2 3 + 4 + 1 + 2 3 + 4 + Swing Eighths 1 + 2 3 + 4 + 1 + 2 3 + 4 +
play 4 times

Soul Vaccination Straight Eighths 1 + 2 3 + 4 + 1 + 2 3 + 4 + Swing Eighths 1 + 2 3 + 4 + 1 + 2 3 + 4 +
play 4 times

For the Love of Money Straight Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +
play 4 times

For the Love of Money Swing Eighths 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +
play 4 times

Pushes

play video in swing eighths or play video in straight eighths

Its important to practice the rhythms in swing and straight.

♩ = 130

push one

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push one, push 2

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, push 3

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, push 4

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, push 2, push 3

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, push 2, push 4

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, push 3, push 4

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, 2 and

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, 2 and, push 4

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, 3 and

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, push 2, 3 and

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, and 2 and

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, and 2 and, push 4

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, and 3 and

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

push 1, push 2, and 3 and

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 + 4 and, push 2 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + "four and", push 3 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + "four and", push 2, push 3 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 4 and, two and 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + 4 and, and two and 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + and 4 and 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + and 4 and, push 2 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + and 4 and, push 3 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + and 4 and, push 2, push 3 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + and 4 and, 2 and 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + push 2 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + push 2, push 3 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + push 2, push 3, push 4 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + push 2, 3 and 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + push 2, and 3 and 1 + 2 + 3 + 4 +

play 4 times

1 + 2 + 3 + 4 + push 3 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + push 3, push 4 1 + 2 + 3 + 4 +

play 4 times

“push groups” with three or four notes

This concept is useful to conceive complex rhythms. Three eighth notes on “and-four-and” or on “and-two-and” can function to push beat one or three respectively, likewise preceded by a rest or sustain.

Four-pulse rhythmic words with three or four notes than include the fourth pulse are “all four” (1-2-3-4), gallop (1-3-4), Creedence (1-2-4) and “2-3-4”. They can occur at the eighth note level on beats three and four in 4/4 to push beat one, or on beats one and two to push beat three. See [Four-Pulse Rhythmic words/All Possible Four-Pulse Rhythmic Words](#).

They must be preceded by a rest or sustain or in many cases by pitches that separate them melodically, by being based on another chord or in a different range of pitch.

Cadence Pickups

eighth note cadence pickups - links to video: [straight eighths](#) [swing eighths](#)

♩ = 120

1

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

13

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

♩ = 120

1

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

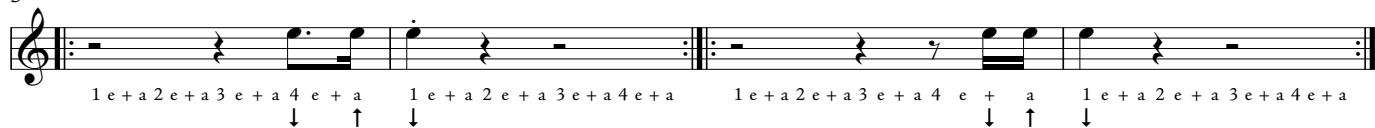
sixteenth note cadence pickups - links to video: [straight sixteenths](#), [swing sixteenths](#)

♩ = 85

1



5



9



13

**Straight Sixteenths**

♩ = 85

1



5



9



Pickups

eighth note pickups - [play video](#)

♩ = 150

straight eighth note pickups

5

9

13

17 *gallup*

21 *last two offbeats*

jingle bells

last three offbeats

♩ = 150

Swing Eighths

swing eighth note pickups

25

29

33

37

41 *gallup*

jingle bells

45 *last two offbeats*

last three offbeats

eighth note triplet pickups - [play video](#)

♩ = 120

Swing Eighths

eighth triplet pickups

5

9

13

17 Afro-Cuban middle triplet

21 Afro-Cuban, triplet Afro-Cuban, waltz

25 Afro-Cuban, middle triplet middle triplet, triplet

29 middle triplet, Afro-Cuban middle triplet, waltz

sixteenth note pickups - [play video](#)

♩ = 80

sixteenth note pickups

1

5

9

13

17

21

gallup

jingle bells

last two offbeats

last three offbeats

♩ = 80

Swing Eighths

swing sixteenth note pickups

25

29

33

37

41

45

gallup

jingle bells

last two offbeats

last three offbeats

sixteenth note triplet pickups - [play video](#)

♩ = 80

sixteenth triplet pickups

The following musical notation shows sixteenth note triplet pickups in 4/4 time, with a tempo of 80 beats per minute. The notation is organized into seven systems, each with a measure number and a descriptive label. The notes are in treble clef, and the key signature is one flat (Bb). The pickup patterns are indicated by brackets and the number 3. Fingerings are indicated by arrows (up for upstroke, down for downstroke).

5 sixteenth triplet pickups

9

13

17 Afro-Cuban middle triplet

21 Afro-Cuban, triplet Afro-Cuban, waltz

25 Afro-Cuban, middle triplet middle triplet, triplet

29 middle triplet, Afro-Cuban middle triplet, waltz

♩ = 140
Swing Eighth

swing eighths and triplets

1 + 2 trip let 3 + 4 trip let 1 + 2 trip let 3 + 4 trip let

play 4 times

♩ = 140
Straight Eighth

swing eighths and triplets, 12/8 equivalent

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 140
Swing Eighth

I'm a Man, Roadhouse Blues

1 + 2 + 3 + 4 trip let 1 + 2 + 3 + 4 trip let

play 4 times

♩ = 140
Straight Eighth

I'm a Man, Roadhouse Blues (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 140
Swing Eighth

Blues Power

1 trip let 2 trip let 3 trip let 4 trip let 1 trip let 2 trip let 3 trip let 4 trip let

play 4 times

♩ = 140
Straight Eighth

Blues Power (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 140
Swing Eighth

Sex Machine

1 + 2 trip let 3 + 4 + 1 + 2 trip let 3 + 4 +

play 4 times

♩ = 140
Straight Eighth

Sex Machine (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 140
Swing Eighth

Done Somebody Wrong

1 + 2 + 3 + 4 trip let 1 + 2 + 3 + 4 trip let

↓ ↓ ↓ ↓ ↓ ↑ ↓ ↑ ↓ ↓ ↓ ↓ ↓ ↑ ↓ ↑

play 4 times

♩ = 140
Straight Eighth

Done Somebody Wrong (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

↓ ↓ ↓ ↓ ↓ ↓ ↑ ↓ ↑ ↓ ↓ ↓ ↓ ↓ ↓ ↑ ↓ ↑

play 4 times

♩ = 140
Swing Eighth

Stormy Monday

1 trip let 2 + 3 + 4 trip let 1 trip let 2 + 3 + 4 trip let

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑

play 4 times

♩ = 140
Straight Eighth

Stormy Monday (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑

play 4 times

♩ = 140
Swing Eighth

I Put a Spell on You

1 trip let 2 trip let 3 trip let 4 trip let 1 trip let 2 trip let 3 trip let 4 trip let

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

play 4 times

♩ = 140
Straight Eighth

I Put a Spell on You (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

play 4 times

♩ = 140
Swing Eighth

Smokestack Lightning (12/8)

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↓ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓

play 4 times

♩ = 140
Straight Eighth

Smokestack Lightning (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

Triplets and Swing Eighths with Backbeat - [click to play](#)

♩ = 140

Swing Eighths

blues shuffle with backbeat

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑

play 4 times

♩ = 140

Straight Eighths

blues shuffle with backbeat (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑

play 4 times

♩ = 140

Swing Eighths

swing eighths on backbeat

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↓ ↑ ↓ ↓ ↑ ↓ ↓ ↑ ↓ ↓ ↑

play 4 times

♩ = 140

Straight Eighths

swing eighths on backbeat (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑

play 4 times

♩ = 140

Swing Eighths

sparse shuffle with backbeat

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↓ ↑ ↓ ↑ ↓ ↓ ↑ ↓ ↑ ↓ ↑

play 4 times

♩ = 140

Straight Eighths

sparse shuffle with backbeat (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

↓ ↓ ↓ ↑ ↓ ↑ ↓ ↓ ↑ ↓ ↑ ↓ ↓ ↑ ↓ ↑

play 4 times

♩ = 140

Swing Eighths

backbeat, swing on three

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↑

play 4 times

♩ = 140

Straight Eighths

backbeat, swing on three (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↑

play 4 times

♩ = 140

Swing Eighth

Rock Me Baby

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

12 18

play 4 times

♩. = 140

Rock Me Baby (12/8)

Straight Eighths

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 140

Swing Eighths

trip back, swing back

1 trip let 2 + 3 + 4 + 1 trip let 2 + 3 + 4 +

3 3

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

play 4 times

12 18

♩. = 140

trip back, swing back (12/8)

Straight Eighths

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 140

Swing Eighths

swing back, trip back

1 + 2 + 3 trip let 4 + 1 + 2 + 3 trip let 4 +

3 3

play 4 times

♩. = 140

swing back, trip back (12/8)

Straight Eighths

The musical notation is written on a single staff in 12/8 time. It begins with a whole rest for the first measure. The second measure is a repeat sign followed by a quarter note G4, an eighth note A4, and a quarter note B4. The third measure consists of a quarter note G4, an eighth note A4, and a quarter note B4. The fourth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The fifth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The sixth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The seventh measure is a quarter note G4, an eighth note A4, and a quarter note B4. The eighth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The ninth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The tenth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The eleventh measure is a quarter note G4, an eighth note A4, and a quarter note B4. The twelfth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The thirteenth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The fourteenth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The fifteenth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The sixteenth measure is a quarter note G4, an eighth note A4, and a quarter note B4. The notation is repeated four times, as indicated by the 'play 4 times' instruction.

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

Polyrhythmic Afro-Cuban - [click to play](#)

♩ = 120

Bernard Purdie half time shuffle

1 trip let 2 trip let 3 trip let 4 trip let 1 trip let 2 trip let 3 trip let 4 trip let

play 4 times

♩ = 120

Bernard Purdie half time shuffle (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 120

Bembe

1 trip let 2 trip let 3 trip let 4 trip let 1 trip let 2 trip let 3 trip let 4 trip let

play 4 times

♩ = 120

Bembe (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 120

Adowa

1 trip let 2 trip let 3 trip let 3 trip let 1 trip let 2 trip let 3 trip let 3 trip let

play 4 times

♩ = 120

Adowa (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 120

Bikutsi, Abakua

1 trip let 2 trip let 3 trip let 2 trip let 1 trip let 2 trip let 3 trip let 2 trip let

play 4 times

♩ = 120

Bikutsi, Abakua (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

play 4 times

♩ = 120

Bembe clave

1 trip let 2 trip let 3 trip let 4 trip let 1 trip let 2 trip let 3 trip let 4 trip let

♩ = 120

Bembe clave (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

♩ = 120

Bembe cowbell

1 trip let 2 trip let 3 trip let 4 trip let 1 trip let 2 trip let 3 trip let 4 trip let

♩ = 120

Bembe cowbell (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

♩ = 120

six eight feel

1 trip let 2 trip let 3 trip let 4 trip let 1 trip let 2 trip let 3 trip let 4 trip let

♩ = 120

six eight feel (12/8)

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

POP SONG THEMES USABLE AS MELODIC RHYTHMS

[click to play Pop Song Themes Usable as Melodic Rhythms](#)

Straight Eighths

♩ = 120

pop folk strum no. 1

pop folk strum no. 2

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Suzie Q

Should I Stay or Should I Go

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Brown-Eyed Girl

Free Fallin'

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Not Fade Away (clave 3-2)

I Shot the Sheriff

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Girl From Ipanema

Guaguanco Bell

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Are You Gonna Be My Girl

Walk On the Wild Side

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

I Got Rhythm

Seven Come Eleven

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

Can't You Hear Me Knocking

Brown Sugar

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 +

BUILDING MELODIC RHYTHMS

The goal is to hear the rhythm aurally as a musical idea. If necessary, go through the step-by-step process of building your ability to play the rhythm on four notes with a metronome playing four pulses per beat: strum chord, pick on one note, play arpeggio; then do the the same with iReal Pro or a backing track.

don't combine rhythmic words that cause more than two consecutive unplayed pulses

To retain the energy in up-tempo styles like swing blues and bebop, play notes more continuously. Avoid skipping more than two consecutive pulses. This means, for example, that you would not use the four-pulse word “1”, because it ends with three consecutive unplayed pulses. Nor should you use the four-pulse word “4”, because it begins with three consecutive unplayed pulses

Building Four-Pulse Melodic Rhythms with Driving Energy

Using two [four-pulse rhythmic words](#), build rhythms for continuous eight-pulse settings. Typical settings are two 4/4 bars of eighth note pulses or two x/4 beats of sixteenth-note pulses. See [All Possible Four-Pulse Rhythmic Words](#).

three of four plus one of four

Combine one four-pulse rhythm with three notes (Jingle Bells, gallop, Creedence or “234” each choose three of four pulses) with the one-note rhythm “2” or “3” four-pulse rhythm (“2” or “3” each choose one of four pulses). To make the rhythm more continuous, don't use the four-pulse rhythms “1” or “4”, since they each have the undesired three consecutive pulses not played.

two of four plus two of four

Combine two the four-pulse rhythms than choose two of four pulses. To avoid more than three consecutive unplayed pulses, don't follow “12” with “23” or with “34”. Likewise, don't follow “23” with “34”.

Four-Pulse Melodic Rhythm Exercises with Modes

[click to play](#)

Swing Sixteenths preview rhythms made with "three choices of four and one choice of four"

♩ = 100

major Cmaj9 Mixolydian C9 Dorian Cm9 Aeolian Cm9

harmonic minor Cm9(ma7) Phrygian dominant G7(b9) Lydian dominant Db13(#11) super Locrian G7(#9)

exercises for "three of four" and "one of four"

Jingle Bells, 2 Jingle Bells, 2 Jingle Bells, 2 Jingle Bells, 2 Jingle Bells, 2 all four all four major

Jingle Bells, 3 Jingle Bells, 3 Jingle Bells, 3 Jingle Bells, 3 Jingle Bells, 3 all four all four Mixolydian

gallop, 2 gallop, 2 gallop, 2 gallop, 2 gallop, 2 all four all four Dorian

gallop, 3 gallop, 3 gallop, 3 gallop, 3 all four all four Aeolian Cm9

Creedence, 2 Creedence, 2 Creedence, 2 Creedence, 2 Creedence, 2 all four all four harmonic minor Cm9(ma7)

gallop, 3 gallop, 3 gallop, 3 gallop, 3 gallop, 3 all four all four Phrygian dominant G7(b9)

40 $\text{Db}13(\#11)$ 234, 2 234, 2 234, 2 234, 2 all four all four Lydian dominant $\text{G}7(\#9)$ play 4 times

45 $\text{G}7(\#9)$ 234, 3 234, 3 234, 3 all four all four super Locrian $\text{G}7(\flat9)$ play 4 times

preview rhythms made with pairs of "two choices of four", beginning with "12" or "13"
(12, 12; 12, 13; 12, 14; 13, 12; 13, 13; 13, 14; 13, 23; 13, 24)

50 Swing Sixteenths major $\text{C}^{\text{maj}9}$ Mixolydian Dorian Cm^9 Aeolian Cm^9

55 harmonic minor $\text{Cm}^9(\text{ma}7)$ Phrygian dominant $\text{G}7(\flat9)$ Lydian dominant $\text{Db}13(\#11)$ super Locrian $\text{G}7(\#9)$

exercises for pairs of "two choices of four", beginning with "12" or "13"

59 12, 12 12, 12 12, 12 12, 12 12, 12 all four all four major $\text{C}^{\text{maj}9}$ play 4 times

64 C 12, 13 12, 13 12, 13 12, 13 12, 13 all four all four Mixolydian play 4 times

69 Cm 12, 14 12, 14 12, 14 all four all four Dorian Cm^9 play 4 times

74 Cm 13, 12 13, 12 13, 12 all four all four Aeolian Cm^9 play 4 times

79 Cm 13, 13 13, 13 13, 13 all four all four harmonic minor $\text{C}^9(\text{ma}7)$ play 4 times

89 $D\flat 13(\sharp 11)$ 13, 23 13, 23 13, 23 all four all four Lydian dominant $D\flat 13(\sharp 11)$ play 4 times

94 $G7(\sharp 9)$ 13, 24 13, 24 13, 24 all four all four super Locrian $G7(b9)$

preview rhythms made with pairs of "two choices of four", beginning with "14"

(14, 12; 14, 13; 14, 14; 14, 23; 14, 24; 14, 34)

99 Swing Sixteenths major C^{maj9} Mixolydian C^9 Dorian Cm^9 Aeolian Cm

104 harmonic minor $Cm^9(ma^7)$ Phrygian dominant $G7(b9)$

exercises for pairs of "two choices of four", beginning with "14"

108 C 14, 12 14, 12 14, 12 14, 12 14, 12 all four all four major C^{maj9} play 4 times

113 C 12, 13 12, 13 14, 13 14, 13 14, 13 all four all four Mixolydian C^9 play 4 times

118 Cm 14, 14 14, 14 14, 14 14, 14 14, 14 all four all four Dorian Cm^9 play 4 times

123 Cm 14, 23 14, 23 14, 23 14, 23 14, 23 all four all four Aeolian Cm play 4 times

128 Cm 14, 24 14, 24 14, 24 14, 24 14, 24 all four all four harmonic minor $Cm^9(ma^7)$ play 4 times

133 $G7(b9)$ 14, 34 14, 34 14, 34 14, 34 14, 34 all four all four Phrygian dominant $G7(b9)$ play 4 times

preview rhythms made with pairs of "two choices of four", beginning with "23" or "24"

(23, 12; 23, 13; 23, 14; 23, 23; 23, 24; 34, 13; 34, 14)

major
Cmaj9

Mixolydian
C⁹

Dorian
Cm⁹

Aeolian
Cm⁹

harmonic minor
Cm⁹(ma⁷)

Phrygian dominant
G7(b9)

Lydian dominant
D^b13(#11)

exercises for pairs of "two choices of four", beginning with ""23" or 24"

23, 12 23, 12 23, 12 23, 12 23, 12 all four all four major
Cmaj9

↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ play 4 times

23, 13 23, 13 23, 13 23, 13 23, 13 all four all four Mixolydian
C⁹

↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↓ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ play 4 times

23, 14 23, 14 23, 14 23, 14 23, 14 all four all four Dorian
Cm⁹

↑ ↓ ↓ ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↓ ↑ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ play 4 times

23, 23 23, 23 23, 23 23, 23 23, 23 all four all four Aeolian
Cm⁹

↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ play 4 times

23, 24 23, 24 23, 24 23, 24 23, 24 all four all four harmonic minor
Cm⁹(ma⁷)

↑ ↓ ↑ ↑ ↑ ↓ ↑ ↑ ↑ ↓ ↑ ↑ ↑ ↓ ↑ ↑ ↑ ↓ ↑ ↑ ↑ ↓ ↑ ↑ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ play 4 times

34, 13 34, 13 34, 13 34, 13 34, 13 all four all four Phrygian dominant
G7(b9)

↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↓ play 4 times

34, 14 34, 14 34, 14 34, 14 34, 14 all four all four Lydian dominant
D^b13(#11)

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ play 4 times

Building Three-Pulse Melodic Rhythms with Driving Energy

Using two [three-pulse rhythmic words](#), build rhythms for continuous six-pulse settings (two triplets, part of which may be rests or sustain). Typical settings are two 3/4 bars of eighth note pulses or one beat of sixteenth-note triplet pulses. See [Three-Pulse Rhythmic Words](#).

pairs of three-pulse rhythmic words that avoid more than two consecutive unplayed pulses

The following combinations preserve driving energy. 123-1, 123-2, 123-3, 12-12, 12-13, 12-23, 13-12, 13-13, 13-23, 23-12, 23-23, 1-123, 2-123-3-123.

three-pulse melodic rhythms with modes

[click to play](#)

♩ = 100

major
Cmaj9

Mixolydian
C9

Dorian
Cm9

Aeolian
Cm9

harmonic minor
Cm9(ma7)

Phrygian dominant
G7

Lydian dominant
Db7

super Locrian
G7

major
Cmaj9

Mixolydian
C9

Dorian
Cm9

Aeolian
Cm9

harmonic minor
Cm9(ma7)

Phrygian dominant
G7

MELODIC RHYTHMS

Primary Eighth Note Triplets - [play video](#)

triplet

swing eighth

Afro-Cuban

waltz

triplet

swing eighth

Afro-Cuban

waltz

triplet with others

triplet with others

swing eighth with others

swing eighth with others

Afro-Cuban with others

Afro-Cuban with others

waltz with others

waltz with others

continuous offbeats: "written out" swing eighths with ties

continuous offbeats: "written out" swing eighths with ties

Primary Sixteenth Note Rhythms - [play video](#)

all four sixteenths

gallop

jingle bells

Creedence

234

all four with others

gallop with others

jingle bells with others

Creedence with others

234 with others

consecutive compound syncopation

Two-Note Rhythms - play video

swing eighth

pairs of eighths

Afro-Cuban

waltz

1 and 4 of 4

1 and 2 of 4

2 and 3 of 4

2 and 4 of 4

Three-Note Rhythms - play video

gallop

jingle bells

Creedence

234

triplet

quarter and swing eighth

swing eighth and quarter

quarter and eighth waltz

swing eighth and quarter

eighth waltz and quarter

quarter and eighth Afro-Cuban

eighth Afro-Cuban and quarter

Four-Note Rhythms - [play video](#)

This image displays 40 four-note rhythmic patterns, numbered 1 through 40, arranged in ten rows of four. Each pattern is written on a single staff in 2/4 time. The patterns are as follows:

- 1: Quarter, Quarter, Quarter, Quarter
- 2: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 3: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 4: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 5: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 6: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 7: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 8: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 9: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 10: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 11: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 12: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 13: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 14: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 15: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 16: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 17: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 18: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 19: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 20: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 21: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 22: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 23: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 24: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 25: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 26: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 27: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 28: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 29: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 30: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 31: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 32: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 33: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 34: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 35: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 36: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 37: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 38: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 39: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)
- 40: Quarter, Quarter, Quarter, Quarter (with a 3-measure rest before the final quarter)

Five-Note Rhythms - [play video](#)

This page displays 49 five-note rhythmic patterns, numbered 1 through 49, arranged in ten staves. The notation is in 2/4 time, using eighth and sixteenth notes, rests, and triplet markings. The patterns are as follows:

- Staff 1: Patterns 1-4. Each consists of two eighth notes, a quarter note, and two eighth notes, with various triplet markings.
- Staff 2: Patterns 5-8. Pattern 5 has a quarter rest followed by eighth notes. Pattern 6 has a quarter note followed by eighth notes. Pattern 7 has a quarter note followed by eighth notes. Pattern 8 has a quarter note followed by eighth notes.
- Staff 3: Patterns 9-12. Pattern 9 has eighth notes. Pattern 10 has eighth notes. Pattern 11 has eighth notes. Pattern 12 has eighth notes.
- Staff 4: Patterns 13-16. Pattern 13 has eighth notes. Pattern 14 has eighth notes. Pattern 15 has eighth notes. Pattern 16 has eighth notes.
- Staff 5: Patterns 17-20. Pattern 17 has eighth notes. Pattern 18 has eighth notes. Pattern 19 has eighth notes. Pattern 20 has eighth notes.
- Staff 6: Patterns 21-24. Pattern 21 has eighth notes. Pattern 22 has eighth notes. Pattern 23 has eighth notes. Pattern 24 has eighth notes.
- Staff 7: Patterns 25-28. Pattern 25 has eighth notes. Pattern 26 has eighth notes. Pattern 27 has eighth notes. Pattern 28 has eighth notes.
- Staff 8: Patterns 29-32. Pattern 29 has eighth notes. Pattern 30 has eighth notes. Pattern 31 has eighth notes. Pattern 32 has eighth notes.
- Staff 9: Patterns 33-36. Pattern 33 has eighth notes. Pattern 34 has eighth notes. Pattern 35 has eighth notes. Pattern 36 has eighth notes.
- Staff 10: Patterns 37-40. Pattern 37 has eighth notes. Pattern 38 has eighth notes. Pattern 39 has eighth notes. Pattern 40 has eighth notes.
- Staff 11: Patterns 41-44. Pattern 41 has eighth notes. Pattern 42 has eighth notes. Pattern 43 has eighth notes. Pattern 44 has eighth notes.
- Staff 12: Patterns 45-49. Pattern 45 has eighth notes. Pattern 46 has eighth notes. Pattern 47 has eighth notes. Pattern 48 has eighth notes. Pattern 49 has eighth notes.

Six-Note Rhythms in Eighth Triplets - play [video 1](#) [video 2](#) [video 3](#)

This musical score consists of 48 measures of music, organized into 12 staves of 4 measures each. The notation is in treble clef. Measures 1 through 32 are in 4/4 time, while measures 33 through 48 are in 3/4 time. The music features eighth-note triplets, indicated by a '3' and a bracket under the notes. Measure numbers 1 through 48 are printed above the corresponding measures. The score includes various rhythmic patterns using eighth notes and eighth-note triplets, with some measures containing rests or specific articulation marks like accents.

Measures 49-72: Six-note rhythms in sixteenth notes. The notation is in treble clef with a key signature of one sharp (F#). Measures 49-52 show a sequence of sixteenth notes with triplet markings (3). Measures 53-56 continue the sequence. Measures 57-60 show a variation with eighth notes. Measures 61-64 show a variation with eighth notes and triplet markings. Measures 65-68 show a variation with eighth notes and triplet markings. Measures 69-72 show a variation with eighth notes and triplet markings, ending with a double bar line.

Six-Note Rhythms In Sixteenth Notes - [play video](#)

Measures 2-28: Six-note rhythms in sixteenth notes. The notation is in treble clef with a key signature of one sharp (F#). Measures 2-5 show a sequence of sixteenth notes. Measures 6-9 show a variation with eighth notes. Measures 10-13 show a variation with eighth notes and triplet markings. Measures 14-17 show a variation with eighth notes and triplet markings. Measures 18-21 show a variation with eighth notes and triplet markings. Measures 22-25 show a variation with eighth notes and triplet markings. Measures 26-28 show a variation with eighth notes and triplet markings, ending with a double bar line.

Seven-Note Rhythms - [play video](#)

This musical score presents 40 measures of rhythmic exercises in treble clef. The notation is organized into ten systems of four measures each. Measures 1 through 4 are in 2/4 time, while measures 5 through 40 are in 3/4 time. The exercises are composed of eighth and sixteenth notes, often grouped into triplets. Measure numbers 1 through 40 are printed above the corresponding measures. The score concludes with a double bar line at the end of measure 40.

Syncopated Series for Improv

syncopated eighth note series - [play video](#)

♩ = 150

Swing Eighths

5

9

13

17

21

25

29

33

37

41

45

49

53

57

61

65

69

syncopated sixteenth note series - [play video](#)

♩ = 90

Swing Sixteenths

Ending on the Numbered Beat or on the "And"

5

1

5

9

13

17

21

25

29

Rhythm in Bebop Ornamentation - play video **100 BPM 130 BPM**

See Core Melody with Baroque-Bebop Ornmentation/[Bebop Rhythmic Interpretation](#).

♩ = 130
Swing Eighthths
on the beat

Measures 1-12 are grouped into three systems. Each system contains a treble clef staff and a guitar TAB staff. The first system (measures 1-4) shows a melodic line with eighth-note triplets and a TAB line with corresponding fret numbers (7, 5, 7, 5). The second system (measures 5-8) continues the melodic line with eighth-note triplets and a TAB line with fret numbers (5, 6, 5, 7, 5). The third system (measures 9-12) shows a melodic line with eighth-note triplets and a TAB line with fret numbers (5, 6, 5, 3, 5, 3). The notation includes repeat signs and slurs over the eighth-note triplets.

off the beat

Measures 13-24 are grouped into three systems. Each system contains a treble clef staff and a guitar TAB staff. The first system (measures 13-16) shows a melodic line with eighth-note triplets and a TAB line with fret numbers (8, 10, 8). The second system (measures 17-20) shows a melodic line with eighth-note triplets and a TAB line with fret numbers (7, 8, 7, 5). The third system (measures 21-24) shows a melodic line with eighth-note triplets and a TAB line with fret numbers (7, 8, 7, 5). The notation includes repeat signs and slurs over the eighth-note triplets. The text "as a pickup" is written above the melodic line in measures 15 and 19.

25

as a pickup

TAB

in the middle of the beat

29

TAB

PROGRESSIVE RHYTHMIC WORDS

a reading exercise - [click to play video](#)

♩ = 100

Four-Pulse Rhythmic Words - Quarter Note Beats

Measures 1-32: Four-Pulse Rhythmic Words - Quarter Note Beats. The notation is in 4/4 time. Measures 1-8: Four quarter notes, then a half note. Measures 9-16: Quarter note, eighth note, quarter note, eighth note, quarter note, eighth note, quarter note, eighth note. Measures 17-24: Quarter note, eighth note, quarter note, eighth note, quarter note, eighth note, quarter note, eighth note. Measures 25-32: Quarter note, eighth note, quarter note, eighth note, quarter note, eighth note, quarter note, eighth note.

♩ = 50

Four-Pulse Rhythmic Words - Eighth Note Half Beats

Measures 33-66: Four-Pulse Rhythmic Words - Eighth Note Half Beats. The notation is in 2/4 time. Measures 33-40: Quarter note, eighth note, quarter note, eighth note. Measures 41-48: Quarter note, eighth note, quarter note, eighth note. Measures 49-56: Quarter note, eighth note, quarter note, eighth note. Measures 57-64: Quarter note, eighth note, quarter note, eighth note. Measures 65-66: Quarter note, eighth note, quarter note, eighth note.

♩ = 50

Four-Pulse Rhythmic Words - Sixteenth Note Quarter Beats

Measures 67-99: Four-Pulse Rhythmic Words - Sixteenth Note Quarter Beats. The notation is in 4/4 time. Measures 67-74: Quarter note, eighth note, quarter note, eighth note. Measures 75-82: Quarter note, eighth note, quarter note, eighth note. Measures 83-90: Quarter note, eighth note, quarter note, eighth note. Measures 91-98: Quarter note, eighth note, quarter note, eighth note. Measure 99: Quarter note, eighth note, quarter note, eighth note.

♩ = 100

Three-Pulse Rhythmic Words - Quarter Note Beats

Measures 100-112: Three-Pulse Rhythmic Words - Quarter Note Beats. The notation is in 3/4 time. Measures 100-107: Quarter note, eighth note, quarter note, eighth note. Measures 108-115: Quarter note, eighth note, quarter note, eighth note. Measure 116: Quarter note, eighth note, quarter note, eighth note.

♩ = 100

Three-Pulse Rhythmic Words - Eighth Note Beats



♩ = 100

Three-Pulse Rhythmic Words - Sixteenth Note Beats



♩ = 100

Six-Pulse Rhythmic Words - Eighth Note Half Beats

Measures 141-230: A single staff in 3/4 time. Measures 141 and 142 are whole rests. Measures 143-230 contain eighth notes with rhythmic pulse markings (1, 2, 3) above them. The notation is divided into four systems of seven measures each. Measure 230 ends with a double bar line.

5

237 1 + 2 + 3 + 232 1 + 2 + 3 + 233 1 + 2 + 3 + 234 1 + 2 + 3 + 235 1 + 2 + 3 + 236 1 + 2 + 3 + 237 1 + 2 + 3 + 238 1 + 2 + 3 +

239 1 + 2 + 3 + 240 1 + 2 + 3 + 241 1 + 2 + 3 + 242 1 + 2 + 3 + 243 1 + 2 + 3 + 244 1 + 2 + 3 + 245 1 + 2 + 3 + 246 1 + 2 + 3 +

247 1 + 2 + 3 + 248 1 + 2 + 3 + 249 1 + 2 + 3 + 250 1 + 2 + 3 + 251 1 + 2 + 3 + 252 1 + 2 + 3 + 253 1 + 2 + 3 + 254 1 + 2 + 3 +

255 1 + 2 + 3 + 256 1 + 2 + 3 + 257 1 + 2 + 3 + 258 1 + 2 + 3 + 259 1 + 2 + 3 + 260 1 + 2 + 3 + 261 1 + 2 + 3 + 262 1 + 2 + 3 +

263 1 + 2 + 3 + 264 1 + 2 + 3 + 265 1 + 2 + 3 + 266 1 + 2 + 3 + 267 1 + 2 + 3 + 268 1 + 2 + 3 + 269 1 + 2 + 3 + 270 1 + 2 + 3 +

271 1 + 2 + 3 + 272 1 + 2 + 3 + 273 1 + 2 + 3 + 274 1 + 2 + 3 + 275 1 + 2 + 3 + 276 1 + 2 + 3 + 277 1 + 2 + 3 + 278 1 + 2 + 3 +

279 1 + 2 + 3 + 280 1 + 2 + 3 + 281 1 + 2 + 3 + 282 1 + 2 + 3 + 283 1 + 2 + 3 + 284 1 + 2 + 3 + 285 1 + 2 + 3 + 286 1 + 2 + 3 +

287 1 + 2 + 3 + 288 1 + 2 + 3 + 289 1 + 2 + 3 + 290 1 + 2 + 3 + 291 1 + 2 + 3 + 292 1 + 2 + 3 + 293 1 + 2 + 3 + 294 1 + 2 + 3 +

295 1 + 2 + 3 + 296 1 + 2 + 3 + 297 1 + 2 + 3 + 298 1 + 2 + 3 + 299 1 + 2 + 3 + 300 1 + 2 + 3 + 301 1 + 2 + 3 + 302 1 + 2 + 3 +

303 1 + 2 + 3 + 304 1 + 2 + 3 + 305 1 + 2 + 3 + 306 1 + 2 + 3 + 307 1 + 2 + 3 + 308 1 + 2 + 3 + 309 1 + 2 + 3 + 310 1 + 2 + 3 +

311 1 + 2 + 3 + 312 1 + 2 + 3 + 313 1 + 2 + 3 + 314 1 + 2 + 3 + 315 1 + 2 + 3 + 316 1 + 2 + 3 + 317 1 + 2 + 3 + 318 1 + 2 + 3 +

319 1 + 2 + 3 + 320 1 + 2 + 3 + 321 1 + 2 + 3 + 322 1 + 2 + 3 + 323 1 + 2 + 3 + 324 1 + 2 + 3 + 325 1 + 2 + 3 +

♩ = 100

Six-Pulse Rhythmic Words - Sixteenth Note Half Beats In Pairs Per Beat

327 328 329 330 331 332 333 334 335

336 337 338 339 340 341 342 343

344 345 346 347 348 349 350 351

352 353 354 355 356 357 358 359

360 361 362 363 364 365 366 367

368 369 370 371 372 373 374 375

376 377 378 379 380 381 382 383

384 385 386 387 388 389 390 391

392 393 394 395 396 397 398 399

400 401 402 403 404 405 406 407

408 409 410 411 412 413 414 415

416 417 418 419 420 421 422 423

424 425 426 427 428 429 430 431

432 433 434 435 436 437 438 439

440 441 442 443 444 445 446 447

448 449 450 451 452 453 454 455

457 458 459 460 461 462 463

464 465 466 467 468 469 470 471

472 473 474 475 476 477 478 479

480 481 482 483 484 485 486 487

488 489 490 491 492 493 494 495

496 497 498 499 500 501 502 503

504 505 506 507 508 509 510

10

♩ = 100

Three-Pulse Rhythmic Words - Eighth Note Triplets (thirds of a beat)

511 512 513 514 515 516 517 518 519 520 521 522 523

♩ = 100

Three-Pulse Rhythmic Words - Sixteenth Note Triplet (thirds of a beat in X/8, sixths of a beat in X/4)

524 525 526 527 528 529 530 531 532 533 534 535 536

Three-Pulse Rhythmic Words - Sixteenth Note Triplet (thirds of a beat in X/8, sixths of a beat in X/4)

537 538 539 540 541 542 543 544 545 546 547 548

Six-Pulse Rhythmic Words - Sixteenth Note Sextuplets

be able to think these in terms of pairs of sixteenths (triple meter) or groups of three (duple meter)

♩ = 100

549 550 551 552 553 554 555 556

557 558 559 560 561 562 563 564

565 566 567 568 569 570 571

Speed Reading Pitch

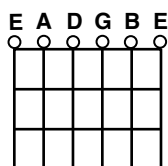
- **Strengthen Your Memory of Fretboard Note Names**
- **Using Multiple Perspectives to Read**
- **Choose a Scale Fingering**
- **Visualize the Written Scale**
- **Odd and Even Intervals on the Staff**
- **Visualize Intervals within a Fingering**

STRENGTHEN YOUR MEMORY OF FRETBOARD NOTE NAMES

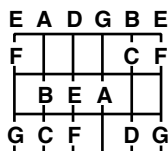
Open String Note Names

Use this memory device to memorize the open string note names: from sixth (largest string) to first string (smallest), the sequence created by the first letter of each word in this sentence below shows the open string note names.

Eat A Darn Good Breakfast Early



Open Position Natural Notes



open position natural notes on the three bass strings

A seven-letter alphabet is used in music, in a repeating cycle: A-B-C-D-E-F-G-A-B-C. etc. As you can see on the diagram above, the alphabetical pairs of letters A-B, C-D, F-G on the the same string each make a two -fret interval. The alphabetical pairs “B to C” and “E to F” are each a one fret interval. Where the musical alphabet starts over, G-A is an exception and is also a two-fret interval.

Since the sixth string open is “E” (fret zero), “F” would be one fret above it on the sixth string first fret. “G” would follow two frets above “F”, on the third fret. The fifth string open is “A” (fret zero). “B” would be two frets above it on the fifth string, second fret. “C” would follow one fret above “B” on the third fret. The fourth string open is “D” (fret zero). “E” would be two frets above it on the fourth string second fret. “F” would follow one fret above “E” on the third fret.

all open position natural notes

Starting with the sixth (largest) string, open “E”, ascend from the sixth string to the first (smallest) string, playing three notes on each string, except only two notes on the third string. After playing each open string, calculate the location of the next two letters, using the rule that each alphabetical pair is two frets apart, except the pairs B-C and E-F are one fret apart. Remember the exception: only play two

notes on the third string. You should have achieved the result shown below in standard music notation and tab.

A-B-C-D-E-F At the Fifth Position

As a group, the open position notes A-B-C on the fifth string and D-E-F on the fourth string duplicate on the sixth and fifth string at the fifth fret. See the diagrams to the right.

open

fret 1

A D

B E

C F

fret 5

A D

B E

C F

Natural Notes On The Two Bass Strings

Once you have memorized the open position note names on the two bass strings and “A-B-C-D-E-F” at the fifth position, all that remains is the tenth and twelfth frets. The twelfth fret note names are the same as each open string. The tenth fret on each string is one letter lower in the alphabet than the letter name for the twelfth fret.

open E A

F

B

G C

fret 5 A D

B E

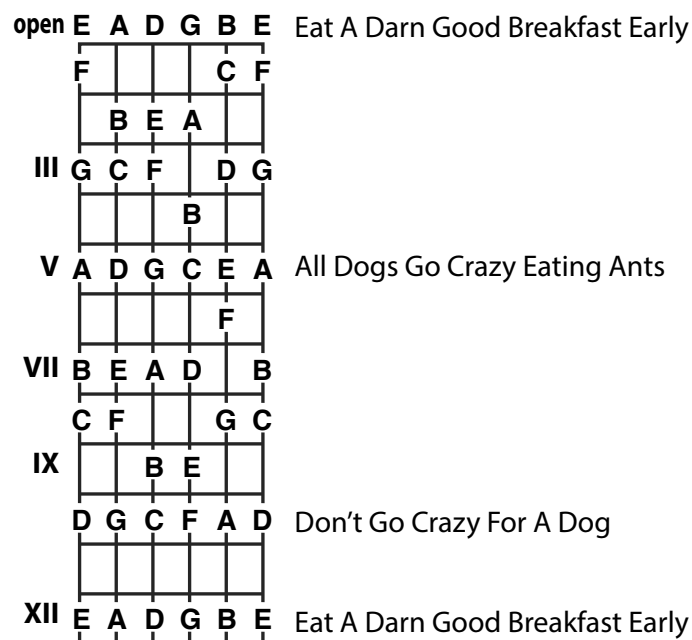
C F

fret 10 D G

fret 12 E A

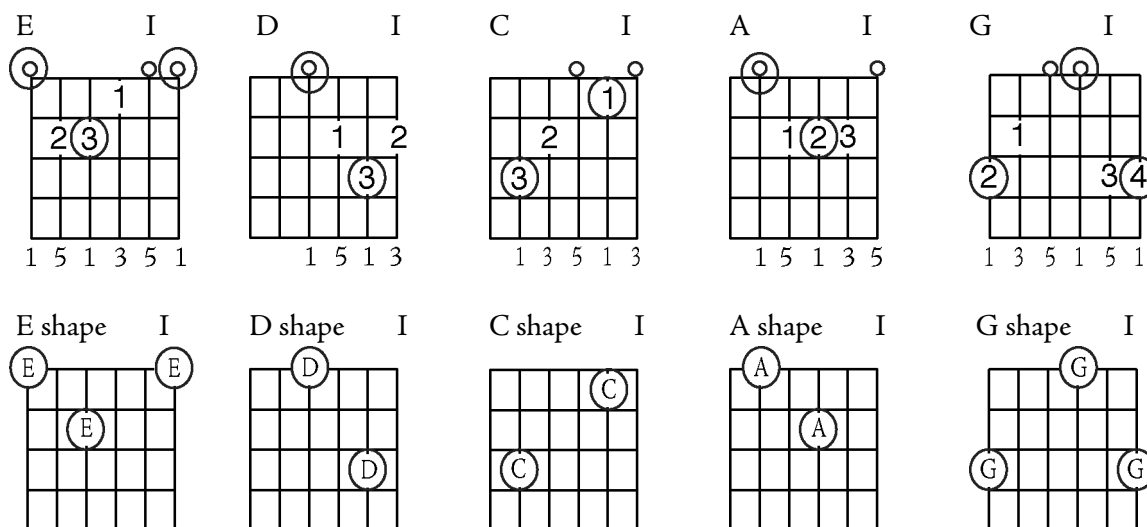
Frets with All Natural Notes

The open strings, fifth fret, tenth fret and twelfth fret have natural notes on every string. Next to the diagram at the right, sentences are shown to help memorize those notes. The set of first letters of each of the words names the natural notes from sixth (largest) string to first string.



Octaves

You can also find notes by referencing a note you know on one of the bass strings and locating its octave on a smaller string. The five octave shapes are shown in the second row below. The letters name the shape, but may be placed on any letter. The first row shows the origin of each octave shape in the roots of an open position chord. Explore the diagram above (Frets with All Natural Notes) to confirm that each note is related to others by octave shapes.



USING MULTIPLE PERSPECTIVES TO READ

Learning to read music notation with multiple perspectives will make you more capable. Being able to recognize letter names, intervals, patterns on scales, and so on can all make you a faster reader. Use your auditory memory of the melody (if any) to check the notes after you have used other criteria to decide where to play them. The perspectives include:

- Learn to identify intervals on the staff by [odd and even-numbered intervals](#), then specific intervals.
- Relate each note to scale tone “1” of the parent major scale (the major scale on which the melody is based). See [Key Scales, Parent Scales & Chord Scales/Key Scale, Chord Scale and Parent Scale](#).
- Identify consecutive scale tones, or sequences of every-other scale tone.
- In Note Sets, Structures and Design, study [Intervals and Formulas](#). Learn the unique interval fingerings: five unique octave fingerings; four unique fingerings for fourths and augmented fourths; eight unique fingerings for fifths and diminished fifths; six unique fingerings for major and minor thirds; six unique fingerings for major and minor sevenths.
- Relate each note in the piece of music to the next by interval.
- Practice visualizing on the staff, the parent major scale in intervals in this order: stepwise, octaves, fourths, fifths, thirds, sixths, then sevenths.
- Prepare to identify chord tones in the melody by learning [chord-naming conventions](#) and the theory of chord construction (see [All Scale-Tone Chords](#)).
- When the melody is played over a chord progression, learn many chord fingerings and a complete arpeggio for each chord in the fretboard area of the parent major scale. See [Triad Arpeggio Exercises/Triad Chord and Arpeggio Fingering](#) and see [Prime Scales, Chords and Arpeggios](#) (all of the sections with “Arpeggio” in the title).
- Learn melodic [theme and variation](#), so when it occurs in a melody you can learn to modify the fingering for one instance of a theme to another instance as directed by the melody.
- Learn [The Chord Serial Number System](#) in [Chord Archetypes](#), so you can quickly get the tones of a chord in mind.
- Learn principles of [voice leading](#), so you can predict the movement of voices in multi-voiced music.
- Learn the melodic and harmonic devices used in the piece of music, so you can predict melodic lines. See [Melodic Cells](#) and [Voice Leading](#).

Visualize every note you read: Read and play a phrase a few times until you memorize it. Focus on the mechanical event of fretting each note in sequence first, then the rhythm. Learn the melodic rhythm early enough that you don’t memorize an incorrect rhythm. Look away from the sheet music. Re-play

the phrase and in the process visualize it written on the staff. Then visualize playing the written phrase without a guitar, without reading.

A phrase is usually about eight to twenty notes, separated by pauses. If there are no pauses, group the notes into phrases of 8 to 20 notes by bars or by the chord progression.

CHOOSE A SCALE FINGERING

Most musical parts can be related to one or more major scales. Since most of the notes of a each section of a piece of music you read musical part are usually contained in a single major scale, knowing the major scale fingering in the range of the musical part you are reading is very helpful.

For the major scale, there are three archetypal one-octave fingerings, seven in-position fingerings and seven three-note-per-string fingerings.

Three Archetypal One-Octave Major Scale Fingerings

All in-position and three-note-per-string major scale fingerings are based on these three. The three archetypes are shown below in the key of A major (with three sharps: F#, C# and G#), with the three orientations regarding which finger is on the low octave tone center ("A" in this case): index finger, middle finger and little finger. Get used to the idea of keys having flats or sharps. Most keys do have flats or sharps.

index finger middle finger little finger

fingers → 1 2 4 1 2 4 1 2 2 4 1 2 4 1 3 4 4 1 3 4 1 3 4 1

numbered major scale tones → 1 2 3 4 5 6 7 1 1 2 3 4 5 6 7 1 1 2 3 4 5 6 7 1

compensation for the flat-tuned first and second strings

The two smallest strings on the guitar are tuned relatively one fret lower than the other strings. Each string is a perfect fourth (equal to five frets, non-inclusively) higher in pitch than the next larger string, except the second string. The relationship between the third and second string is unique. They are tuned a major third (four frets, non-inclusively) apart.

The instances of each of the three archetypal octave fingerings are shown below, where they have been moved to different string sets. Notice the "skewing" of the pattern where notes on the first two strings are fretted relatively one fret higher to compensate for the fact that the first two strings are tuned one fret lower than the other strings.

index finger

fingers → 1 2 4 1 2 4 1 2

TAB 5 7 9 5 7 9 6 7

numbered major scale tones → 1 2 3 4 5 6 7 1

middle finger

fingers → 2 4 1 2 4 1 3 4

TAB 5 7 4 5 7 4 6 7

numbered major scale tones → 1 2 3 4 5 6 7 1

middle finger converted to first finger

fingers → 1 3 1 2 4 1 3 4

TAB 2 4 2 3 5 2 4 5

numbered major scale tones → 1 2 3 4 5 6 7 1

little finger

fingers → 4 1 3 4 1 3 4 1

TAB 5 2 4 5 2 4 6 2

numbered major scale tones → 1 2 3 4 5 6 7 1

the seventh note changed strings, compared to the first bar

the seventh note changed strings, compared to the previous bar

the eighth note must be played on the first string, since we've "run out" of strings

the seven in-position major scale fingering patterns for guitar

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
3-4 reaches	2 reaches	no reaches	2-3 reaches	4-5 reaches	one reach	no reaches

the seven in-position major scale fingering patterns for bass

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
2 reaches	3 reaches	1 reach	1 reach	3 reaches	2 reaches	no reaches

seven three-note-per-string major scale fingering patterns for guitar

These are often useful alternatives to the in-position fingerings for fast linear playing.

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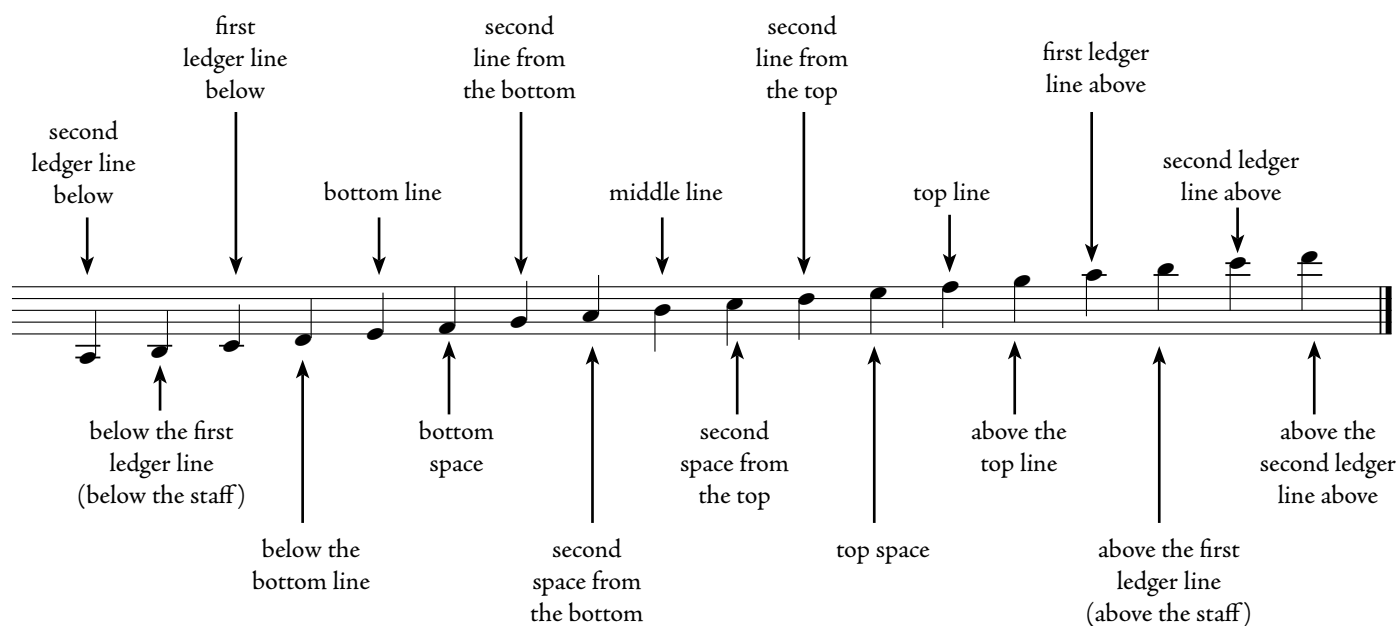
Assess The Range and Choose a Fingering

assessing the range in a piece a music

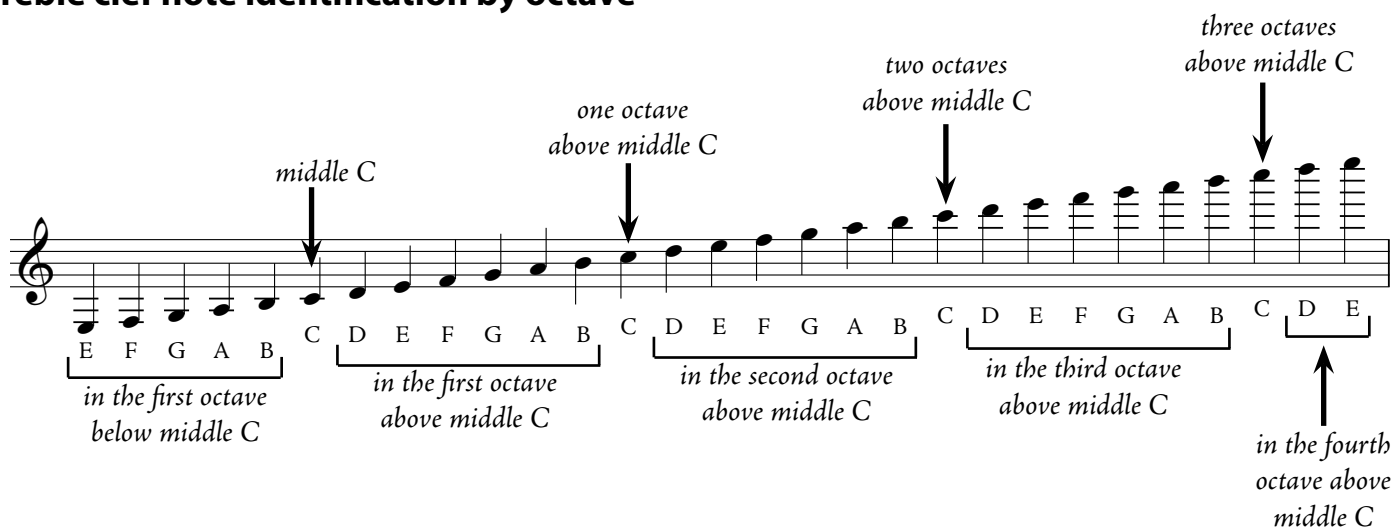
Find the highest and lowest notes in a piece of music. They span the range. Define the location of the lowest note in relation to middle "C". The choices include: in the octave below middle C, "middle C" (itself), "in the first octave above middle C", "in the second octave above middle C" and "in the third octave above middle C". Then conceive the range from that note to the highest note. Is the span over an octave? Is the span over two octaves?

staff location terminology

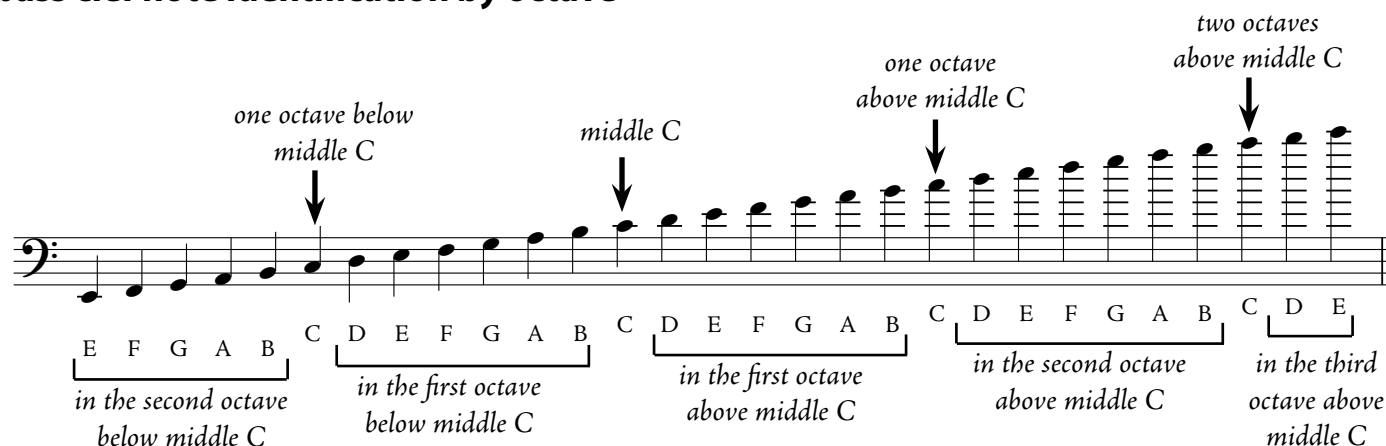
Its good to have universally understood terms to describe the location of a note on the staff to others, or in thinking it to yourself. Use the terms on the staff below. Since they are the same for any clef, no clef sign was shown at the left of the staff below.



treble clef note identification by octave



bass clef note identification by octave



determine the major scale on which the melody is based

At first, you can just use the major scale indicated by the key signature (see the separate chapter on key signatures). Once you are more advanced in music analysis, you can more discretely determine the relationship to major scales.

determine the major scale-tone number for the lowest and highest note

Each note in the major scale can be given a number. The note that names the major scale is numbered “1”, the next note above it is numbered “2”, and so on, numbering the seven notes of the scale in ascending order. The eighth note can be numbered “1” again, since it would have the same letter name as “1”.

define the lower note and describe the relationship to the upper note

Define the lowest note in the piece of music in the terms shown above. Describe relationship of the highest note in the piece to the lowest note in the piece in terms of being in the same octave (before the same numbered tone reoccurs), in the first octave higher or in the second octave higher.

choose an easy major scale fingering that accommodates the necessary range...

Using the [Full-Fretboard Treble Clef Note Names](#) chart (or your memory of it), determine which major scale fingering(s) would accommodate that range and choose the fingering with the fewest reaches (and the most duplication of pattern on adjacent strings). There are enlarged view on the two pages following the main chart.

progressive order of major scale fingerings by comfort

Melodies are usually based on major scales, alterations of them or subsets of them. The most comfortable major scale fingerings are contained within a range of four consecutive frets. Fingerings that require reaching to a fifth fret are less comfortable to play. It is also easier to fret a scale that has duplicate fingerings on adjacent strings, which requires less thought.

The easiest major scale fingerings are 3 and 7, since they have no “reaches”. “Body” reaches reach out of position with the pinky. “Head” reaches reach out of position with the index finger. Fingering 6 has one body reach. Fingerings 2 has two body reaches. Fingering 4 has two head reaches. Fingering 1 has three head reaches. Fingering 5 has four head reaches.

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
3 index reaches	2 pinky reaches	no reaches	2 index reaches	4 index reaches	1 pinky reach	no reaches

The longer in-position major scale fingerings are not well-suited for scalar patterns, but are more useful in creating harmonic structures. In playing a scale where there are duplicate notes on strings two and three, play either note (not both).

override reach ability by other considerations

The considerations of fret space width, tone, frequent occurrence of a “reached” note or accessible arpeggios can override the choice of a major scale fingering by range.

Fret space width. Playing too high (toward the guitar body), where the fret spaces are very small, will be less comfortable. Likewise, playing too low on the fretboard (toward the head of the guitar), where the fret spaces are very large, will be less comfortable.

Tone. You may choose a position closer to the head of the guitar for more treble tone or closer to the body of the guitar for more bass tone. Subtle considerations of one or more notes being on a plain string for brighter tone or on a wrapped string for more bassy tone may come into play.

Frequent occurrence of one or more “reached” notes (those that are not within the comfortable range of four consecutive frets) may cause preference for another fingering without that issue.

Accessible arpeggios. Look for arpeggios that are structurally part of the melody and consider their ease of fingering as subsets of the major scale fingering you choose.

Full-Fretboard Treble Clef Note Names

	string 6	string 5	string 4	string 3	string 2	string 1
open	E	A	D	G	B	E
fret 1	F	A \sharp B \flat	D \sharp E \flat	G \sharp A \flat	C	F
fret 2	F \sharp G \flat	B	E	A	C \sharp D \flat	F \sharp G \flat
fret 3	G	C	F	A \sharp B \flat	D	G
fret 4	G \sharp A \flat	C \sharp D \flat	F \sharp G \flat	B	D \sharp E \flat	G \sharp A \flat
fret 5	A	D	G	C	E	A
fret 6	A \sharp B \flat	D \sharp E \flat	G \sharp A \flat	C \sharp D \flat	F	A \sharp B \flat
fret 7	B	E	A	D	F \sharp G \flat	B
fret 8	C	F	A \sharp B \flat	D \sharp E \flat	G	C
fret 9	C \sharp D \flat	F \sharp G \flat	B	E	G \sharp A \flat	C \sharp D \flat
fret 10	D	G	C	F	A	D
fret 11	D \sharp E \flat	G \sharp A \flat	C \sharp D \flat	F \sharp G \flat	A \sharp B \flat	D \sharp E \flat
fret 12	E	A	D	G	B	E
fret 13	F	A \sharp B \flat	D \sharp E \flat	G \sharp A \flat	C	F
fret 14	F \sharp G \flat	B	E	A	C \sharp D \flat	F \sharp G \flat
fret 15	G	C	F	A \sharp B \flat	D	G
fret 16	G \sharp A \flat	C \sharp D \flat	F \sharp G \flat	B	D \sharp E \flat	G \sharp A \flat
fret 17	A	D	G	C	E	A
fret 18	A \sharp B \flat	D \sharp E \flat	G \sharp A \flat	C \sharp D \flat	F	A \sharp B \flat
fret 19	B	E	A	D	F \sharp G \flat	B
fret 20	C	F	A \sharp B \flat	D \sharp E \flat	G	C
fret 21	C \sharp D \flat	F \sharp G \flat	B	E	G \sharp A \flat	C \sharp D \flat
fret 22	D	G	C	F	A	D
fret 23	D \sharp E \flat	G \sharp A \flat	C \sharp D \flat	F \sharp G \flat	A \sharp B \flat	D \sharp E \flat
fret 24	E	A	D	G	B	E

Treble Clef Note Names - “the Head End of the Fretboard”

	string 6	string 5	string 4	string 3	string 2	string 1
open	E	A	D	G	B	E
fret 1	F	A [#] B ^b	D [#] E ^b	G [#] A ^b	C	F
fret 2	F [#] G ^b	B	E	A	C [#] D ^b	F [#] G ^b
fret 3	G	C	F	A [#] B ^b	D	G
fret 4	G [#] A ^b	C [#] D ^b	F [#] G ^b	B	D [#] E ^b	G [#] A ^b
fret 5	A	D	G	C	E	A
fret 6	A [#] B ^b	D [#] E ^b	G [#] A ^b	C [#] D ^b	F	A [#] B ^b
fret 7	B	E	A	D	F [#] G ^b	B
fret 8	C	F	A [#] B ^b	D [#] E ^b	G	C
fret 9	C [#] D ^b	F [#] G ^b	B	E	G [#] A ^b	C [#] D ^b
fret 10	D	G	C	F	A	D
fret 11	D [#] E ^b	G [#] A ^b	C [#] D ^b	F [#] G ^b	A [#] B ^b	D [#] E ^b
fret 12	E	A	D	G	B	E
fret 13	F	A [#] B ^b	D [#] E ^b	G [#] A ^b	C	F
fret 14	F [#] G ^b	B	E	A	C [#] D ^b	F [#] G ^b

Treble Clef Note Names - "the Body End of the Fretboard"

The diagram illustrates the treble clef notes for frets 10 through 24, organized into six columns. Each fret is represented by a staff with six notes. The notes are labeled with their names (e.g., D, G, C, F, A, D for fret 10) and their corresponding pitch classes (e.g., D, G, C, F, A, D for fret 10). The diagram is organized into six columns, each representing a different pitch class across the fretboard.

Fret	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
fret 10	D	G	C	F	A	D
fret 11	D# Eb	G# Ab	C# Db	F# Gb	A# Bb	D# Eb
fret 12	E	A	D	G	B	E
fret 13	F	A# Bb	D# Eb	G# Ab	C	F
fret 14	F# Gb	B	E	A	C# Db	F# Gb
fret 15	G	C	F	A# Bb	D	G
fret 16	G# Ab	C# Db	F# Gb	B	D# Eb	G# Ab
fret 17	A	D	G	C	E	A
fret 18	A# Bb	D# Eb	G# Ab	C# Db	F	A# Bb
fret 19	B	E	A	D	F# Gb	B
fret 20	C	F	A# Bb	D# Eb	G	C
fret 21	C# Db	F# Gb	B	E	G# Ab	C# Db
fret 22	D	G	C	F	A	D
fret 23	D# Eb	G# Ab	C# Db	F# Gb	A# Bb	D# Eb
fret 24	E	A	D	G	B	E

Full Fretboard Bass Clef Note Names

	string 4	string 3	string 2	string 1
open	E	A	D	G
fret 1	F	A# Bb	D# Eb	G# Ab
fret 2	F# Gb	B	E	A
fret 3	G	C	F	A# Bb
fret 4	G# Ab	C# Db	F# Gb	B
fret 5	A	D	G	C
fret 6	A# Bb	D# Eb	G# Ab	C# Db
fret 7	B	E	A	D
fret 8	C	F	A# Bb	D# Eb
fret 9	C# Db	F# Gb	B	E
fret 10	D	G	C	F
fret 11	D# Eb	G# Ab	C# Db	D# Eb
fret 12	E	A	D	G
fret 13	F	A# Bb	D# Eb	G# Ab
fret 14	F# Gb	B	E	A
fret 15	G	C	F	A# Bb
fret 16	G# Ab	C# Db	F# Gb	B
fret 17	A	D	G	C
fret 18	A# Bb	D# Eb	G# Ab	C# Db
fret 19	B	E	A	D
fret 20	C	F	A# Bb	D# Eb
fret 21	C# Db	F# Gb	B	E
fret 22	D	G	C	F
fret 23	D# Eb	G# Ab	C# Db	D# Eb
fret 24	E	A	D	G

Bass Clef Note Names - "the Head End of the Fretboard"

	string 4	string 3	string 2	string 1
open	E	A	D	G
fret 1	F	A# Bb	D# Eb	G# Ab
fret 2	F# Gb	B	E	A
fret 3	G	C	F	A# Bb
fret 4	G# Ab	C# Db	F# Gb	B
fret 5	A	D	G	C
fret 6	A# Bb	D# Eb	G# Ab	C# Db
fret 7	B	E	A	D
fret 8	C	F	A# Bb	D# Eb
fret 9	C# Db	F# Gb	B	E
fret 10	D	G	C	F
fret 11	D# Eb	G# Ab	C# Db	D# Eb
fret 12	E	A	D	G
fret 13	F	A# Bb	D# Eb	G# Ab

Bass Clef Note Names - "the Body End of the Fretboard"

Fret	String 1 (Left)	String 2	String 3	String 4 (Right)
fret 10	D	G	C	F
fret 11	D# Eb	G# Ab	C# Db	D# Eb
fret 12	E	A	D	G
fret 13	F	A# Bb	D# Eb	G# Ab
fret 14	F# Gb	B	E	A
fret 15	G	C	F	A# Bb (8va)
fret 16	G# Ab	C# Db	F# Gb	B (8va)
fret 17	A	D	G	C (8va)
fret 18	A# Bb	D# Eb	G# Ab	C# Db (8va)
fret 19	B	E	A	D (8va)
fret 20	C	F	A# Bb	D# Eb (8va)
fret 21	C# Db	F# Gb	B	E (8va)
fret 22	D	G	C	F (8va)
fret 23	D# Eb	G# Ab	C# Db	D# Eb (8va)
fret 24	E	A	D	G (8va)

VISUALIZE THE WRITTEN SCALE

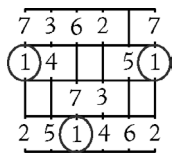
when reading music, stare at the sheet music, glance at the guitar

With each of the major scales written below, first practice playing the scale up and down while reading. Memorize the scale and play it without looking at the music notation. Practice this for each fingering of the C major scale below.

visualizing the C major scale

don't look at this page while visualizing, unless for one note to get oriented

in-position fingering 7

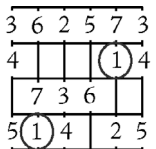


1 2 4 1 2 4 1 3 4 1 3 4 2 4 1 2 4 2 1 4 2 4 3 1 4 3 1 4 2 1 4 2

T A B

7 8 10 7 8 10 7 9 10 7 9 10 8 10 7 8 10 8 7 10 8 7 10 9 7 10 9 7 10 8 7 10 8

in-position fingering 3

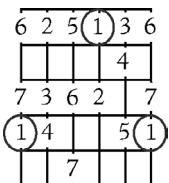


1 2 4 1 3 4 1 3 4 1 3 1 2 4 1 2 4 2 1 4 2 1 3 1 4 3 1 4 3 1 4 2

T A B

12 13 15 12 14 15 12 14 15 12 13 15 12 13 15 13 12 15 13 12 14 12 15 14 12 15 14 12 15 13

in-position fingering 6



1 3 4 1 3 4 1 3 4 1 3 1 2 4 1 2 4 2 1 4 2 1 3 1 4 3 1 4 3 1 4 3

T A B

5 7 8 5 7 8 5 7 9 5 7 9 6 8 5 7 8 7 5 8 6 9 7 5 9 7 5 8 7 5 8 7

in-position fingering 2

7

1 3 4 1 3 4 1 3 4 1 3 1 3 4 1 3 4 3 1 4 3 1 3 1 4 3 1 4 3 1 4 3

TAB: 10 12 13 10 12 14 10 12 10 12 13 13 12 10 13 12 10 12 10 9 12 10 9 12 10 13 12

in-position fingering 1

9

1 2 4 1 2 4 1 2 4 1 2 4 2 4 1 2 4 2 1 4 2 4 2 1 4 2 1 4 2 1 4 2

TAB: 8 10 12 8 10 12 9 10 12 9 10 12 10 12 8 10 12 10 8 12 10 8 10 9 12 10 9 12 10 8 12 10

in-position fingering 5

11

1 2 4 1 2 4 1 2 4 1 2 4 2 3 1 2 4 2 1 3 2 4 2 1 4 2 1 4 2 1 4 2

TAB: 3 5 7 3 5 7 3 5 7 4 5 7 5 6 3 5 7 5 3 6 5 7 5 4 7 5 3 7 5 3 7 5

in-position fingering 4

13

1 2 4 1 2 4 1 2 4 1 3 4 2 4 1 2 4 2 1 4 2 4 3 1 4 2 1 4 2 1 4 2

TAB: 1 3 5 2 3 5 2 3 5 2 4 5 3 5 1 3 5 3 1 5 3 5 4 2 5 3 2 5 3 2 5 3

ODD AND EVEN INTERVALS ON THE STAFF

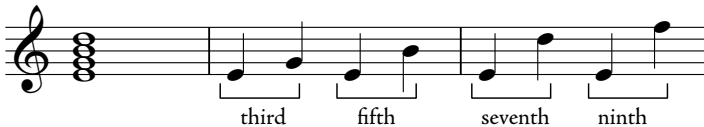
Recognizing intervals by their appearance on the staff is very helpful in speed reading, paired with your knowledge of fingered intervals on the fretboard. See Note Sets, Structures and Design/[Intervals and Formulas](#).

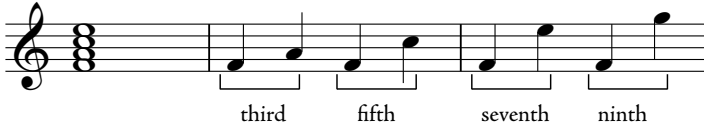
If the oval head of a note has a staff line (or ledger line) going through it horizontally, it is said to be on a line. If the oval head is between two staff lines (or ledger lines), it is said to be on a space. If a note is immediately above ("sitting on top of") a ledger line above the staff, it is on a space. If a note is immediately below ("hanging from") a ledger line drawn below the staff, it is on a space.

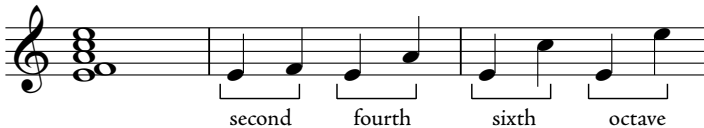
If two consecutive notes are both on the lines or both on the spaces, they are an odd-numbered interval. If one is on a line and one is on a space, they are an even-numbered interval. I refer to notes both on lines or both on spaces as being on the *same staff element*. When one is on a space and one on a line, they are on *different staff elements*.

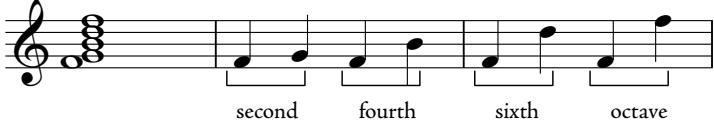
Once you have determined whether notes are odd-numbered or even-numbered intervals, it is easy to identify the interval at a glance. Odd-numbered intervals are thirds, fifths, sevenths or ninths. Think of them as small (thirds), medium (fifths), large (sevenths) or huge (ninths). Even-numbered intervals are seconds (small), fourths (medium), sixths (large) or octaves (huge).

judging intervals by size

odd-numbered intervals → 

odd-numbered intervals → 

even-numbered intervals → 

even-numbered intervals → 

odd-numbered and even-numbered intervals involving ledger lines

Ledger lines imply the same categories as staff lines. Imagine the ledger lines continuing above a note drawn on top of a ledger line or below a note drawn below a ledger line (such as the highest note and the lowest note in the example below). Then you'll be able to conceive such a note as "on a space".

The image shows three musical staves, each with a treble clef and a key signature of one flat (Bb). The first staff is labeled "odd-numbered intervals" and shows a sequence of notes: C4 (below the first ledger line), E4 (first space), G4 (second space), Bb4 (second space), D5 (third space), F5 (third space), Ab5 (third space), and C6 (above the fourth ledger line). Brackets below the staff indicate intervals of a third, fifth, seventh, and ninth. The second staff is also labeled "odd-numbered intervals" and shows a sequence of notes: C4 (below the first ledger line), E4 (first space), G4 (second space), Bb4 (second space), D5 (third space), F5 (third space), Ab5 (third space), and C6 (above the fourth ledger line). Brackets below the staff indicate intervals of a third, fifth, seventh, and ninth. The third staff is labeled "even-numbered intervals" and shows a sequence of notes: C4 (below the first ledger line), D4 (below the first ledger line), E4 (first space), F4 (first space), G4 (second space), Ab4 (second space), Bb4 (second space), and C5 (third space). Brackets below the staff indicate intervals of a second, fourth, sixth, and octave.

odd-numbered intervals →

third fifth seventh ninth

odd-numbered intervals →

third fifth seventh ninth

even-numbered intervals →

second fourth sixth octave

be ready for change

The most common consecutive intervals are seconds (which make seven-tone scales like the major scale) and thirds (the primary structure of chords). When reading a consecutive interval passage, be on the lookout for a change of interval, such as a change from seconds (stepwise) to a third, then a fourth. Changes of interval especially happen when going up and down the arpeggiated notes of a chord.

VISUALIZE INTERVALS WITHIN A FINGERING

Visualize each written note as you play each of the seven in-position octaves, fourths, fifths, sixths, then sevenths. Play each note of the scale in the two or three octaves in which it occurs. Play the scale in thirds, fourths, fifths and sixths. Fourth has the simplest structure to memorize, sixth the most difficult. Playing a scale in each of these intervals is described below.

playing scales in octaves

In each major scale fingering, play each numbered tone and its one or two reoccurrences in the next octave or two. Notes on the sixth string occur in two octaves higher (making three notes in all). In in-position major scale fingerings, notes on the sixth string are mirrored by notes on the first string two octaves higher with the same name on the same fret.

playing scales in fourths

In each major scale fingering, ascend scale-tone numbers 1-4; 2-5; 3-6; 4-7; 5-1; 6-2; 7-3 (repeat). Then descend scale-tone numbers 1-5; 7-4; 6-3; 5-2; 4-1; 3-7; 2-6; (repeat).

playing scales in fifths

In each major scale fingering, ascend scale-tone numbers 1-5; 2-6; 3-7; 4-1; 5-2; 6-3; 7-4 (repeat). Then descend scale-tone numbers 1-4; 7-3; 6-2; 5-1; 4-7; 3-6; 2-5; (repeat).

playing scales in thirds

In each major scale fingering, ascend scale-tone numbers 1-3; 2-4; 3-5; 4-6; 5-7; 6-1; 7-2 (repeat). Then descend scale-tone numbers 1-6; 7-5; 6-4; 5-3; 4-2; 3-1; 2-7; (repeat).

playing scales in sixths

In each major scale fingering, ascend scale-tone numbers 1,6; 2,7; 3,1; 4,2; 5,3; 6,4; 7,5 (repeat). Then descend scale-tone numbers 1,3; 7,2; 6,1; 5,7; 4,6; 3,5; 2,4 (repeat).

playing scales in sevenths

In each major scale fingering, ascend scale-tone numbers 1-7; 2-1; 3-2; 4-4; 5-4; 6-5; 7-6; (repeat). Then descend scale-tone numbers 1-2; 7-1; 6-7; 5-6; 4-5; 3-4; 2-3; (repeat).

Chord Progression by Number

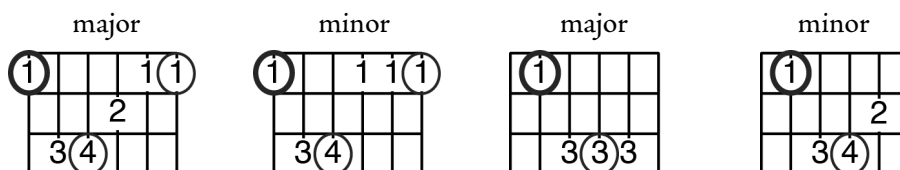
- **Basic Barre and Power Chords**
- **Roman Numerals**
- **Two “I-IV-V” Configurations**
- **Playing I-IV-V Chord Progression**
- **The Major Scale on One String by Number**
- **VI Minor, II Minor and III Minor Chords**
- **Playing I-IV-V and VIIm Chord Progression**

If you don't know the letter names on the fretboard, study the earlier chapter [Memorizing Fretboard Letter Names](#).

BASIC BARRE AND POWER CHORDS

barre chords

With barre chords, a finger is laid across multiple strings on the same fret. The chords below are named after the root shown with the bold circle on the sixth or fifth string. With the sixth string root, there is a major and a minor chord. With the fifth string root, there is a major and a minor chord.

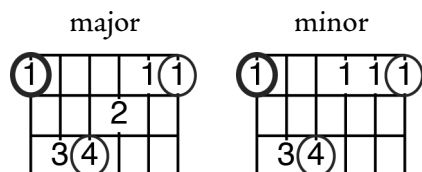


power chords

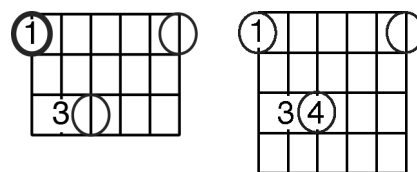
Power chords sound strong and primal. They are the root of the chord (the note with the letter name that names the chord) and the fifth of a major scale named after the chord root. An "A" power chord includes the note "A" and the fifth step of the A major scale, "E". The root of the power chord is commonly doubled an octave higher, so an "A" power chord would have notes in ascending order "A-E-A". The symbol for a power chord is the letter name followed by an Arabic "5", such as "A5".

If you are not yet able to fret the barre chords shown above, use the power chords below instead. You will use a single power chord to represent a major or minor chord with its root on the fifth string and another power chord to represent a major or minor chord with its root on the fifth string.

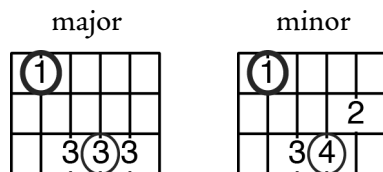
for either of these:



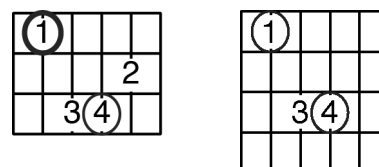
use either of these:



for either of these:



use either of these:



ROMAN NUMERALS

Combinations of the letters “I”, “V” and “X” are used in Roman numerals to represent the numbers one through forty-nine (fifty is “L”). The system is shown below, up to the number 24, generally the highest number needed for guitar notation.

Roman	Arabic
I	1
II	2
III	3

“V” is “5”. Subtract one (“I”) on the left for “4”: IV. Add one, two or three on the right for “6, 7, 8”: VI, VII, VIII.

IV	4
V	5
VI	6
VII	7
VIII	8

“X” is “10”. Subtract one (“I”) on the left for “9”: IX.

IX	9
X	10

For 11 through 19, add to the right of X (10):

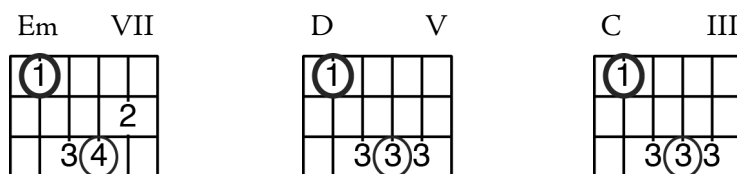
XI	11	(X+I, is 10+1)
XII	12	(X+II, is 10+2)
XIII	13	(X+III is 10+3)
XIV	14	(X+IV is 10+4)
XV	15	(X+V is 10+5)
XVI	16	(X+VI is 10+6)
XVII	17	(X+VII is 10+7)
XVIII	18	(X+VIII is 10+8)
XIX	19	(X+IX is 10+9)

“XX” is “20” (two tens). 19 is X (10) plus IX (9): XIX. For 21 through 24, add to the right of XX (20):

XX	20	
XXI	21	(XX+I, is 10+1)
XXII	22	(XX+II, is 10+2)
XXIII	23	(XX+III is 10+3)
XXIV	24	(XX+IV is 10+4)

fret numbers and chord roots

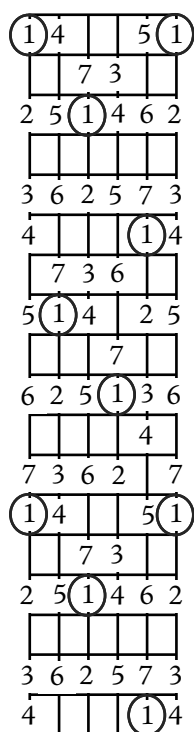
Two things in guitar music are indicated with Roman numerals, positions and chord progression. Positions are indicated with a Roman numeral to the upper right of a chord diagram (below). In that case, the Roman numeral indicates the top fret on the diagram. So, the top fret of the “D” chord below is the fifth fret (also showing the third finger barre the seventh fret on strings four, three and two).



Roman numerals are used to indicate the numbered step of the major scale after which a chord is named. If the first step of the major scale is an “A” note, a “I” chord would be an A chord. Sound complicated? Don’t worry we’ll take it step by step.

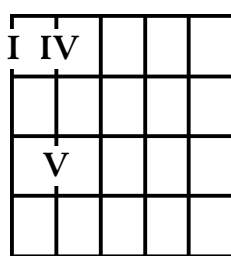
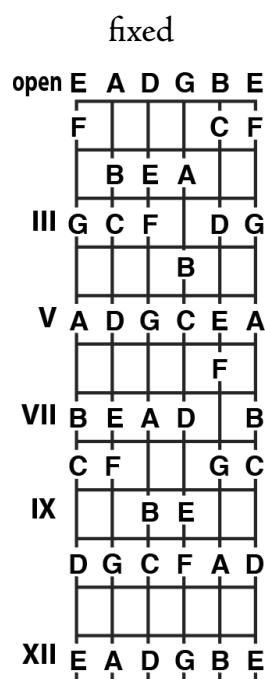
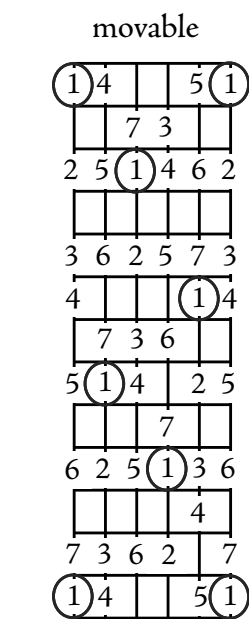
I	II	III	IV	V	VI	VII
1	2	3	4	5	6	7

The diagram of major scale tones below is *movable*. Whatever note “1” is placed on names the major scale. If the top fret on the diagram (with “1” on the first and sixth strings) is placed at the fifth fret, the diagram would represent the “A” major scale. At the third fret, it would be “G” major.



TWO "I-IV-V" ROOT CONFIGURATIONS

A chord root is the note after which a chord is named. "I-IV-V" will be used as points of reference to build other progressions. "I, IV and V" are each major chords. On the tall diagram labeled "movable", the number "1" can be assigned on *any* note. Imagine the "1" on the sixth string on "A", for example, at the fifth fret. The "2" on the sixth string would then be the seventh fret. The two most important I-IV-V root configurations are:



key of A

key of A

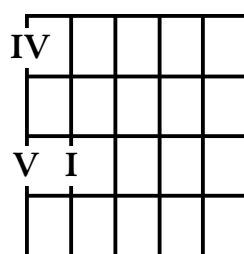
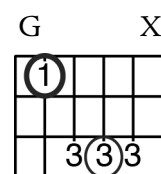
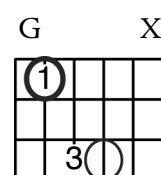
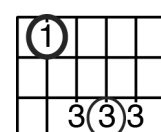
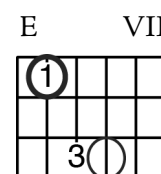
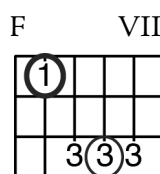
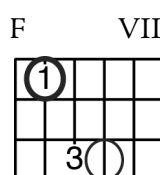
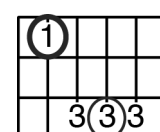
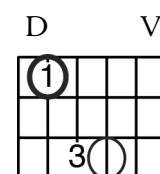
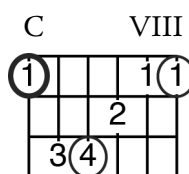
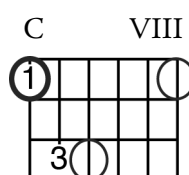
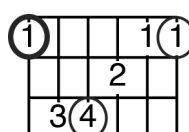
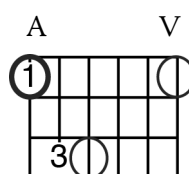
key of C

key of C

I

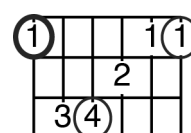
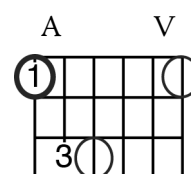
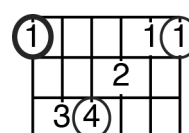
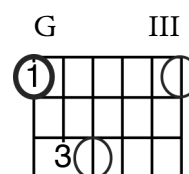
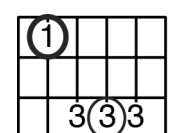
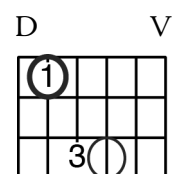
IV

V



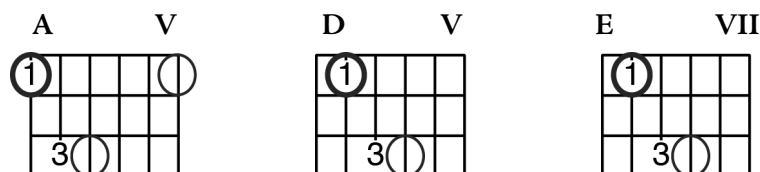
key of D

key of A



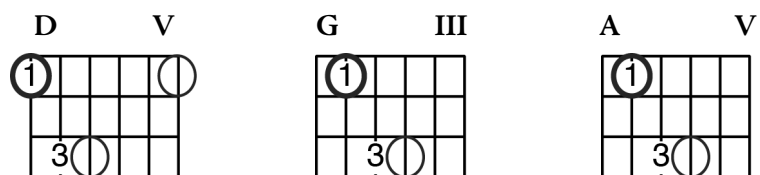
I-IV-V with root on the sixth string

The roots are shown below with the bold circle on the sixth or fifth string. Begin with the root of “I” on the sixth string, then move to “IV” rooted on the fifth string at the same fret. Finally, move up two frets toward the body of the guitar to place the “V” root on the fifth string also.



I-IV-V with root on the fifth string

The roots are shown below with the bold circle on the sixth or fifth string. Begin with the root of “I” on the fifth string, then move two frets toward the head of the guitar to place the “IV” root on the sixth string. Finally, move up two frets toward the body of the guitar to place the “V” root on the sixth string also.



Prepare for Songs by Determining I-IV-V First

If you know what I, IV and V are for a key, each of the other numbered scale steps are only one scale step away from I, IV or V. That makes it easy to determine any other scale step.

With the sequence of perfect fourths (five fret intervals, inclusively) you can determine IV for any key. For whatever is “I”, “IV” is the next letter in the perfect fourth series.

perfect fourths

The perfect fourth sequence is the letter sequence B-E-A-D-G-C-F (“bead” go catch fish) three times, first with sharps, then naturals (no sharps nor flats), then with flats.

B#-E#-A#-D#-G#-C#-F#-B-E-A-D-G-C-F-Bb-Eb-Ab-Db-Gb-Cb-Gb

Use them to figure out I-IV-V for any key. Whatever “I” is, “IV” is the letter in the fourths sequence. Then “V” is the next letter alphabetically (not in the fourths sequence). IV to V should be a two fret interval, inclusively. You’ll sometimes need to apply a sharp or flat to make sure IV to V is two frets.

PLAYING I-IV-V CHORD PROGRESSION

Beverly Hills style: in F, I-IV-V is F-B \flat -C

rap verse

chorus

play these four bars three times

TAB

I IV I IV I IV V VII II IV V IV II IV V VII

La Bamba style: in C, I-IV-V is C-F-G

C I F I G III

G A B C E G F F A G G B D F F E D

TAB

I Would Walk 500 Miles in E, I-IV-V is E-A-B

verse

all downstrokes 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play these four bars four times

chorus

all downstrokes 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play these four bars four times

Blitzkrieg Bop style in A, I-IV-V is A-D-E

Blitzkrieg Bop, verse

play these two bars three times

I IV V I IV I

Twist and Shout style: in A, I- IV-V is A-D-E

Diagram illustrating the Twist and Shout style in A major, showing the I-IV-V progression (A-D-E) with fingerings and a corresponding musical score.

Chord Fingerings:

- A:** 1 5 1 3 5 (Fingering: 1, 2, 3)
- D:** 1 5 1 3 (Fingering: 1, 2, 3)
- E:** 1 5 1 3 5 1 (Fingering: 2, 3, 1)

Musical Score: The score is in 4/4 time, key of A major. It features a melody line and a bass line. The melody line includes a repeat sign. The bass line includes a repeat sign. The score is divided into two main sections, each with a repeat sign.

Wild Thing style: in A, I-IV-V is A-D-E

Diagram illustrating the Wild Thing style in A major, showing the I-IV-V progression (A-D-E) with fingerings and a corresponding musical score.

Chord Fingerings:

- A:** 1 5 1 3 5 (Fingering: 1, 2, 3)
- D:** 1 5 1 3 (Fingering: 1, 2, 3)
- E:** 1 5 1 3 5 1 (Fingering: 2, 3, 1)
- A:** 1 5 1 3 (Fingering: 1, 2, 3)
- D:** 1 5 1 3 (Fingering: 1, 2, 3)
- E:** 1 5 1 3 (Fingering: 1, 2, 3)
- A:** 1 5 1 3 (Fingering: 1, 2, 3)

Musical Score: The score is in 4/4 time, key of A major. It features a melody line and a bass line. The melody line includes a repeat sign. The bass line includes a repeat sign. The score is divided into two main sections, each with a repeat sign. The chords are labeled: A, D open, E, D open, A, D open, E, open, A, open.

play these two bars three times

Diagram illustrating the Wild Thing style in A major, showing the I-IV-V progression (A-D-E) with fingerings and a corresponding musical score.

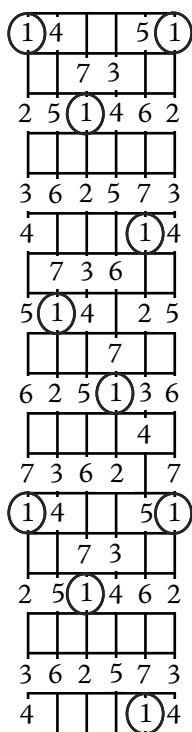
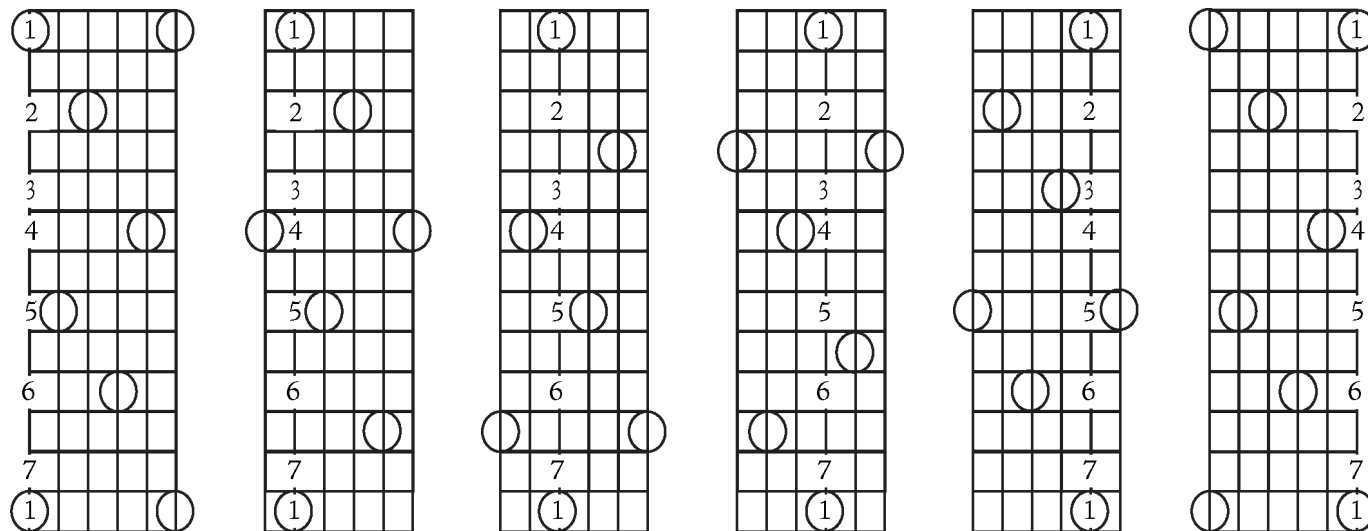
Chord Fingerings:

- A:** 1 5 1 3 5 (Fingering: 1, 2, 3)
- D:** 1 5 1 3 (Fingering: 1, 2, 3)
- E:** 1 5 1 3 5 1 (Fingering: 2, 3, 1)
- A:** 1 5 1 3 (Fingering: 1, 2, 3)
- D:** 1 5 1 3 (Fingering: 1, 2, 3)
- E:** 1 5 1 3 (Fingering: 1, 2, 3)
- A:** 1 5 1 3 (Fingering: 1, 2, 3)

Musical Score: The score is in 4/4 time, key of A major. It features a melody line and a bass line. The melody line includes a repeat sign. The bass line includes a repeat sign. The score is divided into two main sections, each with a repeat sign. The chords are labeled: A, open, A, open, A.

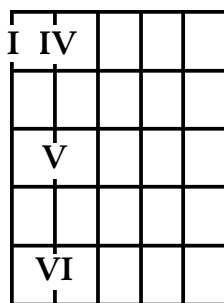
THE MAJOR SCALE ON ONE STRING BY NUMBER

In numbered order, each note in the major scale is two frets apart from the next, except “3” to “4” and “7” to “1” are one fret apart. As you can see below, this is true on any string. “1” may be located at any fret.

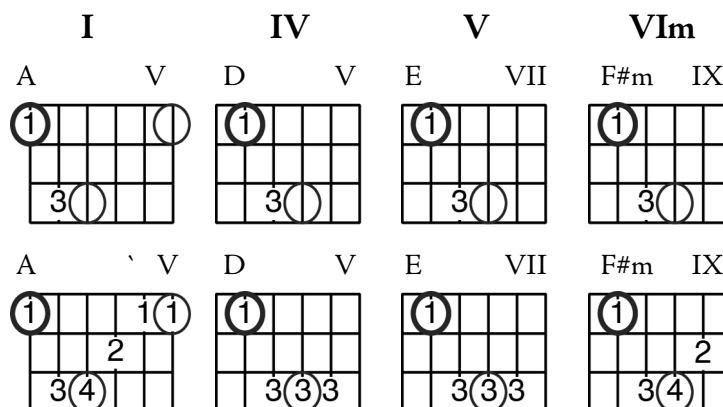


VI MINOR, II MINOR AND III MINOR CHORDS

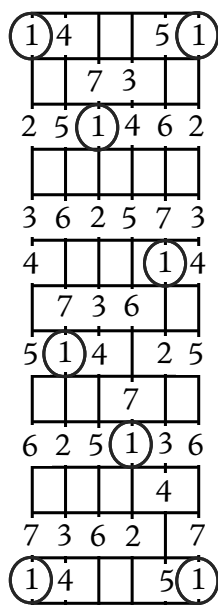
For VI_m, the root is two frets toward the guitar body from V



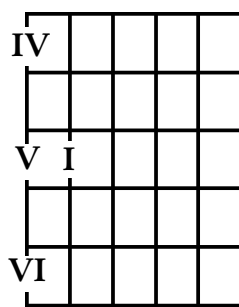
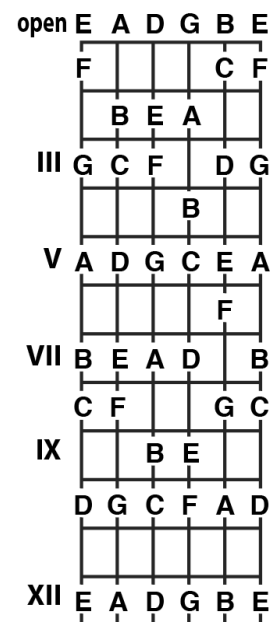
key of A



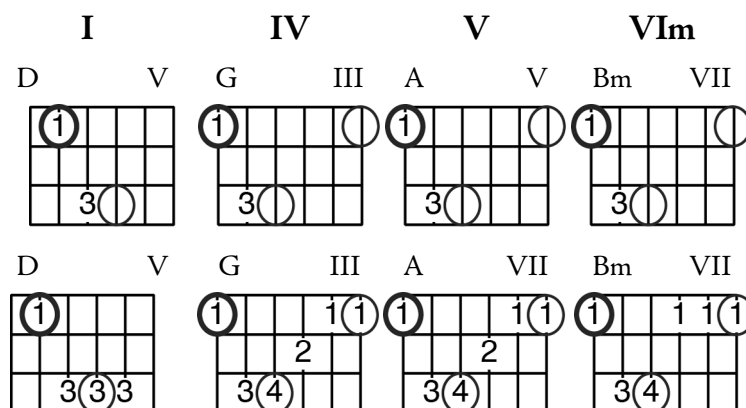
movable



fixed



key of D

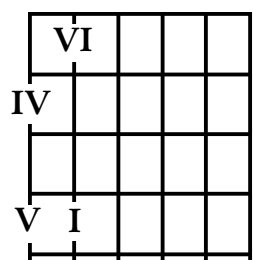


Using I, IV and V as points of reference, you can locate the three minor chords constructed on major scale tones VI, II and III (6, 2, and 3).

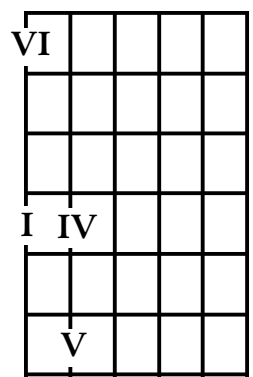
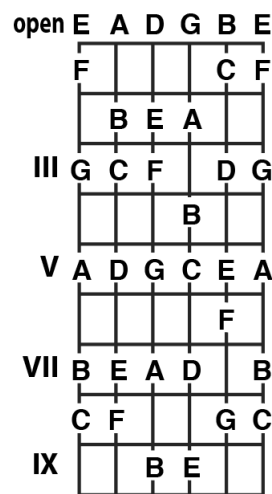
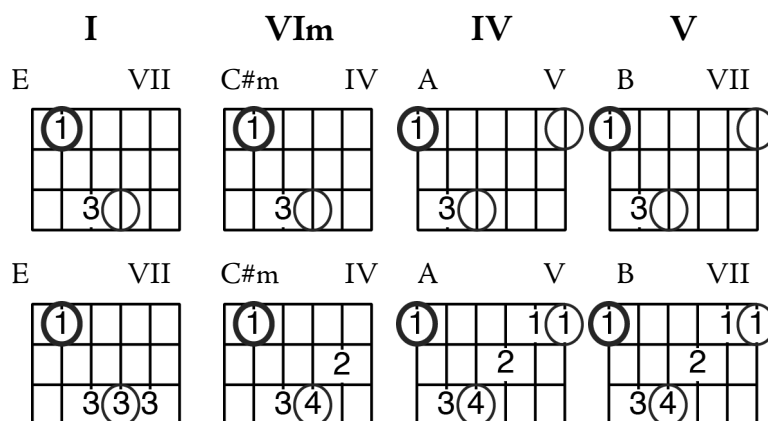
locating VI_m chords using I, IV and V as points of reference, VI_m is above V or below I. II_m and III_m are above I and below IV:

To locate the root of a VI_m chord ("six minor"), do one of the following (roman numerals refer to the numbered tone of the major scale after with the chord is named):

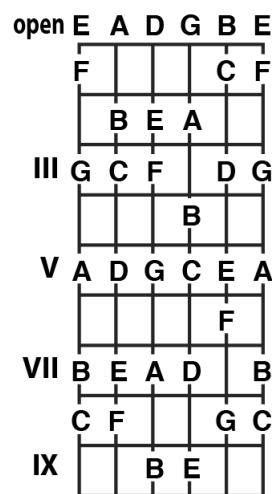
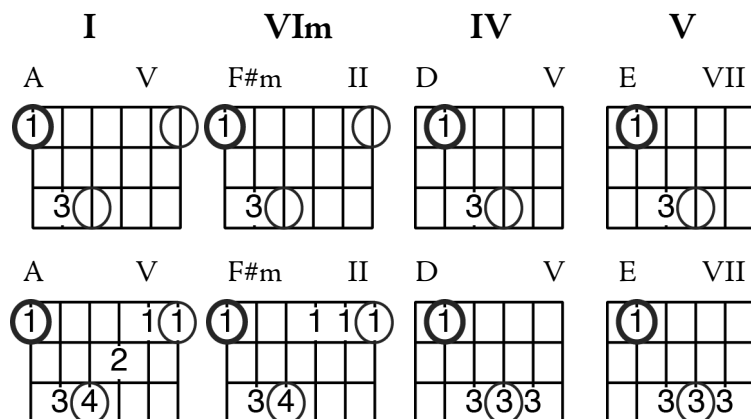
- go up two frets up (toward the body of the guitar) from V to VI_m (see the previous page)
- go three frets down (toward the head of the guitar) from I to VI_m (one fret from I down to VII, plus two frets from VII down to VI)



key of E



key of A



To locate the root of a II^m chord, do one of the following (roman numerals refer to the numbered tone of the major scale after with the chord is named):

- go up two frets up (toward the body of the guitar) from I to II^m
- go three frets down (toward the head of the guitar) from IV to II^m (one fret from IV down to III, plus two frets from III down to II)

To locate the root of a III^m chord, do one of the following (roman numerals refer to the numbered tone of the major scale after with the chord is named):

- go up one fret down (toward the body of the guitar) from IV to III^m
- go four frets up (toward the body of the guitar) from I to III^m (two frets from I up to II, plus two frets from II up to III)

PLAYING I, IV, V AND VI^m CHORD PROGRESSION

C major

I	IV	V	VI ^m
C I	F I	G I	Am I

G major

G I	C I	D I	Em I

D'Yer Ma'ker style

C Am F G

I VI^m IV V

Pork and Beans chorus style

F[#] C[#] D^{#m} B

I V VI^m IV

Stand By Me style

Diagram 1: A V

Diagram 2: F#m II

Diagram 3: D V

Diagram 4: E7 V

Diagram 5: A V

5

Life by the Drop style

Swing Eighths

Diagram 1: A

Diagram 2: E

Diagram 3: F#m

Diagram 4: D

Diagram 5: I

Diagram 6: V

Diagram 7: VIm

Diagram 8: IV

Waiting on The World to Change style

Diagram 1: D

Diagram 2: Bm

Diagram 3: G

Diagram 4: D

Diagram 5: A

Diagram 6: Bm

Diagram 7: G

Diagram 8: D

Diagram 9: I

Diagram 10: VIm

Diagram 11: IV

Diagram 12: I

How Sweet It Is verse style

Swing Eighths

Chords: C, Am, G, F

Fretboard Diagram: T (5, 3, 3, 3), A (5, 5, 5, 5), B (3, 3, 3, 3)

Roman Numerals: I, VIIm, V, IV

Spiderwebs chorus style

Chords: Bb, F, Gm, Eb

Fretboard Diagram: T (6, 6, 6, 6), A (1, 1, 1, 1), B (3, 3, 3, 3)

Roman Numerals: I, V, VIIm, IV

Let It Be style

Chords: C, G, Am, Fma7, F6, C, G, F, Em, Dm, C

Fretboard Diagram: T (5, 5, 3, 3), A (5, 5, 0, 3), B (5, 5, 3, 3)

Roman Numerals: I, V, VIIm, IV, I, V, IV, IIIIm, IIIm, I

No Woman No Cry style

Bold as Love style

The image displays two musical staves, each representing a different key signature. The top staff is for the key of A (three sharps: F#, C#, G#), and the bottom staff is for the key of D (two sharps: F#, C#). Each staff contains a series of chords and their corresponding guitar tablature.

Key of A: I

- Chords:** A, E, F#m, D, A, E, F#m, D, C#
- Tablature:** The tablature for each chord is shown below the staff, with fret numbers (0-7) and fingerings (1-4) indicated.
- Chord Symbols:** I, V, VIIm, IV, I, V, VIIm, IV, III major

Key of D: I

- Chords:** D, A, Bm, G, D, A, Bm, G, G#, A
- Tablature:** The tablature for each chord is shown below the staff, with fret numbers (0-7) and fingerings (1-4) indicated.
- Chord Symbols:** I, V, VIIm, IV, I, V, VIIm, IV, #IV, I

Peace Train style

The musical score consists of two staves. The top staff is a treble clef staff with notes and rests. The bottom staff is a TAB staff with fret numbers. Arrows point from the notes to the corresponding fret numbers. The sequence of chords is indicated by Roman numerals below the TAB staff.

Chord	Fret Numbers (TAB)
I	3 3 3 3 3 3
V	5 5 5 5 5 5
I	3 3 3 3 3 3
IV	1 1 1 1 1 1
I	3 3 3 3 3 3
IV	1 1 1 1 1 1
IVV	1 3 3 3 3 3
VIIm	5 5 5 5 5 5
IVV	1 3 3 3 3 3
IV	1 1 1 1 1 1

The musical score for "The Sound of Silence" by Simon & Garfunkel is presented in standard notation. The guitar staff (top) includes chord names (G, D, Em, C) and fret numbers (3, 5, 7, 8, 5, 3). The bass staff (bottom) includes fret numbers (3, 5, 7, 7, 7, 7, 8, 9, 7, 5, 3, 5). The score is divided into measures by vertical bar lines, with repeat signs at the beginning and end. The guitar staff has a key signature of one sharp (F#) and a 4/4 time signature. The bass staff has a key signature of one sharp (F#) and a 4/4 time signature. The score is divided into measures by vertical bar lines, with repeat signs at the beginning and end. The guitar staff has a key signature of one sharp (F#) and a 4/4 time signature. The bass staff has a key signature of one sharp (F#) and a 4/4 time signature.

[illegible]

Basic Chord Construction

- **Chord Roots**
- **Two and Three Note Chords (Diad And Triads)**
- **Triad Types**
- **Major Scale-Tone Tertian Triads**
- **Open-Position Triads from Major Scales**
- **Making Major Chords Movable**

CHORD ROOTS

A chord root is the letter name for a chord. The letter may be followed by a flat or sharp which alters the letter. Sharps (“C#” is “C sharp”) indicate a note is one fret higher (toward the guitar body). Flats indicate a note is one fret lower (“Db” is “D flat”). Naturals (“C” is “C natural”) cancel previously indicated sharps or flats and bring a note back to its unaltered pitch.

TWO AND THREE-NOTE CHORDS

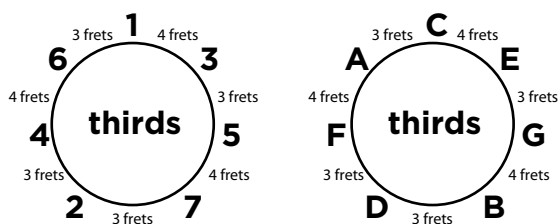
Chords are combinations of two or more notes played at once.

Diads or Intervals: Two-Note Chords

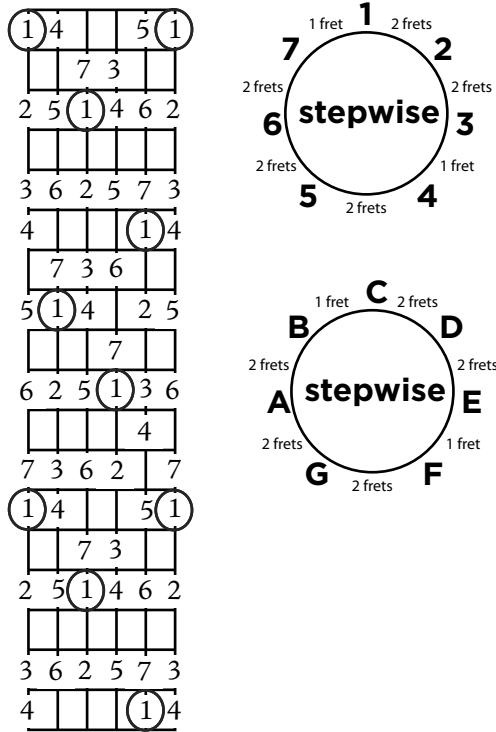
Two note chords are called *diads*. Two notes played at once are commonly named as intervals, such as the combination of the notes C and E (“E” above “C”) being called a third (since it is three tones in the C major scale from “C” up to “E” inclusively). There are no formal names for diads as chords, so we use interval names.

Triads: Three-Note chords

Three-note chords are called *triads*. Any note of a triad may be repeated in the chord, so a triad may be played as a five note chord with three different notes, repeating two of the notes. As a standard practice, triads are constructed with every-other scale tone, each using some version of numbered tones “1”, “3” and “5”. To work with chord construction, you need to memorize the cycle of numbers and letters from which chords are commonly built, called *thirds*.

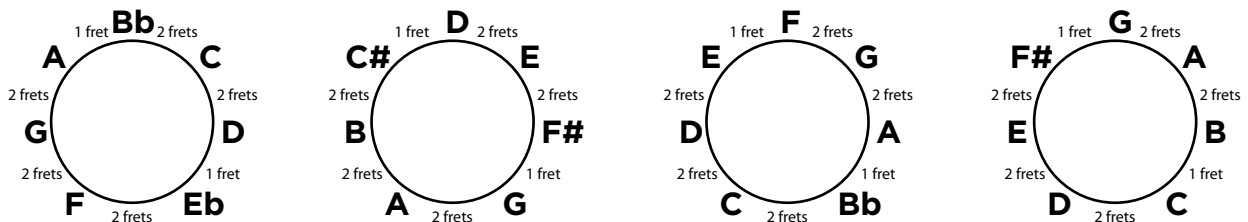


Major scale intervals are the same from numbered step to step in every key. In stepwise (numerical) order, they are:



Three to four and seven to one are one fret apart. B to C and E to F are one fret apart. In the C major scale, with no sharps or flats, these correspond. Three to four is one fret and, in C, three to four are E to F, which is one fret. Likewise, seven to one is B to C in the C major scale and B to C is one fret. C major therefore requires no sharps nor flats. All other keys require sharps or flats to adjust the step to step letter pattern so three to four and seven to one are each one fret.

Here is the major scale fret spacing for a few keys. Inspect the adjustments that have been made to conform to the major scale spacing of one fret intervals (called *half steps* or *semi-tones*) between steps three and four and between seven and one. The key signature system provides a method of memorizing these adjustments for all keys.



TRIAD TYPES

Most triads use the numbered tones 1, 3 and 5. Some have alterations to three or five, such as flat three. Suspended triads are the exception, using “1, 4, 5” or “1, 2, 5”. Memorize the numbered tones that each triad name implies, as shown on the list below:

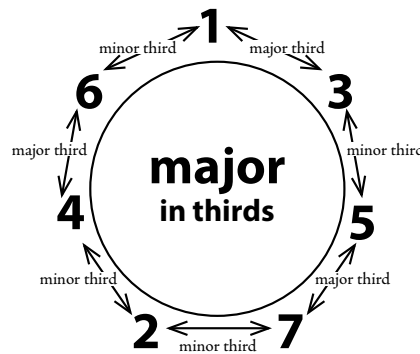
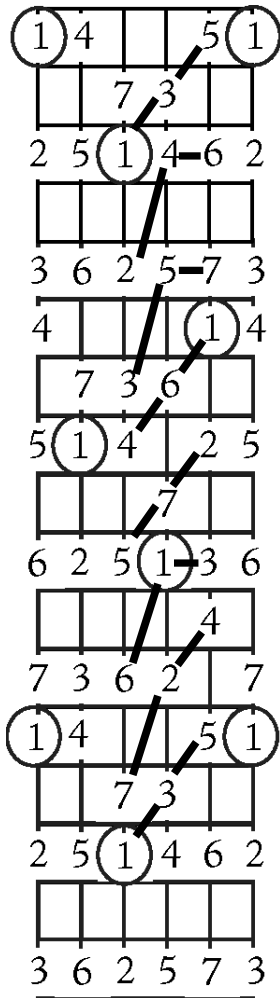
<u>triad name</u>	<u>abbreviation</u>	<u>numbered tones of a major scale on the chord root</u>
major	(nothing)	1, 3, 5
minor	m or min.	1, b3, 5
diminished	dim. or °	1, b3 b5
augmented	aug. or +	1, 3, #5
suspended fourth	sus. 4 or sus.	1, 4, 5
suspended second	sus. 2	1, 2, 5

When a chord quality is not specified, it is assumed to be major. That is, when a chord name is shown as just the letter name (A, Bb, B, C, C, etc.), the chord is major.

An indication of a suspended chord without a number (Csus) should be interpreted as a suspended fourth chord. It is clearer to the reader if you elaborate the chord name to specify, using “sus.4” for a suspended fourth chord (Csus4) or “sus2” for a suspended second chord (Csus2).

Avoid using the degree symbol (°) for a diminished triad. The degree symbol (°) is commonly used to represent a diminished seventh chord. So, when you write a diminished seventh chord, it will be more universally understood if you include the “7”, writing “°7” for a diminished seventh chord.

MAJOR SCALE-TONE TERTIAN TRIADS



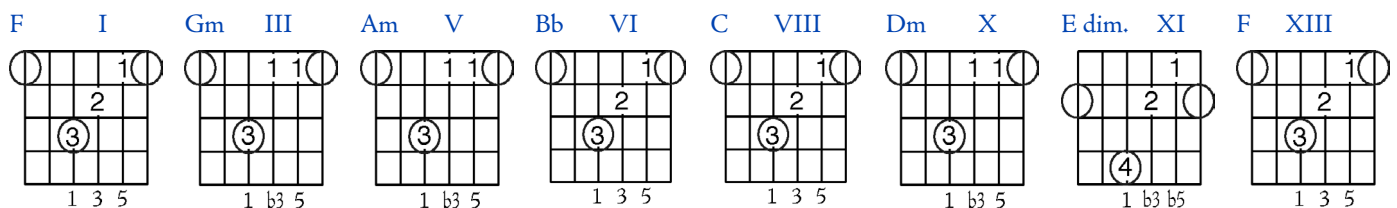
Triads are three note chords. Tertian chords are constructed as a standard practice using every-other-note of a seven-tone scale. Tertian triads use three consecutive notes from the major scale-tone cycle of thirds above.

If the tall diagram at the left illustrates the F major scale, where the top fret is the first fret. The extractions from it below show the three-note chords made from it. They are F major scale-tone triads. See the chapter [Major Scale-Tone Triads](#).

The intervals derived from the I major chord (1-3-5), the IV major chord (4-6-1) and the V major chord (5-7-2) are the same, which is why they are all called major. Each of them has an interval pattern of two steps, one and a half steps. (four frets, then three frets). Inspect this on a vertical string on the full-fretboard diagram at the left.

The intervals derived from the VI minor chord (6-1-3), the II minor chord (2-4-6) and the III minor chord (3-5-7) are the same, which is why they are all called minor. Each of them has an interval pattern of one and a half steps, two steps (three frets, then four frets). Inspect this on a vertical string on the full-fretboard diagram at the left.

The intervals in the VII diminished chord are unique: one and a half steps twice (3 frets, 3 frets). To demonstrate these intervals to yourself, play a major scale up and down a single string and number the scale tones. Inspect this on a vertical string on the full-fretboard diagram at the left.

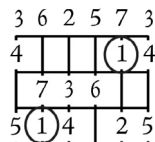


OPEN-POSITION TRIADS FROM MAJOR SCALES

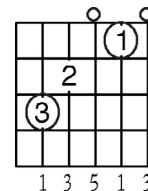
Review the [Octave Shapes](#) section in [Note Sets, Structures and Design](#).

For each of the major scales below, a chord is shown that contains major scale tones one, three and five. Each of these chords is named after the major scale.

C major scale



C major chord

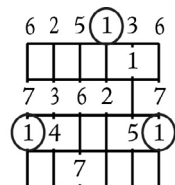


musical notation for C major scale and C major chord

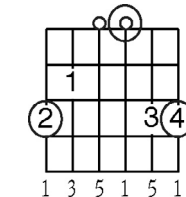
fingers 3 0 2 3 0 2 0 1 3 0 1 3
scale tones 1 2 3 4 5 6 7 1 2 3 4 5

TAB notation for C major scale and C major chord

G major scale



G major chord

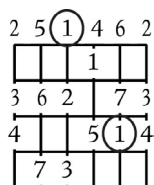


musical notation for G major scale and G major chord

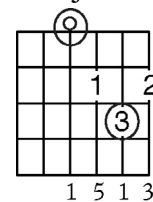
fingers 3 0 2 3 0 2 4 0 2 0 1 3 0 2 3 3
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 1

TAB notation for G major scale and G major chord

D major scale



D major chord

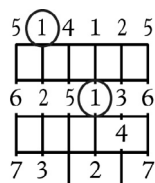


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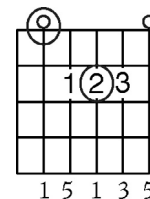
fingers 0 1 3 0 1 3 1 2 1 3 0
scale tones 1 2 3 4 5 6 7 1 2 3

T 0 2 4 0 2 0 2 3 0 2
A 0 2 4 0 2 0 2 3 0 2
B 0 2 4 0 2 0 2 3 0 2

A major scale



A major chord

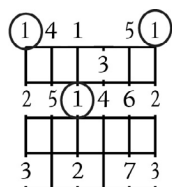


14

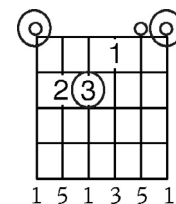
fingers 0 1 3 0 1 3 1 2 4 1 2 4 1 3 4
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1

T 0 2 4 0 2 4 1 2 0 2 3 0 2 4 5
A 0 2 4 0 2 4 1 2 0 2 3 0 2 4 5
B 0 2 4 0 2 4 1 2 0 2 3 0 2 4 5

E major scale



E major chord



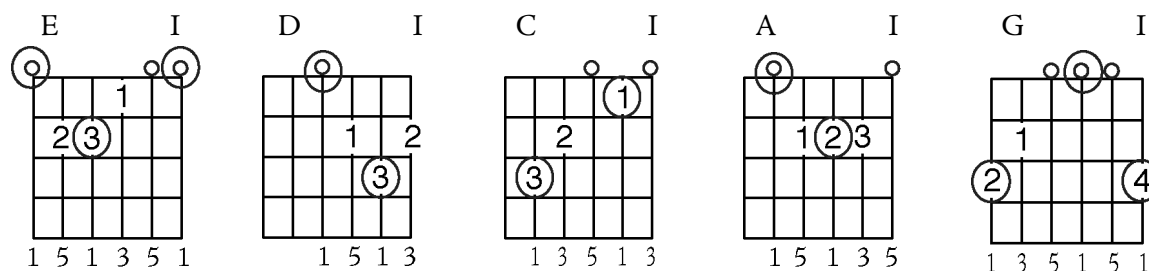
19

fingers 0 2 4 0 2 4 1 2 4 1 2 0 2 4 0
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1

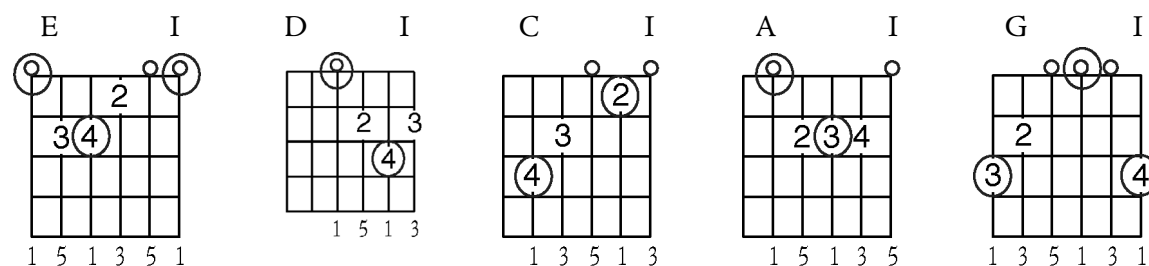
T 0 2 4 0 2 4 1 2 4 1 2 0 2 4 0
A 0 2 4 0 2 4 1 2 4 1 2 0 2 4 0
B 0 2 4 0 2 4 1 2 4 1 2 0 2 4 0

MAKING MAJOR CHORDS MOVABLE

Three-Finger Versions of Open-Position Major Chords

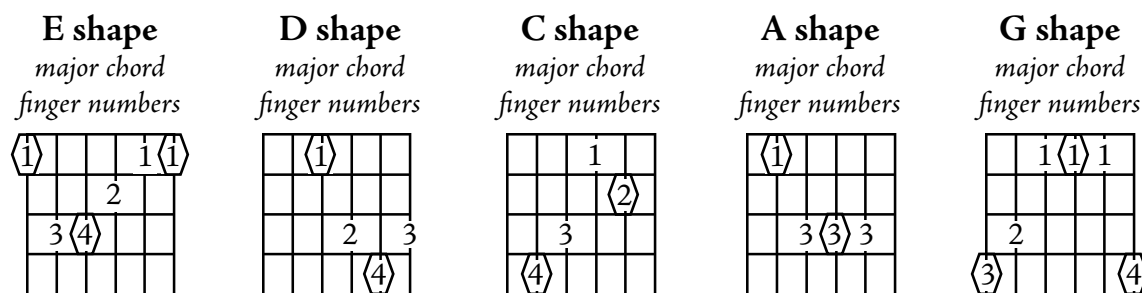


The three-finger versions of open-position major chords are modified below, so the first finger is free to make a barre chord. The first finger will act as a “virtual nut” to make the chord movable and change it to any other key.



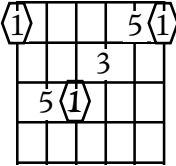
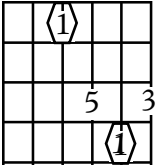
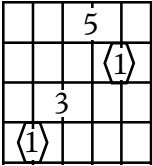
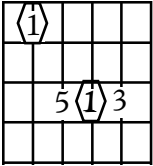
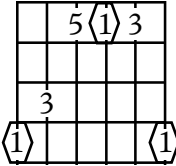
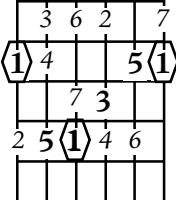
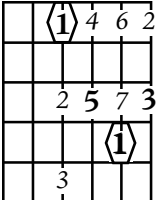
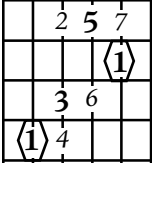
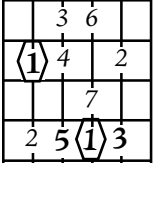
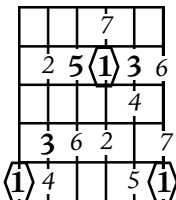
Movable Versions of Open-Position Major Chords

These can be played at any fret. Each chord is named after the note in the hexagon. Usually, you would use the lowest-pitched note as a point of reference (the hexagon on the largest string available). In the “E” shape diagram, you would use the sixth string note as a point of reference. In the “D” shape diagram, you would use the fourth string note as a reference, and so on.



Constructing Major Chords from Movable Major Scales

To construct a major chord from a major scale, number the tones of a major scale and play combinations of scale tones “1, 3, and 5”. Notice that the “scale numbers” shown in each major chord diagram below are a subset of the major scale fingerings shown below the chord diagrams.

E shape	D shape	C shape	A shape	G shape
major chord scale numbers	major chord scale numbers	major chord scale numbers	major chord scale numbers	major chord scale numbers
				
major scale scale numbers	major scale scale numbers	major scale scale numbers	major scale scale numbers	major scale scale numbers
				

If you're wondering how to play the major scales shown above, they are shown in the key of G major, below.

"G" major scale in five octave shapes

The tablature notes in hexagons can be played together to form G major chords.

G major scale in "E" shape

G major scale in "D" shape

G major scale in "C" shape

G major scale in "A" shape

G major scale in "G" shape

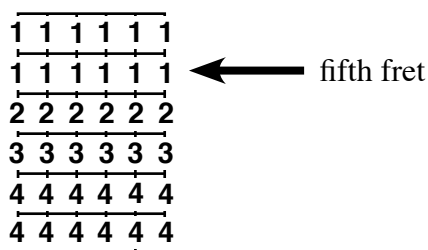
Playing in Position

- **Strict Vertical Position**
- **Two Categories of Octave Shapes**
- **Any Key Within Three Consecutive Positions**
- **Hey Joe or Day in the Life in Five Octave Shapes**
- **Identifying an Octave Shape in a Position**
- **In-Position Major Scale Fingerings**
- **Converting Major Chords to Minor Chords**

STRICT VERTICAL POSITION

This concept is primarily used for single-note playing of melodies, scales and arpeggios; not for chords. The rules of strict vertical position specify which finger would be used to fret each of thirty-six note locations on the fretboard through a range of six frets on all six strings.

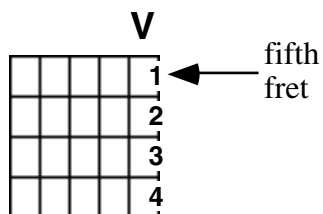
fifth position



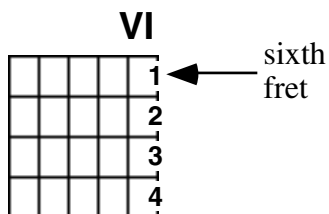
Position is numbered after the fret at which your index finger is placed. In that position, the other three fingers are assigned one of the next three frets in-a-row toward the body of the guitar. In other words, each of the four fingers are assigned to one of four consecutive frets.

The examples below show the first string. The position numbers would be the same, regardless of which string the fingers were placed upon.

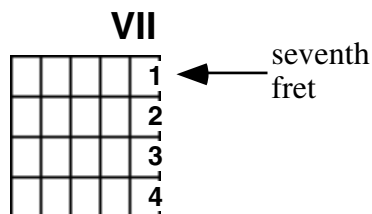
fifth position



sixth position

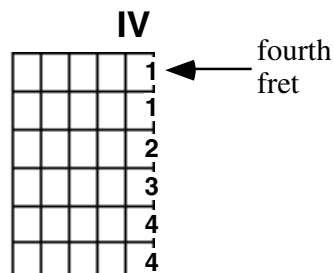


seventh position

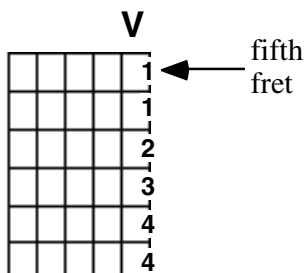


You can also reach one fret out-of-position with the index and little fingers:

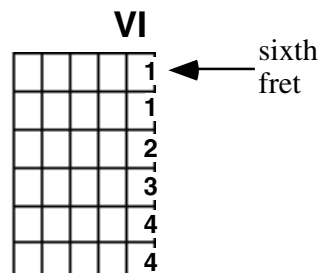
fifth position



sixth position



seventh position



head reach and body reach

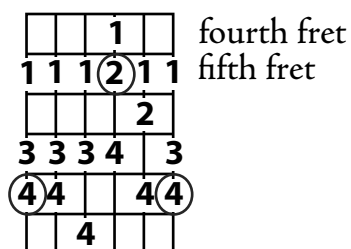
A head reach is a reach out of position toward the head of the guitar with the index finger, shown above where the index finger is used twice on the same string. A body reach is a reach out of position toward the body of the guitar with the little finger, shown above where the little finger is used twice on the same string.

side step

A *side step* is a temporary change of position before returning to the original position. It usually involves notes in the temporary position on only one or two strings. In fingering six of C major scale below, most of the scale is fingered in fifth position (with the index finger at the fifth fret), but there is a side step where the notes on the third string are fingered in fourth position. In fingering two of C major scale below, most of the scale is fingered in tenth position (with the index finger at the tenth fret), but there is a side step where the notes on the fourth and third string are fingered in ninth tenth position.

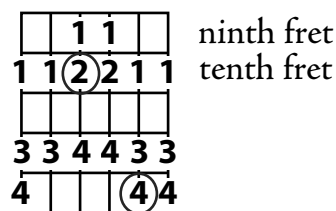
C major scale

fingering 6



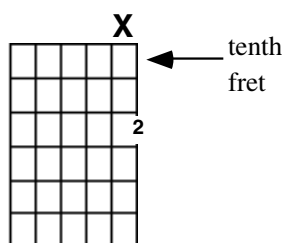
C major scale

fingering 2

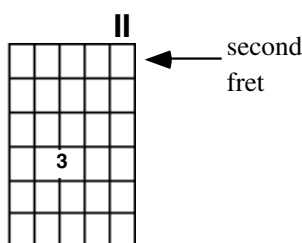


quiz: in what position are each of the examples below?

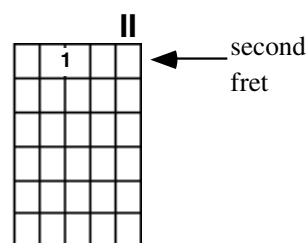
Example 1



Example 2



Example 3



Example 1: eleventh position. Example 2: third position. Example 3: second OR third position. :srawsun

TWO CATEGORIES OF OCTAVE SHAPES

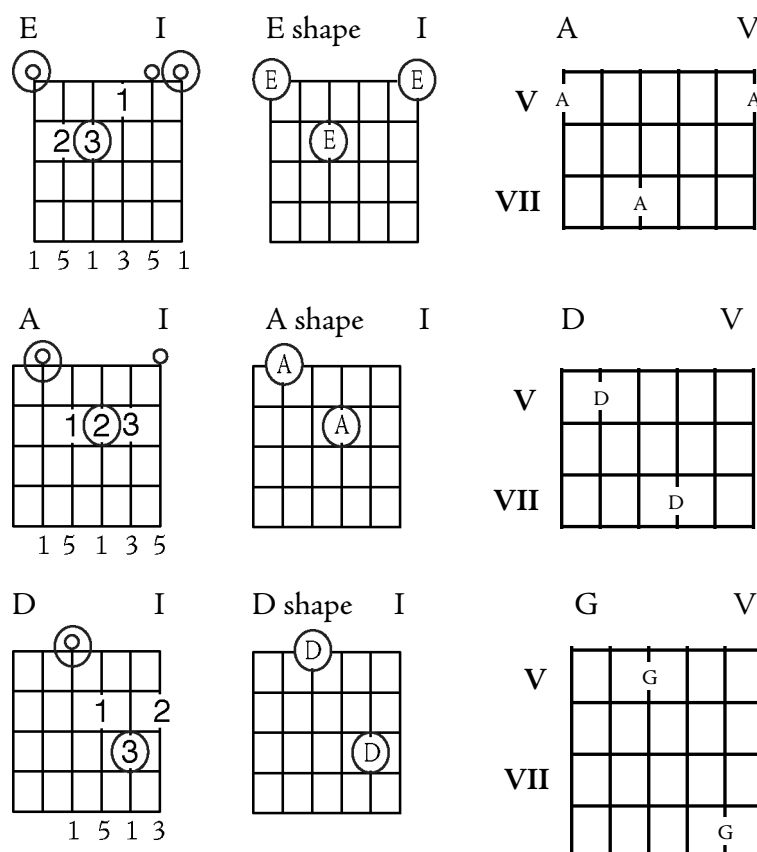
Octave shapes can be placed in two categories: those with the low octave root fretted by the index finger and those with the low octave root fretted by the ring or little finger. These could be called *open-string-origin octave shapes* and *fretted-origin octave shapes*.

The octave shapes whose low-octave root is fretted with the index finger originated with a chord whose low-octave root was an open string. Those are the E shape, A shape and D shape.

The octave shapes whose low-octave root is fretted with the ring or little finger originated with a chord whose low-octave root was a note on the third fret. Those are the G shape and C shape.

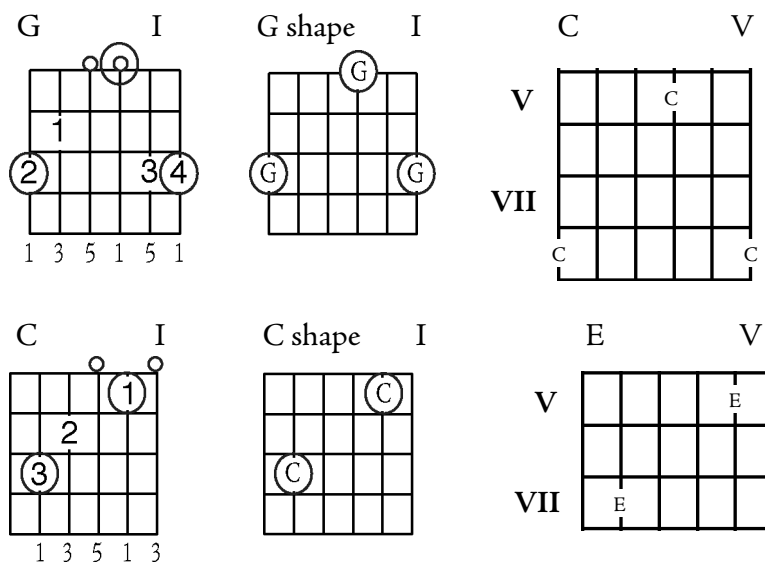
Open-String-Origin Octave Shape - Back Slash

The index finger is closest to the low octave tone center. The “forward slash” shape occurs in the lower octave of the E shapes and is the only “slash” version of the A and C shapes.



Fretted-Origin Octave Shape - Forward Slash

The little finger is closest to the low octave tone center. The “forward slash” shape occurs in the lower octave of the G shape and is the only “slash” version of the C shape.



ANY KEY WITHIN THREE CONSECUTIVE POSITIONS

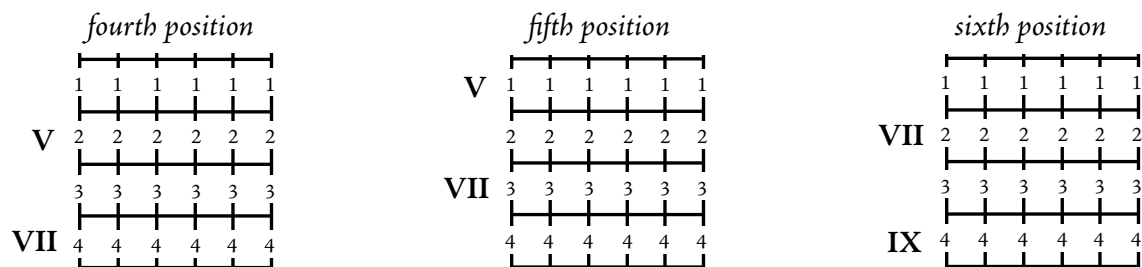
A primary goal on the fretboard is to be able to play in all keys in a small area or one key everywhere.

When a chord has a long duration, you have the opportunity to improvise in a wide range of pitch on the fretboard. When you are improvising on chords of short duration, you need to be able to play in a small area, since you don't have time to move around. When you voice chords to represent a chord progression, you usually make small, conservative movements (for good voice leading) and would tend to play in a small area of the fretboard.

finger assignment in three consecutive positions

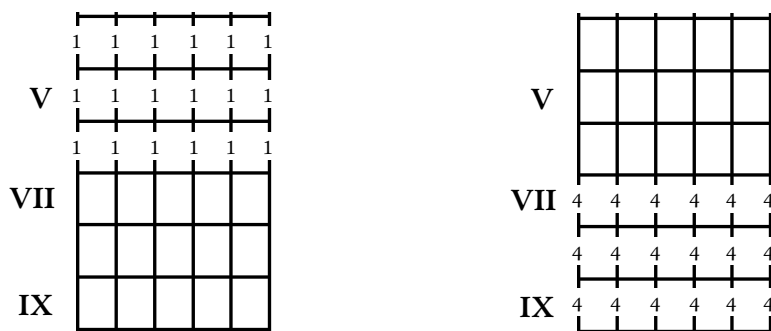
The standard basis for fretting single note melody is that in each position, each finger is assigned to one of four consecutive frets. In more advanced definitions of positions for single note guitar parts (as opposed to chords), the index and little fingers can reach one fret out of position, but we won't do that here.

Positions IV, V and VI are shown as an example of three consecutive positions below. If the fifth position was the original position you considered, the fourth position represents the position one fret toward the head of the guitar from the original position and the sixth position represents the position one fret toward the body of the guitar from the original (fifth) position.



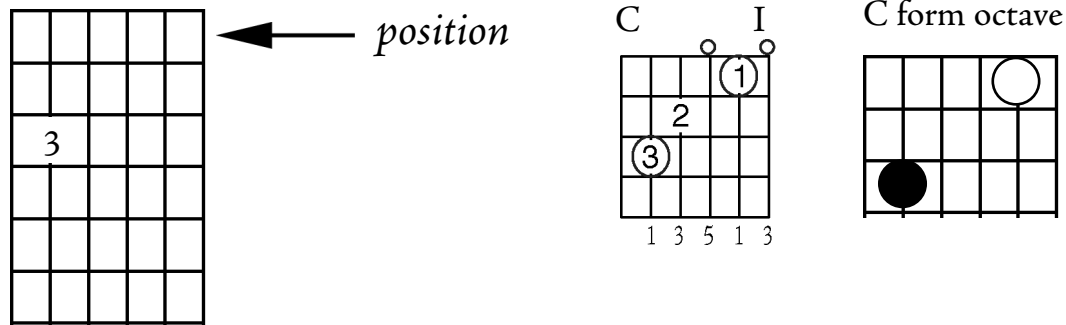
octave shapes with the bass note fretted with the index or little finger

Most octave shapes have their lowest-pitched note fretted with the index or little fingers. One of them is oriented to the ring finger. First look at all of the notes in positions IV, V and VI fretted with only the index and little fingers.



the bass note of "C" octave shape is fretted with the ring finger

The only octave shape that has its lowest-pitched note fretting with the ring finger is the "C" shape. It occurs when you consider the added position one fret toward the head of the guitar from the original position you considered.



all twelve notes within the range of three positions

Any of the twelve different notes can be assigned to an octave shape within the range of three consecutive positions. Consider the note names in IV, V and VI positions.

fourth position index finger at fourth fret	fifth position index finger at fifth fret	sixth position index finger at sixth fret																																																																																																												
<p>V</p> <table border="1"> <tr><td>G\sharp</td><td>C\sharp</td><td>F\sharp</td><td>B</td><td>D\sharp</td><td>G\sharp</td></tr> <tr><td>A\flat</td><td>D\flat</td><td>G\flat</td><td></td><td>E\flat</td><td>A\flat</td></tr> <tr><td>A</td><td>D</td><td>G</td><td>C</td><td>E</td><td>A</td></tr> <tr><td>A\sharp</td><td>D\sharp</td><td>G\sharp</td><td>C\sharp</td><td>F</td><td>A\sharp</td></tr> <tr><td>B\flat</td><td>E\flat</td><td>A\flat</td><td>D\flat</td><td>F\flat</td><td>B\flat</td></tr> <tr><td>B</td><td>E</td><td>A</td><td>D</td><td>F\sharp</td><td>B</td></tr> </table>	G \sharp	C \sharp	F \sharp	B	D \sharp	G \sharp	A \flat	D \flat	G \flat		E \flat	A \flat	A	D	G	C	E	A	A \sharp	D \sharp	G \sharp	C \sharp	F	A \sharp	B \flat	E \flat	A \flat	D \flat	F \flat	B \flat	B	E	A	D	F \sharp	B	<p>V</p> <table border="1"> <tr><td>A</td><td>D</td><td>G</td><td>C</td><td>E</td><td>A</td></tr> <tr><td>A\sharp</td><td>D\sharp</td><td>G\sharp</td><td>C\sharp</td><td>F</td><td>A\sharp</td></tr> <tr><td>B\flat</td><td>E\flat</td><td>A\flat</td><td>D\flat</td><td>F\flat</td><td>B\flat</td></tr> <tr><td>B</td><td>E</td><td>A</td><td>D</td><td>F\sharp</td><td>B</td></tr> <tr><td>C</td><td>F</td><td>A\sharp</td><td>D\sharp</td><td>G</td><td>C</td></tr> <tr><td>C\sharp</td><td>F\sharp</td><td>B</td><td>E</td><td>A\flat</td><td>D\flat</td></tr> </table>	A	D	G	C	E	A	A \sharp	D \sharp	G \sharp	C \sharp	F	A \sharp	B \flat	E \flat	A \flat	D \flat	F \flat	B \flat	B	E	A	D	F \sharp	B	C	F	A \sharp	D \sharp	G	C	C \sharp	F \sharp	B	E	A \flat	D \flat	<p>VII</p> <table border="1"> <tr><td>A\sharp</td><td>D\sharp</td><td>G\sharp</td><td>C\sharp</td><td>F</td><td>A\sharp</td></tr> <tr><td>B\flat</td><td>E\flat</td><td>A\flat</td><td>D\flat</td><td>F\flat</td><td>B\flat</td></tr> <tr><td>B</td><td>E</td><td>A</td><td>D</td><td>F\sharp</td><td>B</td></tr> <tr><td>C</td><td>F</td><td>A\sharp</td><td>D\sharp</td><td>G</td><td>C</td></tr> <tr><td>C\sharp</td><td>F\sharp</td><td>B</td><td>E</td><td>A\flat</td><td>D\flat</td></tr> <tr><td>D\flat</td><td>G\flat</td><td></td><td></td><td></td><td></td></tr> </table>	A \sharp	D \sharp	G \sharp	C \sharp	F	A \sharp	B \flat	E \flat	A \flat	D \flat	F \flat	B \flat	B	E	A	D	F \sharp	B	C	F	A \sharp	D \sharp	G	C	C \sharp	F \sharp	B	E	A \flat	D \flat	D \flat	G \flat				
G \sharp	C \sharp	F \sharp	B	D \sharp	G \sharp																																																																																																									
A \flat	D \flat	G \flat		E \flat	A \flat																																																																																																									
A	D	G	C	E	A																																																																																																									
A \sharp	D \sharp	G \sharp	C \sharp	F	A \sharp																																																																																																									
B \flat	E \flat	A \flat	D \flat	F \flat	B \flat																																																																																																									
B	E	A	D	F \sharp	B																																																																																																									
A	D	G	C	E	A																																																																																																									
A \sharp	D \sharp	G \sharp	C \sharp	F	A \sharp																																																																																																									
B \flat	E \flat	A \flat	D \flat	F \flat	B \flat																																																																																																									
B	E	A	D	F \sharp	B																																																																																																									
C	F	A \sharp	D \sharp	G	C																																																																																																									
C \sharp	F \sharp	B	E	A \flat	D \flat																																																																																																									
A \sharp	D \sharp	G \sharp	C \sharp	F	A \sharp																																																																																																									
B \flat	E \flat	A \flat	D \flat	F \flat	B \flat																																																																																																									
B	E	A	D	F \sharp	B																																																																																																									
C	F	A \sharp	D \sharp	G	C																																																																																																									
C \sharp	F \sharp	B	E	A \flat	D \flat																																																																																																									
D \flat	G \flat																																																																																																													

twelve unique bass notes of octave shapes in a single position

In a given position, you can reach the bass note of an octave shape for every key. These are the twelve bass notes representing all keys for the fifth position. Every other note is a duplicate.

V	V
VII	VII
IX	IX

considering a position

When you consider playing in any particular position, you should include the positions up one fret (toward the guitar body) and down one fret (toward the head of the guitar). Then the octave shape is available for all twelve notes. You will learn how the following octave shapes are determined and how they are assigned to fingers.

the letters below indicate

OCTAVE SHAPES, NOT NOTE NAMES

E	A	D		
E	A	D		
E	A /C			
G	C			
G	C			
G	C			

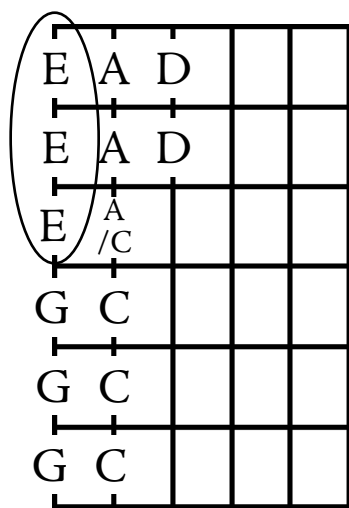
← *original position
being considered*

"E" shape octaves within the range of three positions

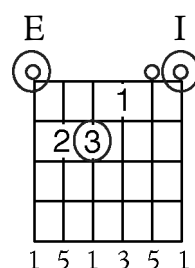
Each of the three notes enclosed in an oval (ellipse) below are in "E" shape. The note in the lowest octave of the "E" shape octave shape is on the sixth string (shown at the right below with a blackened circle).

the letters below indicate

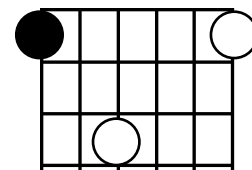
OCTAVE SHAPES, NOT NOTE NAMES



*original position
being considered*



E form octave



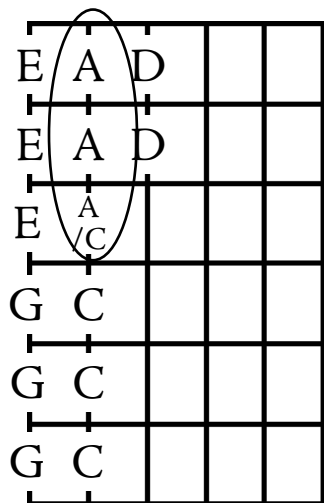
“A” shape octaves within the range of three positions

Each of the three notes enclosed in an oval (ellipse) below are in “A” shape. The note in the lowest octave of the “A” shape octave shape is on the fifth string (shown at the right below with a blackened circle).

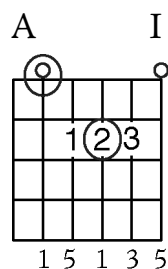
Notice that one of the notes has two possible octave shapes, shown as “A/C”. The “C” shape for that location will be discussed below in “C Shape Octaves Within The Range Of Three Positions”.

the letters below indicate

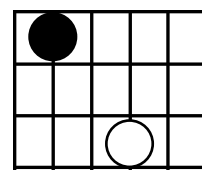
OCTAVE SHAPES, NOT NOTE NAMES



*original position
being considered*



A form octave



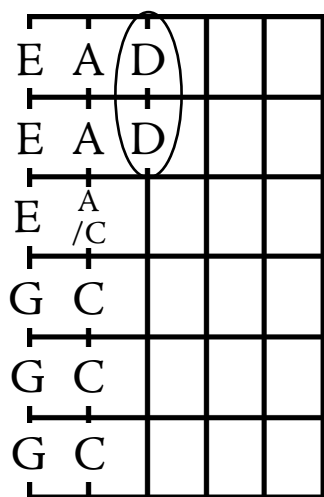
“D” shape octaves within the range of three positions

Each of the two notes enclosed in an oval (ellipse) below are in “D” shape. The note in the lowest octave of the “D” shape octave shape is on the fourth string (shown at the right below with a blackened circle).

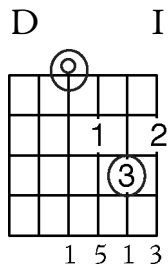
See the section a little later in this document regarding [“Unnecessary Duplicate Notes.”](#)

the letters below indicate

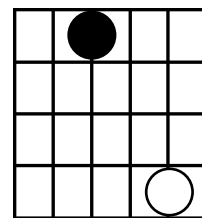
OCTAVE SHAPES, NOT NOTE NAMES



*original position
being considered*



D form octave

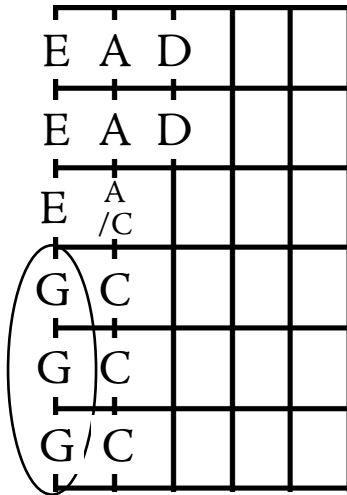


"G" shape octaves within the range of three positions

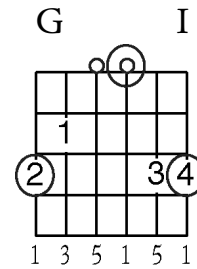
Each of the three notes enclosed in an oval (ellipse) below are in "G" shape. The note in the lowest octave of the "G" shape octave shape is on the sixth string (shown at the right below with a blackened circle).

the letters below indicate

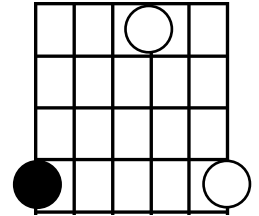
OCTAVE SHAPES, NOT NOTE NAMES



*original position
being considered*



G form octave



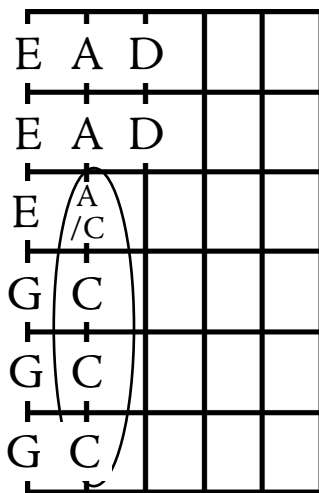
"C" shape octaves within the range of three positions

Each of the four notes enclosed in an oval (ellipse) below are in "C" shape. The note in the lowest octave of the "C" shape octave shape is on the fifth string (shown at the right below with a blackened circle).

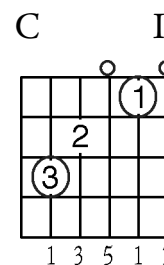
Notice that one of the notes has two possible octave shapes, shown as "A/C". The "A" shape for that location was discussed above in "A Shape Octaves Within The Range Of Three Positions".

the letters below indicate

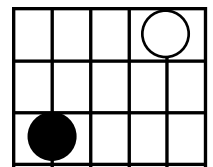
OCTAVE SHAPES, NOT NOTE NAMES



*original position
being considered*



C form octave



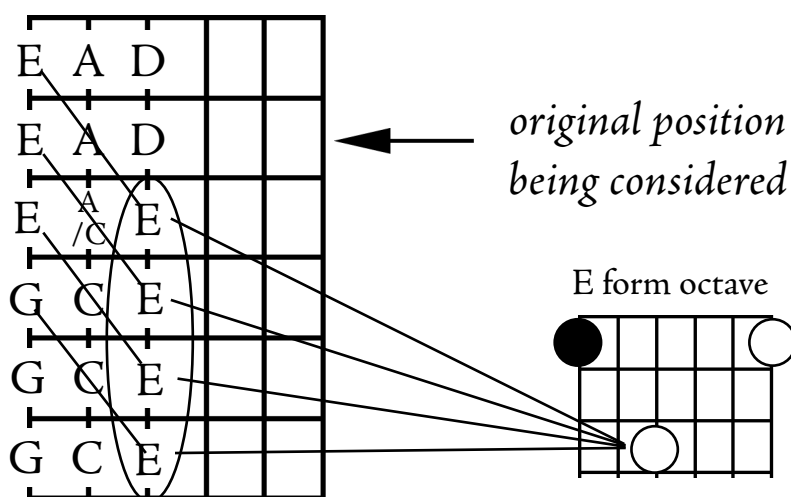
unnecessary duplicate notes

The four notes enclosed in an oval (ellipse) below are in “E” shape, but are not necessary. They are represented by the “E” shape notes on the sixth string which have the same name.

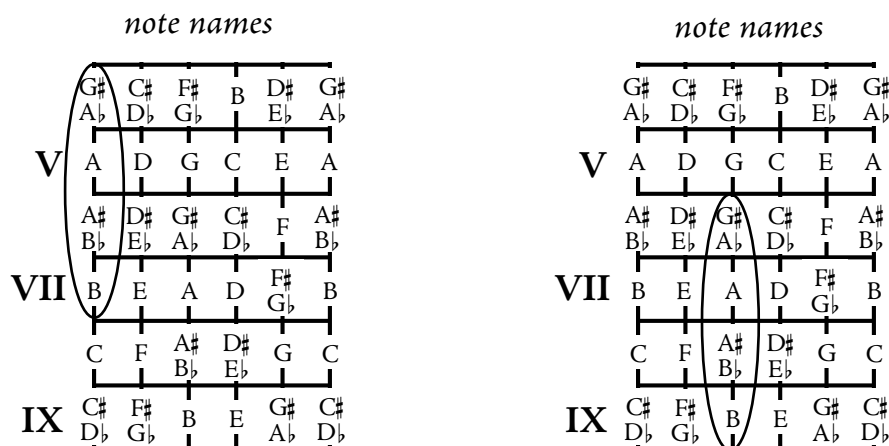
Don't worry if you don't understand this paragraph: it is not critical. Note also that the “E” shape shown on the fourth string at the bottom of the diagram below is part of an “E” shape whose sixth string note would be out of the range of positions we are considering (shown as a “G” on the sixth string because that is the shape within the range of considered positions).

the letters below indicate

OCTAVE FORMS, NOT NOTE NAMES

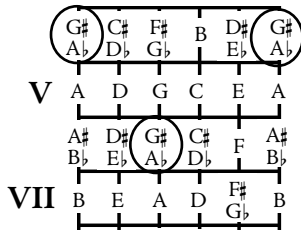


For example, notice that the four notes enclosed in an oval (ellipse) below on each diagram are the same four notes on the other diagram.

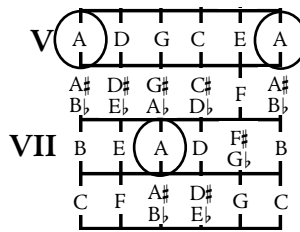


octave shapes for all notes within the ranges of IV, V and VI positions

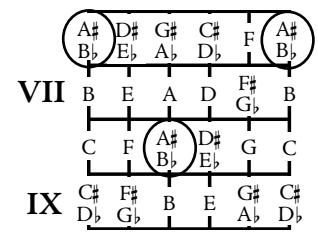
G# / Ab is in E shape



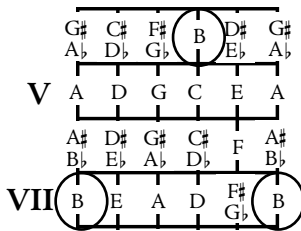
A is in E shape



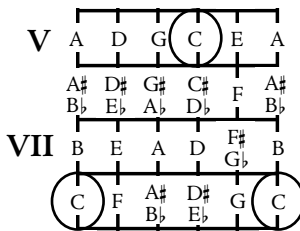
A# / Bb is in E shape



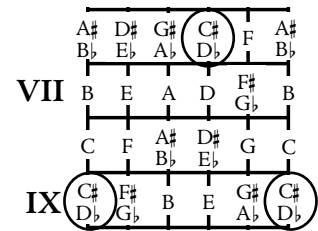
B is in G shape



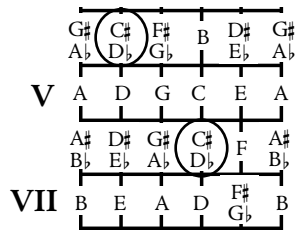
C is in G shape



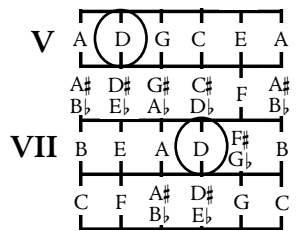
C# / Db is in G shape



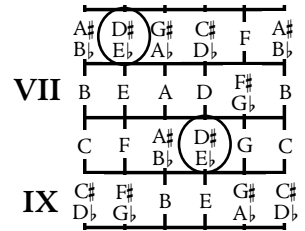
C# / Db is in A shape



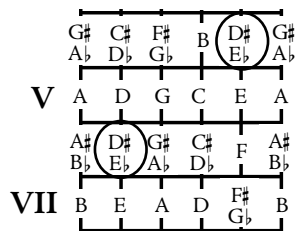
D is in A shape



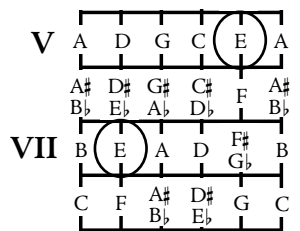
D# / Eb is in A shape



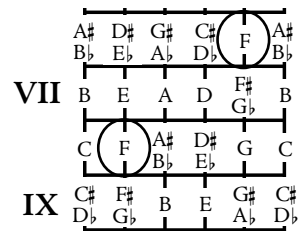
D# / Eb is in C shape



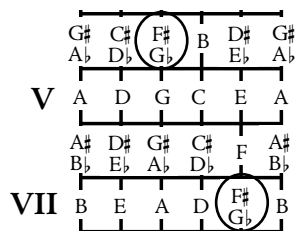
E is in C shape



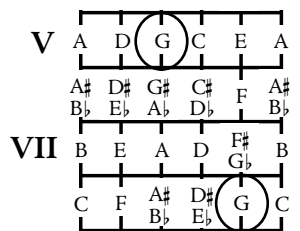
F is in C shape



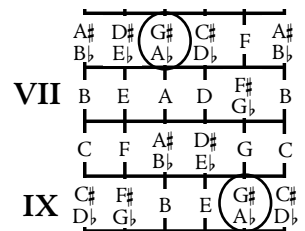
F# / Gb is in D shape



G is in D shape



G# / Ab is in D shape



"HEY JOE" OR "DAY IN THE LIFE" IN FIVE OCTAVE SHAPES

Play this chord progression is C-G-D-A-E-E-E-E, one bar each chord. This is a great way to memorize major chord fingerings for each of the five octave shapes.

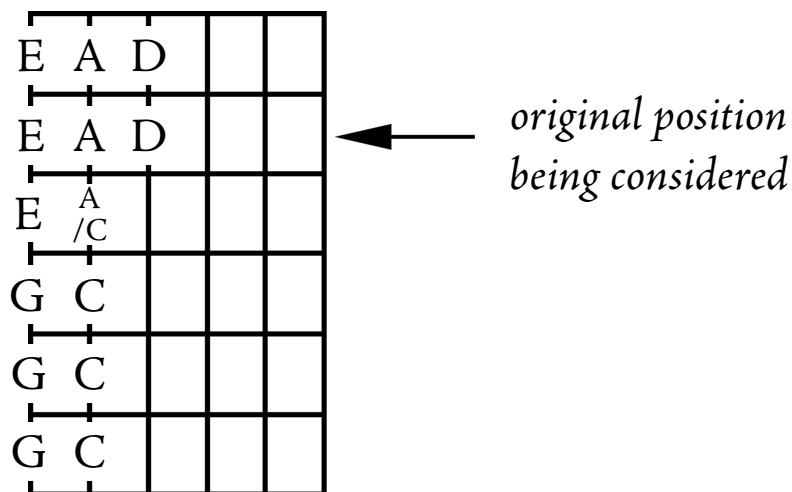
	E shape	D shape	C shape	A shape	G shape
<i>major chord</i>					
<i>Hey Joe</i> "E" is "D" shape					
<i>Hey Joe</i> "E" is "C" shape					
<i>Hey Joe</i> "E" is "A" shape					
<i>Hey Joe</i> "E" is "G" shape					
<i>Hey Joe</i> "E" is "E" shape					

IDENTIFYING AN OCTAVE SHAPE IN A POSITION

For most chords, think in terms of the low octave root. Choose a starting position. You will consider that position and the positions up a fret (toward the gutiar body) and down a fret (toward the head of the guitar). Within the range of those positions, these octave shapes are available:

the letters below indicate

OCTAVE SHAPES, NOT NOTE NAMES



From the original chosen position, if the index finger is nearest the chosen note, use the “E”, “A”, or “D” shape, depending on the string. The “E” shape is on the sixth string, “A” shape on the fifth string and “D” shape on the fourth string. If the little finger is nearest the chosen note, use the “G” or “C” shape. The “G” shape is on the sixth string and the “C” shape is on the fifth string.

IN-POSITION MAJOR SCALE FINGERINGS

Reference Major Scale Fingerings

seven in-position fingerings, numbered by scale tones

Major scale fingerings are numbered in this course according to the number of lowest note fingered with the index finger on the sixth string. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the an alternate string. Head-reach (index) options are generally preferred for scale and melody, while body-reach (pinky) options are preferred for arpeggios.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

in-position major scale fingerings by finger number

“1” is the index finger, “2” is the middle finger, “3” is the ring finger and “4” is the little finger. Head-reach (index) options are generally preferred for scale and melody, while body-reach (pinky) options are preferred for arpeggios.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

Major scale fingerings can also be conceived in all twelve positions for any particular key, as shown below.

Root ID Versions of Major Scales in Twelve Positions

twelve in-position fingerings, numbered by scale tones and by formula

In this **root ID** naming system, the first number indicates the string where the lowest-octave tone center is located. The second number indicates the fretting hand finger that frets the tone center. 1 = index, 2 = middle, 3 = ring and 4 = little finger. "L" is shown after the number "1" when the index finger reaches one fret toward the head of the guitar for the low-octave tone center ("L" to indicate low pitch). A note in parenthesis indicates an optional location to fret a note on an adjacent string.

This is the most discreet system of positions for the major scale.

<p>6-1</p>	<p>6-1L</p>	<p>4-1</p>	<p>4-1L</p>	<p>5-4</p>	<p>5-3</p>
<p>1 1 1 1</p>	<p>1 1 1 1</p>	<p>1 1 1 1</p>	<p>1 1 1 1</p>	<p>1 1 1 1</p>	<p>1 1 1 1</p>
<p>5-2</p>	<p>5-1</p>	<p>5-1L</p>	<p>6-4</p>	<p>6-3</p>	<p>6-2</p>
<p>1 1 1 1</p>	<p>1 1 1 1</p>	<p>1 1 1 1</p>	<p>1 1 1 1</p>	<p>1 1 1 1</p>	<p>1 1 1 1</p>

CONVERTING MAJOR CHORDS TO MINOR CHORDS

Each major chord is constructed with numbered tones “1,” “3” and “5” of a major scale named after the chord. A major scale is shown below for major chords in each of the five shapes. Notice that the numbered tones in each chord diagram are the major scale tones (not fingers) extracted from the major scale fingering above it. Converting the “E,” “A” and “D” shape major chords to minor is straightforward. Flat the “3” in each major chord.

E shape major scale	D shape major scale	C shape major scale	A shape major scale	G shape major scale
major chord scale numbers	major chord scale numbers	major chord scale numbers	major chord scale numbers	major chord scale numbers
major chord finger numbers	major chord finger numbers	major chord finger numbers	major chord finger numbers	major chord finger numbers
minor chord scale numbers	minor chord scale numbers	minor chord scale numbers	minor chord scale numbers	minor chord scale numbers
minor chord finger numbers	minor chord finger numbers	minor chord finger numbers	minor chord finger numbers	minor chord finger numbers

fifth string optional

don't sound second string

Pentatonic Scales and Octave Shapes

- **Memorize These Fingerings**
- **What Is a Pentatonic Scale?**
- **Relative Major and Minor Pentatonic**
- **Devices to Memorize Pentatonic Fingerings**
- **Octave Pentatonics**
- **Pentatonic Lines**
- **The Pentatonic Master Pattern**
- **Little Wing Study**
- **Hotel California Study**

MEMORIZE THESE FINGERINGS

Major Chords and Pentatonic Scales in All Five Octave Shapes

	E shape I	D shape I	C shape I	A shape I	G shape I
octave shapes					
major chord					
major pentatonic					

Minor Chords And Pentatonic Scales in All Five Octave Shapes

	E shape I	D shape I	C shape I	A shape I	G shape I
octave shapes					
minor chord					
minor pentatonic					

WHAT IS A PENTATONIC SCALE?

Common Pentatonic Scales

Pentatonic scales have five tones per octave (not counting the octave). The most common forms are the minor and major pentatonic. Specific names for these scales are minor 7/11 pentatonic and major 6/9 pentatonic, where the scales have been named after the chords which would have the same name.

Chord Roots

A chord root is the note after which a chord is named. It is the letter which begins the chord name and any sharp or flat that may immediately follow it. "B" is the root of a Bm7b5 chord. "Bb" (B flat) is the root of a Bbm7b5 chord ("B" flat minor seventh flat five). "F" is the root of a Fma7b5 chord ("F" major seventh flat five). "F#" is the root of an F#ma7b5 chord.

Aurally (in terms of sound), a chord root can also be thought of as the lowest note a listener can imagine during the playing of a chord. If the listener is experienced in recognizing chord inversions (where notes other than the root may be the lowest pitch), they should imagine in terms of root position, where the root is in the bass.

Scale Tone Centers

A tone center is the note after which a scale is named. A classic example of a scale would play the notes consecutively up or down for one octave (eight notes with a major scale), beginning and ending on the tone center.

Chord and Scale Formulas

A formula expresses the notes of a chord or scale in relation to a major scale based on the chords root or the scales tone center. For example, a major chord is combines major scale tones 1, 3 and 5.

G major scale in "C" shape

fingers VII

		1	
		(2)	
	3		
(4)			

1 3 5 1
(scale tones)

scale tones VII

	2	5	7
		(1)	
	3	6	
(1)	4		

fingers: 4 1 3 4 1 3 1 2

scale tones: 1 2 3 4 5 6 7 1

A formula may indicate altered tones of the major scale. A flat symbol (b) placed before any number in a formula indicates a note one half step lower than that numbered tone (one fret toward the head of the guitar). A sharp symbol (#) placed before any number in a formula indicates a note one half step higher than that numbered tone (one fret toward the body of the guitar). “b3” (flat three) would indicate a note one half step lower than scale tone “3”. “#4” (sharp four) would indicate a note one half step higher than scale tone “4”.

Major Six Nine Pentatonic Scale

The major 6/9 pentatonic scale has the same notes as a major 6/9 chord. The name may be abbreviated as “6/9”, since chord names that don’t specify the triad quality are assumed to be major. C6/9 is C major six nine, while Cm6/9 is C minor six nine. The major 6/9 chord is a major chord with an added sixth and ninth. In a chord, a ninth is the same note as the second, but “nine” implies it is in a higher range of pitch.

The formula for the major 6/9 pentatonic scale is 1-2-3-5-6. That is, a major 6/9 is made up of the first, second, third, fifth and sixth tones of a scale named after the chord root. Those tones of a C major 6/9 pentatonic scale are C, D, E, G and A.

Major 6/9 pentatonic works melodically with most major type chords, but is usually most effective when used against major, sixth or add nine chords (major, 6th, add 9, 6/9).

Minor Seven Eleven Pentatonic Scale

The minor 7/11 chord is a minor seventh chord with an added eleventh. The formula for a minor 7/11 chord is 1-b3-4-5-b7. So, a minor 7/11 chord is made up of the first, flatted third, fourth, fifth and flatted seventh tones of a scale named after the chord root. Those tones (or altered tones) of an A major scale are A, C, D, E and G. The flatted third and flatted seventh each lower the original scale tone by one fret .

Minor 7/11 pentatonic is the most fundamental and common scale in blues music. Major 6/9 is common to American styles of Anglo-Saxon origin, such as bluegrass, ragtime and country music.

Both minor 7/11 and major 6/9 pentatonic scales can be enhanced with the use of chromatics, as shown in a later chapter.

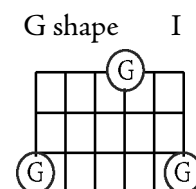
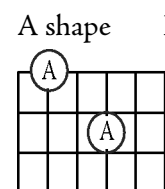
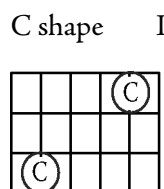
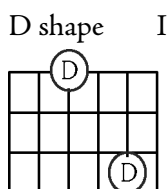
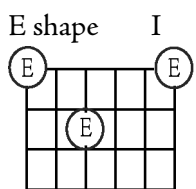
Major 6/9 pentatonic works melodically with most major type chords, but is usually most effective when used against major, sixth or add nine chords (major, 6th, add 9, 6/9).

Minor 7/11 pentatonic works with most minor type chords and/or in a minor key. It is most harmonious with minor seventh types (m7, m9, m11, m7/11). It can also be used against major type chords and/or in a major key, producing a bluesy effect by contrasting the minor scale sound against the major chord or key sound.

Open- Position Chords and Pentatonic Scales

the five octave shapes in open position

octave shapes

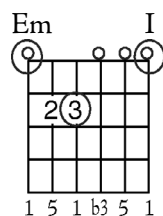
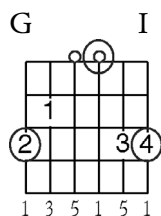


G major and Em pentatonic scales

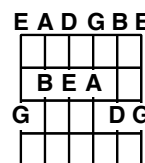
a G major chord
with "G" shape octaves
(the "G" notes are circled)

an E minor chord
with "E" shape octaves
(the "E" notes are circled)

The G major and E minor pentatonic scales share the same notes. To hear the "G" major pentatonic scale, ascend and descend from "G" to "G". To hear the "Em" pentatonic scale, ascend and descend from "E" to "E".



G ma. & Em pent. I

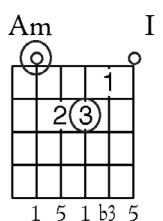
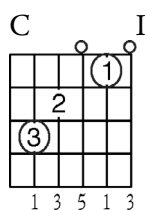


C major and Am pentatonic scales

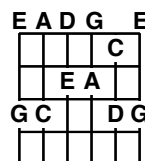
a C major chord
with "C" shape octaves
(the "C" notes are circled)

an A minor chord
with "A" shape octaves
(the "A" notes are circled)

The C major and A minor pentatonic scales share the same notes. To hear the "C" major pentatonic scale, ascend and descend from "C" to "C". To hear the "Am" pentatonic scale, ascend and descend from "A" to "A".



C ma. & Am pent. I

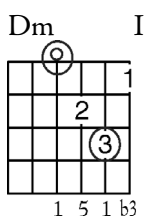
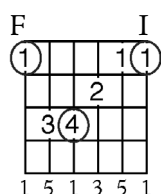


F major and Dm pentatonic scales

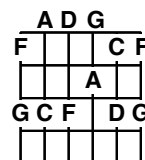
an F major chord
with "E" shape octaves -
Open position E and F octaves
shapes have the same shape,
but "E" is preferred as a name
(the "F" notes are circled,
but they make an "E" shape).

a D minor chord
with "D" shape octaves
(the "D" notes are circled)

The F major and D minor pentatonic scales share the same notes. To hear the "F" major pentatonic scale, ascend and descend from "F" to "F". To hear the "Dm" pentatonic scale, ascend and descend from "D" to "D".



F ma. & Dm pent. I

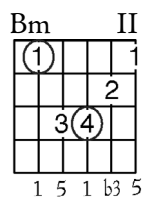
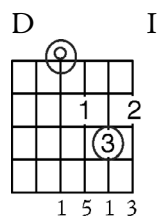


D major and B major pentatonic scales

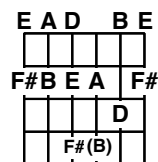
a D major chord
with "D" shape octaves
(the "D" notes are circled)

a B minor chord
with "A" shape octaves
(the "B" notes are circled)

The D major and B minor pentatonic scales share the same notes. To hear the "D" major pentatonic scale, ascend and descend from "D" to "D". To hear the "Bm" pentatonic scale, ascend and descend from "B" to "B". Note the optional fretting for the second string open "B" on the third string fourth fret, shown in parenthesis.



D maj. B min. pent. I



Major Chords and Pentatonic Scales in All Five Octave Shapes

	E shape I	D shape I	C shape I	A shape I	G shape I
octave shapes					
major chord					
major pentatonic					

Minor Chords And Pentatonic Scales in All Five Octave Shapes

	E shape I	D shape I	C shape I	A shape I	G shape I
octave shapes					
minor chord					
minor pentatonic					

RELATIVE MAJOR AND MINOR PENTATONIC

A tone center names the key of a song, scale or melody. A “B” minor pentatonic scale has the tone center “B”. A melody in the key of “D” major has the tone center “D”.

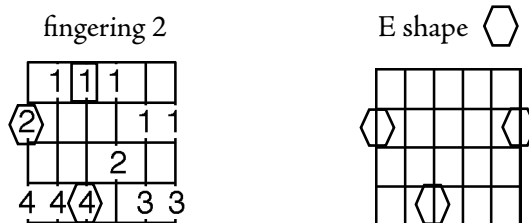
Minor pentatonic tone centers are indicated below with the rectangle (\square). Major pentatonic tone centers are indicated with the hexagon (\hexagon). Notice that when the major and minor tone centers are on the same string, the major tone center is three frets above the minor tone center (three frets toward the body of the guitar). In the same octave shape, the major pentatonic fingering number is one *higher* than the minor for the same tone center.

	fingering 1	fingering 2	fingering 3	fingering 4	fingering 5
<i>pentatonic scale</i>					
<i>minor chord</i>					
<i>major chord</i>					

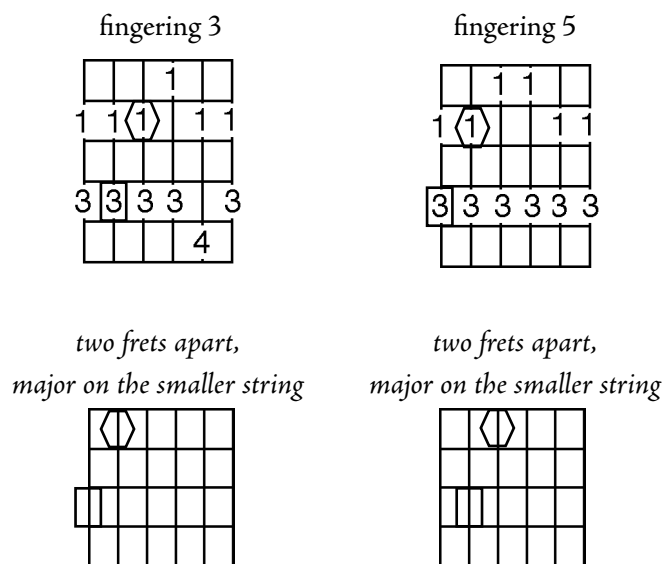
In these three pentatonic scale fingerings, the major tone center (\hexagon) is three frets above the minor tone center (\square) on the same string.

	fingering 1	fingering 2	fingering 4
<i>pentatonic scale</i>			

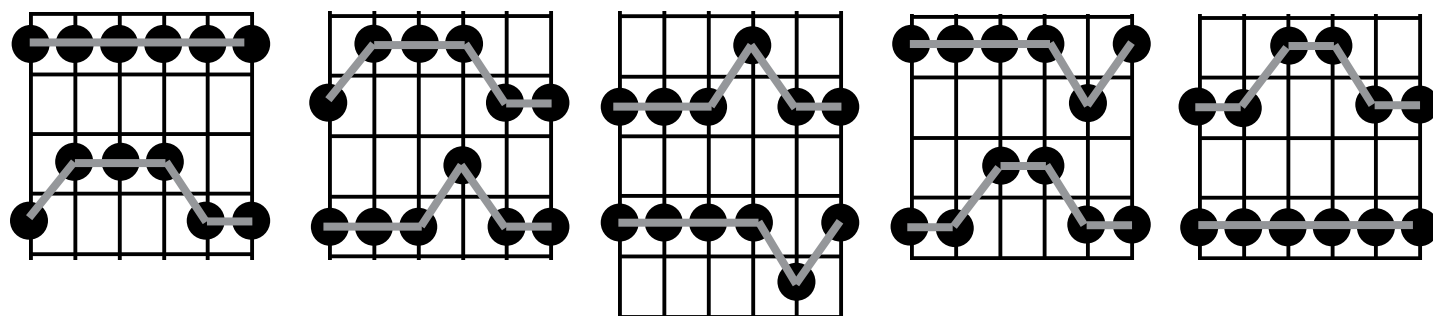
Notice also that in pentatonic scale fingering 2 (below), the major tone center (◻) is on the fourth and sixth strings: its on the fourth string to show its relationship to the minor tone center (◻) and on the sixth string to show the lowest octave of the “E” form octave of which it is a part.



In pentatonic scale fingerings 3 and 5 (below), the major tone center (◻) is two frets below the minor tone center on the next smaller string (◻).



Can you identify the minor and major tone centers and play the related minor and major chords for each of these?



DEVICES TO MEMORIZE PENTATONIC FINGERINGS

Octave Pentatonics

This is the best place to start, since you can play melodic themes which usually are contained within one octave. It shows the similarities between the six string fingering patterns.

Pentatonic Lines

By visualizing the full-fretboard pentatonic scale pattern, it can be conceived in terms of “lines” of notes that are mostly on a single fret for each line. Deviations from notes being on the same fret are referred to with terms such as “second string high” where all of the notes are on the same fret except a note on the second string is one fret closer to the body of the guitar.

Pentatonic Master Pattern

Ascend (sixth to first strings) two three fret intervals, three two-fret intervals, move one fret toward the head of the guitar to start over. A more detailed description is shown a few pages later.

Major Tone Center Diagonal

At the point where the major third interval occurs in ascending. This is shown at the end of the Pentatonic Lines discussion and within the pentatonic master pattern discussion that follows.

Relative Major And Minor

By memorizing the relative major and minor chords for each pentatonic scale fingering, and thinking of the composite of all their notes, you can “trigger” your memory of the pentatonic scale fingering in which they are contained.

Same Type Pentatonic Up A Fourth Or Fifth

When the same type of pentatonic scale (minor or major) is used up a fourth or fifth at the same fret only one note changes per octave and it changes by one fret.

Recognize the changed note as the necessary one to include all notes of the changed chord (since all notes of the chord have to be in the scale). Remember to change the note in all octaves.

Pentatonic Scales In Fourths, Fifths And Octaves

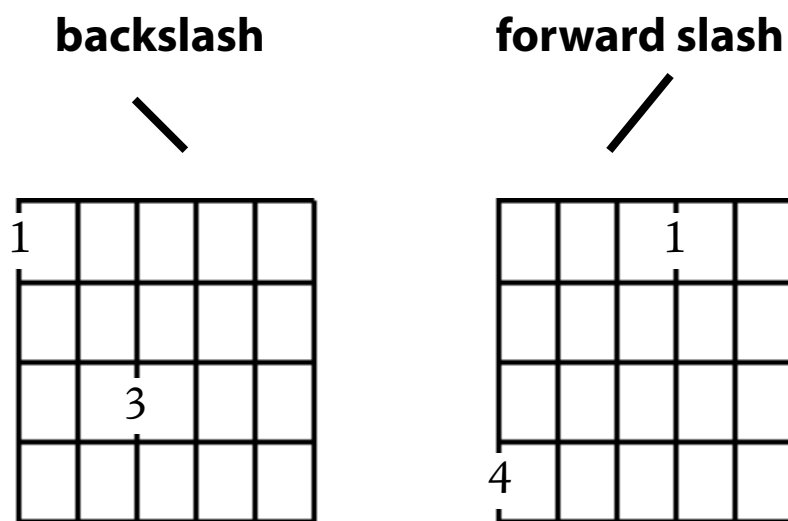
Play the scale in fourths (with one major third above the major tone center), in fifths (with one minor sixth) and octaves. These intervals are generally effective when played in single note parts, but the fourths (with one major third) are also effective played simultaneously as two-note chords.



OCTAVE PENTATONICS

The Arabic numbers 1, 2, 3 and 4 on these diagrams indicate fretting hand fingers. "1" is the index finger, "2" is the middle finger, "3" is the ring finger and "4" is the little finger.

backslash and forward slash octaves

An octave is a span of eight notes in a major scale. There are two archetypal octave shapes on which all other octave fingerings are based:



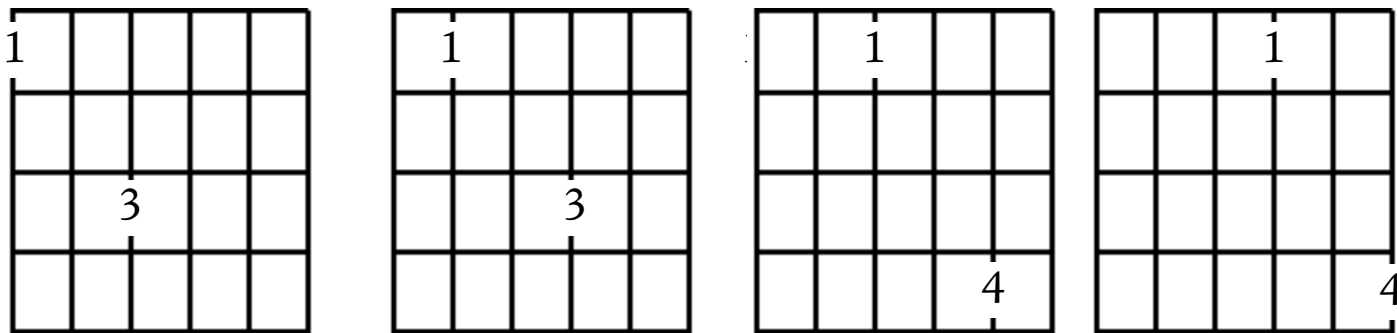
For each of these angles, you will need to memorize a minor pentatonic scale and a major pentatonic scale. A tone center is the note after which a pentatonic scale is named. "F#" (F sharp) minor pentatonic has the tone center "F#" (F sharp). A rectangle () will be used to designate a minor pentatonic tone center and a circle () will be used to designate a major pentatonic tone center.

flat tuning of the smallest two strings

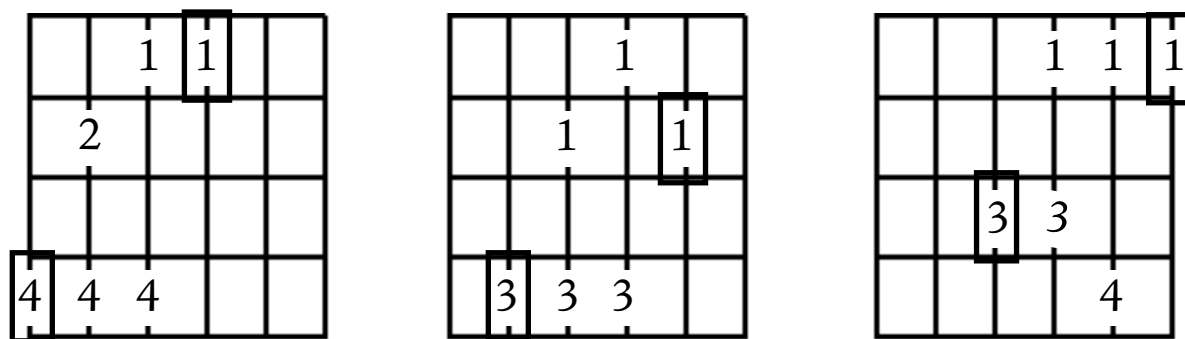
On the fifth fret of each string on the guitar, the pitch is the same as the next smaller string open, *except* the third string fourth fret is the same pitch as the second string open. This causes the pitch of the first two strings (the two smallest strings) to be relatively low by an interval of one fret (a half step).

Therefore, any intervals (such as octaves) that are originally conceived on the four larger strings must be compensated when they include either of the two smallest strings by fretting any note on the first or second (two smallest strings) one fret toward the body of the guitar.

the four instances of the backslash octave

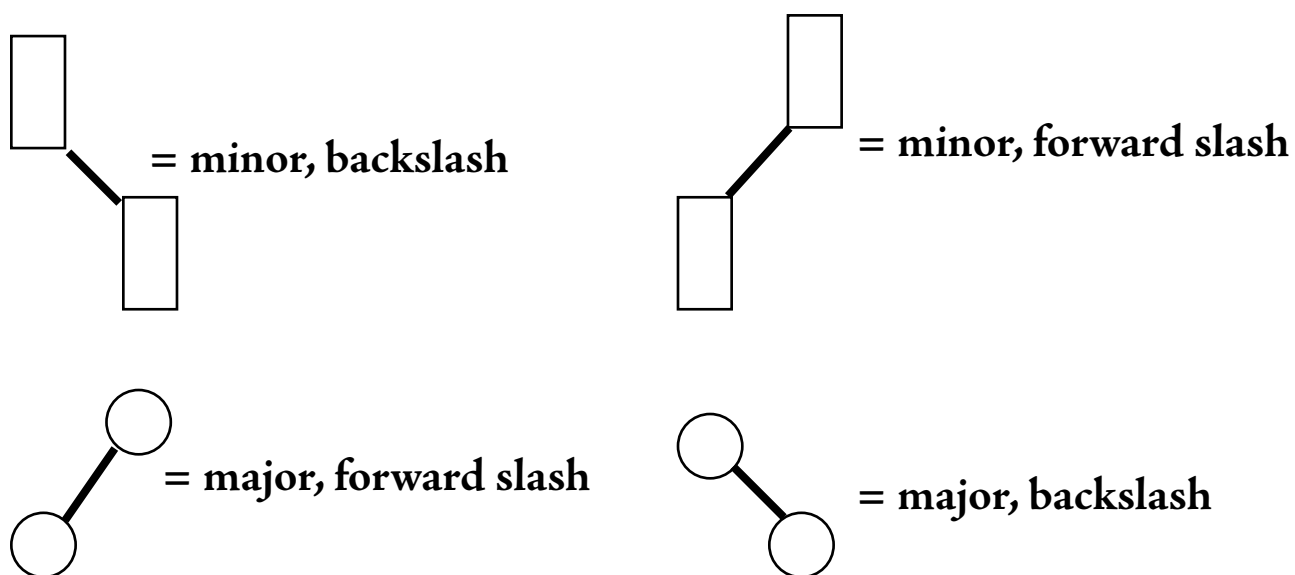


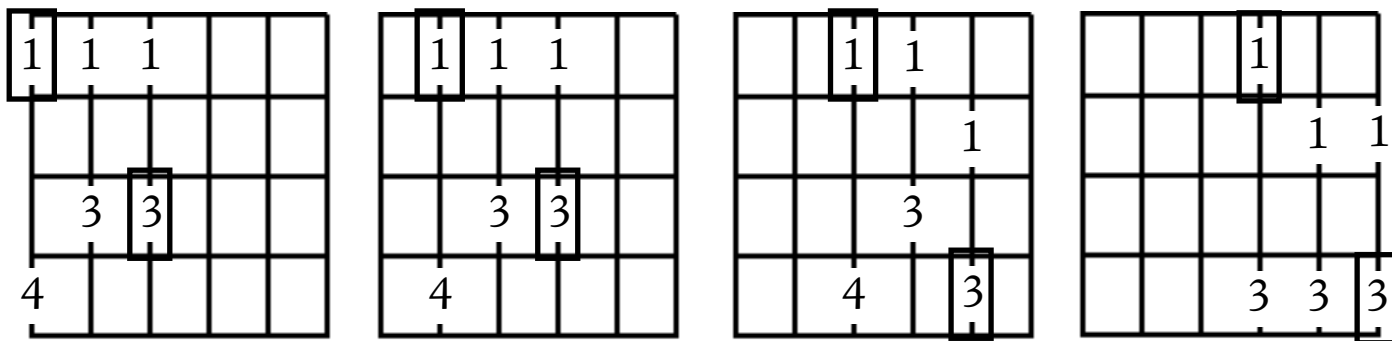
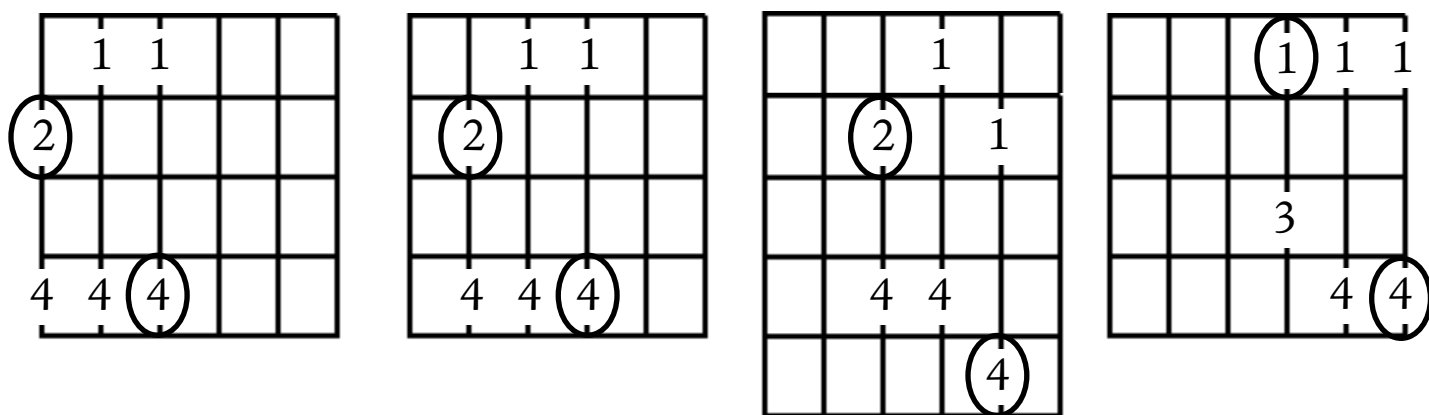
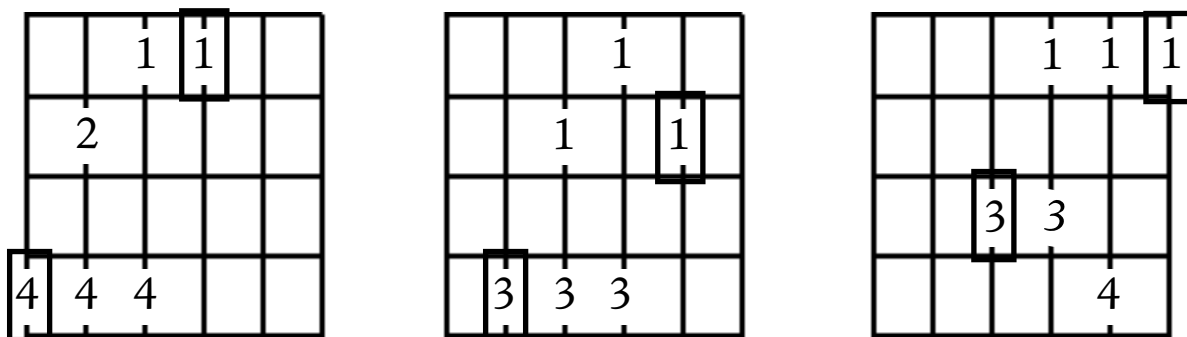
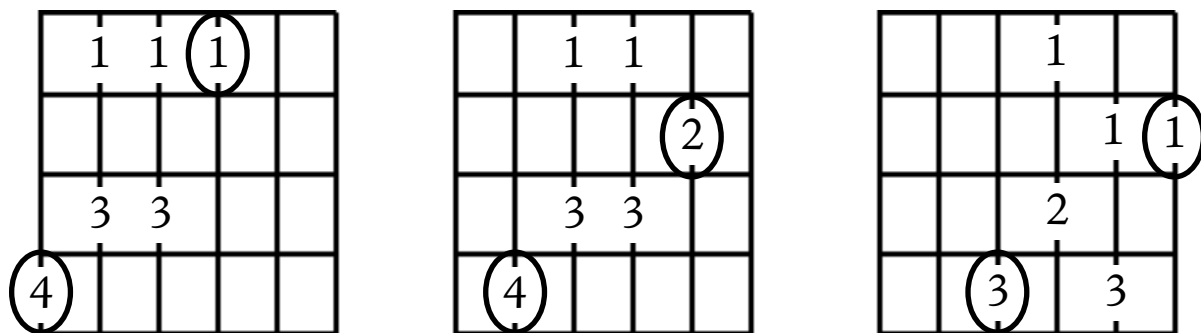
the three instances of the forward slash octave



the four configurations combining octave angle, minor and major

Look for these four configurations on the next page:

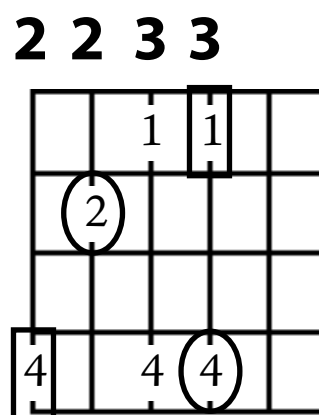
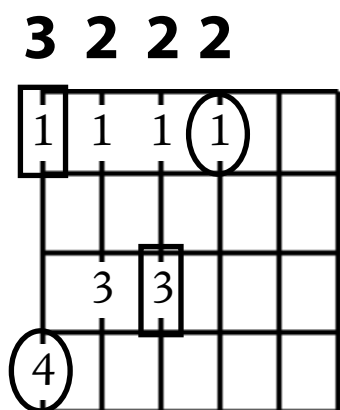


backslash minor pentatonic octaves**backslash major pentatonic octaves****forward slash minor pentatonic octaves****forward slash major pentatonic octaves**

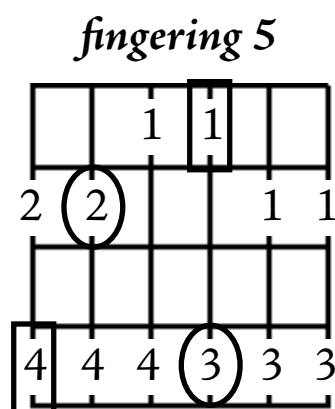
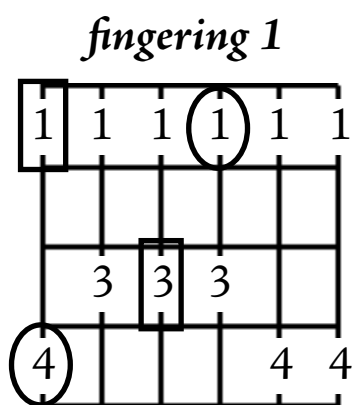
archetypes common to four-string fingering patterns

These four-string patterns are parts of six string pentatonic scale fingerings 1 and 5. The “3-2-2-2” fingering pattern has an interval of three frets on the sixth string and two frets on the fifth, fourth and third strings. The “2-2-3-3” fingering pattern has an interval of two frets on the sixth and fifth strings and an interval of three frets on the fourth and third strings.

Backslash minor and forward slash major octave pentatonics are common to the “3-2-2-2” fingering. Forward slash minor and backslash major octave pentatonics are common to the “2-2-3-3” fingering.



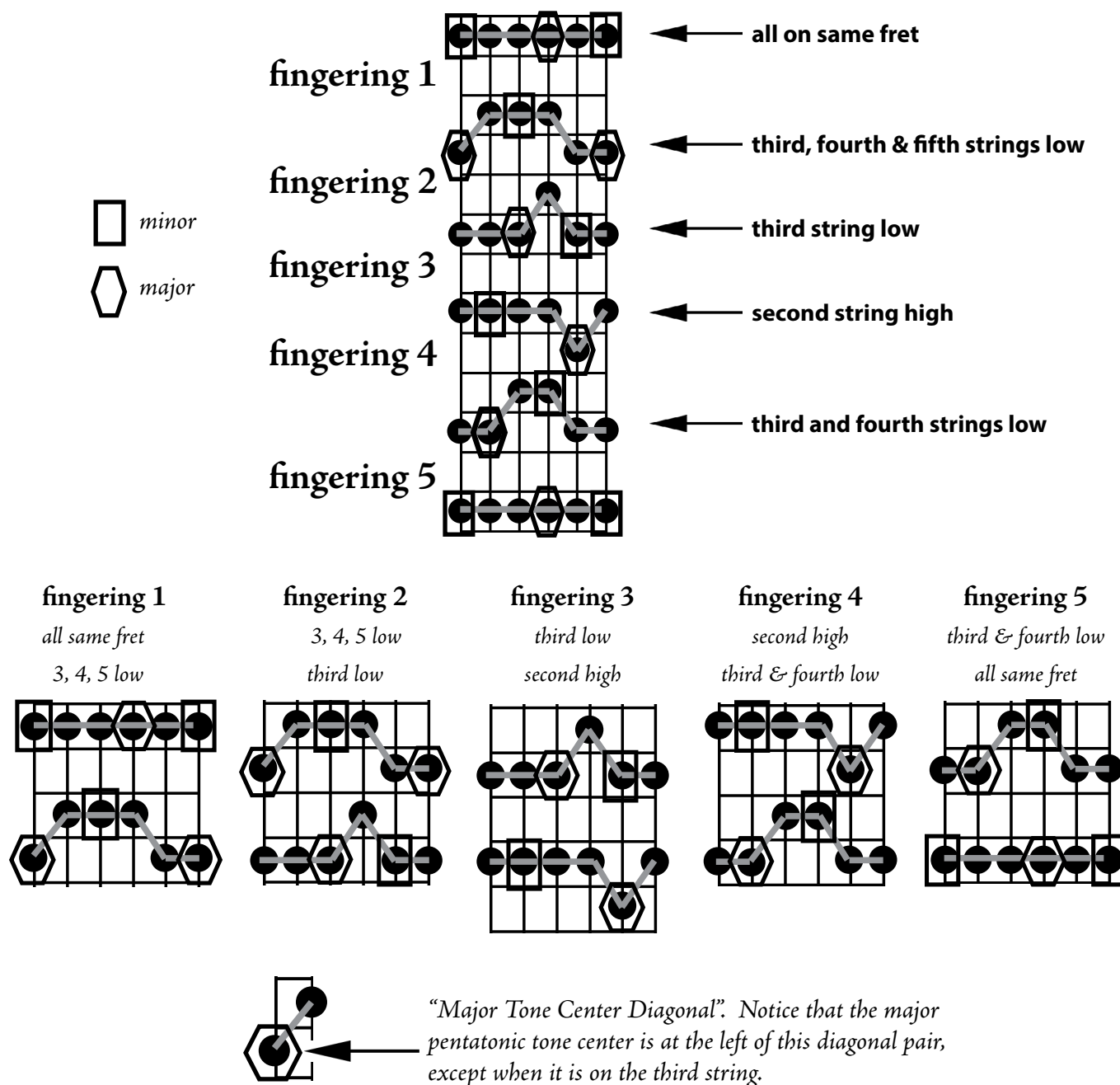
six-string pentatonic fingerings



PENTATONIC LINES

The common pentatonic scale, used for minor and major pentatonic can be conceived in lines to aid recollection of the five fingerings. The five unique lines are identified in the movable full-fretboard at the right of the diagram below.

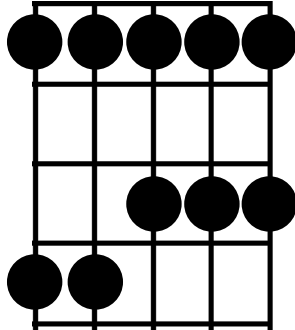
The lines are depicted in relation to notes all on the same fret by noting exceptions where some of the notes are one fret low (toward the head of the guitar) or high (toward the guitar body). “Low one five, four, three” indicates the notes on the third, fourth and fifth strings are one fret “low” in relation to the other notes on that line. The rectangles are minor tone centers and the hexagons are major tone centers.



THE PENTATONIC MASTER PATTERNS

Also see Master Pentonic and Major Scale Patterns/The Master Pentatonic Scale Pattern.

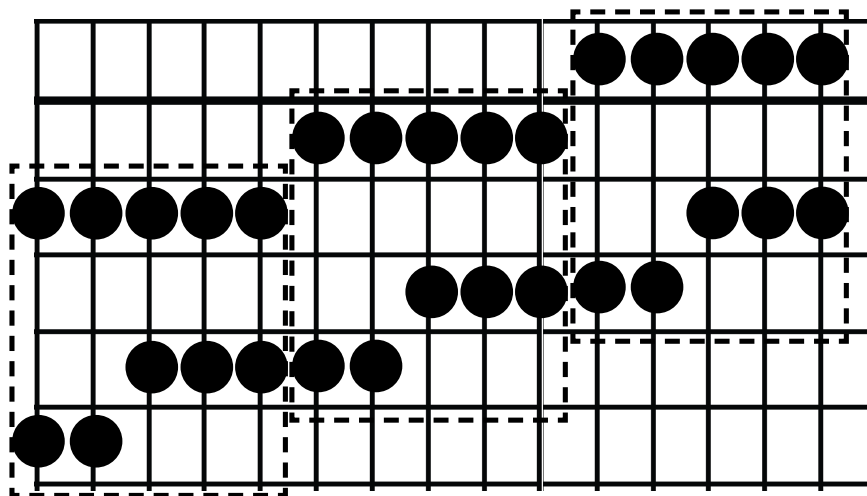
The number of strings in a master pattern for a note set is usually the same as the number of notes in the note set. A five-note (pentatonic) scale, usually has five notes in its master pattern. *The master pattern needs to be modified before applying it to the guitar.* The master pattern for the common major and minor pentatonic scale reads left to right as *two three-fret intervals, then three two-fret intervals*:



two adjustments need to be made to apply this pattern to the guitar


1. The smallest two strings are tuned flat in relation to the other strings. Any notes on string one and two (the two smallest strings) need to be moved up one fret, toward the body of the guitar. Relative to the other strings, these strings are tuned one fret (a half step) low in pitch.
2. When the master pattern repeats, it reoccurs one fret toward the head of the guitar.

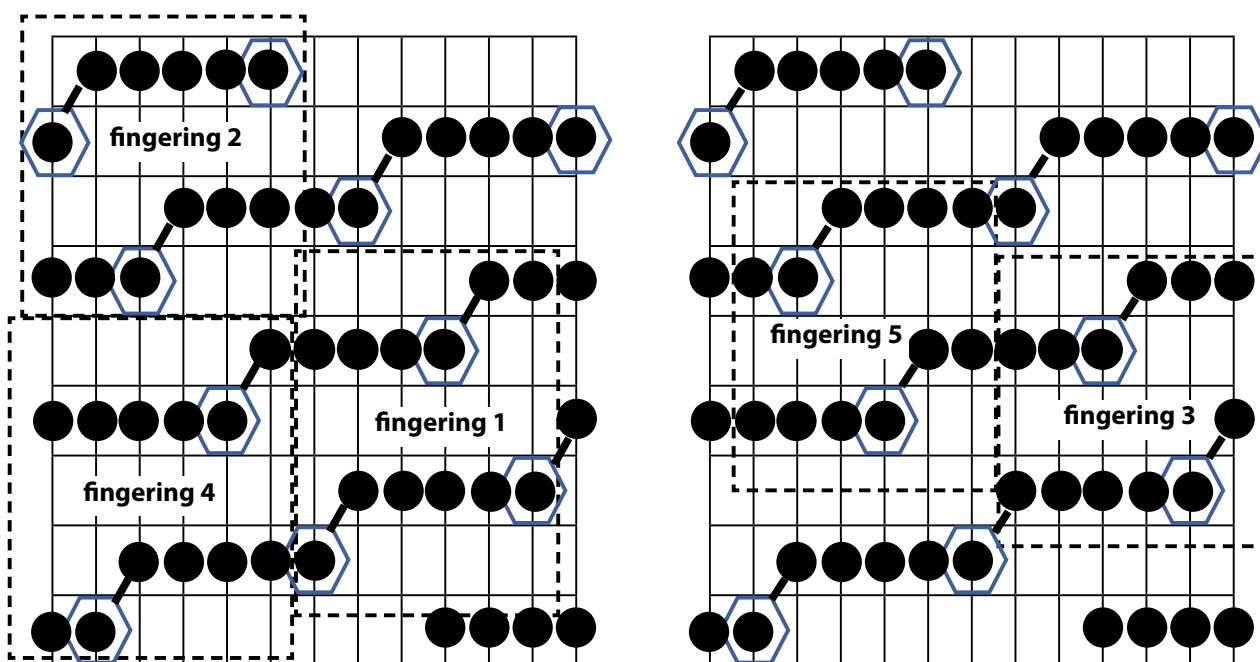
imagine the master pattern on infinite strings and infinite frets



Each time the pattern re-occurs, it is shifted, one fret toward the head of the guitar (which is up on the diagram). View any set of six consecutive strings (six consecutive vertical lines) on the infinite string and fret grid above. Imagine the last two strings on the right shifted one fret toward the body of the guitar, which is down on the diagram. Each set of six strings with the right two “dropped” will produce one of the five pentatonic scale fingerings.

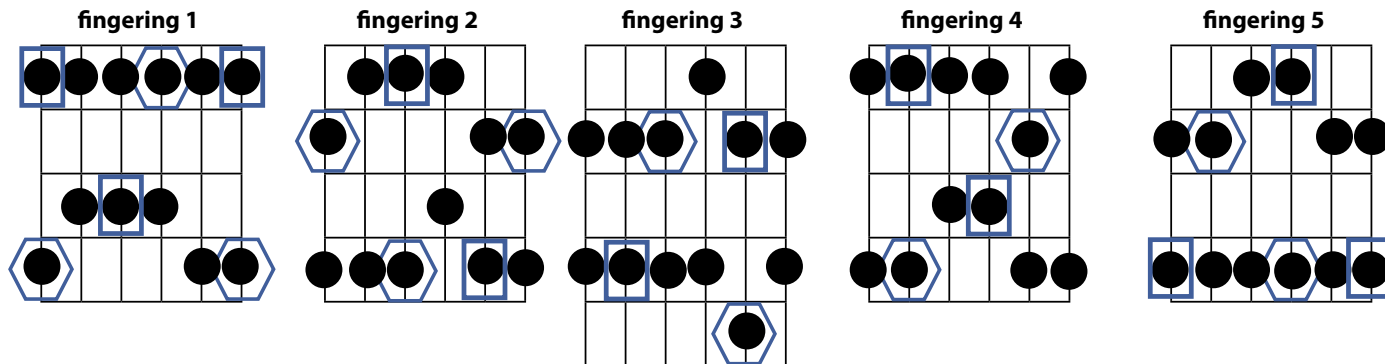
Extracting Pentatonic Fingerings from the Pentatonic Master Pattern

Each hexagon () is the major pentatonic tone center (or the flatted third of the minor pentatonic). The and a diagonal line at the upper right of each hexagon connects it to the beginning of the next pentatonic master pattern.



Each of the five common pentatonic scale fingerings below are extracted from the conceptual “infinite string and infinite fret” fretboard. In each fingering, the notes on the two smallest strings (the far right of each diagram below) are moved one fret toward the guitar body, which is down on the diagram. This

compensation is caused by the nature of the “flat-tuned” two smallest strings on the guitar. (strings one and two are tuned a half step (one fret) flat in relation to the other strings.



Constructing Each Penatonic Scale Fingering from the Pentatonic Master Pattern

pentatonic fingering one

Pentatonic fingering one ascends to the right on the diagram, reading left to right, by string number:

string 6 - the last of the two three-fret intervals

strings 5, 4 and 3 - three two-fret intervals

string 2 -the master pattern starts over where it would move one fret toward the head of the guitar but, since it is string 2, the compensation is cancelled out since flat-tuned strings require moving one fret toward the body of the guitar.

string 1 - plays the last of the two three fret intervals

pentatonic fingering two

Pentatonic fingering two ascends to the right on the diagram, reading left to right, by string number:

string 6 - the last of the three two-fret intervals

strings 5 - moves one fret toward the head of the guitar to re-start the master pattern with a three fret interval

string 4 -the last of the two three fret intervals

strings 3, 2 and 1 are the three two-fret intervals, but the pattern must move one fret toward the body of the guitar on strings 2 and 1, to compensate for them being flat-tuned.

pentatonic fingering three

Pentatonic fingering three ascends to the right on the diagram, reading left to right, by string number:

string 6, 5 and 4 - the three two-fret intervals

strings 3 - moves one fret toward the head of the guitar to re-start the master pattern with a three fret interval

string 2 - the last of the two three fret intervals must move one fret toward the body of the guitar to compensate for the flat-tuned second string

string 1 - the first of the three two-fret intervals

pentatonic fingering four

Pentatonic Fingering four ascends to the right on the diagram, reading left to right, by string number:

string 6 and 5 - the two three-fret intervals

strings 4, 3 and 2 - three two fret intervals, moving one fret toward the body of the guitar to compensate for the the flat-tuned second string

string 1 - the pattern starts over, moving one fret toward the head of the guitar

pentatonic fingering five

Pentatonic Fingering four ascends to the right on the diagram, reading left to right, by string number:

string 6 and 5 - the last two of the three two-fret intervals

strings 4 and 3 - the two three-fret intervals, beginning one fret toward the guitar body, since the pentatonic master pattern is starting over.

string two and one - the first two of the three two-fret intervals, beginning one fret toward the guitar body to compensate for the the flat-tuned second string

LITTLE WING STUDY

For each chord in this progression, play the chord, then the matching pentatonic scale shown below it. This is a very effective preparation for full-fretboard improvisation. First learn to play in each of the five octave shape areas for the key of “Em” shown below. Then, combine adjacent areas for each chord. With this purpose in mind, the octave shapes are shown in order, moving up the fretboard. The “D” shape example on the next page could also be played twelve frets higher, so it is adjacent to the “E” shape octave area shown below.

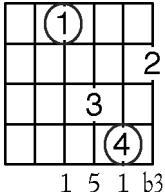
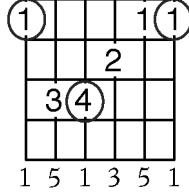
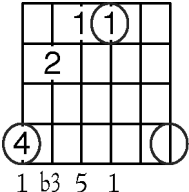
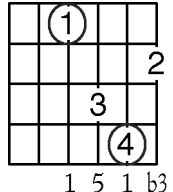
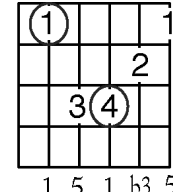
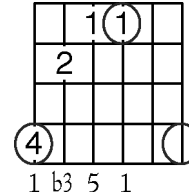
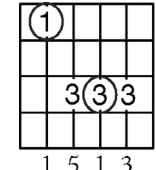
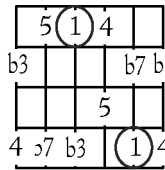
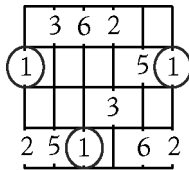
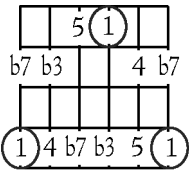
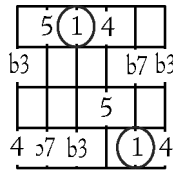
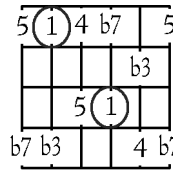
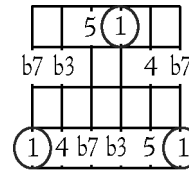
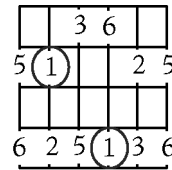
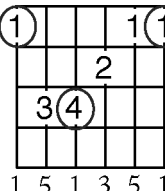
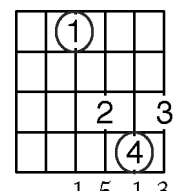
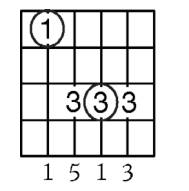
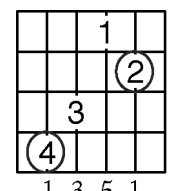
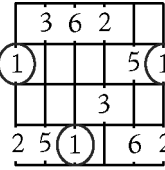
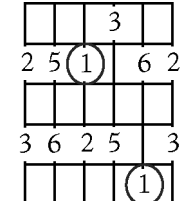
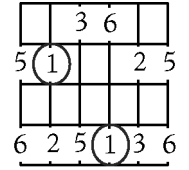
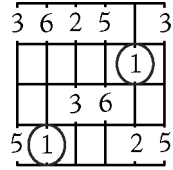
The chord progression is: ||: 4/4: Em | G | Am | Em | Bm | Am C | G F | 2/4 C | 4/4 D | D :|| Em
Most of the bars are 4/4, four beats each bar. Where two chords occur in the same bar, they are two beats each. Notice the 2/4 bar of only two beats.

key of Em, with “E” in the “E” shape octave

Em XII 1 5 1 b3 5 1	G XII 1 5 1 3	Am XII 1 5 1 b3 5	Em XII 1 5 1 b3 5 1	Bm XI 1 b3 5 1	Am XII 1 5 1 b3 5	C XII 1 3 5 1
Em7/11 XII fingering 1 b3 b7 b3	G6/9 XII fingering 1 b3 b7 b3	Am7/11 XII fingering 4 b7 b3 4 b7	Em7/11 XII fingering 1 b3 b7 b3	Bm7/11 XI fingering 3 b3 b7 b3	Am7/11 XII fingering 4 b7 b3 4 b7	C6/9 XII fingering 4 b7 b3 4 b7
G XII 1 5 1 3	F XIII 1 5 1 3 5 1	C XII 1 3 5 1	D XII 1 5 1 3			
G6/9 XII fingering 1 b3 b7 b3	F6/9 XII fingering 2 b3 b7 b3	C6/9 XII fingering 4 b7 b3 4 b7	D6/9 XI fingering 3 b3 b7 b3			

Little Wing Study (continued)

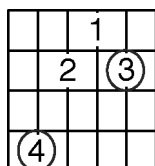
key of Em, with “E” in the “D” shape octave

Em II 	G III 	Am II 	Em II 	Bm II 	Am II 	C III 
Em7/11 II fingering 2 	G6/9 II fingering 2 	Am7/11 II fingering 5 	Em7/11 II fingering 2 	Bm7/11 II fingering 4 	Am7/11 II fingering 5 	C6/9 II fingering 5 
G III 	F III 	C III 	D II 			
G6/9 II fingering 2 	F6/9 II fingering 3 	C6/9 II fingering 5 	D6/9 II fingering 4 			

Little Wing Study (continued)

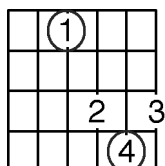
key of Em, with “E” in the “C” shape octave

Em IV



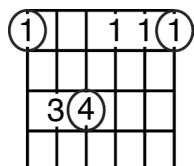
1 b3 5 1

G V



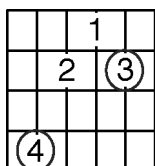
1 5 1 3

Am V



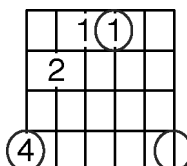
1 5 1 b3 5 1

Em IV



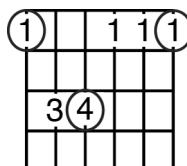
1 b3 5 1

Bm IV



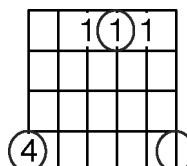
1 b3 5 1

Am V

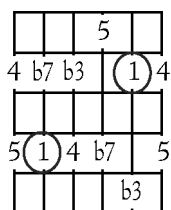
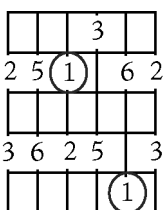
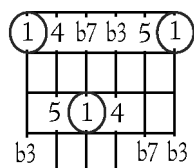
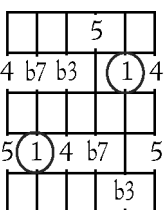
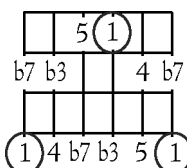
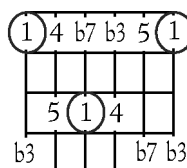
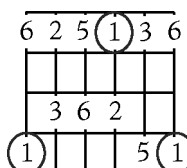


1 5 1 b3 5 1

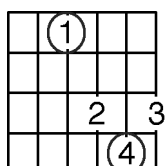
C V



1 5 1 3

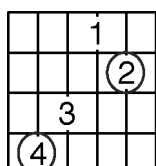
Em7/11 IV
fingering 3G6/9 IV
fingering 3Am7/11 V
fingering 1Em7/11 IV
fingering 3Bm7/11 IV
fingering 4Am7/11 V
fingering 1C6/9 V
fingering 1

G V



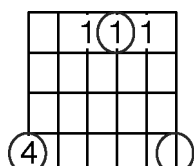
1 5 1 3

F V



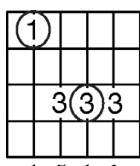
1 3 5 1

C V

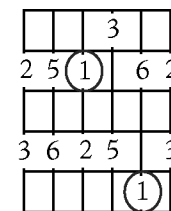
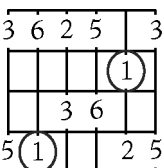
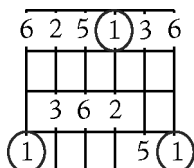
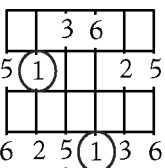


1 5 1 3

D V



1 5 1 3

G6/9 IV
fingering 3F6/9 V
fingering 4C6/9 V
fingering 1D6/9 IV
fingering 5

Little Wing Study (continued)

key of Em, with "E" in the "A" shape octave

Em VII 1 5 1 b3 5	G VII 1 3 5 1	Am VII 1 5 1 b3	Em VII 1 5 1 b3 5	Bm VII 1 5 1 b3 5 1	Am VII 1 5 1 b3	C VIII 1 5 1 3 5 1
Em7/11 VII fingering 4 b7 b3 4 b7	G6/9 VII fingering 4 5 (1) 2 5	Am7/11 VII fingering 2 4 b7 b3 (1) 4	Em7/11 VII fingering 4 b7 b3 4 b7	Bm7/11 VII fingering 1 b3 b7 b3	Am7/11 VII fingering 2 4 b7 b3 (1) 4	C6/9 VII fingering 2 2 5 (1) 6 2
G VII 1 3 5 1	F VIII 1 5 1 3	C VIII 1 5 1 3 5 1	D VII 1 5 1 3			
G6/9 VII fingering 4 5 (1) 2 5	F6/9 VII fingering 5 6 2 5 (1) 3 6	C6/9 VII fingering 2 2 5 (1) 6 2	D6/9 VII fingering 1 (1) 5 (1)			

Little Wing Study (continued)

key of Em, with “E” in the “G” shape octave

Em IX 1 b3 5 1	G X 1 5 1 3	Am IX 1 b3 5 1	Em IX 1 b3 5 1	Bm IX 1 5 1 b3	Am IX b3 5 1 5	C X 1 5 1 3
Em7/11 IX fingering 5 b7 b3 4 b7	G6/9 VII fingering IX 5 1 2 5 6 2 5 6	Am7/11 IX fingering 3 4 b7 b3 1 4 5 b3	Em7/11 IX fingering 5 b7 b3 4 b7	Bm7/11 IX fingering 2 b3 5 1 4 b7 b3 4 1	Am7/11 IX fingering 3 4 b7 b3 1 4 5 b3	C6/9 IX fingering 3 2 5 1 6 2 3 6 2 3 1
G X 1 5 1 3	F X 1 5 1 3	C X 1 5 1 3	D X 1 5 1 3 5 1			
G6/9 IX fingering 5 5 1 2 5 6 2 5 6	F6/9 X fingering 1 6 2 5 1 3 6 1 5 1	C6/9 IX fingering 3 2 5 1 6 2 3 6 2 3 1	D6/9 IX fingering 2 1 3 6 2 5 1 2 5 1 6			

HOTEL CALIFORNIA STUDY

For each chord in this progression, play the chord, then the matching pentatonic scale shown below it. This is a very effective preparation for full-fretboard improvisation. First learn to play in each of the five octave shape areas for the key of "Em" shown below. Then, combine adjacent areas for each chord. With this purpose in mind, the octave shapes are shown in order, moving up the fretboard. The "D" shape example on the next page could also be played twelve frets higher, so it is adjacent to the "E" shape octave area shown below.

This study includes a new pentatonic scale, based on the minor pentatonic. The dominant seven eleven pentatonic (7/11) has the same notes as minor pentatonic, but with a major third. The same note that is the relative major tone center is moved up one fret (toward the body of the guitar).

key of Bm, with "B" in the "E" shape octave

verse

<i>Bm</i> VII	<i>F#</i> VI *	<i>A</i> VII	<i>E</i> VII	<i>G</i> VII	<i>D</i> VII	<i>Em</i> VII	<i>F#</i> VI *
1 5 1 b3 5 1	1 3 5 1	1 5 1 3	1 5 1 3	1 3 5 1	1 5 1 3	1 5 1 b3 5	1 3 5 1
<i>Bm7/11</i> VII	<i>F#7/11</i> VI	<i>A6/9</i> VI	<i>E6/9</i> VI	<i>G6/9</i> VII	<i>D6/9</i> VII	<i>Em7/11</i> VII	<i>F#7/11</i> VI
fingering 1	fingering 3	fingering 3	fingering 5	fingering 4	fingering 1	fingering 4	fingering 4
b3 b7 b3	5 (1) 4 b7 5	3 6 2 5 3	6 2 5 (1) 3 6	5 (1) 2 5	(1) 5 (1)	1 5 1 b3 5	5 (1) 4 b7 5

chorus

<i>G</i> VII	<i>D</i> VII	<i>F#</i> VI *	<i>Bm</i> VII	<i>G</i> VII	<i>D</i> VII	<i>Em</i> VII	<i>F#</i> VI *
1 3 5 1	1 5 1 3	1 3 5 1	1 5 1 b3 5 1	1 3 5 1	1 5 1 3	1 5 1 b3 5	1 3 5 1

the pentatonic scale fingerings are shown in the verse chord progression below each chord with the same name

* **F#7/11 pentatonic (F# dominant 7/11 pentatonic) = 1-3-4-5-b7**

Use minor pentatonic, changing only the finger necessary for the b3. The changed note is the relative major tone center, being moved up 1 fret (so the former minor pentatonic has a b3).

Blues Rock Cells and Swing Blues Cells

- **Melodic Cells Defined**
- **Open E Minor Pentatonic Cells**
- **Minor Pentatonic Blues Rock Cells**
- **Major Pentatonic Swing Blues Cells**
- **Blues Rock Cell Development Exercises**

MELODIC CELLS DEFINED

Cells are the smallest units of melodic design. They are made with structures like scales, arpeggios, intervals and chromatics. Cells usually are used with various expressive design elements involving technique, phrasing, rhythm, dynamics, etc. Melody is the designed repetition of cells.

See the chapter [Melodic Cells](#).

OPEN E MINOR PENTATONIC CELLS

E minor open position

1 b3 4 5

Tablature for E minor open position:

Staff	Measure 1	Measure 2	Measure 3	Measure 4
T	2 0 2 2 4 5 4 3 4 2 0	2 0 2 2 4 5 4 3 5	0 3 0 0 2 2 0 2 0 3	0 3 0 0 2 2 0 2
A				
B				

E minor XII position

Tablature for E minor XII position:

Staff	Measure 1	Measure 2	Measure 3	Measure 4
T	3 1 3 3 1 1 4 3 1 3 1 3 3 1 1 4 4 1	12 12 15 14 (14) 12	12 12 15 15 12	12 12 15 14 12 14 12 14 12 14 12 14
A	14 12 14 14	14 12 14 14	14 12 14 14	14 12 14 14
B	14 12 14 14	14 12 14 14	14 12 14 14	14 12 14 14

A minor V position

Tablature for A minor V position:

Staff	Measure 1	Measure 2	Measure 3	Measure 4
T	7 5 7 7 5 5 8 7 (7) 5	7 5 7 7 5 5 8 8 5	5 8 5 5 7 7 5 7 5 8	5 8 5 5 7 7 5 7 5 7
A				
B				

D minor X position

Tablature for D minor X position:

Staff	Measure 1	Measure 2	Measure 3	Measure 4
T	10 10 12 12 10 10 13 12 12 10	10 10 13 13 10	12 10 12 10 12 10 13	12 10 12 10 12 10 12
A	12 10 12 12	12 10 12 12	12 10 12 12	12 10 12 12
B	12 10 12 12	12 10 12 12	12 10 12 12	12 10 12 12

1 b3 5 b7

E minor open position

1

2 0 2 2 1 1 1 1 3 1 2 1 1 0 1 0 1 0 0 1 2 1

T
A
B

E minor XII position

3 1 2 1 1 1 1 3 1 2 1 1 1 3 1 3 1 1 3 3 4

T
A
B

A minor V position

7 5 7 9 8 8 8 8 10 8 9 8 7 5 7 5 5 7 7 8

T
A
B

D minor X position

12 10 12 14 13 13 13 13 15 13 14 13 12 10 12 10 10 12 12 13

T
A
B

E minor open position
Swing Eighths

1 5 b7 5

1

T 3 5 0 3 0 2 4 3 4 2 0 2

A 3 5 3 0

B 0 2 2 0 2 0 2 0 3 0

E minor XII position

T 15 12 15 12 14 15 12 14 12 14

A 15 15 12

B 12 14 14 12 14 12 14 12 15 12

A minor V position

T 8 5 8 5 8 9 7 5 7

A 8 8 5

B 5 7 7 5 7 5 7 5 3 5

D minor X position

T 13 10 13 10 12 13 10 12 10 12

A 13 13 10

B 10 12 12 10 12 10 12 10 13 10

b3 1 b7 5

E minor open position

Swing Eighths

3-0 3-0 3-5 2-4 3 2-4 3 2-0 3-5 0 2-0 2-0 2-0 0-2 0 0-2 0 0-2 0 3

E minor XII position

15-12 15-12 15-12 full 14-15 14-15 14-12 15 12 14 12 12-14 12 12-14 12 12-14 12 12-14 15

A minor V position

8-5 8-5 8-5 full 7-8 7-8 7-5 8 5 7 5 7-5 5-7 5-7 5 5-7 5 5-7 8

D minor X position

13-10 13-10 13-10 full 12-13 12-13 12-10 13 10 12 10 10-12 10-12 10 10-12 10 10-12 13

b3 4 5 b3

E minor open position

3 5/7 3 3 5 3 5 3 4 0 2/4 0 2 2 0 2 0 2/4 0 0 2 0 2 0 2 3 0 2 3 0 0 3 0

E minor XII position

15 17 15 15 17 15 17 15 16 12 14 12 14 14 12 14 12 14 12 12 14 14 12 15 12 14 15 12 12 15 12

A minor V position

8 10 8 8 10 8 10 8 9 5 7 5 7 7 5 7 5 7 5 5 7 5 7 8 5 7 8 5 5 8 5

D minor X position

13 15 13 13 15 13 15 13 14 10 12 10 12 12 10 12 10 12 10 10 12 12 10 12 13 10 12 13 10 10 13 10

4 #4 5 1

E minor open position

T 2 3 0 3/5 0 3 0 2 3 2 0 2 0 3 0 0 3/5
 A 0 1 2 0 2 0 2 0 1 0 3 0 3 1 2 2 0 2
 B

A minor V position

T 14 15 12 15 12 15 12 14 14 12 14 12 15 12 15 12 14 12 14 12
 A 12 13 14 12 14 14 12 13 12 12 15 15 13 14 14 12 14
 B

D minor X position

T 7 8 5 8 5 8 5 7 7 5 7 5 8 5 8 5 6 7 5 7 5 6 5 8 5 8 6 7 7 5 7
 A
 B

D minor X position

T 12 13 10 13 10 13 10 12 12 10 12 10 13 10 13 10 11 12 10 12 12 10 11 10 13 10 13 11 12 12 10 12
 A
 B

4 5 b7 5

E minor open position

Swing Eighths

Staff notation: Treble clef, key of E minor (one sharp), 4/4 time. The melody consists of eighth notes and triplets. The fretboard diagram shows fingerings for the T, A, and B strings across five measures.

Fretboard diagram (T, A, B strings):

- Measure 1: T (2), A (4), B (4)
- Measure 2: T (5), A (5), B (3)
- Measure 3: T (5), A (3), B (0)
- Measure 4: T (5), A (4), B (3)
- Measure 5: T (0), A (2), B (2)

E minor XII position

Staff notation: Treble clef, key of E minor (one sharp), 4/4 time. The melody consists of eighth notes and triplets. The fretboard diagram shows fingerings for the T, A, and B strings across five measures.

Fretboard diagram (T, A, B strings):

- Measure 1: T (14), A (15), B (16)
- Measure 2: T (17), A (17), B (15)
- Measure 3: T (17), A (15), B (16)
- Measure 4: T (17), A (15), B (16)
- Measure 5: T (14), A (14), B (12)

A minor V position

Staff notation: Treble clef, key of A minor (no sharps or flats), 4/4 time. The melody consists of eighth notes and triplets. The fretboard diagram shows fingerings for the T, A, and B strings across five measures.

Fretboard diagram (T, A, B strings):

- Measure 1: T (7), A (9), B (9)
- Measure 2: T (10), A (10), B (8)
- Measure 3: T (10), A (8), B (9)
- Measure 4: T (10), A (8), B (7)
- Measure 5: T (7), A (7), B (5)

D minor X position

Staff notation: Treble clef, key of D minor (two flats), 4/4 time. The melody consists of eighth notes and triplets. The fretboard diagram shows fingerings for the T, A, and B strings across five measures.

Fretboard diagram (T, A, B strings):

- Measure 1: T (12), A (14), B (14)
- Measure 2: T (15), A (15), B (13)
- Measure 3: T (15), A (13), B (14)
- Measure 4: T (15), A (13), B (12)
- Measure 5: T (12), A (12), B (10)

E minor open position

0 0 3 3 2 0

0 2 3 0 3 0 0 2 2 1 2 2 1 0

E minor XII position

12 12 15 12 14 14 16 15 16 15 14

12 14 15 12 15 12 12 14 14 13 14 13 13 12 14 15 12 15 12 12 14 12 14 13 12 14 12 15

A minor V position

5 5 8 5 7 6 7 6 6

5 7 8 5 8 5 5 7 7 6 7 7 6 6 5 7 8 5 8 5 5 7 5 7 6 5 7 5 8

D minor X position

First system of musical notation for D minor X position. The staff shows a melody in D minor. The guitar tablature below indicates the fret positions for the notes.

Second system of musical notation for D minor X position. The staff shows a melody in D minor. The guitar tablature below indicates the fret positions for the notes.

5 5 1 1

E minor open position

E minor XII position

A minor V position

D minor X position

5 b7 1 b3

E minor open position

4/4

T 0 3 0 3 0 0 3 0 3 0 0 0 3

A

B 2 0 2 0 2 2 0 2 0 2 3 0 0

E minor XII positon

4/4

T 12 15 12 15 12 15 12 15 12 15 12 15 12

A

B 14 12 14 14 14 12 14 12 14 15 12

A minor V positon

4/4

T 5 8 5 8 5 8 5 8 5 8 5 8 5

A

B 7 5 7 7 7 5 7 5 7 8 5

D minor X positon

4/4

T 10 13 10 13 10 13 10 13 10 13 10 13 10

A

B 12 10 12 12 12 10 12 10 12 13 10

MINOR PENTATONIC BLUES ROCK CELLS (link)

"G" Dorian

E form

5-1

6

7

1-b3-5

16

17

22

29

33 34 35 36 37 38 39 40

full 1/4 1/4 1/4

TAB 5 5 5 3 5 3 5 3 5 6/7 6 5 3 5 4/5 4 3 6 3 6/7 6 5 6 5 3 5 5-7 6 5 3 5 3 5 3 5

41 42 43 44 45

5-b7-1 5-b7-4-b3

full full full

TAB 3 6 3 3 6 3 5 5 3 5 6 5 3 3 5 3 3 5 3 5 3 1 3 5 6 3 6 5 3 5 3

46 47 48

b7-5-4-b3

full full 1/4

TAB 5 6 3 3 6 3 6 5 3 5 6 5 3 5 3 3 5

49 50 51 52 53 54 55

pivot tone

full full full full full full

TAB 6 6 6 3 6 6 3 5 3 5 5 6 5 3 3 3 6 3 6 3 3 3 3 3 3 5 3 5

56 57 58 59 60 61

TAB 3 6 3 3 3 6 5 3 3 3 6 3 5 3 3 3 5

62 63 64 65 66 67

TAB 5 3 5 6 5 5 5 3 5 5 4 2 1

pedal tone

68 69 70

TAB: 6 3 2 5 3 | 7 6 5 5 | 3 3 5 3 5

scalar descent

71 72 73 74

TAB: 6 6 3 6 3 5 5 3 5 | 6 (6) 3 6 (6) 3 5 (5) 3 5 | 6 3 6 3 5 5 3 5 | 6 3 6 3 5 5 3 5

75 76 77 78

TAB: 6 6 3 5 5 5 3 5 | 3 5 3 5 4 3 4 3 1 3 | 3 6 3 6 3 6 3 5 3 5 3 5 3 5 3 5 | 3 5 3 6 3

connect to fingering 2

79 80 81 82

TAB: 5 3 3 3 | 6 8 8 6 6 | 5 6 8 6 8 | 8

D form

1-b3-5 **b3-1-5**

83 84 85 86 87 88

TAB: 5 8 5 6 7 8 6 8 | 5 8 5 8 7 6 5 8 5 | 6 8 7 6 8 6 8 6 8 7 6 8 | 6 8 7 6 8

b3-4-5

89 90 91 92 93

TAB: 8 6 8 8 6 | 6 6 8 8 5 | 8 5 6 7 8 | 8 8 6

94 **5-1-b3** 95 96 97 98

99 100 101 102 **5b31**

103 104 105 106 107 108 **5-4-b3-1**

109 110 111 112 113 114

115 116 117 118

119 120 121 **5-b7-1** 122

TAB

TAB

TAB

TAB

TAB

TAB

123 **5-b7-4-b3** 124 125 **b7-5-4-b3** 126

TAB 5-7 6 5 8 5 5-7 6 8 6 5 (5) 8 7 7 7 6 5 8

127 128 129

TAB 5-7 6 5 (5) 8 5 7 8 5 5-7 8 5-7 5 (5) 8 5 5-7 6 5 (5) 8 5 7 8 5

130 **pivot tone** 131 132 133

TAB 6 6 6 6 6 (6) 3 3 5 8 5 6 5 (5) 3 3

134 135 136 137 138 139 140 141 142

TAB 7 6 8 6 8 6 8 7 5 8 8 5 8 6 8 7 8 6 5 8 7 8 7 6 7 5 7 8 7 5

143 144 145 146 147 148

TAB 8 10 8 9 8 8 6 8 5 7 5 6 5 5 8 5 5 5

149 **pedal tone** 150 151 152

TAB 6 7 6 5 8 10 8 8 8 3 8 8 8 7 5 6 6 6 6 5 8 5

scalar descent

153 154 155 156

full 1/4 full 1/4

full 3 3 1 1/2 3 1/4 full full full 1/4

TAB

Musical score for measures 157-160. The notation includes a treble clef staff with notes and rests, and a tablature staff below it. Measure numbers 157, 158, 159, and 160 are indicated above the staff. The tablature staff shows fret numbers (e.g., 6, 7, 8, 9, 10) and includes annotations such as "full" and "1/2".

C form

[illegible][illegible]

184 185 186 187 **5-b3-1** 188

189 190 191 **5-4-b3-1** 192

193 194 195 196 197

198 199 200 201

202 203 204 **5b71** 205

206 **5b74b3** 207 **b754b3** 208 209 210 211

The image displays a page of guitar tablature for blues rock and swing blues cells. It consists of six systems of music, each with a treble clef staff and a corresponding guitar tablature staff. The tablature includes various fret numbers (e.g., 7, 8, 10, 11) and techniques like bends (marked 'full' or '1/4') and slides. Chord diagrams are provided for measures 187, 191, 204, 206, and 207. The page is numbered 184 to 211.

pivot tone

212 213 214 215 216 217 218

TAB

219 220 221 222 223 224

TAB

225 226 227 228 229 230

TAB

pedal tone

231 232 233

TAB

scalar descent

234 235 236 237

TAB

A form

238 239 240 241

TAB

242 243 244

TAB

245 246 247 248

TAB

249 250 251 252 253

TAB

254 255 256 257 258 259

TAB

260 261 262 263 264 265

TAB

266 267 268 269 270 271

TAB

272 273 274 275 276 277 278 279

280 281 282 283 284

285 286 287 288

289 290 291 292 293

294 295 296 297 298 299 300

301 302 303 304 305 306 307 308 309 310 311 312

5-b-7-4-b3

b7-5-4-b3

pivot tone

313 **pedal tone**

314 315 316

T 10 10 12 11 10 13 12 8 11 12 12 12 10 8 12 10 12 11 10 15 13 10

A 10 12 11 10 13 12 8 11 12 12 12 10 8 12 10 12 11 10 15 13 10

B 10 12 11 10 13 12 8 11 12 12 12 10 8 12 10 12 11 10 15 13 10

317 **scalar descent**

318 319 320 321

T 11 11 12 10 12 10 12 10 13 10 12 12 10 12 13 10 13 13 10 13 13 11 12 13 13 10 14 13 (13) 11 12

A 11 11 12 10 12 10 12 10 13 10 12 12 10 12 13 10 13 13 10 13 13 11 12 13 13 10 14 13 (13) 11 12

B 11 11 12 10 12 10 12 10 13 10 12 12 10 12 13 10 13 13 10 13 13 11 12 13 13 10 14 13 (13) 11 12

322 323 324 325

T 10 12 10 12 11 10 11 10 8 10 11 12 10 11 12 11 10 13 10 15 13 (13) 10 13 (13) 11 12 (12) 10 10 12

A 10 12 10 12 11 10 11 10 8 10 11 12 10 11 12 11 10 13 10 15 13 (13) 10 13 (13) 11 12 (12) 10 10 12

B 10 12 10 12 11 10 11 10 8 10 11 12 10 11 12 11 10 13 10 15 13 (13) 10 13 (13) 11 12 (12) 10 10 12

326 327 328

T 13 13 13 10 13 13 11 12 10 10 10 12 10 12 10 13 10 13 (13) 10 13 (13) 11 12 (12) 10 12

A 13 13 13 10 13 13 11 12 10 10 10 12 10 12 10 13 10 13 (13) 10 13 (13) 11 12 (12) 10 12

B 13 13 13 10 13 13 11 12 10 10 10 12 10 12 10 13 10 13 (13) 10 13 (13) 11 12 (12) 10 12

329 330 331 332

T 10 13 10 13 11 13 11 12 10 12 10 12 10 12 10 13 10 13 10 13 13 8 10 8 11 8 11 8 10 7 10 7 10 8 10 8 10 8 10 8 10 8 10

A 10 13 10 13 11 13 11 12 10 12 10 12 10 12 10 13 10 13 10 13 13 8 10 8 11 8 11 8 10 7 10 7 10 8 10 8 10 8 10 8 10

B 10 13 10 13 11 13 11 12 10 12 10 12 10 12 10 13 10 13 10 13 13 8 10 8 11 8 11 8 10 7 10 7 10 8 10 8 10 8 10 8 10

G form

333 **5-1**

334 335 336

T 15 12 12 12 15 15 12 12 12 15 15 13 15 15 12 12 15 12 15 12 15

A 15 12 12 12 15 15 13 15 15 12 12 15 12 15 12 15 15 12 15 12 15

B 15 12 12 12 15 15 13 15 15 12 12 15 12 15 12 15 15 12 15 12 15

337 338 339 340 341

1-b3-5

342 343 344 345 346

b3-1-5

347 348 349 350 351 352 353 354 355

b3-4-5 5-1-b3

356 357 358 359

5-b3-1

360 361 362 363 364 365

5-4-b3-1

366 367 368 369

370 **5-b7-1**

371 372 373

T
A
B

374 **b7-5-4-b3**

375 376

T
A
B

pivot tone

377 378 379 380 381 382 383

T
A
B

384 385 386 387 388 389 390 391 392

T
A
B

pedal tone

393 394 395 396 397 398

T
A
B

scalar descent

399 400 401 402

T
A
B

403 404 405 406

TAB

407 408

TAB

MAJOR PENTATONIC SWING BLUES CELLS (link)

Swing Eighths

E form

5-1

TAB

7

1-2-3

TAB

11

TAB

15

1-3-5

TAB

19

TAB

49 **5-6-1-3**

TAB

3 5 3 3 5 6 7 3 5 6 5 3 5 5 4 5 2 5 5 2 5 2 3 2 5 2 1 2

55

TAB

3 3 5 3 6 7 3 5 3 5 5 5 2 5 3 4 5 2 5 2 3 5 3 5 3 4 5 2 2 5 5

61 **6-5-3**

TAB

3 5 3 5 4 5 4 5 5 5 5 4 3 6 5 3 4 5 2 5 5 5 5 4

66 **6-5-3-1**

TAB

5 5 3 5 5 3 5 5 4 2 5 2 5 5 3 5 3 5 4 5 2 5 2

23

1-6-5-3

29

3-4-5

3-5-6

36

5-1-6-5

41

5-3-1

45

D form

5-1

70 Swing Eighths

T
A
B

1-2-3

76

T
A
B

1-3-5

80

T
A
B

86

T
A
B

92

T
A
B

98 **1-6-5-3**

102 **3-4-5** **3-5-6**

109 **5-1-6-5**

115 **5-3-1**

120

126 5-6-1-3

full 1/2 1/2

TAB

131

TAB

136

TAB

140 6-5-3

full

TAB

145 6-5-3-1

1/2 full

TAB

C form

5-1

149 Swing Eighths

T 7 9

B 10 10

T 7 8 7 10 7

B 8 7 8 10 12 8 7 11 12 9 10 8 9

153

T 9 10 6 7 8

B 10 10 7 10

T 10 10 7 10

B 11 7 8 10 7

1-2-3

T 8 10 8 9 7 10 8 9 7

B 11 8 9 7 6 7 8 9

T 10 10 7 10

B 10 10 7 10

1-3-5

T 8 10 7 8 9 10 7 10 7

B 10 7 10 8 10 6 7

T 11 12 13 9 10

B 8 9 7 8 12 12 11 12 13 9 10 8 9 10 6 7

167

T 10 8 9 7 8

B 10 7 8 8

T 10 7 10 10

B 10 7 10 10

171 1-6-5-3

TAB 10 7 8 9 7 9 7 8 8 9 7 10 9 7 10 7 8 9 10 10 10 9 9 7 9 10 7 9 9 7 7

177 3-4-5

TAB 10 10 9 9 10 10 10 6 7 10 9 10 6 7 8

181 3-5-6

TAB 10 8 9 7 9 7 8 9 7 9 7 8 7 10 7 10

185 5-1-6-5

TAB 7 8 9 7 8 8 8 9 10 7 10 7 7 8 9 7 10 10 7 10 10

189 5-3-1

TAB 7 9 7 9 7 10 7 10 7 10 8 9 10 10 8 9 10 7 10 7 8 9 10 12 10 7 10 7 9

194

TAB 8 9 10 6 7 6 10 8 9 10 7 10

198 **5-6-1-3**

TAB 7 9 8 8 8 9 10 8 10 11 10 8 9 8 9 10 7 10 10 10 7 8 9 10 7 8 7 10 7 6 7

204

TAB 7 7 9 8 10 8 9 8 10 10 10 7 10 8 9 10 7 10 7 7 9 10 8 9 10 7 10 10

210 **6-5-3**

A form

Swing Eighths

223 5-1

T 10 12 12 10 11 10 12 9 12 12 12 10 12 12 11 12 9 10 12 9 8 9 9 10 11 12 12 10 10 12 10

A 12 12 10 11 10 12 9 12 12 12 10 12 12 11 12 9 10 12 9 8 9 9 10 11 12 12 10 10 12 10

B 12 12 10 11 10 12 9 12 12 12 10 12 12 11 12 9 10 12 9 8 9 9 10 11 12 12 10 10 12 10

229 1-2-3 1-3-5

T 12 14 12 9 10 12 9 12 11 12 9 11 12 12 9 12 9 12 10 12 13 14 8 9 12 12 9 12 12 11 12 8 9 10

A 12 14 12 9 10 12 9 12 11 12 9 11 12 12 9 12 9 12 10 12 13 14 8 9 12 12 9 12 12 11 12 8 9 10

B 12 14 12 9 10 12 9 12 11 12 9 11 12 12 9 12 9 12 10 12 13 14 8 9 12 12 9 12 12 11 12 8 9 10

234

T 8 9 12 12 11 12 12 11 12 8 9 10 10 8 9 12 12 12 9 12 12 12 10 12 8 9 12 12 10 12

A 8 9 12 12 11 12 12 11 12 8 9 10 10 8 9 12 12 12 9 12 12 12 10 12 8 9 12 12 10 12

B 8 9 12 12 11 12 12 11 12 8 9 10 10 8 9 12 12 12 9 12 12 12 10 12 8 9 12 12 10 12

240 1-6-5-3

T 8 9 12 12 12 10 9 12 10 12 8 9 10 10 12 12 10 12 12 9 12 12 12 10 12 10 12

A 8 9 12 12 12 10 9 12 10 12 8 9 10 10 12 12 10 12 12 9 12 12 12 10 12 10 12

B 8 9 12 12 12 10 9 12 10 12 8 9 10 10 12 12 10 12 12 9 12 12 12 10 12 10 12

244 3-4-5

T 12 12 12 12 8 12 9 10 12 10 9 9 10 10 10 10 11 10 12

A 12 12 12 12 8 12 9 10 12 10 9 9 10 10 10 10 11 10 12

B 12 12 12 12 8 12 9 10 12 10 9 9 10 10 10 10 11 10 12

250

3-5-6

TAB

9 10 11 12 12 12 11 12 10 12 10 12 10 12 12 11 12 10 11 10 12 9 12

[illegible][illegible]

266 5-6-1-3

T
A
B

12 9 12 12 9 11 12 12 10 11 10 12 9 8 9 12 12 9 12 11 12 9 12 10

271

3

T
A
B

10 10 12 10 8 9 10 12 10 10 12 10 12 10 13 11 12 12 9 10 12 12 9 12 10 8 9 10 12 10 10

277

6-5-3

T
A
B

10 12 10 13 12 13 12 12 12 12 10 9 8 11 12 12 9 12 12 12 11 12

282

6-5-3-1

1/2

3

T
A
B

12 10 12 10 8 11 12 10 12 9 12 10 12 12 10 11 12 12 9 12 10 12

G form

Swing Eighth

286 **5-1**

TAB

12 15 12 12 14 15 14 12 14 12 13 14 15 15 12 12 14

290 **1-2-3**

TAB

13 15 15 15 15 13 15 15 15 14 15 15 12 15 14 15 15 12 14 14 12 14 12 15 12 15 12 14 12 14 12 15 12 12 14 12 15 12 13 14

295 **1-3-5** **1-6-5-3**

TAB

13 14 12 12 11 12 12 15 12 13 14 15 12 14 14 15 12 15 15 15 15 12 15 13 12 15 13 15 15 12 12 12

301 **3-4-5**

TAB

12 12 15 (15) 12 12 14 12 19 19 12 12 12 12 13 12 14 15 12 12 13 14 15 15

3-5-6

307

TAB 12 14 15 12 15 15 15 13 14 12 12 14 15 14 12 14 12

5-1-6-5

5-3-1

312

TAB 15 15 12 15 15 14 12 12 12 12 15 15 15 12 15 12 12 14 12 12 14 15 14 12 14

317

TAB 12 14 15 12 12 14 12 15 13 15 14 12 14 12 14 12 14 15 12 13 14 15 14 13 11 12 12 14 12

5-6-1-3

323

TAB 15 15 13 12 12 12 14 14 15 10 12 14 12 12 12 14 14 12 14 14 12 14 12 14 13 14

328

TAB 12 12 14 12 14 12 14 15 12 15 13 14 12 14 14 12 12

332

6-5-3

337

6-5-3-1

BLUES ROCK CELL DEVELOPMENT

$\text{♩} = 120$

A minor pentatonic - E form

Am

alternate picking, except as marked

5

9

15

19

24

inside picking

alternate picking, starting up
(don't let notes sustain together)

inside picking

alternate picking, starting up
(don't let notes sustain together)

28

Am

alternate picking, except as marked

TAB 7 7 7 7 7 7 7 7 7 7 7 7 7 7 8-8-8-8-8-8-8-8 5-5-5-5-5-5-5-5 5-5-5-5-8-8-8-8 7 7 7 7 5 5 5 5 5-5-5-5-8-8-8-8

32

TAB 8-5-5-5 8-5-5-5 7-5-5-5 7-5-5-5 7-5-5-5 8-5-5-5 5-8-8-8 5-7-7-7 5-7-7-7 5-7-7-7 5-8-8-8 5-8-8-5

36

TAB 5-5-5-5-5-5-5-5 5-5-5-5-5-5-5-5 5-5-5-5-5-5-5-5 5-5-5-5-5-5-5-5 8-5-5-5-5-5-5-5 8-5-5-5-5-5-5-5 5

40

TAB 5-5-5-5-5-5-5-8 5-5-5-5-5-5-5-5 5-5-5-8-5-5-5-5 5-5-5-8-5-5-5-5 5-8-5-5-5-5-5-8 5-8-5-5-5-5-5-8 5

44

alternate picking, starting on upstroke (don't let notes sustain together)

TAB 8 5-5-5-8-5-5-5 8 5-5-5-8-5-5-5 8 5-8-5-5-5-5-5 8 5-8-5 8 5-8-5 7 5-8-5-5-5-5-5 7 5-8-5 7 5-8-5

47

(as marked)

TAB 8 5-8-5 7 5-8-5-8 7 5-8-5 7 7 7 7 5-5-5-5-7 7 7 5-5-5-5 8 5-8-5 7 5-8-5 7 7 5-8-5 7 7 5

50

Am

economy picking

TAB 4/4

8-8-8-8-5-5-5-5 5-5-5-5 5-5-5-5 7-7-7-7 5-5-5-5 5-5-5-5 5-5-5-5 8-8-5-5 5-5 5-5 7-7 7-7 8-8-5-5

53

alternate picking

economy picking

TAB

5-5-8-8-7-7-7-7-5-5-5-5-8-8-8-8-5-5-5-5-5-5-5-5-7-7-5-5-5-5-5-5

12/8

[illegible]

59

economy picking

T 4/4
A 4/4
B 4/4

[illegible]

67

economy picking

TAB

71

economy picking

alternate picking

full

TAB

75

full

TAB

77

full

TAB

79

full

TAB

98 Am 8va

100

102

104

107

110

[illegible]

115

↑ ↓ ↓ ↓ ↑ ↑ ↓ ↓ ↓ ↑ ↑ ↑ ↑ ↓ ↓ ↓ ↓ ↑ ↑ ↑ ↓ ↓ ↓ ↓ ↑ ↑ ↓ ↑ ↓ ↑ ↓ ↓ ↓ ↑ ↑

TAB

12 17 12 13 14 14 13 13 14 14 12 15 14 14 15 12 12 15 14 14

118

3 4 3 4 3 1 3 1 4 2 1 2 4 2 2 1 3 1 1 3 4

full full full full full full full full full full 1 1/2 full 1/4

TAB

15 17 15 15 12 15 (15) 13-17-15-13 14 15 (15) 13 (13) 14-12-14 14-12 12 14 15

The image shows a musical score for the song "The Wind" by The Beatles. It includes a guitar part in standard notation and a bass part in TAB notation. The guitar part is in the key of B-flat major (one flat) and has a tempo of 120 BPM. The bass part is in the same key and tempo. Both parts feature a repeating 6/8 rhythm pattern. The guitar part is written in a single staff, and the bass part is written in a single staff. The guitar part includes a key signature change from one flat to no flats (B-flat to B-natural) in the second measure of the second system. The bass part includes a key signature change from one flat to no flats (B-flat to B-natural) in the second measure of the second system. The guitar part includes a key signature change from one flat to no flats (B-flat to B-natural) in the second measure of the second system. The bass part includes a key signature change from one flat to no flats (B-flat to B-natural) in the second measure of the second system.

A minor pentatonic - D form

[illegible]

125

125

TAB

128

[illegible][illegible]

Fingering Common Chords

- **First Open Position and Movable Chords**
- **First Chords by Every Letter**
- **Common Chords by Octave Shape**
- **Three-Note Chords**
- **First Jazz Chords**
- **Essential Blues Chords**

FIRST OPEN POSITION AND MOVABLE CHORDS

Open Position Chords

Diagram showing fingering for various open position chords (A, C, D, E, F, G, Am, Dm, Em, A7, B7, C7, D7, E7) with fingerings (1-5) and capo positions (I, II).

A I

 1 5 1 3 5

C I

 1 3 5 1 3

D I

 1 5 1 3

E I

 1 5 1 3 5 1

F I

 5 1 3 5

G I

 1 3 5 1 5 1

G I

 1 3 5 1 3 1

Am I

 1 5 1 b3 5

Dm I

 1 5 1 b3

Dm I

 1 5 1 b3

Em I

 1 5 1 b3 5 1

Em I

 1 5 1 b3 5 1

A7 I

 1 5 b7 3 5

B7 I

 1 3 b7 1 5

C7 I

 1 3 b7 1 3

D7 I

 1 5 b7 3

E7 I

 1 5 1 3 b7 1

Movable Chords

The chords below are movable, each named after its circled note. Usually use the circled note on the largest string available for reference. See [Common Chords by Octave Shape](#). Sharp versions (F#) of notes are one fret toward the guitar body, flat versions (Bb) are one fret toward the head of the guitar.

Diagram showing fingering for movable chords (F, Fm, B, Bm, D, Dm, A, Am) with fingerings (1-5) and capo positions (I, II).

F I

 1 5 1 3 5 1

Fm I

 1 5 1 b3 5 1

B II

 1 5 1 3

Bm II

 1 5 1 b3

D II

 1 3 5 1 3

Dm I

 b3 5 1 b3

A II

 1 5 1 3

Am II

 b3 5 1 5

Diagram showing movable chords (F, Fm, B, Bm, D, Dm, A, Am) with fingerings (1-5) and capo positions (I, II).

open E A D G B E

 F C F

III G C F D G

 B E A

V A D G C E A

 F

VII B E A D B

 C F G C

IX D G C F A D

 B E

XII E A D G B E

 F C F

XV G C F D G

 B E A

FIRST CHORDS BY EVERY LETTER

A I 1 5 1 3 5	A7 I 1 5 b7 3 5	A7 I 1 5 1 3 b7	Am I 1 5 1 b3 5	Am7 I 1 5 b7 b3 5	Am7 I 1 5 1 b3 b7	Ama7 I 1 5 7 3 5
B II 1 5 1 3	B7 II 1 5 b7 3	B7 I 1 3 b7 1 5	B9 I 1 3 b7 2 5	Bm II 1 5 1 b3 5	Bm7 II 1 5 b7 b3 5	Bma7 II 1 5 7 3 5
C I 1 3 5 1 3	C7 I 1 3 b7 1 3	Cm7 I 1 b3 b5 1	Cm7 I 1 b3 b7 b3	Cma7 I 1 3 5 7 3		
D I 1 5 1 3	D II 1 3 5 1	D7 I 1 5 b7 3	D/F# I 3 5 1 5 1	Dm I 1 5 1 b3	Dm I b3 5 1 b3	Dm7 I 1 5 b7 b3
E I 1 5 1 3 5 1	E7 I 1 5 b7 3 5 1	E7 I 1 5 1 3 b7	Em I 1 5 1 b3 5 1	Em7 I 5 1 b3 b7	Em7 I 1 5 1 b3 b7 b3	E7 II 1 5 b7 3
F I 1 5 1 3 5 1	F I 5 1 3 5	F I 1 3 5 1	F7 I 1 5 3 b7	Fm I 1 5 1 b3 5 1	Fm7 I 1 5 b7 b3 5 1	Fm7 I 1 b7 b3 5
G I 1 3 5 1 5 1	G I 1 3 5 1 3 1	G7 I 1 3 5 1 3 b7	G/B I 3 5 1 5 1	Gm I b3 5 1 5 1		

COMMON CHORDS BY OCTAVE SHAPE

same type across each row

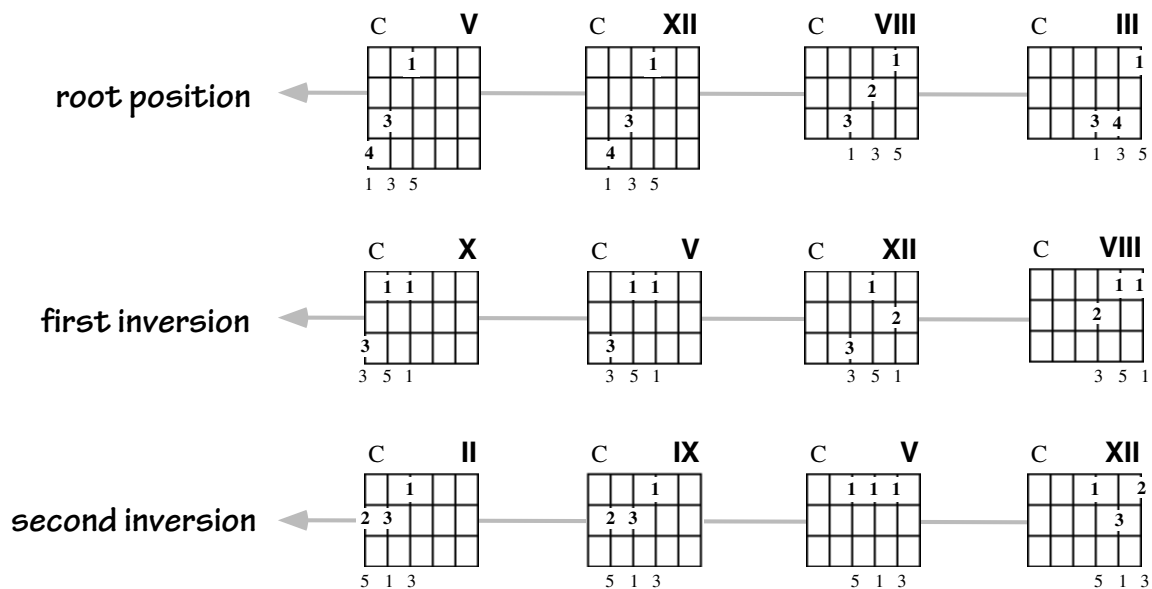
— same octave shape down each column —

major 1 3 5	 E	 D	 C	 A	 G	 D/F#	 G
minor 1 b3 5	 Em	 Dm	 Cm	 Am	 Gm	 Dm/F	
Δ7 major 7th 1 3 5 7	 EΔ7	 DΔ7	 CΔ7	 AΔ7	 GΔ7	 DΔ7/F	
7 dominant 7th 1 3 5 b7	 E7	 D7	 C7	 A7	 G7	 D7/F	 E7
m7 minor 7th 1 b3 5 b7	 Em7	 Dm7	 Cm7	 Am7	 Gm7	 Dm7/F	
m7b5 minor 7th flat 5 1 b3 b5 b7	 Em7b5	 Dm7b5	 Cm7b5	 Am7b5	 Gm7b5	 Dm7b5/F	
7 sus.4 dominant 7th, suspended 4th 1 4 5 b7	 E7sus4	 D7sus4	 C7sus4	 A7sus4	 G7sus4	 D7sus4/F	
augmented any note can be root	 any note can be root	 any note can be root	 any note can be root				
dim. 7 any note can be root	 any note can be root	 any note can be root	 any note can be root				

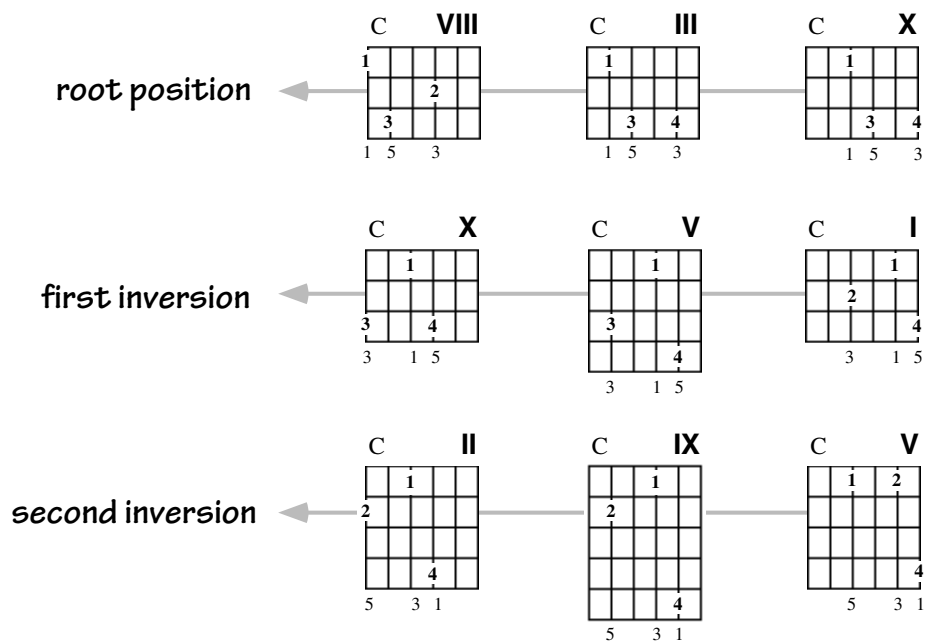
THREE-NOTE CHORDS

Introduction to Three-Note Major Chords

three note close-voiced major triads



three-note open-voiced major triads



Three Note Close-Voiced Triads

MAJOR			MINOR				
	E/D form	D/C form	A/G form	E/D form	D/C form	A/G form	
	G III	G VII	G X	Gm III	Gm VI	Gm X	
stringset 1-3				stringset 1-3			
	G III	G VII	G XII	Gm III	Gm VII	Gm XI	
stringset 2-4				stringset 2-4			
	G IV	G VII	G XII	Gm III	Gm VII	Gm XII	
stringset 3-5				stringset 3-5			
	G V	G IX	G XII	Gm V	Gm VIII	Gm XII	
stringset 1-3				stringset 1-3			
DIMINISHED			AUGMENTED				
	E/D form	D/C form	A/G form	E/D form	D/C form	A/G form	
	G dim. II	G dim. VI	G dim. IX	G aug. III	G aug. VII	G aug. XI	
stringset 1-3				stringset 1-3			
	G dim. II	G dim. VI	G dim. XI	G aug. IV	G aug. VIII	G aug. XII	
stringset 2-4				stringset 2-4			
	G dim. III	G dim. VI	G dim. XI	G aug. IV	G aug. VIII	G aug. XII	
stringset 3-5				stringset 3-5			
	G dim. IV	G dim. VIII	G dim. XI	G aug. V	G aug. IX	G aug. XIII	
stringset 1-3				stringset 1-3			

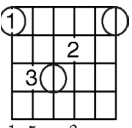
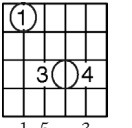
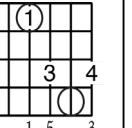
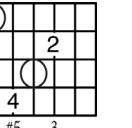
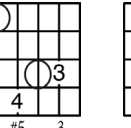
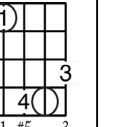
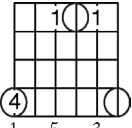
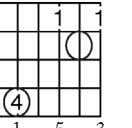
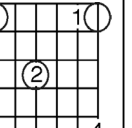
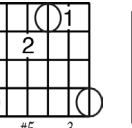
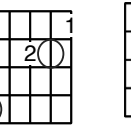
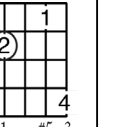
Three Note Open-Voiced Triads

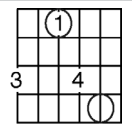
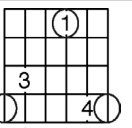
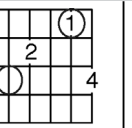
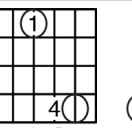
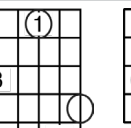
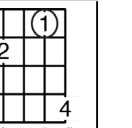
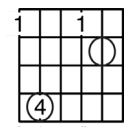
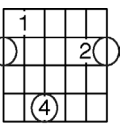
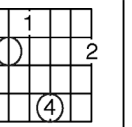
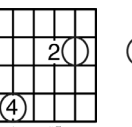
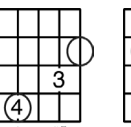
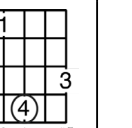
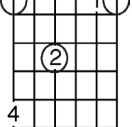
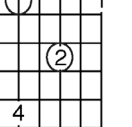

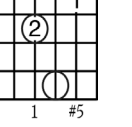
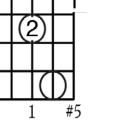
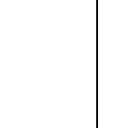
augmented are on the next page

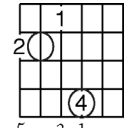
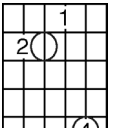
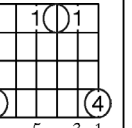
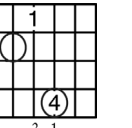
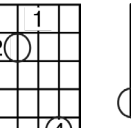
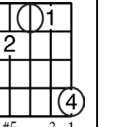
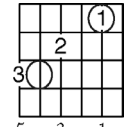
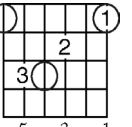

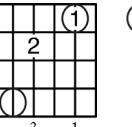
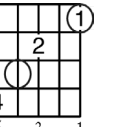
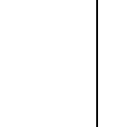
MAJOR, root position			MINOR, root position			DIMINISHED, root position		

MAJOR, first inversion			MINOR, first inversion			DIMINISHED, first inversion		

MAJOR, second inversion			MINOR, second inversion			DIMINISHED, second inversion		

MAJOR, root position			AUGMENTED, root position		
					
1 5 3	1 5 3	1 5 3	1 #5 3	1 #5 3	1 #5 3
					
1 5 3	1 5 3	1 5 3	1 #5 3	1 #5 3	1 #5 3

MAJOR, first inversion			AUGMENTED, first inversion		
					
3 1 5	3 1 5	3 1 5	3 1 #5	3 1 #5	3 1 #5
					
3 1 5	3 1 5	3 1 5	3 1 #5	3 1 #5	3 1 #5
					
3 1 5	3 1 5	3 1 5	3 1 #5	3 1 #5	3 1 #5

MAJOR, second inversion			AUGMENTED, second inversion		
					
5 3 1	5 3 1	5 3 1	#5 3 1	#5 3 1	#5 3 1
					
5 3 1	5 3 1	5 3 1	#5 3 1	#5 3 1	#5 3 1

FIRST JAZZ CHORDS

Memorize These First

Test yourself by covering the diagrams and reading one of the chord names in the six rows below, assigning a letter name (i.e. Bbma7). See if you can recall all three of the fingerings for the chord (E form, C form and A form). Be progressive. First work with the first four chords, then the first row, then add 7b5 & 7#5; 7b9 & 7#9; 9 & m9; then include all eighteen chord types.

octave shape	major	ma7	7 (dom 7)	6	augmented	minor	m7	m7b5	°7 (dim. 7)
	1-3-5	1-3-5-7	1-3-5-b7	1-3-5-6	1-3-#5	1-b3-5	1-b3-5-b7	1-b3-b5-b7	1-b3-b5-6
E form									
A form									
C form									
octave shape	7b5	7#5	7sus.4	7b9	7#9	9 (dom. 9)	m9	69	13
	1-3-b5-b7	1-3-#5-b7	1-4-5-b7	1-3-5-b7-b2	1-3-5-b7-#2	1-3-5-b7-2	1-b3-5-b7-2	1-2-3-5-6	1-3-5-b7-2-(4)-6
E form									
A form									
C form									

The Major Family of Chords

Memorize in the order: E form, A form, C form, D form, G form.

practice in succession

octave shape	5 (power chord) 1-5	major 1-3-5	ma7 1-3-5-7	7 (dom 7) 1-3-5-b7	6 1-3-5-6	augmented 1-3-#5	add 9 1-3-5-2
E form	 1 5	 1 5 1 3 5 1	 1 7 3 5	 1 b7 3 5	 1 6 3 5	 1 1 3 #5	 3 1 2 5
D form	 1 5	 1 5 1 3	 1 5 7 3	 1 5 b7 3	 1 5 6 3	 1 #5 1 3	 3 1 2 5
C form	 1 5	 1 3 5 1	 1 3 5 7	 1 3 b7 1	 1 3 6 1	 1 3 #5 1	 1 3 5 2
A form	 1 5	 1 5 1 3	 1 5 7 3	 1 5 b7 3	 1 5 6 3	 1 3 #5 1	 1 5 2 3
G form	 1 5	 5 1 3 1	 5 1 3 7	 5 1 3 b7	 5 1 3 6	 #5 1 3 1	 5 2 3 1

The Minor Family of Chords

Memorize in the order: E form low, A form, C form, E form high, D form, G form. Any note in a diminished seventh can be the root.

practice in succession							
octave shape	minor 1-b3-5	minor (ma7) 1-b3-5-7	m7 1-b3-5-b7	m7b5 1-b3-b5-b7	°7 (dim. 7) 1-b3-b5-6	m6 1-b3-5-6	m add 9 1-b3-5-2
E form high							
E form low							
D form							
C form							
A form							
G form							

Ninths, Thirteenth and Altered Sevenths

Memorize in the order: E form low, A form, C form, E form high, D form, G form.

Preferred chord tones are the third, the seventh (if involved) and any note mentioned in the chord name.

octave shape	9 (dom. 9)	13	7b5	7#5	7b9	7#9	m9
	1-3-5-b7-2	1-3-5-b7-2-(4)-6	1-3-b5-b7	1-3-#5-b7	1-3-5-b7-b2	1-3-5-b7-#2	1-b3-5-b7-2
E form high							
E form low							
D form							
C form							
A form							
G form							

Suspended and Six Nine

Preferred chord tones are the third, the seventh (if involved) and any note mentioned in the chord name.

octave shape	sus.4	sus.2	7sus.4	7sus.2	9sus.4	69	m69
	1-4-5	1-2-5	1-4-5-b7	1-5-b7-2	1-4-5-b7-2	1-2-3-5-6	1-b3-5-6-2
E form high							
E form low							
D form							
C form							
A form							
G form							

ESSENTIAL BLUES CHORDS

these three are good for pedal point

octave shape	7 (dom 7) 1-3-5-b7	9 (dom. 9) 1-3-5-b7-2	13 1-3-5-b7-2-(4)-6	6 1-3-5-6	9 no 3, no 5 2 3 b7	6 no 5 1 3 6	9 no root, no 3 b7 2 5
E form low							
E form high							
D form							
C form mid							
C form high							
A form							
G form low							
G form high							

Improv Level 1: Improv by Ear

GETTING STARTED

- [Mojo Voodoo Blues, an Intro to Minor Pentatonic](#)
- [Bo's Clave, an Intro to Major Pentatonic](#)
- [How to Choose a Scale or Arpeggio For Improv](#)
- [Finding the Key](#)
- [Determining the Scale Type](#)
- [Sense the Chord Tones](#)
- [Prepare the Core Melody by Learning Arpeggios](#)
- [Altering Pentatonic Scales](#)

PREVIEWS OF ADVANCED STUDIES

- [Determining Chords In the Accompaniment](#)
- [Deciding How You Will Depict the Chords](#)

MOJO VODOO BLUES, an intro. to minor pentatonic

video and audio - [click to play](#)rhythm track: [click to play](#)

Swing Eighths

2 3 play 7 times 10

11 12 13 14

15 16 17 18

19 20 21 22

23 24 25 26

27 28 29 30

TAB

[illegible]

55 56 57 58

0 1 0 0 3 3 1 2 0 1 0 0 3 3 1 2 0 1 0 0 1 3 0

TAB

0 1 0 0 3 3 1 2 0 1 0 0 3 3 1 2 0 1 0 0 1 3 0

BO'S CLAVE, an intro. to major pentatonic

audio rhythm track: <http://guitarencyclopedia.com/zzRTBosClave.mp3>

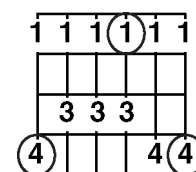
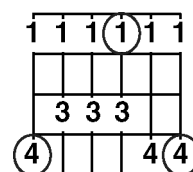
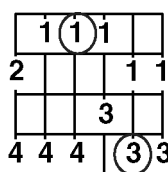
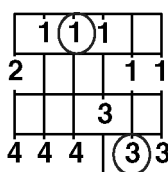
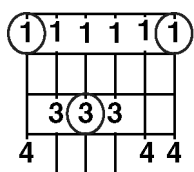
audio basic solo track: <http://guitarencyclopedia.com/zzSEBosClaveBasicSolo.mp3>

audio intermediate solo track: <http://guitarencyclopedia.com/zzSEBosClaveIntermediateSolo.mp3>

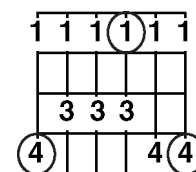
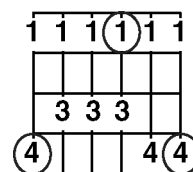
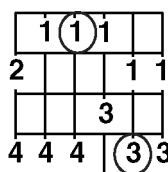
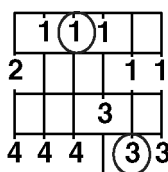
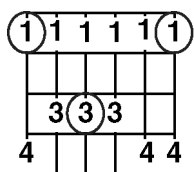
"Bo" is Bo Diddley. He incorporated variations of the clave 3-2 rhythm in his music.

Improvisation examples in "Bo's Clave" use the pentatonic (five-tone) scales shown below. Practice each of them by playing from the note on the lowest-numbered fret on the sixth string through the highest-numbered fret on the first string, in order of pitch. Then play back down the scale, from highest to lowest pitch.

A minor pent. V A minor pent. VII A minor pent. XII A major pent. II A major pent. IV



A minor pent. V A minor pent. VII A minor pent. XII A major pent. II A major pent. IV



Basic and Intermediate Solo Versions

To make this solo study available to more users, there are two solo versions, one basic and one intermediate. They are written on the following pages.

Bo's Clave Basic Solo

audio rhythm track: <http://guitarencyclopedia.com/zzRTBosClave.mp3>

audio basic solo track: <http://guitarencyclopedia.com/zzSEBosClaveBasicSolo.mp3>

section A

drum intro

rhythm guitar

9

A G A A G D

13

A G A A G D

17

A G A A G D

21

A G A A G D

full

1/4

1/2

25 A G A A G D

T
A
B

29 A G A A G D

T
A
B

33 A G A A G D

T
A
B

37 A A G D

harmonics

1/2 3

T
A
B

section B

41

D G D

1/2

45

A D A

full full

49

D G D D

0 0 0 0 0 0 3 0 0 0 0 3 4 4 2

53

A D E A E A

full full

section A

57 A G A A G D

61 A G A A G D

65 A G A A G D

69 A G A A G D

73 A G A G A

77

A G A G D

full

5 7 5 7 7 7 7 5 7 5 7 5 7 5 6 4 2 4

81

A G A G D

full

2 2 4 2 4 4 4 4 2 4 2 4 2 4 2 4 4 2 0 2

85

A G A A G D A G A

1/4

0 0 3 0 5 3 0 0 3 0 3 0 0 3 0 3 0 3 0 3 0 0 3 0

Bo's Clave Intermediate Solo - [click to play](#)

$\text{♩} = 200$

A section A G A A G D

drum intro rhythm guitar

9 A G A A G D

13 A G A A G D

17 A G A G D

21 A G A G D

25 A G A G D

29 A G A G D

33

A G A A G D

full full 1/2 1/2 1/4

15 15 (15) 13 15 15 13 14 12 14 13 14 12 14 13 15 13 15

37

A G A A G D

full full 1 1/2 1 1/2 full

15 15 17 17 17 16 15 17 15 17 (17) 14 17 17 14

41 section B

D G D

0 0 3 0 0 3 0 0 2 0 2 1 2 3 1 2 3 3 5 3 3 3 3 3 3 3

D G D

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 3 2 2 1 1

45

A D A

5 5 5 5 5 8 5 8 5 7 5 7 5 7 5 7 5 7 6

A D A

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 3 2 2 1 1

49

D G D D

full full full

6 7 5 5 7 5 5 7 5 5 8 5 5 8 5 8 8 8 8

D G D

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 3 3 2 2 1 1

53

section A

59

63

67

71

75

83

8^{va}

A

3 3 3 3

G A

A

G D

full

full

full

full

full

full

full

TAB

17 19 17 19 17 19 17 19 20 17 19 17 19 20 19 17 19 17 20 19 17 20 19 17 20 19 17 20 20

HOW TO CHOOSE A SCALE OR ARPEGGIO FOR IMPROV

What qualifications does a scale or chord need for it to work in improvisation?

1. having many or all of the same notes as in the current chord
2. being a darkened version of the current chord or key (appropriate to the style)
3. supporting the key (often in theme and variation)
4. anticipating the next chord by introducing its sound early
5. creating a cadence (familiar short chord progression) that leads to a target chord. Any chord sound used in a cadence that does not agree with the accompaniment should sound for less than one second and should be followed by resolution to the target chord.

Pentatonic scales have occurred independently in most world cultures, since they are constructed with the most basic musical interval in all cultures, the fifth. Five notes “stacked” in perfect fifths constitute the pentatonic scale (any five notes in the series: Fb-Cb-Gb-Db-Ab-Eb-Bb-F-C-G-D-A-E-B-F#-C#-G#-D#-A#-E#-B#).

Common major and minor pentatonic scales serve as common denominators. They typically have a such a high percentage of tones compatible with each of the chords in a progression that a single pentatonic can be used throughout many or all of the chords in a progression. This has promoted their use in the various cultures and that common use has established them as a familiar, likeable element.

FINDING THE KEY

Play along with recordings to build your sense of key and scale type. Choose easy songs first, in a genre you like.

In less than five minutes per song:

determine the key

decide whether the pentatonic scale should be major or minor

find as many scale fingerings as you can in the remaining time

Determine the Key

determine the key first by ear

You will have plenty of opportunity to exercise your logical/mathematical left brain in figuring out the key. Since the logic of the left brain *is directed by the intuitive sense of the right brain*, we should start with the right brain and learn to sense the key by ear. “If it sounds good, it is good”, well said by Duke Ellington. “Music lives in the imagination”, another gem from Aaron Copland.

Find *the tone center on the sixth or fifth string with a single note*. Listen for the note you imagine would be the lowest tone of the chord the piece should end on. You could, for example stop the recording abruptly after hearing a cycle of chords (usually four, eight or twelve bars) and immediately playing a note you suspect to be the tonic (note that names the key). If it is the tonic, you should get a sense of finality.

The sense of key in each song is usually established by multiple criteria. The weight of each criteria in its contribution to establishing the key differs in each song. Those criteria include:

Frequent occurrence of a particular chord.

Beginning or ending a phrase of chord progression. A phrase is typically four, eight or twelve bars long.

Lowest note. The chord containing the lowest pitch

Drone. a repeated note (especially in the bass)

Cadence, a short, familiar chord progression that we are used to hearing establish a key

One song may establish its key more through frequent occurrence, another more through cadences. A combination of some criteria may suggest 40% of the sense of key on one note, while the remaining criteria suggests 60% of another. The one with 60% wins, of course. If its 50/50, it is ambiguous, and is a matter of opinion.

common misconceptions in determining the key

Trust your instinct after listening to the whole piece (or a lot of it). Just because a chord is prominent, or if a chord begins or ends a chord progression, doesn't necessarily mean it is the tonic chord that names the key.

Pieces can be ambiguous and subjective. The tonic chord can be a matter of opinion. If a major chord and its relative minor are equally established as the key, one person may prefer the happy major outcome and another person the sad minor outcome.

You may hear the correct tonic chord, but focus on another note in the chord and name it after the lowest note you hear instead of the lowest note you can imagine.

DETERMINE THE SCALE TYPE

Major or Minor

Decide whether you should play major or minor pentatonic in the key, or a mix of both. Play as many of the pentatonic scale fingerings as you can in under five minutes. You'll eventually be able to play all of them in under a minute. If a song gives you trouble, move on to another.

The key is named after the note that names the chord you expect the piece to end on, which is the lowest imaginable note in that chord.

common misconceptions concerning the scale type

If other attributes of the song are lively and happy, you may be tricked into thinking the tonic chord would be major, when it is minor. Fast tempo, swing eighths and high incidence of major chords other than the tonic can all contribute to the sense that the tonic chord would be major.

Attributes can trick you into thinking the tonic chord would be minor, when it is minor, including slow tempo, dissonant intervals, a sad lyric and high incidence of minor chords other than the tonic can all contribute to the sense that the tonic chord would be minor.

Chords with four or more notes, built by standard practice in thirds are commonly called seventh chords. Each seventh chord has two triad subsets, one built on its root and one built on its third. So, a major seventh chord has a major triad on its root and a minor triad on its third (Cma7 contains C major triad on its root and Em triad on its third). A minor seventh chord has a minor triad on its root and a major triad on its third.

When you hear a major seventh chord that has the minor triad part of it conspicuously voiced (making the notes of the minor triad very audible and apparent), you may be duped into thinking the chord is minor, but it has a major basis. The triad on root should be thought of as the basis of the chord.

When you hear a minor seventh chord that has the major triad part of it conspicuously voiced, you may be think the chord is minor, but it has a minor basis. Again, the triad on root should be thought of as the basis of the chord.

common pentatonic scales

Minor pentatonic has tones 1, b3, 4, 5 and b7 of a major scale. It can be called minor 7/11 pentatonic scale, which defines it according to universal chord-naming conventions. It is a minor triad (1, b3, 5 of a major scale) with a whole step below the root and fifth.

Major pentatonic has tones 1, 2, 3, 5 and 6 of a major scale. It can be called major 6/9 pentatonic scale, according to naming conventions. It is a major triad (1, 3, 5 of a major scale) with a whole step above the root and fifth.

See “[Locating Pentatonic Scales](#)”.

SENSE THE CHORD TONES

Once you have determined the key and whether you are using major or minor pentatonic scale (or both), listen to the effect of the scale you are playing against the chords in the song. When you come across a note in the scale that seems to harmonize with the current chord, sustain or repeat the note. If a note seems foreign to a chord, de-emphasize it by moving up or down the scale to another note. In playing repeatedly along with the recording, you are likely to memorize some of the “sweet” notes that harmonize with chords. I call those notes *target tones*. They are notes that are both in the scale and in the current chord (or are a pleasing addition to a chord).

sing each note you play and listen to your imagination

Sing each note as you play it. After a while, you will be able to predict the sound of each note. Later, you’ll be able to predict the emotive content of each note. If you have listened to a lot of music, you are likely to also begin imagining groups of notes called *melodic cells*. Listen to your imagination and you’ll be able to put sequences of these cells together in structures involving repetition and variation. When that happens, you are beginning to improvise!

PREPARE THE CORE MELODY BY LEARNING ARPEGGIOS

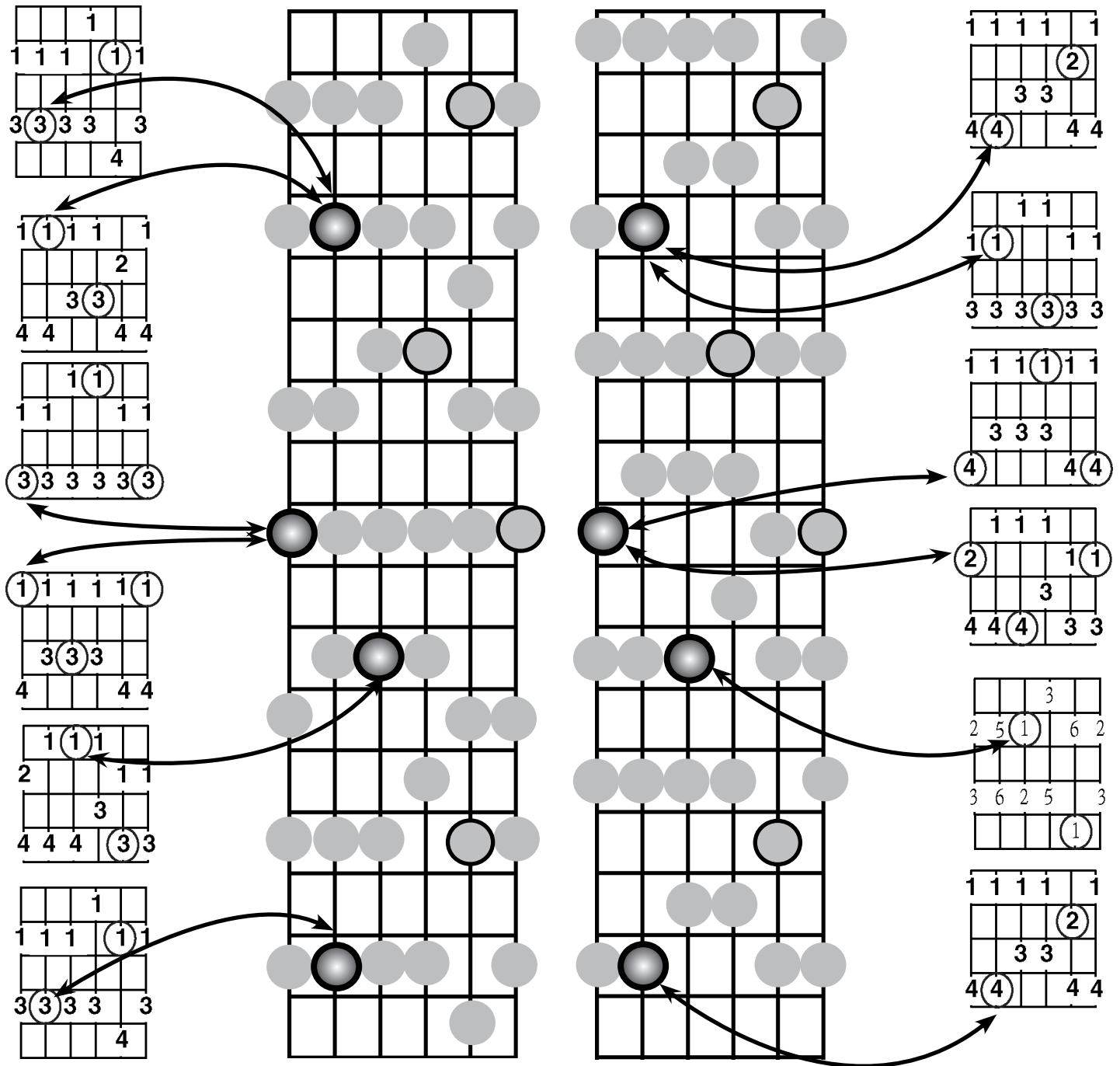
The core melody is the skeletal structure on which melody is built. It is made with *target tones*, which are notes common to the current chord *and* scale.

Play arpeggios and pentatonic scales for easy songs (three or four chords, one bar or more each) where you know the chords, for under ten minutes each song. Don’t dwell on one octave shape. Challenge yourself to move through all five octave shapes, *not* in order up and down the fretboard. Randomize the EDCAGE order first, then finish by playing *in order*. *Try to keep it under ten minutes a song, so you challenge your ability to locate the arpeggios and pentatonic scales. If a song gives you trouble, move on to another.*

Locating Pentatonic Scales

minor

major



ALTERING PENTATONIC SCALES

purposeful bending

There are three common reasons to bend a note:

- to produce a vibrato with a slight bend, usually about an eighth of a tone (1/4 way to the next fret)
- to bend to the next higher scale tone
- to bend halfway or less (sometimes 75%) to a major third (E on a C chord), perfect fifth (G on a C chord) or major seventh (B on a C chord) above the bent note, called a *microtonal bend*

If not bending for one of these purposes, you may encounter a problem. Bending part of the way toward a note that is not in the current chord nor in a tonic chord (the chord after which the key is named) usually sounds wrong.

If you begin to bend a note without forethought, you *may* be able to “save it” by purposing it to one of the three types listed above.

- If you haven’t bent it too far, you could repeatedly bend and release it an eighth of a tone and produce a vibrato.
- If a bend to the next higher scale tone is practical with the finger you have chosen, you could do that. You shouldn’t try to bend to the next higher scale tone if it is three frets higher with the index finger, though.
- If a major third, perfect fifth or major seventh of the chord is a half step (one fret) above the fretted note, it can be bent as a microtonal bend (see below).

basic microtonal bends

Microtonal bends suggest a chord tone one fret higher by bending slightly toward it. The most common microtonal bends are the next higher or next lower note in the minor (minor 7/11) pentatonic scale. They should be bent a half a fret to a fret in pitch (an eighth to a quarter tone) and should not end on the released pitch. After bending a note microtonally up in pitch, end by abruptly releasing the pressure so you don’t hear the lowered pitch.

You can bend up microtonally and release repeatedly, making a *microtonal vibrato*, but the last sound should be the bent note, not the released note.

In the major pentatonic, the second note above the tone center is the third. That third can be flatted to darken the mood. The flatted third of the major pentatonic (minor 6/9 pentatonic) can be treated as a microtonal bend, also.

microtonal bend exercises with the A minor pentatonic scale

[A minor pentatonic scale \(pdf\)](#)

[A minor pentatonic scale \(video\)](#)

advanced microtonal bends

If a major third, perfect fifth or major seventh of the chord is a half step (one fret) above the fretted note, it can be bent expressively from zero to about 75% toward the tone up a half step, with a preferred maximum of about 60%. Bending around 90% to the chord tone sounds flat.

If you are fretting a chord tone that is a minor third (b3), diminished fifth (b5) or minor seventh (b7), you can *hint* the raised version of the note by bending less than a quarter tone (1/2 fret), usually better as an eighth of a tone (1/4 fret). These can be used with any scale appropriate to the style, but are typically used in blues-related styles.

minor pentatonic with flat five (minor 7/11b5)

When you have determined that you should use minor pentatonic, consider using the minor pentatonic with a flat five wherever you want a darker mood. This works particularly well on IV or IV7 (F or F7 in the key of C) or bVI or bVI7 (Ab or Ab7 in the key of C). Typical of blues music.

major pentatonic with flat three (minor 6/9)

When you have determined that you should use major pentatonic, try it with a flat three wherever you want a darker mood. This works particularly well on IV or IV7 (F or F7 in the key of C). Typical of swing music.

Pentatonic Scales by Octave Shape

E shape pentatonic scales

7/11 type

= IV9

6/9 type

minor 7/11 m7/11 add 3 7/11 minor 7/11b5

minor 6/11

major 6/9 minor 6/9

fingering 1

fingering 1

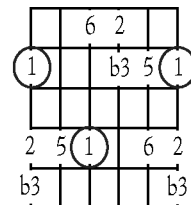
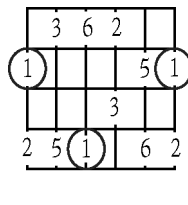
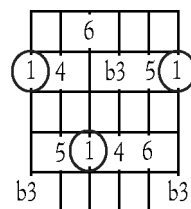
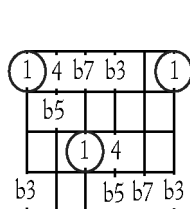
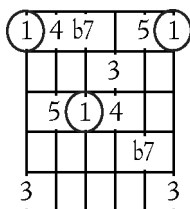
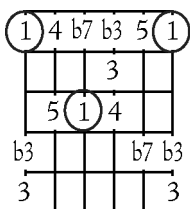
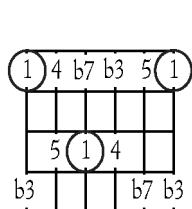
fingering 1

fingering 1

fingering 1

fingering 2

fingering 2



D shape pentatonic scales

7/11 type

= IV9

6/9 type

minor 7/11 m7/11 add 3 7/11 minor 7/11b5

minor 6/11

major 6/9 minor 6/9

fingering 2

fingering 2

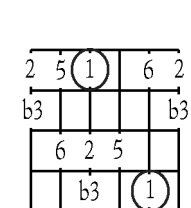
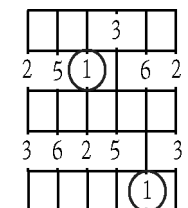
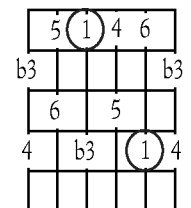
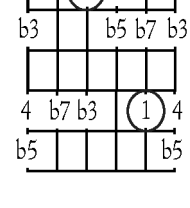
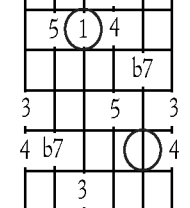
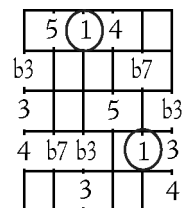
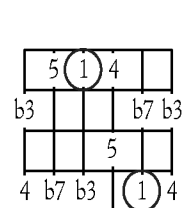
fingering 2

fingering 2

fingering 2

fingering 3

fingering 3



C shape pentatonic scales

7/11 type

= IV9

6/9 type

minor 7/11 m7/11 add 3 7/11 minor 7/11b5

minor 6/11

major 6/9 minor 6/9

fingering 3

fingering 3

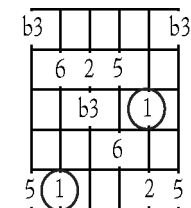
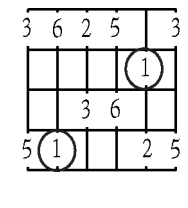
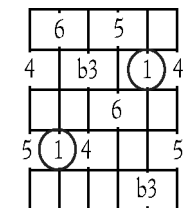
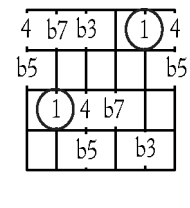
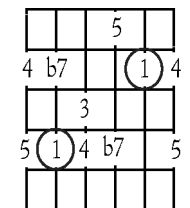
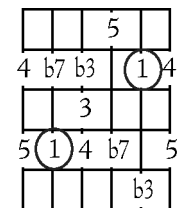
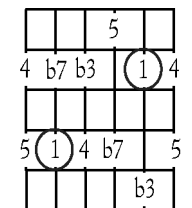
fingering 3

fingering 3

fingering 3

fingering 4

fingering 4



A shape pentatonic scales*7/11 type**= IV9**6/9 type*

minor 7/11	m7/11 add 3	7/11	minor 7/11 b5	minor 6/11	major 6/9	minor 6/9
<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 5</i>	<i>fingering 5</i>
5 (1) 4 b7 5	5 (1) 4 b7 5	5 (1) 4 b7 5	b5 (1) 4 b7 b5	5 (1) 4 5	5 (1) 3 6 2 5	5 (1) 3 6 2 5
b7 b3 5 (1) 4 b7	b7 b3 5 (1) 3 4 b7	b7 b3 5 (1) 3 4 b7	b7 b3 (1) 4 b7	6 5 (1) 6	6 2 5 (1) 3 6	6 2 5 (1) 3 6
	3	3		b3 4		b3

G shape pentatonic scales*7/11 type**= IV9**6/9 type*

minor 7/11	m7/11 add 3	7/11	minor 7/11 b5	minor 6/11	major 6/9	minor 6/9
<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 1</i>	<i>fingering 1</i>
5 (1) 4 b7 5	5 (1) 4 b7 5	5 (1) 4 b7 5	(1) 4 b7 b5	6 5 (1) 6	6 2 5 (1) 3 6	6 2 5 (1) 3 6
b7 b3 4 b7	b7 b3 3 4 b7	b7 b3 3 4 b7	b7 b3 4 b7	b3 4	3 6 2	b3 6 2
(1) 4 b7 b3 5 (1)	(1) 4 b7 b3 5 (1)	(1) 4 b7 5 (1)	(1) 4 b7 b3 (1)	(1) 4 b3 5 (1)	(1) 5 (1)	(1) b3 5 (1)
	3	3	b5			

Pentatonic Scales by Fingering Number

fingering 1

7/11 type

= IV9

6/9 type

minor 7/11	m7/11 add 3	7/11	minor 7/11b5	minor 6/11	major 6/9	minor 6/9
fingering 1	fingering 1	fingering 1	fingering 1	fingering 1	fingering 1	fingering 1

fingering 2

7/11 type

= IV9

6/9 type

minor 7/11	m7/11 add 3	7/11	minor 7/11b5	minor 6/11	major 6/9	minor 6/9
fingering 2	fingering 2	fingering 2	fingering 2	fingering 2	fingering 2	fingering 2

fingering 3

7/11 type

= IV9

6/9 type

minor 7/11	m7/11 add 3	7/11	minor 7/11b5	minor 6/11	major 6/9	minor 6/9

fingering 4*7/11 type**= IV9**6/9 type*

minor 7/11	m7/11 add 3	7/11	minor 7/11b5	minor 6/11	major 6/9	minor 6/9
<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 4</i>	<i>fingering 4</i>
5 (1) 4 b7 5	5 (1) 4 b7 5	5 (1) 4 b7 5	b5 (1) 4 b7 b5	5 (1) 4 5	3 6 2 5 3	b3 6 2 5 b3
b7 b3 4 b7	b7 b3 4 b7	b7 5 (1) 3 4 b7	b7 b3 (1) 4 b7	6 5 (1) 6	5 (1) 3 6 2 5	5 (1) 6 2 5
	3	3		b3 4		

fingering 5*7/11 type**= IV9**6/9 type*

minor 7/11	m7/11 add 3	7/11	minor 7/11b5	minor 6/11	major 6/9	minor 6/9
<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 5</i>	<i>fingering 5</i>
5 (1)	5 (1)	5 (1)	(1)	6 5 (1) 6	3 6	6
b7 b3 4 b7	b7 b3 4 b7	b7 4 b7	b7 b3 4 b7	b3 4	5 (1) 2 5	5 (1) 2 5
(1) 4 b7 b3 5 (1)	(1) 4 b7 b3 5 (1)	(1) 4 b7 5 (1)	(1) 4 b7 b3 (1)	(1) 4 b3 5 (1)	6 2 5 (1) 3 6	6 2 5 (1) 6
	3	3	b5			b3

DETERMINING THE CHORDS IN THE ACCOMPANIMENT

Learn the Emotive Sound of the Five Triad Types

Major (1-3-5) sounds happy. Minor (1-b3-5) sounds sad. Diminished (1-b3-b5) sounds depressed. Suspended (suspended fourth is 1-4-5 and suspended second is 1-2-5) sounds heavenly. Suspended fourth is the primary and more common version. Augmented (1-3-#5) sounds tormented.

Listen to the Bass

Most chords begin in popular music with the root (the note that names the chord) in the bass. If you can determine the bass note at the beginning of a chord, listen for the basic quality of the chord.

Learn about Chord Progression

First study [Learning Keys with Chord Progression](#). Then the chapters later in this course on chord progression and chord voicing.

DECIDING HOW YOU WILL DEPICT THE CHORDS

Abbreviating the Progression with Region Chords

An arpeggio could be used for each chord, but it is usually advantageous for both the player and the listener to cut down on the number of chords. *Region chords* are specialized substitute chords. Two or more chords in the accompaniment can be represented with a single *region chord* in the melody when the mood and color of the chord is compatible. Region chords do require more discretion, since all their tones don't match every tone in each accompaniment chord.

Region chords are created using chord synonyms and [secondary roots](#). Chord synonyms are used where versions of chords are conceived with the tones common to both chords. Secondary roots consider versions of chords where the assignment of the root can be changed to another chord tone, commonly the third or sixth.

The *chord scale* is the synonym scale named after the root of the chord. A *chord region scale* is named after the root of the chord region chord.

Elaborating the Progression with Cadences and **Voice Leading**

Each chord can be preceded with one of a variety of chords that will lead to it. The chord being preceded in such a manner is a *target chord*. The chord played before the target chord is the *setup chord*.

Playing a dominant seventh type chord (1-3-5-b7) before a target chord is common to both classical and jazz music (the idea originated in classical, of course). These are called *secondary dominants*. See “[Modal II-V-I Cadences and Turnarounds](#)”/[Secondary Dominant](#) and “[Melodically Superimposed Cadences](#)”/[Secondary Dominants](#). The movement from the root of the secondary dominant to the target chord is up a perfect fourth. The root is the letter name that begins the chord name, which may include a flat or sharp after it, such as “Bb”.

In jazz, the dominant chords may be altered and have added ninths, elevenths (usually sharp eleven) and thirteenth. Flat five substitutes in jazz are synonyms of secondary dominants that occur on flat two of the target (which is a flatted fifth away from the fifth of the target). See “[Substitution](#)”/[Flat Five Substitute](#).

Scale-tone chords built on the next higher or next lower scale tone from the target can lead to the target by moving all their notes in parallel to the target. This type of progression has a processional quality, since all the notes are moving to or away from the target in tandem.

Scale-tone chords built on roots up or down a fourth from the target will typically retain one or two notes and change two notes in moving to the target, producing a pivotal quality.

conflicting with the current chord

Setup chords are played immediately before the chord they target, such as G7 to Cma7. Sounding a [secondary dominant](#) or other setup chord melodically immediately before the target chord is often conflicts harmonically with the chord in the accompaniment. If the duration of the setup chord is much over one second in duration, the listener has the time to contemplate its disagreement with the current chord. Certainly in two seconds, the listener could sense this conflict.

To avoid the sense of disagreement, play any setup chord that is not the same as the current chord for one second or less. At 120 beats per minute, the most common tempo in popular music, this would be two beats. This implies that you play the setup chord briefly at the end of the period before the target chord. If on the four-bar chord progression in 4/4 | Cm7 | Cm7 | Dm7b5 | G7 |, you intend on playing A7#5 in the second bar, play it during the last two beats.

See “[Voice Leading](#)”.

PART 2 CONTENTS

Comping Design and Pentatonic Improv

[Quickening Chord Changes](#)

[Learning Keys with Chord Progression](#)

[Comping Design](#)

[Twelve Bar Blues Endings](#)

[Keeping Time](#)

[Establishing a Key](#)

[Key Signatures](#)

[Pentatonic Fingering](#)

[Improv with Minor and Major Pentatonic Scales](#)

[Major Scale Fingering](#)

[Master Pentatonic and Major Scale Patterns](#)

[Spontaneous Rhythmic Phrases](#)

[Improv Level 2: Key Scale Pentatonic](#)

Quickening Chord Changes

Open Position Chords

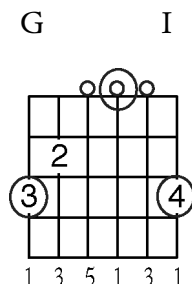
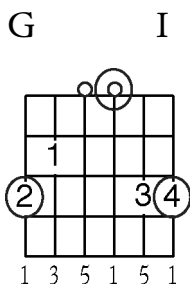
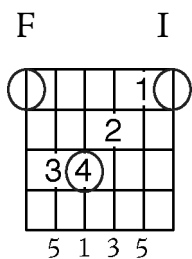
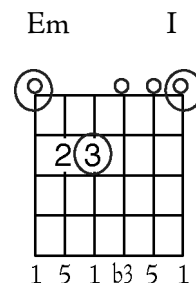
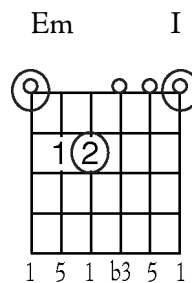
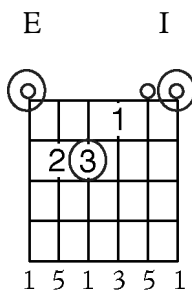
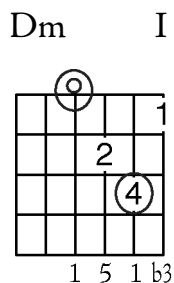
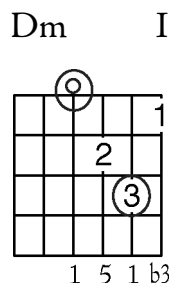
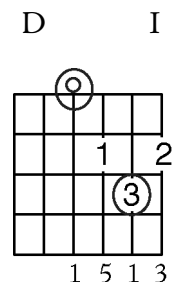
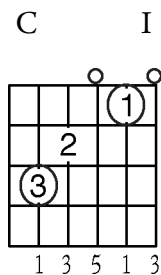
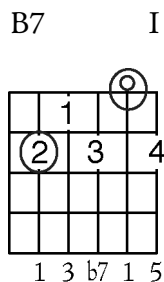
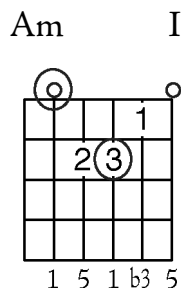
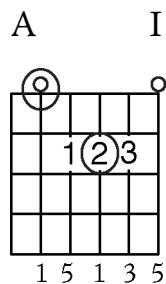
- [Quickening Open Position Chords](#)
- [Progressive Open Chord Exercises](#)

Barre Chords

- [Progressive Barre Chord Exercises](#)

QUICKENING OPEN POSITION CHORDS

If you haven't already, you should memorize these open position chords and work toward being able to change them quickly.



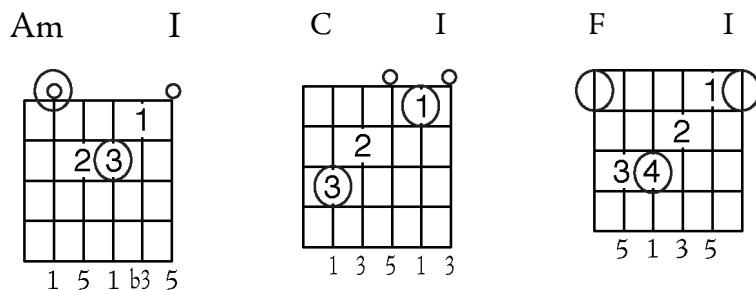
three devices for quicker chord changes

The three devices below, "retain a finger", "glide" and "carry a shape" all help in quickening your chord changes.

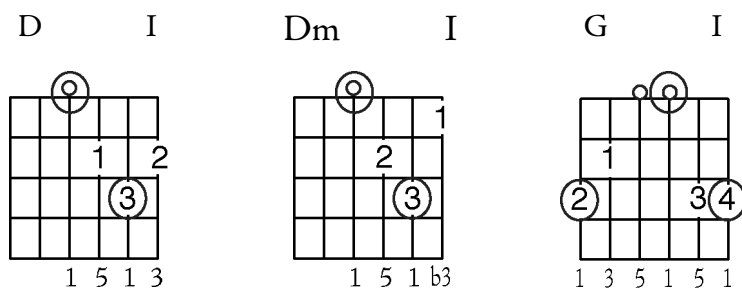
Retain a Finger

In each of these sets of chords below, one of the notes is common to all of the chords in the set and is fingered with the same finger. Retain the common finger when changing between chords in the same set. Make sure you are able to change between any of the chords in each set in any order (such as “second string C, index finger”).

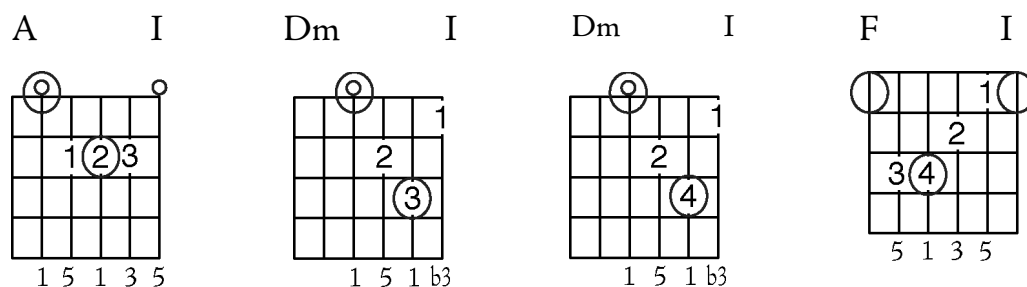
second string “C”, index finger

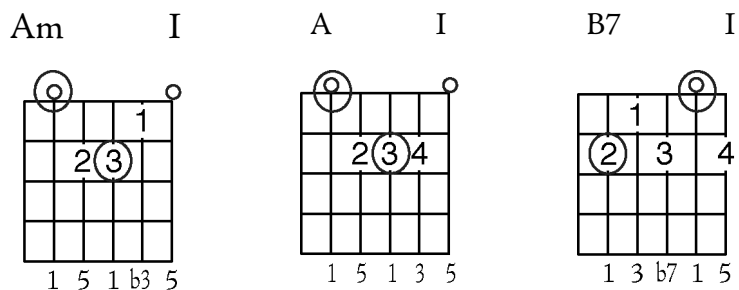
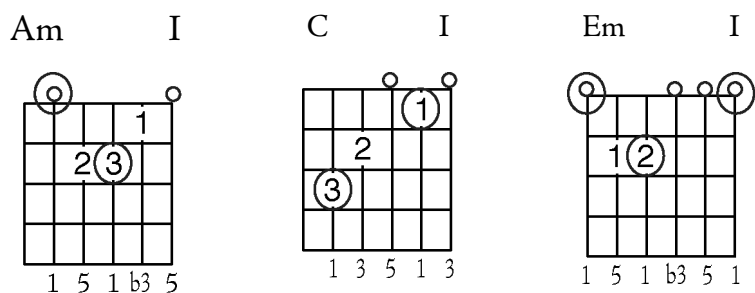
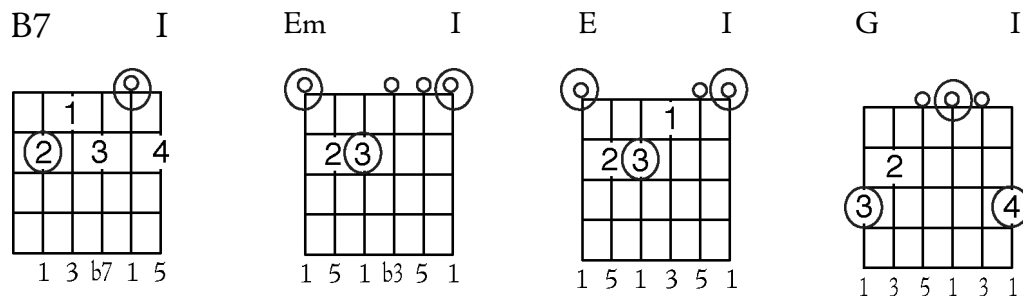


second string “D”, ring finger



third string “A”, middle finger

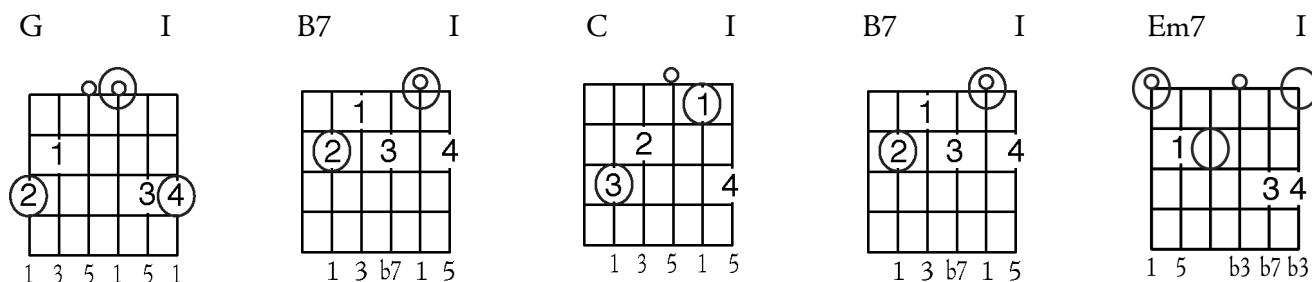


third string "A", ring finger**fourth string "E", middle finger****fifth string "B", middle finger**

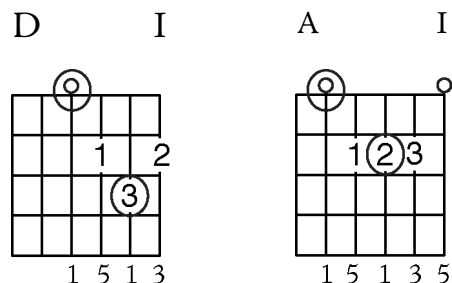
Glide

For each of these sets of chords, change the note that is on the same string with the same finger by “gliding”. Release the pressure to the fret but still touch the string as you move the finger to it’s new location. Make sure you are able to change between any of pairs of chords.

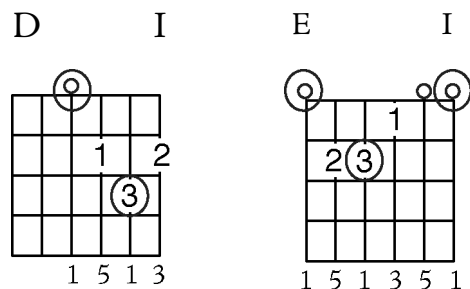
first string, little finger



second string, ring finger



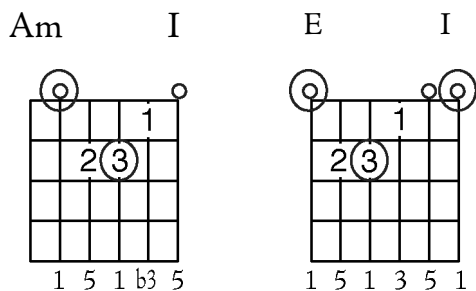
third string, index finger



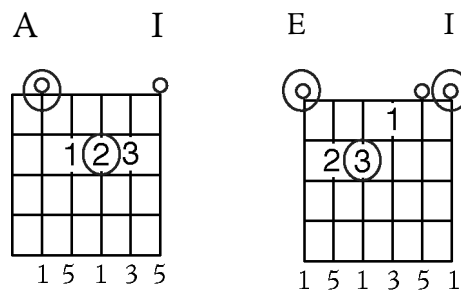
Carry the Shape

When a graphic shape involving two or more fingers in a chord fingering is moved to a location in the next chord (retaining the shape), I call it “carrying the shape”. Generally don’t change the curvature of the fingers involved. Make sure you are able to change between any of pairs of chords.

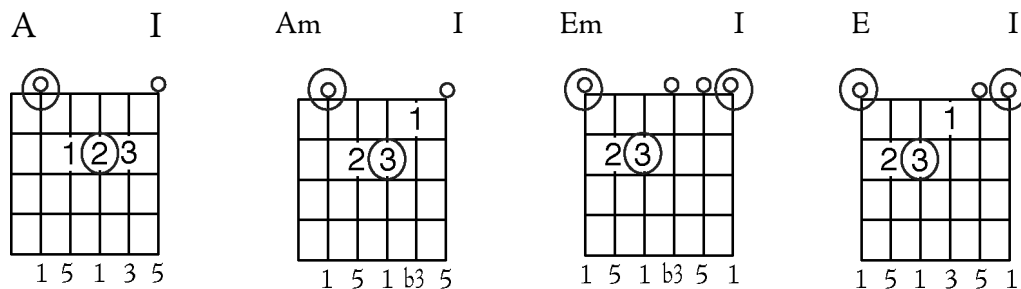
Am to E, first three fingers



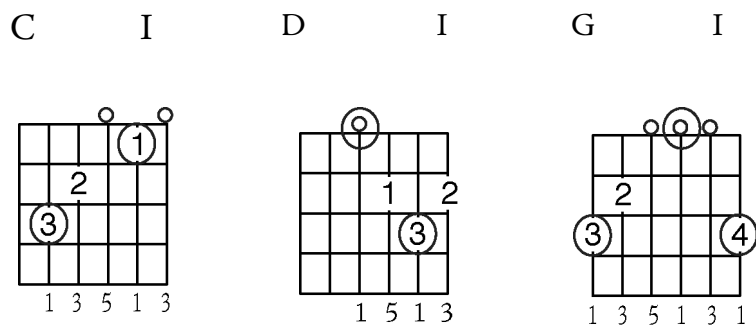
A to E, middle and ring



A, Am, Em and E (any order), middle and ring



C, D and G (any order), middle and ring



PROGRESSIVE OPEN CHORD EXERCISES

Two or More Seconds per Chord

Hey Joe - [live video](#)

at first, strum each chord once every two beats

♩ = 60

C G D A E

TAB

Knockin' On Heaven's Door - [live video](#)

at first, strum each chord once every two beats

♩ = 60

G D Am G D C

TAB

One and a Half Seconds per Chord

House of the Rising Sun at 90 BPM - [live video](#)

at first, strum each chord once every three beats

♩ = 180

5 Am 6 7 C 8 9 D 10 11 F 12

13 Am 14 15 C 16 17 E 18 19 20

(continue the same strumming)

21 Am 22 23 C 24 25 D 26 27 F 28

29 Am 30 31 E 32 33 Am 34 35 C 36 37 D 38 39 F 40

41 Am 42 43 E 44

45 Am 46 47 E 48

49 Am 50 51 52

One Second per Chord

at first, strum only the first instance of each chord

La Bamba at 120 BPM - [live video](#)

Measures 53 and 54 of 'La Bamba' at 120 BPM. The notation shows a 4/4 time signature. Measure 53 contains a C major chord (C4, E4, G4) and a bass line with a half note C3 and a half note G2. Measure 54 contains a G major chord (G4, B4, D5) and a bass line with a half note G2 and a half note D3. Above the staff, four guitar fretboard diagrams are shown for measures 53 and 54. Measure 53 has two diagrams: one for C major (fret 1, strings 1-2-3) and one for F major (fret 1, strings 1-2-3-4). Measure 54 has two diagrams: one for G major (fret 2, strings 1-2-3-4) and one for F major (fret 1, strings 1-2-3-4). The diagrams are labeled with Roman numerals I, III, and I.

Should I Stay at 135 BPM - [live video](#)

Measures 55 through 66 of 'Should I Stay' at 135 BPM. The notation shows a 4/4 time signature. Measures 55-58 are in the key of D major (F#). Measure 55 contains a D major chord (D4, F#4, A4) and a bass line with a half note D3 and a half note A2. Measure 56 contains a G major chord (G4, B4, D5) and a bass line with a half note G2 and a half note D3. Measure 57 contains a D major chord (D4, F#4, A4) and a bass line with a half note D3 and a half note A2. Measure 58 contains a G major chord (G4, B4, D5) and a bass line with a half note G2 and a half note D3. Measures 59-62 are in the key of G major (F#). Measure 59 contains a G major chord (G4, B4, D5) and a bass line with a half note G2 and a half note D3. Measure 60 contains a F major chord (F4, A4, C5) and a bass line with a half note F2 and a half note C3. Measure 61 contains a D major chord (D4, F#4, A4) and a bass line with a half note D3 and a half note A2. Measure 62 contains a G major chord (G4, B4, D5) and a bass line with a half note G2 and a half note D3. Measures 63-66 are in the key of D major (F#). Measure 63 contains a D major chord (D4, F#4, A4) and a bass line with a half note D3 and a half note A2. Measure 64 contains a G major chord (G4, B4, D5) and a bass line with a half note G2 and a half note D3. Measure 65 contains a D major chord (D4, F#4, A4) and a bass line with a half note D3 and a half note A2. Measure 66 contains a G major chord (G4, B4, D5) and a bass line with a half note G2 and a half note D3. Above the staff, twelve guitar fretboard diagrams are shown for measures 55 through 66. Measure 55 has one diagram for D major (fret 2, strings 1-2-3). Measure 56 has one diagram for G major (fret 2, strings 1-2-3-4). Measure 57 has one diagram for D major (fret 2, strings 1-2-3). Measure 58 has one diagram for G major (fret 2, strings 1-2-3-4). Measure 59 has one diagram for G major (fret 2, strings 1-2-3-4). Measure 60 has one diagram for F major (fret 1, strings 1-2-3-4). Measure 61 has one diagram for D major (fret 2, strings 1-2-3). Measure 62 has one diagram for G major (fret 2, strings 1-2-3-4). Measure 63 has one diagram for D major (fret 2, strings 1-2-3). Measure 64 has one diagram for G major (fret 2, strings 1-2-3-4). Measure 65 has one diagram for D major (fret 2, strings 1-2-3). Measure 66 has one diagram for G major (fret 2, strings 1-2-3-4). The diagrams are labeled with Roman numerals I, III, and I.

One Half Second per Chord

Not Fade Away 135 BPM - [live video](#)

The musical score is presented in three systems, each with a guitar staff (treble clef, key signature of one sharp) and a bass staff (bass clef, key signature of one sharp). The guitar staff contains eighth-note chords and rests, while the bass staff contains whole-note chords. Measure numbers 67 through 78 are indicated above the guitar staff. Three fretboard diagrams are provided: the first for measures 67-68 (A and D chords), the second for measures 69-70 (A and D chords), and the third for measures 71-74 (E, A, and E chords). The diagrams show fingerings for the left hand, with circles indicating fret positions and numbers indicating fingerings. The bass staff uses a simplified notation where 'O' represents an open string and 'n' represents a fretted note.

Fretboard Diagram 1 (Measures 67-68):

- Diagram 1 (A chord): 1 5 1 3 5
- Diagram 2 (D chord): 1 5 1 3
- Diagram 3 (A chord): 1 5 1 3 5

Fretboard Diagram 2 (Measures 69-70):

- Diagram 1 (A chord): 1 5 1 3 5
- Diagram 2 (D chord): 1 5 1 3
- Diagram 3 (A chord): 1 5 1 3 5

Fretboard Diagram 3 (Measures 71-74):

- Diagram 1 (E chord): 1 5 1 3 5 1
- Diagram 2 (A chord): 1 5 1 3 5
- Diagram 3 (E chord): 1 5 1 3 5 1

PROGRESSIVE BARRE CHORD EXERCISES

Barre Chords One and a Half Seconds per Chord

Flake verse - [live video](#)

verse

♩ = 180

Dm V

F I

1e+ a 2 e + a 3 e + a 4 e + a 1e+ a 2 e + a 3 e + a 4 e + a

T
A
B

B^b I

F I

T
A
B

Barre Chords Under One Second per Chord

Heatwave - [live video](#)

♩ = 170

5 **Em** 6 **F#m** 7 **Bm⁷** 8

9 **Em** 10 **F#m** 11 **G** 12 **A**

13 **D** **G** **D** **G** 14 **D** **G** **D** **G** 15 **D** **G** **D** **G** 16 **D**

play 3 times

Locked Out of Heaven - [live video](#)

♩ = 145

17 **C** 18 **Dm** 19 **C** **B^b** 20 **Am** **Gm** 21 **C** 22 **Dm**

Learning Keys with Chord Progression

- [How to Learn Keys with Chord Progression](#)
- [Full-Fretboard Note Names and Numbers](#)
- [Scale-Tone Chord Progression](#)
- [Transcribing Tips](#)
- [Roman Numerals and Slashes](#)
- [I-IV-V Songs](#)
- [I-IV-V Songs with the Key on V](#)
- [I-IV-V-VIm Songs](#)
- [I-IIIm-IV-V-Im Songs](#)
- [I-IIIm-IIIm-\(III\)-IV-V-VIm Songs](#)
- [I-IIIm-IIIm \(III\)-IV-V-VIm Songs, Key on VIm](#)

HOW TO LEARN KEYS WITH CHORD PROGRESSION

Follow These Three Steps to Learn Each Song

1. Listen to the recording.
2. Try to determine the key by ear. The key will be indicated in the version with“(original key)” in its title .
3. When the option is given, play the progression in power chords and barre chords. Progressively work with more keys, until you know eight important keys.

Listen to the Recording

In the pdf version of this book, Youtube links are given for most of the songs (a blue, underlined title is a Youtube link). These should allow you to listen to the song in the key as written. Some of the songs have a link to an audio recording in the style of the song, exhibiting the same chord progression as the song.

Learn to Determine the Key

The key is the root of the main chord that you would expect the chord progression to end on to sound finished and complete. For each song, you are told which chord names the key (the tone center). Listen to the recording, play the bass note that names the key and see if it makes auditory sense to you as the “focal” point of the song.

Learn to Transpose with the Capo

A capo is a clamping device placed across a fret to change (transpose) the key. The actual key is the key you hear. When you use a capo, you are playing as if you are in open position, but the sounding (actual) key is higher, according to where you place the capo. The key you would be sounding with the same fretting *without* the capo is the “virtual” key.

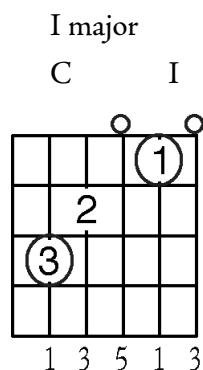
place the capo to play in C or G

You’ll learn to transpose each song with the capo to C or G, so its easy to fret. At the appropriate fret, the capo will make the guitar sound in the original key.

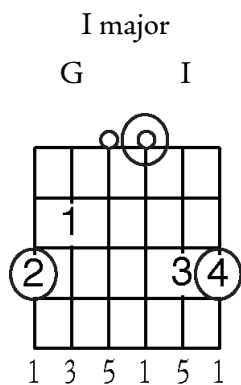
Thinking In C And G With The Capo

actual and virtual major keys with the capo

actual key →	A	Bb	B	C	C#	Db	D	Eb	E	F	F#	Gb	G	Ab
capo fret for virtual C major	9	10	11	12 open	1	1 13	2	3	4	5	6	6	7	8
capo fret for virtual G major	2	3	4	5	6	6	7 open	8	9	10	11	11	12	1 13



To think in the key of C, place the capo so the third finger is on the tonic (note that names the key) on the fifth string and the capo is three frets lower. If the key is on the fifth string eighth fret, the capo would go on the fifth fret.



To think in the key of G, place the capo so the second finger is on the tonic (note that names the key) on the sixth string and the capo is three frets lower. If the key is on the sixth string eighth fret, the capo would go on fifth fret.

Memorize the chord progressions shown on the next page thoroughly.

Using the fingerings below and a capo, you can play thousands of popular songs in all keys, tending more towards acoustic music like folk and soft rock.

Triads are three-note chords. Each triad has three different notes, but notes are commonly doubled (or tripled). “C”, the first chord has a “C” note on the fifth and second strings and has an “E” note on the fourth and first strings. The “G” chord has a “G” note on the sixth, third and first strings. The numbers below the chord diagrams show the numbered tones in the key of the chord, but we don’t need that information now.

key of C

	I major C I	II minor Dm I	III minor Em I	III major E I	IV major F I	V major G I	VI minor Am I
stepwise order							
in fourths BEADGCF 7362514							
B dim. (VII dim.) was omitted							

key of G

	I major G I	II minor Am I	III minor Bm II	III 7 B7 I	IV major C I	V major D I	VI minor Em I
stepwise order							
in fourths BEADGCF 7362514							
F# dim. (VII dim.) was omitted							

more detail, key of C

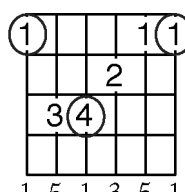
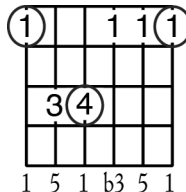
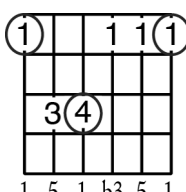
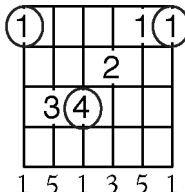
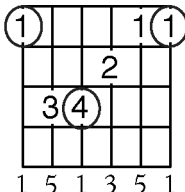
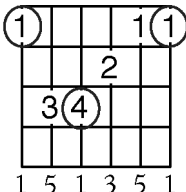
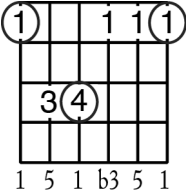
C major scale I	C I	Dm I	Em I	F I	G I	Am I	B dim. I
C major scale I	C ma. chord tones I	Dm chord tones I	Em chord tones I	F ma. chord tones I	G ma. chord tones I	Am chord tones I	B dim. chord tones I
subset pentatonic →	C maj. pent. I	Dm pent. I	Em. pent. I	F maj. pent. I	G maj. pent. I	Am pent. I	Bm7(11)b5 pent. I

more detail, key of G

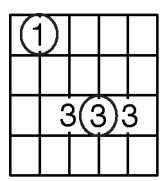
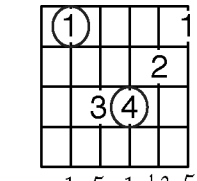
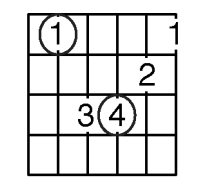
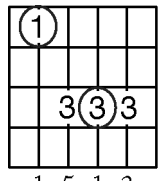
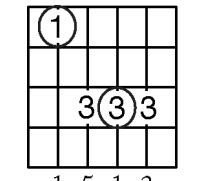
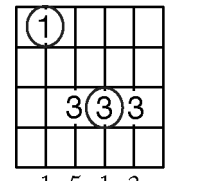
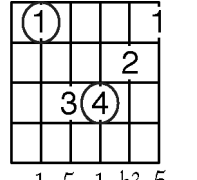
G major scale I	G I	Am I	Bm II	C I	D I	Em I	F# dim. I
G major scale I	G ma. chord tones I	Am chord tones I	Bm chord tones I	C ma. chord tones I	D ma. chord tones I	Em chord tones I	F# dim. chord tones I
subset pentatonic →	G maj. pent. I	Am pent. I	Bm pent. I	C maj. pent. I	D maj. pent. I	Em pent. I	F#m7(11)b5 pent. I

Chord Progression With Barre Chords

C major parent scale, E form

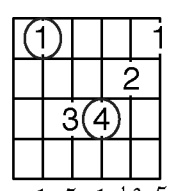
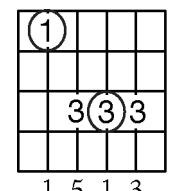
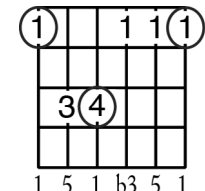
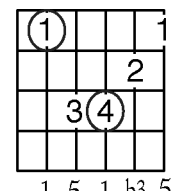
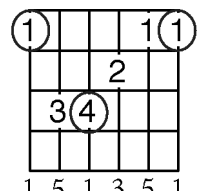
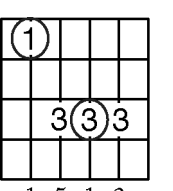
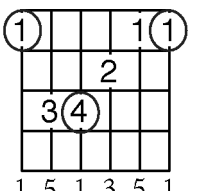
I major C VIII	II minor Dm X	III minor Em XII	III major E XII	IV major F I or XIII	V major G III	VI minor Am V
						

C major parent scale, A form

I major C III	II minor Dm V	III minor Em VII	III major E VII	IV major F VIII	V major G X	VI minor Am XII
						

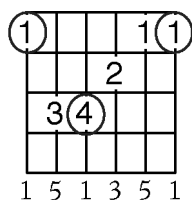
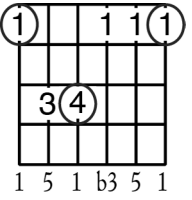
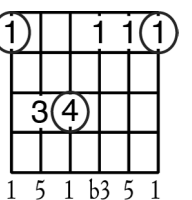
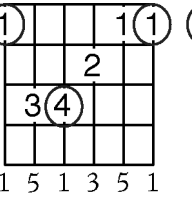
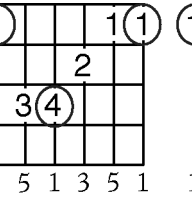
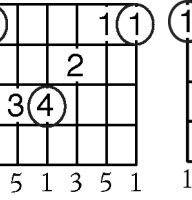
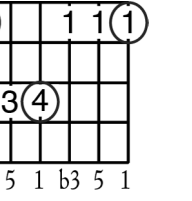
C major parent scale, roots in fourths (BEADGCF or 7362514)

To avoid playing in too high a position, combine E and A forms. The uncommon B diminished (VII diminished) was omitted.

III minor Em VII	III major E VII	VI minor Am V	II minor Dm V	V major G III	I major C III	IV major F I
						

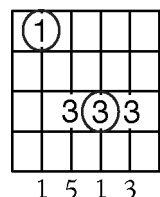
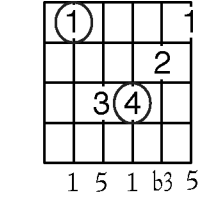
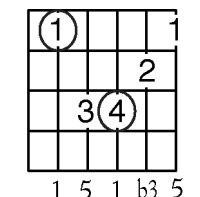
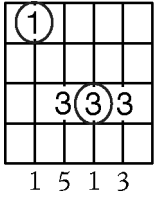
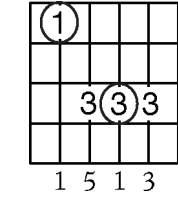
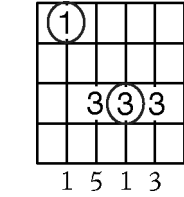
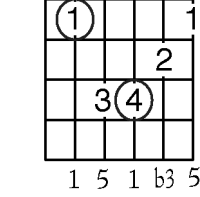
G major parent scale, E form

I major	II minor	III minor	III major	IV major	V major	VI minor
G III	Am V	Bm VII	B VII	C VIII	D X	Em XII

						
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G major parent scale, A form

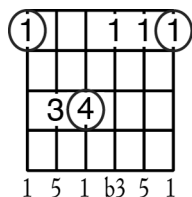
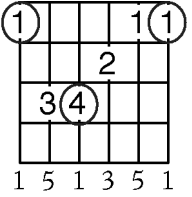
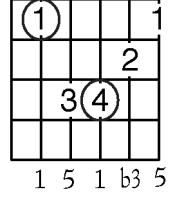
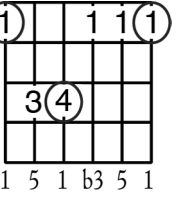
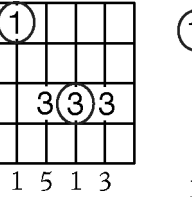
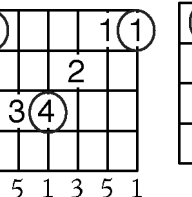
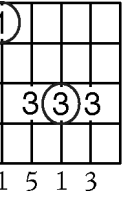
I major	II minor	III minor	III major	IV major	V major	VI minor
G X	Am XII	Bm II	B II	C III	D V	Em VII

						
-----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------	-----------------------------------------------------------------------------------	------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

G major parent scale, roots in fourths (F#BEADGC, 7362514)

To avoid playing in too high a position, combine E and A forms. The uncommon F# diminished (VII diminished) was omitted.

III minor	III major	VI minor	II minor	V major	I major	IV major
Bm VII	B VII	Em VII	Am V	D V	G III	C III

						
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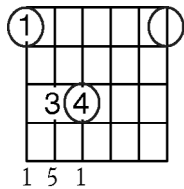
Power Chords and Barre Chords

If the chord name is just a letter name, such as C, Bb (B flat) or F# (F sharp), it is major. If the chord name has a lower case “m” after the letter name, it is minor.

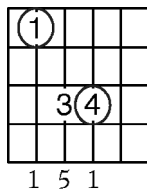
power chords

Power chords sound strong and primal. They are the root of the chord (the note with the letter name that names the chord) and the fifth of a major scale named after the chord root. An “A” power chord includes the note “A” and the fifth step of the A major scale, “E”. The root of the power chord is commonly doubled an octave higher, so an “A” power chord would have notes in ascending order “A-E-A”. The symbol for a power chord is the letter name followed by an Arabic “5”, such as “A5”.

sixth string root
(major or minor)



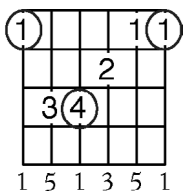
fifth string root
(major or minor)



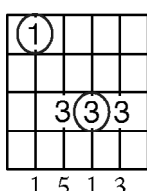
barre chords

Using the fingerings below, you can play thousands of popular songs, tending more towards rock. Use the chart at the right to locate the large circled note on the diagram on a specific note. Orient from the circle on the fifth or sixth string at the left of the diagram.

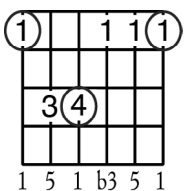
sixth string root major



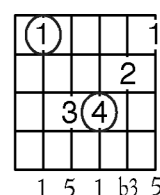
fifth string root major



sixth string root minor

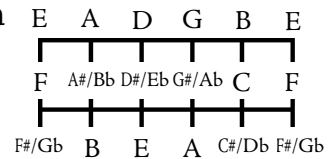


fifth string root minor

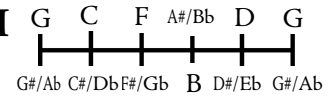


note names

open



III



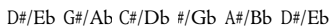
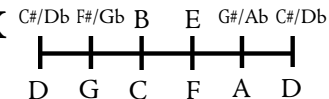
V



VII



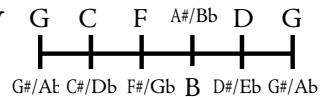
IX



XII



XV

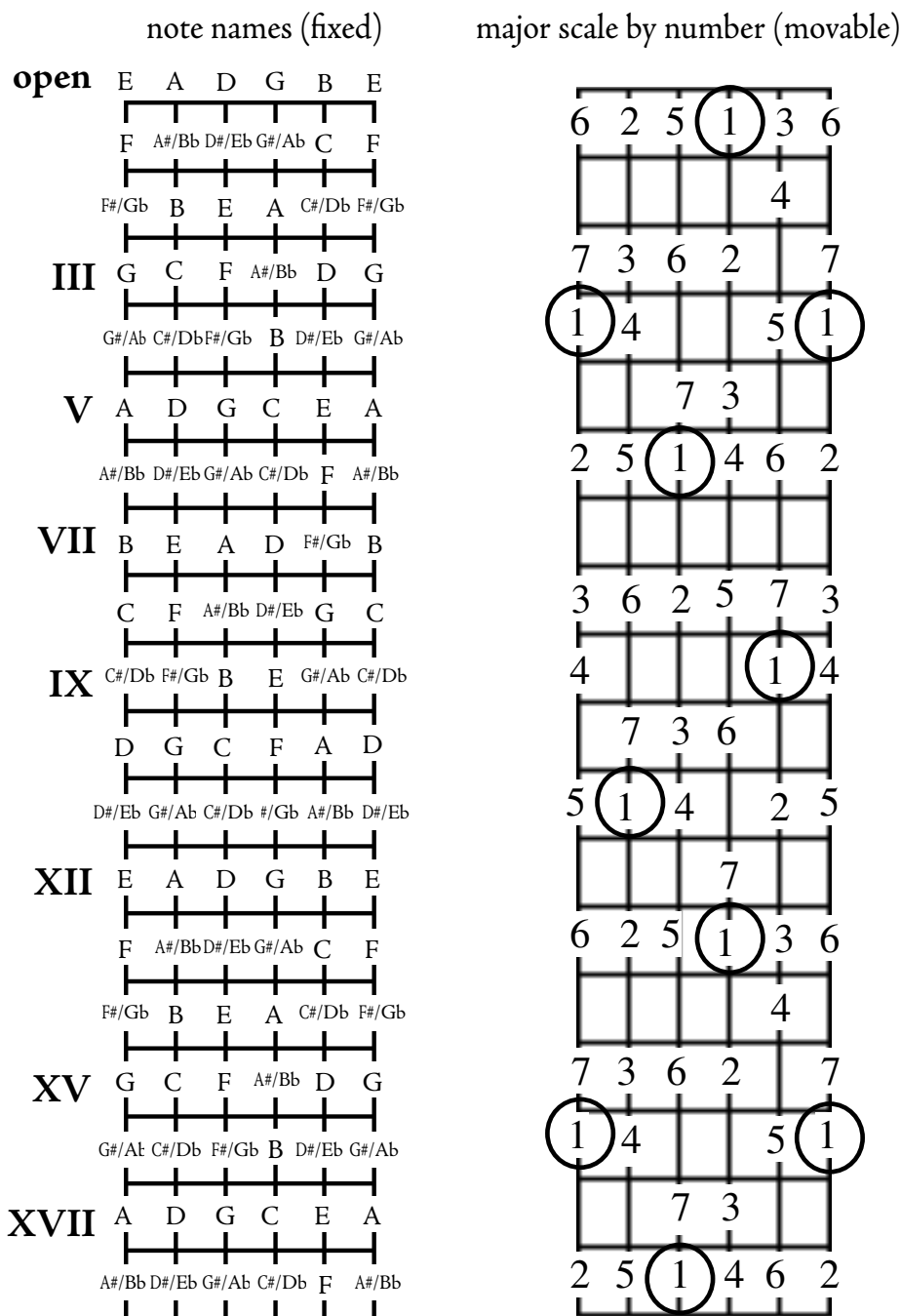


XVII



FULL FRETBOARD NOTE NAMES AND NUMBERS

The the major scale tones “1” through “7” can be located for any key by conceptually moving the diagram up or down so the number “1” is on the note that names the key or chord. Use the circled “1” on the one of the three largest strings (on the left of the diagram). To locate the number for the key of “C”, the circled “1” on the sixth string would be at the eighth fret..



SCALE-TONE CHORD PROGRESSION

Major Scale-Tone Triads By Roman Numeral

Chords can be built on each step of a major scale. Each chord is usually with every other note of the scale, such as scale tones one, three and five to build a chord on step one. Roman numerals (I, II, III, IV, etc.) are used to number the steps of a major scale on which chords are built. The letter names of chords choose from the letters A through G in the alphabet, and may be followed by a sharp or flat, indicating its modification up or down a half step (one fret). To make a chord progression transposable (changeable to other keys) and to compare it to other progressions, names are replaced with roman numerals.

The description of the chord quality that followed the letter name remains the same. If a letter name such as A, F# or Bb (# is sharp and is part of the letter name, b is flat as is part of the letter name "B flat"). In the key of F (where Bb is the fourth step of the F major scale), Bbma7b5 would be written as IVma7b5. As a standard practice, chord are built with every-other scale tone, such as 1-3-5 and 2-4-6.

Major Scale-Tone Triads in All Keys - Stepwise Root Order

major scale tone	1	2	3	4	5	6	7
roman numeral name	I	IIm	IIm	IV	V	VIIm	VIIIdim.
quality	major	minor	minor	major	major	minor	diminished
scale tones in chord	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
formula on root	1-3-5	1-b3-5	1-b3-5	1-3-5	1-3-5	1-b3-5	1-b3-b5
mode	major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
altered tones in mode	none	b3-b7	b2-b3-b6-b7	#4	b7	b3-b6-b7	b2-b3-b5-b6-b7
literal names in C	C	Dm	Em	F	G	Am	Bdim.
literal names in F	F	Gm	Am	Bb	C	Dm	Edim.
literal names in G	G	Am	Bm	C	D	Em	F#dim.
literal names in D	D	Em	F#m	G	A	Bm	C#dim.
literal names in Bb	Bb	Cm	Dm	Eb	F	Gm	Adim.
literal names in A	A	Bm	C#m	D	E	F#m	G#dim.
literal names in Eb	Eb	Fm	Gm	Ab	Bb	Cm	Ddim.
literal names in E	E	F#m	G#m	A	B	C#m	D#dim.
literal names in Ab	Ab	Bbm	Cm	Db	Eb	Fm	Gdim.
literal names in B	B	C#m	D#m	E	F#	G#m	A#dim.
literal names in Db	Db	Ebm	Fm	Gb	Ab	Bbm	Cdim.
literal names in F#	F#	G#m	A#m	B	C#	D#m	E#dim.
literal names in Gb	Gb	Abm	Bbm	Cb	Db	Ebm	Fdim.
literal names in C#	C#	D#m	E#m	F#	G#	A#m	B#dim.

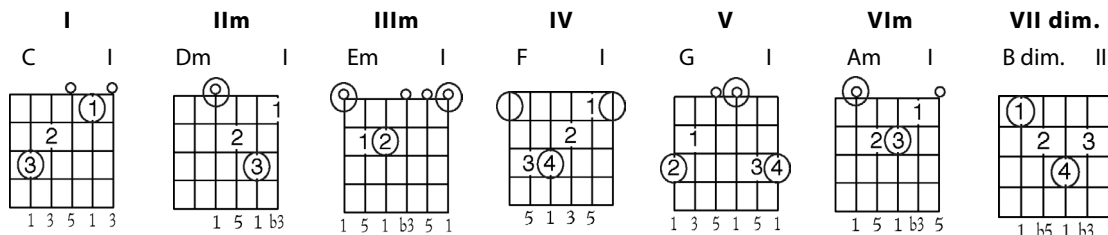
Chord Progression in Stepwise and Fourths Order

Chords most commonly occur in songs in sequences of fourths or stepwise (alphabetical order), ascending or descending (i.e. forward or backward alphabetically). It will greatly speed up your process of learning to finger and memorize chord progressions if you memorize the chords built on major scales in these sequences of fourths. Common fingerings are shown below. The III major chord is commonly used as major, which makes it lead more strongly to VIIm), so III major is included. The VII diminished chord is rare in pop music, so it is omitted.

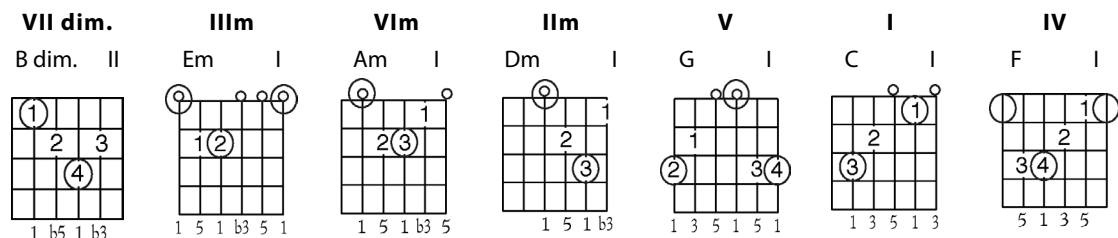
Major Scale-Tone Triads in All Keys - Perfect Fourths Root Order

major scale tone	7	3	6	2	5	1	4
roman numeral name	VIIIdim.	IIIIm	VIIm	IIIm	V	I	IV
quality	diminished	minor	minor	minor	major	major	major
scale tones in chord	7-2-4	3-5-7	6-1-3	2-4-6	5-7-2	1-3-5	4-6-1
formula on root	1-b3-b5	1-b3-5	1-b3-5	1-b3-5	1-3-5	1-3-5	1-3-5
mode	Locrian	Phrygian	Aeolian	Dorian	Mixolydian	Lydian	major
altered tones in mode	b2-b3-b5-b6-b7	b2-b3-b6-b7	b3-b6-b7	b3-b7	b7	#4	none
literal names in C	Bdim.	Em	Am	Dm	G	C	F
literal names in F	Edim.	Am	Dm	Gm	C	F	Bb
literal names in G	F#dim.	Bm	Em	Am	D	G	C
literal names in D	C#dim.	F#m	Bm	Em	A	D	G
literal names in Bb	Adim.	Dm	Gm	Cm	F	Bb	Eb
literal names in A	G#dim.	C#m	F#m	Bm	E	A	D
literal names in Eb	Ddim.	Gm	Cm	Fm	Bb	Eb	Ab
literal names in E	D#dim.	G#m	C#m	F#m	B	E	A
literal names in Ab	Gdim.	Cm	Fm	Bbm	Eb	Ab	Db
literal names in B	A#dim.	D#m	G#m	C#m	F#	B	E
literal names in Db	Cdim.	Fm	Bbm	Ebm	Ab	Db	Gb
literal names in F#	E#dim.	A#m	D#m	G#m	C#	F#	B
literal names in Gb	Fdim.	Bbm	Ebm	Abm	Db	Gb	Cb
literal names in C#	B#dim.	E#m	A#m	D#m	G#	C#	F#

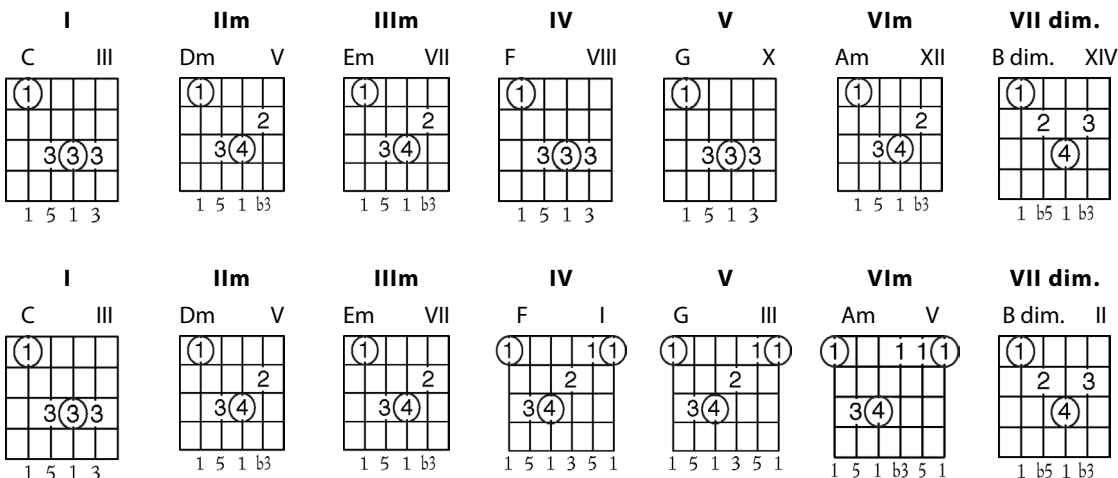
C major scale-tone triads with roots in stepwise order, open position



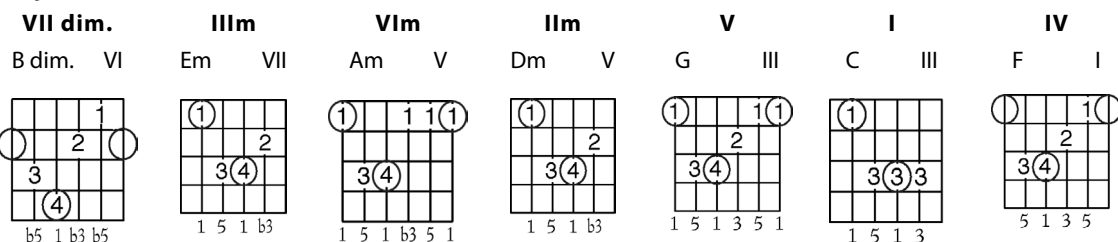
C major scale-tone triads in fourths (7-3-6-2-5-1-4, B-E-A D-G-C-F), open position



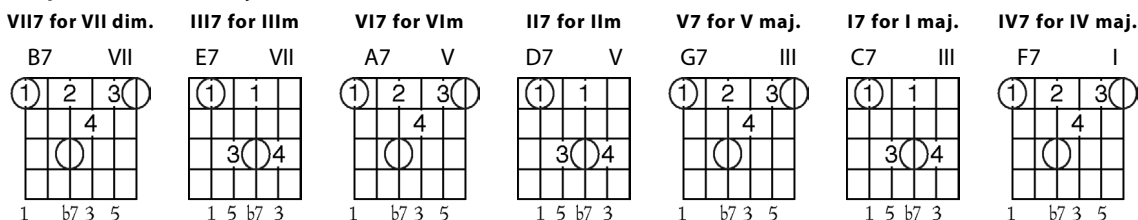
C major scale-tone triads with roots in stepwise order, barre chords



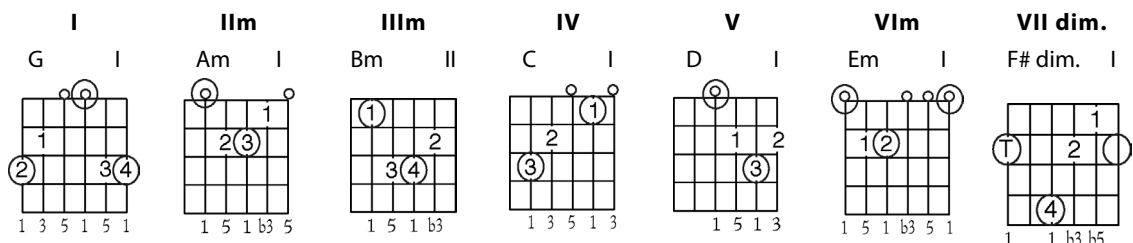
C major scale-tone triads in fourths (7-3-6-2-5-1-4, B-E-A D-G-C-F), barre chords



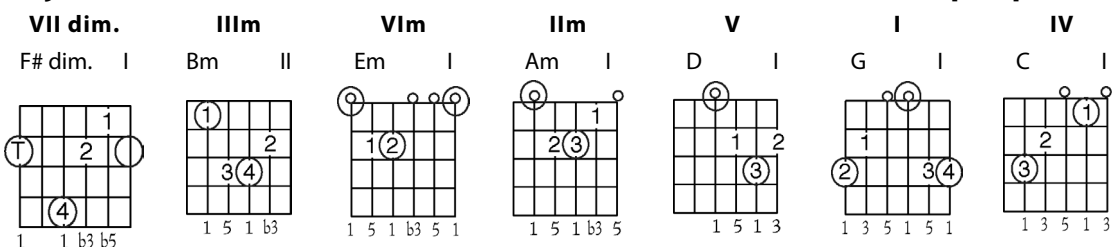
C major - secondary dominants



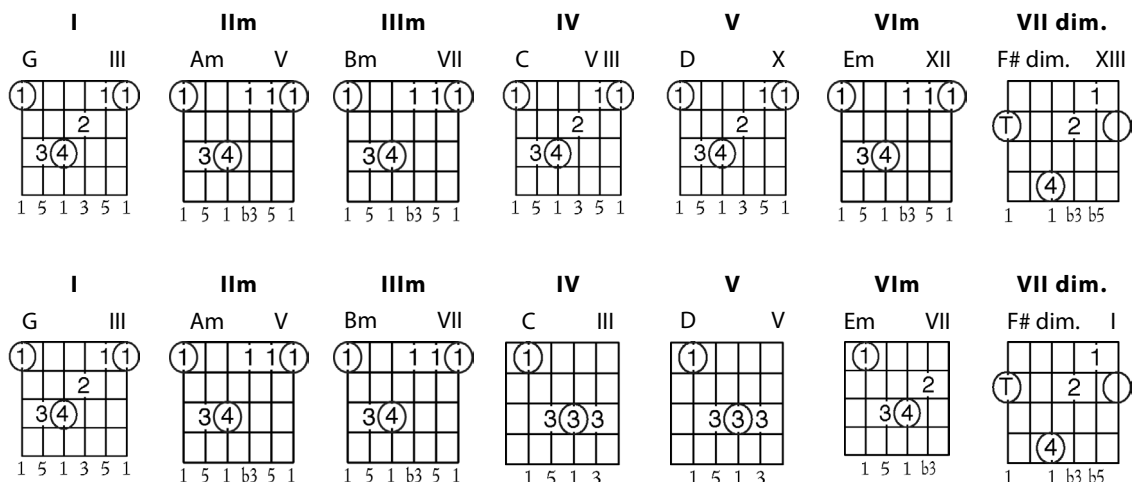
G major scale-tone triads with roots in stepwise order, open position



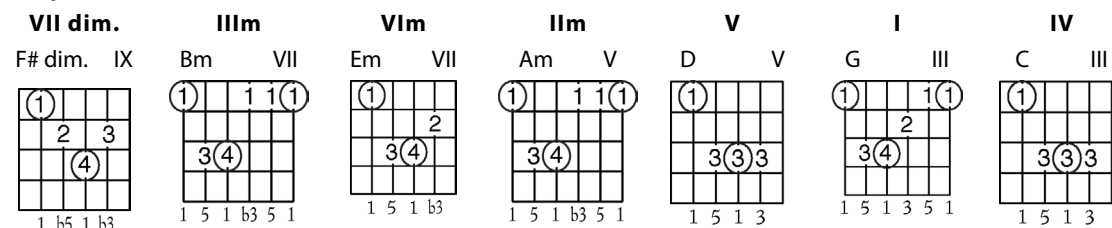
G major scale-tone triads in fourths (7-3-6-2-5-1-4, F#-B-E-A D-G-C), open position



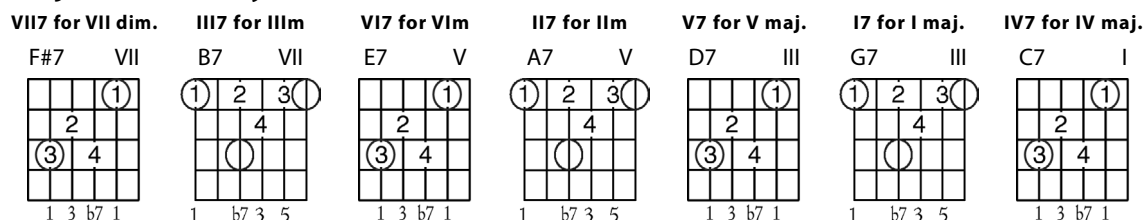
G major scale-tone triads with roots in stepwise order, barre chords



G major scale-tone triads in fourths (7-3-6-2-5-1-4, F#-B-E-A D-G-C), barre chords



G major - secondary dominants



D major scale-tone triads with roots in stepwise order, open position

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
D I	Em I	F#m II	G I	A I	Bm II	C#dim. IV
1 5 1 3	1 5 1 b3 5 1	1 5 1 b3 5 1	1 3 5 1 5 1	1 5 1 3 5	1 5 1 b3 5	1 b5 1 b3

D major scale-tone triads in fourths (7-3-6-2-5-1-4, C#-F#-B-E-A D-G), open position

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
C#dim. IV	F#m II	Bm II	Em I	A I	D I	G I
1 1 b3 b5	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 3 5	1 5 1 3	1 3 5 1 5 1

D major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
D V	Em VII	F#m IX	G III	A V	Bm VII	C#dim. IV
1 5 1 3	1 5 1 b3	1 5 1 b3	1 5 1 3 5 1	1 5 1 3 5 1	1 5 1 b3 5 1	1 b5 1 b3

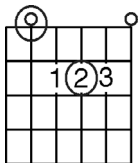
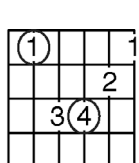
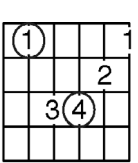
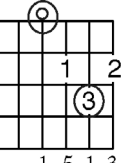
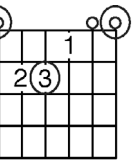
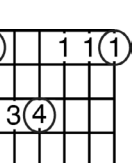
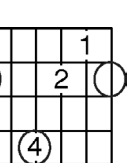
D major scale-tone triads in fourths (7-3-6-2-5-1-4, C#-F#-B-E-A D-G), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
C#dim. VIII	F#m IX	Bm VII	Em VII	A V	D V	G III
1 1 b3 b5	1 5 1 b3	1 5 1 b3 5 1	1 5 1 b3	1 5 1 3 5 1	1 5 1 3	1 5 1 3 5 1

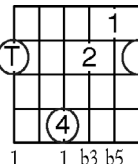
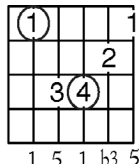
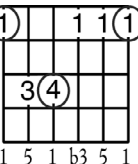
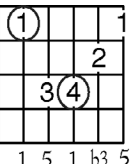
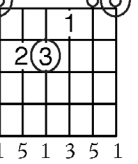
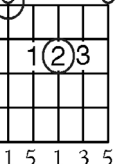
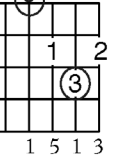
D major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
C#7 IX	F#7 IX	B7 VII	E7 VII	A7 V	D7 V	G7 III
1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	1 b7 3 5

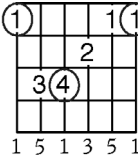
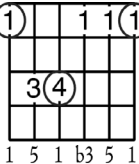
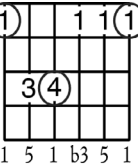
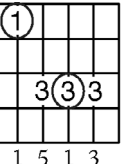
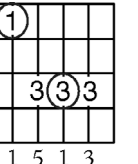
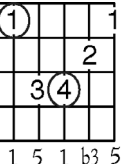
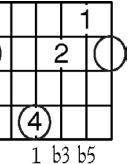
A major scale-tone triads with roots in stepwise order, open position

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
A I	Bm II	C#m IV	D I	E I	F#m II	G# dim. III
						
1 5 1 3 5	1 5 1 b3 5	1 5 1 b3 5	1 5 1 3	1 5 1 3 5 1	1 5 1 b3 5 1	1 1 b3 b5

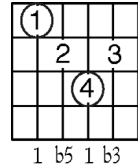
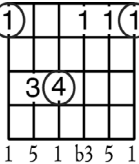
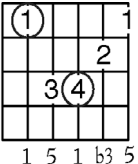
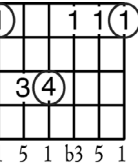
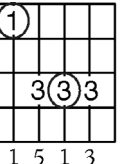
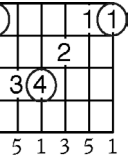
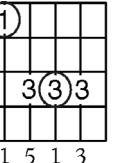
A major scale-tone triads in fourths (7-3-6-2-5-1-4, G#-C#-F#-B-E-A D), open position

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
G# dim. III	C#m IV	F#m II	Bm II	E I	A I	D I
						
1 1 b3 b5	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 3 5 1	1 5 1 3 5	1 5 1 3

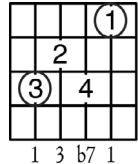
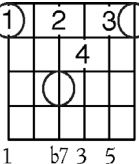
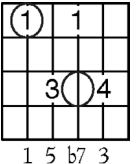
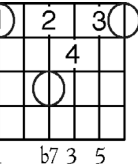
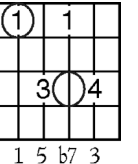
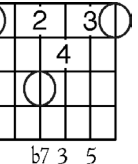
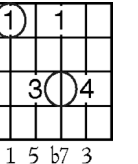
A major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
A V	Bm VII	C#m IX	D V	E VII	F#m IX	G# dim. III
						
1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3	1 5 1 3	1 5 1 b3 5	1 1 b3 b5

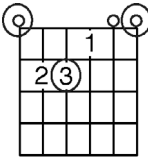
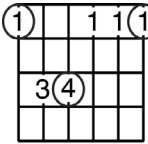
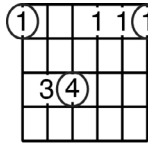
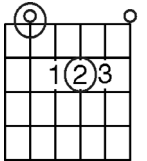
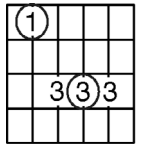
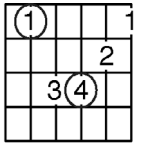
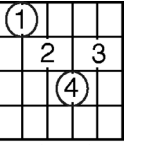
A major scale-tone triads in fourths (7-3-6-2-5-1-4, G#-C#-F#-B-E-A D), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
G# dim. XI	C#m IX	F#m IX	Bm VII	E VII	A V	D V
						
1 b5 1 b3	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 3	1 5 1 3 5 1	1 5 1 3

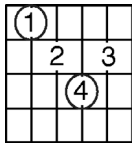
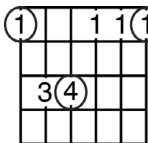
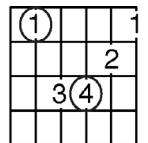
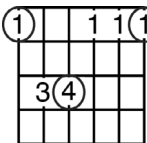
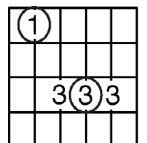
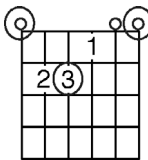
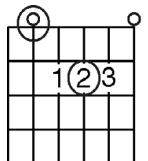
A major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
G#7 IX	C#7 IX	F#7 IX	B7 VII	E7 VII	A7 V	D7 V
						
1 3 b7 1	1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3

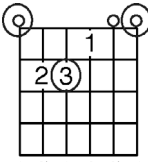
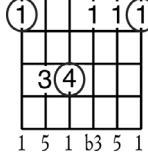
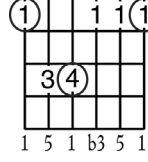
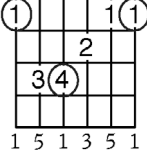
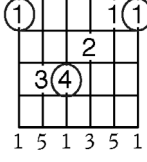
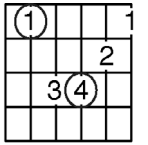
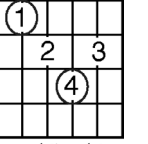
E major scale-tone triads with roots in stepwise order, open position

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
E I	F#m II	G#m IV	A I	B II	C#m IV	D# dim. VI
						
1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3 5	1 5 1 3	1 5 1 b3 5	1 b5 1 b3

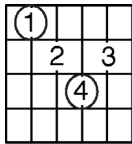
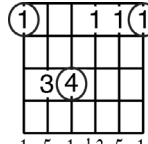
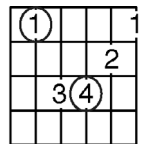
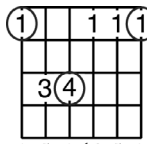
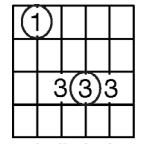
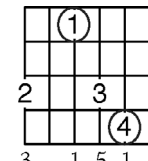
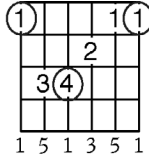
E major scale-tone triads in fourths (7-3-6-2-5-1-4, D#-G#-C#-F#-B-E-A), open position

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
D# dim. VI	G#m IV	C#m IV	F#m II	B II	E I	A I
						
1 b5 1 b3	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 3	1 5 1 3 5 1	1 5 1 3 5

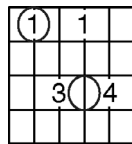
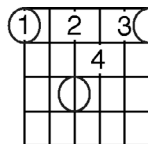
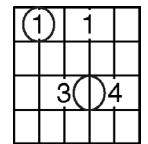
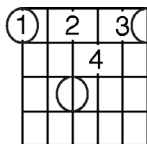
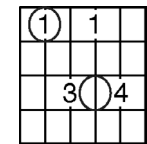
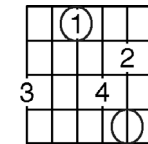
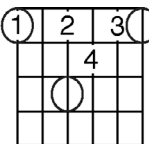
E major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
E I	F#m II	G#m IV	A V	B VII	C#m IV	D# dim. VI
						
1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 3 5 1	1 5 1 b3 5	1 b5 1 b3

E major scale-tone triads in fourths (7-3-6-2-5-1-4, D#-G#-C#-F#-B-E-A), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
D# dim. VI	G#m IV	C#m IV	F#m II	B II	E II	A V
						
1 b5 1 b3	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 3	3 1 5 1	1 5 1 3 5 1

E major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
D#7 VI	G#7 IV	C#7 IV	F#7 II	B7 II	E7 II	A7 V
						
1 5 b7 3	1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	3 1 5 b7	1 b7 3 5

F major scale-tone triads with roots in stepwise order, open position

I F I	IIIm Gm III	IIIIm Am I	IV Bb I	V C I	VIIm Dm I	VII dim. E dim. II

F major scale-tone triads in fourths (7-3-6-2-5-1-4, E-A D-G-C-F-Bb), open position

VII dim. E dim. II	IIIIm Am I	VIIm Dm I	IIIm Gm III	V C I	I F I	IV Bb I

F major scale-tone triads with roots in stepwise order, barre chords

I F I	IIIm Gm III	IIIIm Am V	IV Bb VI	V C VIII	VIIm Dm X	VII dim. E dim. XI
I F I	IIIm Gm III	IIIIm Am V	IV Bb I	V C III	VIIm Dm V	VII dim. E dim. VII

F major scale-tone triads in fourths (7-3-6-2-5-1-4, E-A D-G-C-F-Bb), barre chords

VII dim. E dim. VII	IIIIm Am V	VIIm Dm V	IIIm Gm III	V C III	I F I	IV Bb I

F major - secondary dominants

VII7 for VII dim. E7 VII	III7 for IIIIm A7 V	VI7 for VIIm D7 V	II7 for IIIm G7 III	V7 for V maj. C7 III	I7 for I maj. F7 I	IV7 for IV maj. Bb7 I

Bb major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
Bb I	Cm III	Dm V	Eb VI	F I	Gm III	A dim. IV
1 5 1 3	1 5 1 b3	1 5 1 b3	1 5 1 3	1 5 1 3 5 1	1 5 1 b3 5 1	1 1 b3 b5

Bb major scale-tone triads in fourths (7-3-6-2-5-1-4, A D-G-C-F-Bb-Eb), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
A dim. IV	Dm V	Gm III	Cm III	F I	Bb I	Eb VI
1 1 b3 b5	1 5 1 b3	1 5 1 b3 5 1	1 5 1 b3	1 5 1 3 5 1	1 5 1 3	1 5 1 3

Bb major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
A7 V	D7 V	G7 III	C7 III	F7 I	Bb7 I	Eb7 VI
1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	1 5 b7 3

B major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
B II	C#m IV	D#m VI	E II	F# II	G#m IV	A# dim. V
1 5 1 3	1 5 1 b3	1 5 1 b3	3 1 5 1	1 5 1 3 5 1	1 5 1 b3 5 1	1 1 b3 b5

B major scale-tone triads in fourths (7-3-6-2-5-1-4, A#-D#-G#-C#-F#-B-E), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
A# dim. V	D#m VI	G#m IV	C#m IV	F# II	B II	E II
1 1 b3 b5	1 5 1 b3	1 5 1 b3 5 1	1 5 1 b3	1 5 1 3 5 1	1 5 1 3	3 1 5 1

B major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
A#7 VI	D#7 VI	G#7 IV	C#7 IV	F#7 II	B7 II	E7 II
1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	3 1 5 b7

Eb major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
Eb I	Fm I	Gm III	Ab IV	Bb I	Cm III	D dim. V
3 1 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 3	5 5 1 b3	1 b5 1 b3

Eb major scale-tone triads in fourths (7-3-6-2-5-1-4, D-G-C-F-Bb-Eb-Ab), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
D dim. V	Gm III	Cm III	Fm I	Bb I	Eb I	Ab IV
1 b5 1 b3	1 5 1 b3 5 1	5 5 1 b3	1 5 1 b3 5 1	1 5 1 3	3 1 5 1	1 5 1 3 5 1

Eb major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
D7 V	G7 III	C7 III	F7 I	Bb7 I	Eb7 I	Ab7 IV
1 5 b7 3	1 b7 3 5	1 5 b7 3	1 b7 3 5	1 5 b7 3	3 1 5 b7	1 b7 3 5

Ab major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
Ab I	Bbm I	Cm III	Db I	Eb I	Fm I	G dim. II

Ab major scale-tone triads in fourths (7-3-6-2-5-1-4, G-C-F-Bb-Eb-Ab-Db), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
G dim. II	Cm III	Fm I	Bbm I	Eb I	Ab IV	Db I

Ab major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
G7 III	C7 III	F7 I	Bb7 I	Eb7 I	Ab7 IV	Db7 II

Db major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
Db I	Ebm I	Fm I	Gb II	Ab I	Bbm I	C dim. III
5 3 5 1	b3 1 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 3	1 5 1 b3	1 b5 1 b3

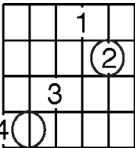
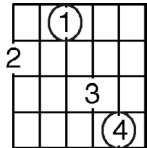
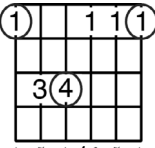
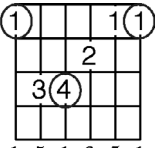
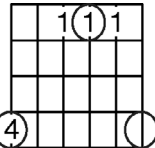
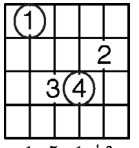
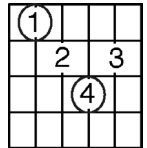
Db major scale-tone triads in fourths (7-3-6-2-5-1-4, C-F-Bb-Eb-Ab-Db-Gb), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
C dim. III	Fm I	Bbm I	Ebm I	Ab IV	Db I	Gb II
1 b5 1 b3	1 5 1 b3 5 1	1 5 1 b3	b3 1 5 1	1 5 1 3 5 1	5 3 5 1	1 5 1 3 5 1

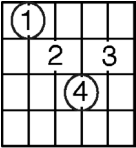
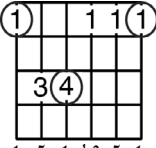
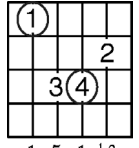
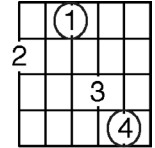
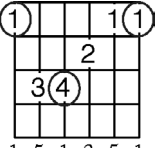
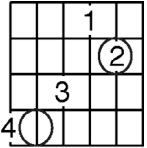
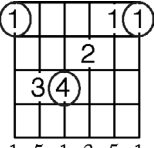
Db major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
C7 III	F7 I	Bb7 I	Eb7 I	Ab7 IV	Db7 II	Gb7 II
1 5 b7 3	1 b7 3 5	1 5 b7 3	3 1 5 b7	1 b7 3 5	1 3 b7 1	1 b7 3 5

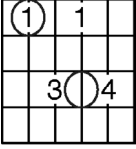
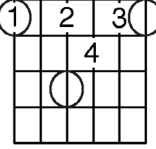
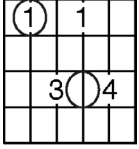
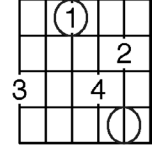
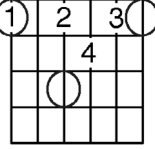
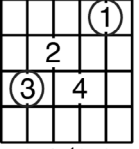
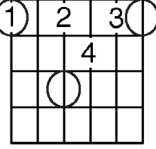
C# major scale-tone triads with roots in stepwise order, barre chords

I	II ^m	III ^m	IV	V	VI ^m	VII dim.
C# I	D# ^m I	E# ^m I	F# II	G# I	A# ^m I	B# dim. III
						
5 3 5 1	b3 1 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 3 5 1	1 5 1 b3	1 b5 1 b3

C# major scale-tone triads in fourths (7-3-6-2-5-1-4, B#-E#-A#-D#-G#-C#-F#), barre chords

VII dim.	III ^m	VI ^m	II ^m	V	I	IV
B# dim. III	E# ^m I	A# ^m I	D# ^m I	G# IV	C# I	F# II
						
1 b5 1 b3	1 5 1 b3 5 1	1 5 1 b3	b3 1 5 1	1 5 1 3 5 1	5 3 5 1	1 5 1 3 5 1

C# major - secondary dominants

VII7 for VII dim.	III7 for III ^m	VI7 for VI ^m	II7 for II ^m	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
B#7 III	E#7 I	A#7 I	D#7 I	G#7 IV	C#7 II	F#7 II
						
1 5 b7 3	1 b7 3 5	1 5 b7 3	3 1 5 b7	1 b7 3 5	1 3 b7 1	1 b7 3 5

F# major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
F# II	G#m IV	A#m I	B II	C# I	D#m I	E# dim. III

F# major scale-tone triads in fourths (7-3-6-2-5-1-4, B-E-A D-G-C-F), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
E# dim. III	A#m I	D#m I	G#m IV	C# I	F# II	B II

F# major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
E#7 III	A#7 I	D#7 I	G#7 IV	C#7 II	F#7 II	B7 II

Gb major scale-tone triads with roots in stepwise order, barre chords

I	IIIm	IIIIm	IV	V	VIIm	VII dim.
Gb II	Abm IV	Bbm I	Cb II	Db I	Ebm I	F dim. III
1 5 1 3 5 1	1 5 1 1 b3 5 1	1 5 1 1 b3 5	1 5 1 3	5 3 5 1	b3 1 5 1	b3 1 b5 b3

Gb major scale-tone triads in fourths (7-3-6-2-5-1-4, B-E-A D-G-C-F), barre chords

VII dim.	IIIIm	VIIm	IIIm	V	I	IV
F dim. III	Bbm I	Ebm I	Abm IV	Db I	Gb II	Cb II
b3 1 b5 b3	1 5 1 b3 5	b3 1 5 1	1 5 1 b3 5 1	5 3 5 1	1 5 1 3 5 1	1 5 1 3

Gb major - secondary dominants

VII7 for VII dim.	III7 for IIIIm	VI7 for VIIm	II7 for IIIm	V7 for V maj.	I7 for I maj.	IV7 for IV maj.
F7 III	Bb7 I	Eb7 I	Ab7 IV	Db7 II	Gb7 II	Cb7 II
3 1 5 b7	1 5 b7 3	3 1 5 b7	1 b7 3 5	1 3 b7 1	1 b7 3 5	1 5 b7 3

Work Progressively Toward the Eight Important Keys

Sharps raise notes by one fret, making them one fret closer to the guitar body. Flats lower notes by one fret, making them one fret closer to the head of the guitar. It is best to work with no sharps or flats first and gradually add them to your memory of fretboard note locations and the note set that makes up each major scale and major key.

Using the procedures below, you will start with no sharps or flats. Then you will progressively add sharps and flats. You will accumulate a memory of the note names the eight keys C, G, D, F, A, Bb, E, Eb (in roughly that order).

Once you memorize chords on steps through six in all of these keys you'll need to complete the set with VII diminished. Its root (the letter-named note that names it) is a half step down (toward the head of the guitar) from "1".

Finally, you will be able to modify your memory of each of those keys to conceive all other keys. For example, C major has all natural notes, so C# major has all notes sharp, Likewise, G major has an "F#", so Gb major has all notes flat, except "F" is natural.

power chords for songs with I, IV, V in C, G, D, A and E

I, IV and V are the three major chords in a major key. They are the basis of songs in a major key, especially in pop music.

To have no sharps or flats, work with I, IV, V chord progressions in the keys of C, G, D, A and E. Here are the names of I, IV and V chords in those keys are shown below. Continue to play versions of I, IV, V songs with the capo as well. Use the [actual and virtual keys with the capo](#) chart as needed.

key	I	IV	V
C	C	F	G
G	G	C	D
D	D	G	A
A	A	D	E
E	E	A	B

barre chords for songs with I, IV, V, VIIm in C, G, D, A and E

Now add barre chords. To have few sharps or flats, work with I, IV, V and VIIm chord progressions in the keys of C, G, D, A and E. Play the same songs with the capo as well. Use the [actual and virtual keys with the capo](#) chart as needed. Two of these keys involve a sharp. The VIIm chord in Here are the names of I, IV and V chords in those keys:

key	I	IV	V	VIIm
C	C	F	G	Am
G	G	C	D	Em
D	D	G	A	Bm
A	A	D	E	F#m
E	E	A	B	C#m

barre chords for songs with I, IIIm, IV, V, VIIm (adding IIIm) In C, G, D, A, E and F

Two accidentals (sharps or flats) are added. Adding the key of F introduces the first flat, “Bb”. Introducing IIIm introduces an “F#” in the key of “E”: “F#m”. Play the same songs with the capo as well. Use the [actual and virtual keys with the capo](#) chart as needed. Here are those chords:

key	I	IIIm	IV	V	VIIm
C	C	Dm	F	G	Am
G	G	Am	C	D	Em
D	D	Em	G	A	Bm
A	A	Bm	D	E	F#m
E	E	F#m	A	B	C#m
F	F	Gm	Bb	C	Dm

barre chords for songs with I through VIIm In C, G, D, A, E, F, Bb and Eb

Up to three accidentals (sharps or flats) are added: F#, C# G# or Bb and Eb. Adding the key of Bb introduces the second flat, “Eb”. Introducing IIIIm introduces a C# in the key of “A” and “G#” in the key of “E”.

key	I	IIIm	IIIIm	IV	V	VIIm
C	C	Dm	Em	F	G	Am
G	G	Am	Bm	C	D	Em
D	D	Em	F#m	G	A	Bm
A	A	Bm	C#m	D	E	F#m
E	E	F#m	G#m	A	B	C#m
F	F	Gm	Am	Bb	C	Dm

TRANSCRIBING TIPS

With Quicktime 7 on Mac or with Windows Media Player on PC, you can slow down the recording. Quicktime 7 can also change the pitch. Other great software applications for this purpose are The Amazing Slow Downer, Anytune and Audacity. To make an instrument part more audible, slow the recording down, isolate the channel that the instrument you are listening for is on (if not in the center), adjust the EQ (equalization or tone). Guitar “pops” out when the lowest frequency bands are off, the mids and upper-mids very high. Sometimes you need to turn down the highest frequency band to reduce white noise.

Transcribing is writing down musical parts by listening. I’m using the term “transcribing” loosely here, since you are not necessarily writing down the musical parts, but trying to get them in mind.

Use your brain’s “buffer” (short term memory). Stop the recording immediately after the note you want to discern. That way, it’s that last thing you heard and your memory won’t be muddled with other notes.

Be able to listen to the music as a whole, made up of the ensemble of instruments. Also, be able to isolate one part. Learn which part is important to track.

In pop music, each chord usually starts with the root in the bass. It is especially effective to track the bass part in your mind when the bass is “pumping” (repeating) each note.

The first chord is not necessarily “I”. Songs don’t necessarily end on “I”.

The key is not necessarily “I”. When it is not, you still have to figure out what the parent major scale is (see [Parent Scale](#)). Back In Black uses I-IV-V of A, but the key is on V.

Notes can occur in different octaves. You may be thinking of the root of the IV chord on the fourth string, instead of the sixth string, then experience some confusion when the root from the I chord on the fifth string goes down in the bass.

The root is not always in the bass. The I chord in the first 15 seconds of you shook me all night long, has it’s fifth in the bass, not the root.

Once you become familiar with the sound of the major scale-tone triads on steps one through six, you can hear a bass note and imagine the rest of the chord as major (happy) or minor (sad) as it occurs in the scale.

ROMAN NUMERALS AND SLASHES

When a chord name is followed by a slash and a letter name, it specifies a bass note for the chord. C7/G specifies a C7 chord with “G” in the bass. The bass note doesn’t have to be in the chord specified before the slash. For example, F/G indicates an F chord with “G” in the bass, while “G” is not part of the F chord. Chords can also be represented with Roman numerals showing on which step of a major scale based on the key the root of the chord occurs. See [“Chords with a Specified Bass Note”](#) below.

Roman numerals are also used to the upper right of chord diagrams to indicate the fret number of the top fret on the diagram. You can see examples of those in the earlier [Scale-Tone Chord Progression](#) section, along with Roman numerals to indicate the steps of the scale.

Slashes are also used to indicate beats of a chord on a staff. See [“Slashes to Indicate Beats of a Chord on a Staff”](#).

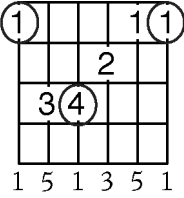
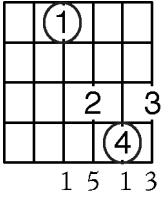
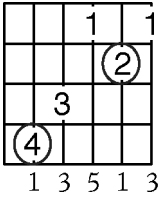
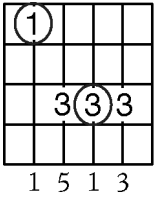
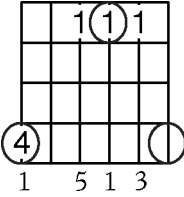
Chord Root

Determine the key you wish to play a piece of music in and assign that note name the number “1”. Each roman numeral and any flat or sharp that may precede it names the root of a chord. Use the transposing table below to identify the letter name the chord root.

transposing table

key ↓	I	#I	bII	II	#II	bIII	III	IV	#IV	bV	V	#V	bVI	VI	#VI	bVII	VII
A	A	A#	Bb	B	B#	C	C#	D	D#	Eb	E	E#	F	F#		G	G#
Bb	Bb	B	Cb	C	C#	Db	D	Eb	E	Fb	F	F#	Gb	G	G#	Ab	A
B	B	B#	C	C#		D	D#	E	E#	F	F#		G	G#		A	A#
C	C	C#	Db	D	D#	Eb	E	F	F#	Gb	G	G#	Ab	A	A#	Bb	B
Db	Db	D		Eb	E	Fb	F	Gb	G		Ab	A		Bb	B	Cb	C
D	D	D#	Eb	E	E#	F	F#	G	G#	Ab	A	A#	Bb	B		C	C#
Eb	Eb	E	Fb	F	F#	Gb	G	Ab	A		Bb	B	Cb	C	C#	Db	D
E	E	E#	F	F#		G	G#	A	A#	Bb	B	B#	C	C#		D	D#
F	F	F#	Gb	G	G#	Ab	A	Bb	B	Cb	C	C#	Db	D	D#	Eb	E
F#	F#		G	G#		A	A#	B	B#	C	C#		D	D#		E	E#
Gb	Gb	G		Ab	A		Bb	Cb	C		Db	D		Eb	E	Fb	F
G	G	G#	Ab	A	A#	Bb	B	C	C#	Db	D	D#	Eb	E	E#	F	F#

Reference each chord by the lowest-pitched root, which will always be on strings six, five or four. Categorize the roots on each of these strings as being low-pitched or high-pitched. Low-pitch versions would be fretted with your first or second finger. High-pitch versions would be fretted with your third or fourth finger. Think of the [octave shapes](#) used to designate the chord roots in these five categories:

octave shape	major chord example	low-octave root on	think as	finger root with
E form		sixth	sixth low (low-pitched)	index or middle
D form		sixth	sixth low (low-pitched)	index or middle
C form		sixth	sixth low (low-pitched)	index or middle
A form		sixth	sixth low (low-pitched)	index or middle
G form		sixth	sixth low (low-pitched)	index or middle

Chord Quality

In the chord name “bVII^{ma}7b5”, the chord root is “bVII”. The remainder of the chord name “ma7b5” refers to the *quality* of the chord. *If there is nothing in the chord name after the roman numeral, the quality is major.*

Look up chord fingerings on in [Fingering Common Chords](#) for movable chords which have the roots of the chords circled. Each movable chord can be played on any root by moving it up and down the neck.

Chords with a Specified Bass Note

Chord names ending with a forward slash (/) followed by an Arabic numeral (1, 2, 3, 4, etc.) indicate a specific note in the bass. The Arabic numeral may be preceded by a sharp or flat, such as “b7” (as would appear in I/b7, for example). To identify the bass note, you must think in the major scale of the *chord* root, not the key. Use the [transposing table](#) shown earlier to identify the letter name the chord root.

To avoid ambiguity, “add tone” chord names should not use a forward slash. In other applications of music notation, “G add 9” can be written “G/9”, but should be written “G add 9” to avoid confusion.

Slashes to Indicate Beats of a Chord on a Staff

In academic or professional band charts, forward slashes are also used in place of standard notes to indicate rhythms with which chords are played. This is an entirely different use of the slash (see chords with a specified bass note earlier),

slashes indicating whole beats



slashes indicating specific rhythms

full band

13 F♯9 (5 bass) G9 (5 bass)

17 Gm9 (5 bass) C7(b5) F♯9 (5 bass)

Time Signatures

Time signatures are shown at the beginning of a piece of music to indicate the number of beats per measure and the value of the whole note. The top number indicates the number of beats per measure. For more information, see [Rhythmic Reading](#).

Dividing the Music into Bars

In this system of chords by roman numeral, vertical lines (“|”, called a “pipe” in typography) indicate the end of each bar. In the example below, eight bars of music are shown. Notice that is arranged with four bars per line, which shows standard musical form. Notice the time signature at the beginning.

4/4	| IIm7	| V7	| Ima7	| I7	|
	| IV7	| #IV°7	| Ima7	| V7	|

If, at the end of a line of chords by shown roman numeral, there is no vertical line, assume the last bar should end anyway. So, the example below indicates the same thing as the example above.

4/4	| IIm7	| V7	| Ima7	| I7
	| IV7	| #IV°7	| Ima7	| V7

Subdividing Bars

When more than one chord occurs in a bar, each chord name represents one beat for that chord and a forward slash (“/”) is shown after the chord name for each additional beat. In the second bar, beat one is “V7”, beat two continues “V7” (indicated with the slash), beat three is IIm7b5 and beat four is V7b9.

In bar three below, two chord names are shown. Divide the bar in half when no other indication is given. In bar seven, the “Ima7” gets three beats and the “I6” gets one beat, giving one beat to Ima7 for its name and two additional for each forward slash.

4/4	| IIm7	| V7 / IIm7b5 V7b9	| Ima7	I6	| I7
	| IV7	| #IV°7	| Ima7 / / I6	| V7	

“Pushes”

When the either symbol “<” or “^” is shown before a chord name, that chord is to be played one half beat early. In the example below, the second chord in the first, second and fourth bars is on the “and after 2”, pushing three by playing a half beat early.

	| 1 + 2 + 3 + 4 +	| 1 + 2 + 3 + 4 +	| 1 + 2 + 3 + 4 +	| 1 + 2 + 3 + 4 +
4/4	| G / ^ A /	| F / ^ Em /	| G / A /	| F / ^ Em /

Pairs of Eighths

In the rare occasion that two chords are played on the same beat for a half beat each, the two chords are marked with an underline that contains both of them: each). The example below indicates “IV” on the first half of beat four and “V” on the last half of beat 4.

4/4 | I / / IV V |

Left and Right Repeat Signs

As in standard music notation, repeat signs indicate a section is played twice. Chord names can be in letter name version or roman numerals, making no difference in the effect of the repeats.

The symbol “||:” is the left repeat shown at the beginning of the repeated section. The symbol “:||” is shown at the end of the repeated section. See the example below, where four bars are to be played twice.

||: I | IV | bVII6 | I :||

When more repetitions are needed, it can be indicated in text. This examples tells us to play the four bars four times.

4X: ||: C | Bb | F6 | Bb :||

“In the Key Of”

Sometimes a section of a song involves a chord progression which would be simple to express in another key, yet would require many flat or sharp chord root names to express it in the main key. In this case, the secondary key is referred to as “in the key of” followed by a roman numeral (which may be preceded by a flat or sharp).

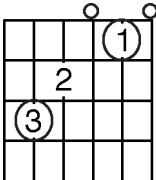
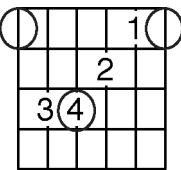
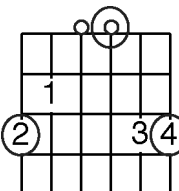
Determine the name of the keynote (tone center) for the secondary key. The chord names that follow (“in the key of”) are calculated in relation to a major scale with the keynote of the second key as “1”. If the song returns to the original key, it will then say “in the original key”.

I-IV-V SONGS

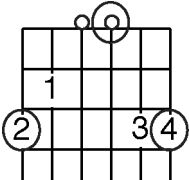
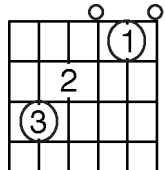
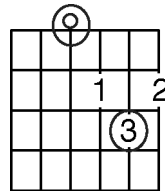
preview the chords

Starting with I, IV and V, each section of this study adds a chord. Play the chords involved for each section.

key of C

I major	IV major	V major
C I	F I	G I
		
1 3 5 1 3	5 1 3 5	1 3 5 1 5 1

key of G

I major	IV major	V major
G I	C I	D I
		
1 3 5 1 5 1	1 3 5 1 3	1 5 1 3

Stir It Up Style

audio example

key of A (original key)

full song | A | A | D | E |

key of C, capo IX (see [keys with the capo](#))

full song | C | C | F | G |

key of G, capo II (see [keys with the capo](#))

full song | G | G | C | D |

Dead Flowers Style

audio example

key of C, capo II (see [keys with the capo](#))

verse 4X: ||: C | G | F | C :||

chorus ||: G | G | C | C :||

 | F | F | C | C |

 | C | G | F | C |

key of G, capo VII (see [keys with the capo](#))

verse 4X: ||: G | D | C | G :||

chorus ||: D | D | G | G :||

 | C | C | G | G |

 | G | D | C | G |

D major (original key)

verse 4X: ||: D | A | G | D :||

chorus ||: A | A | D | D :||

 | G | G | D | D |

 | D | A | G | D |

I Would Walk 500 Miles style

audio example

key of C, capo IV (see [keys with the capo](#))

intro (0:00-0:11) | C | C | C | C |
verse (0:11-0:40) 4X: ||: C | C | F G | C :||
chorus (0:40-end) ||: C | C | F | G :|| C | C | C | C |

key of G, capo IX (see [keys with the capo](#))

intro (0:00-0:11) | G | G | G | G |
verse (0:11-0:40) 4X: ||: G | G | C D | G :||
chorus (0:40-end) ||: G | G | C | D :|| G | G | G | G |

key of E, power chord or barre (original key)

intro (0:00-0:11) | E | E | E | E |
verse (0:11-0:40) 4X: ||: E | E | A B | E :||
chorus (0:40-end) ||: E | E | A | B :|| E | E | E | E |

Good Lovin' Style

audio example

key of C, capo II (see [keys with the capo](#))

throughout: ||: C F | G :||

key of G, capo VII (see [keys with the capo](#))

throughout: ||: G C | D :||

key of D, power chord or barre (original key)

throughout: ||: C F | G :||

La Bamba style

audio example

key of C, capo II (see [keys with the capo](#))

throughout: ||: C F | G :||

key of G, capo VII (see [keys with the capo](#))

throughout: ||: G C | D :||

key of D, [power chord or barre](#) (original key)

throughout: ||: C F | G :||

Twist And Shout Style

key of A (original key)

whole song, except interlude on E: | A D | E |

key of C, capo IX (see [keys with the capo](#))

whole song, except interlude on G: | C F | G |

key of G, capo II (see [keys with the capo](#))

whole song, except interlude on D: | D G | A |

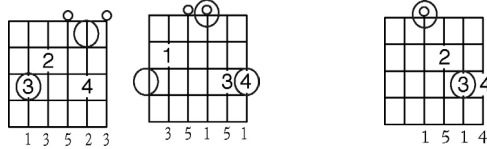
You Shook Me All Night Long Style

original key of G

intro

verse

play these four bars three time during the verse



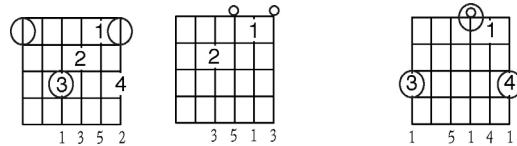
chorus

key of C, capo VII (see [keys with the capo](#))

intro

verse

play these four bars three time during the verse



chorus

I-IV-V SONGS WITH THE KEY ON V (4 KEYS)

figure out the **parent scale**

Songs in this section that have the key on “V”. Knowing the key is on “V” of a hypothetical major scale (parent major scale), you will need to figure out what major scale it came from (I). It’s a sort of reverse construction. If the key is G and the key is on V, then the parent scale is “C”. Here is a list of the keys on V and their parent scales:

key on V	parent scale
Ab	Db
A	D
Bb	Eb
B	E
C	F
C#	F#
Db	Gb
D	G
Eb	Ab
E	A
F	Bb
F#	B
Gb	Cb
G	C

the fretboard method of finding the **parent scale** for V

Find the note that names the key on the sixth string. The note that names the parent scale is on the same fret of the fifth string.

the perfect fourth method of finding the **parent scale** for V.

Whatever note names the key, the note that names the parent scale is the next note in the series of perfect fourths (think “BEAD Go Catch Fish”):

B# E# A# D# G# C# F# B E A D G C F Bb Eb Ab Db Gb Cb Fb

This order of fourths (above) is BEADGCF three times, once with sharps, then naturals (no sharps nor flats), then with flats. So, the key of D on V would be the [parent scale](#) G. The key of F on V would be the [parent scale](#) Bb.

Dear Mr. Fantasy Verse Style

parent scale D major, key of A (original key)

verse | A | G | D | A |

parent scale C major, key of G, capo II (see [keys with the capo](#))

verse | G | F | C | G |

parent scale G major, key of D, capo VII (see [keys with the capo](#))

verse | D | C | G | D |

Back in Black Chorus Style

parent major scale A, key of E (original key)

chorus | E D | A |

parent major scale C, key of G, capo IX (see [keys with the capo](#))

chorus | G F | C |

parent major scale G, key of D, capo II (see [keys with the capo](#))

chorus | D C | G |

Sweet Child o' Mine verse style

parent major scale G, key of D (original key)

verse | D | C | G | D |

parent major scale C, key of G, capo VII (see [keys with the capo](#))

verse | G | F | C | G |

parent major scale G, key of D, capo XII (see [keys with the capo](#))

intro | D | C | G | D |

Satisfaction Chorus Style

parent major scale A, key of E (original key)

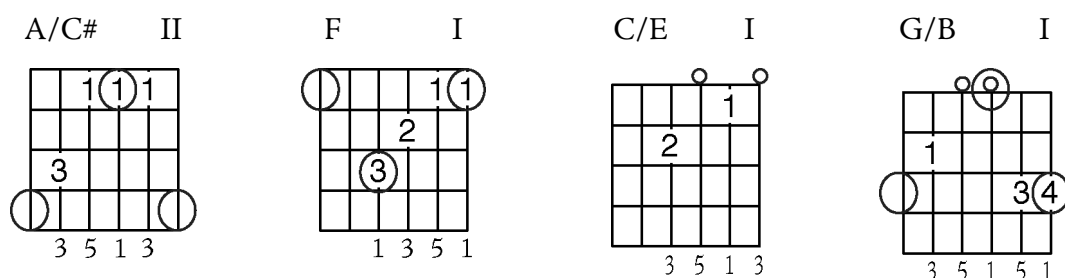
chorus | E | D A/C# |

parent major scale C, key of G, capo IX (see keys with the capo)

chorus | G | F C/E |

parent major scale G, key of D, capo II (see keys with the capo)

chorus | D | C G/B |



Hard Sun Style

parent major scale G, key of D, capo I (see keys with the capo)

verse | D | D | C | C | G | G | D | D |

chorus | D | D | Am | Am | G | G | D | D |

parent major scale C, key of G, capo VIII (see keys with the capo)

verse | G | G | F | F | C | C | G | G |

chorus | G | G | Dm | Dm | C | C | G | G |

parent major scale Ab, key of Eb, original key

verse | Eb | Eb | Db | Db | Ab | Ab | Eb | Eb |

chorus | Eb | Eb | Bbm | Bbm | Ab | Ab | Eb | Eb |

Sweet Home Alabama Style

parent major scale G, key of D (original key)

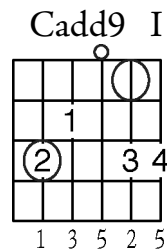
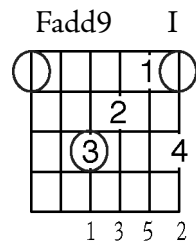
verse | D Cadd9 | G |

parent major scale C, key of G, capo VII (see [keys with the capo](#))

verse | G Fadd9 | C |

parent major scale G, key of D, capo XII (see [keys with the capo](#))

intro | D Cadd9 | G |



Hey Jude Ending Style

parent major scale C, key of G, capo I (see [keys with the capo](#))

ending | G | F | C | G |

parent major scale G, key of D, capo VIII (see [keys with the capo](#))

ending | D | C | G | D |

parent major scale Bb, key of F, original key

ending | F | Eb | Bb | F |

Can't You Hear Me Knocking Verse Style

parent major scale G, key of D (original key)

verse | C | C | D | D | C | C | G | D |

parent major scale C, key of G, capo VII (see [keys with the capo](#))

verse | F | F | G | G | F | F | C | G |

parent major scale G, key of D, capo XII (see [keys with the capo](#))

verse | C | C | D | D | C | C | G | D |

With A Little Help From My Friends Ending Chorus Style

parent major scale A, key of E (original key)

chorus | E D | A |

parent major scale C, key of G, capo IX (see [keys with the capo](#))

chorus | G F | C |

parent major scale G, key of D, capo II (see [keys with the capo](#))

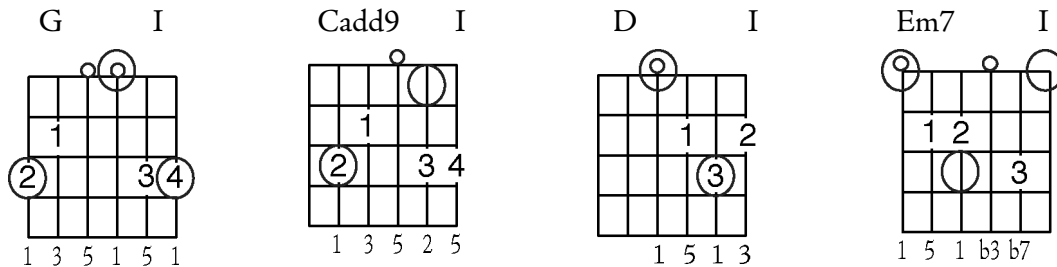
chorus | D C | G |

I-IV-V-VIm SONGS

Face Down Style

parent scale G major, key of Em, capo IV (see [keys with the capo](#))

verse | Em7 | Cadd9 | G | D |



21 Guns Style

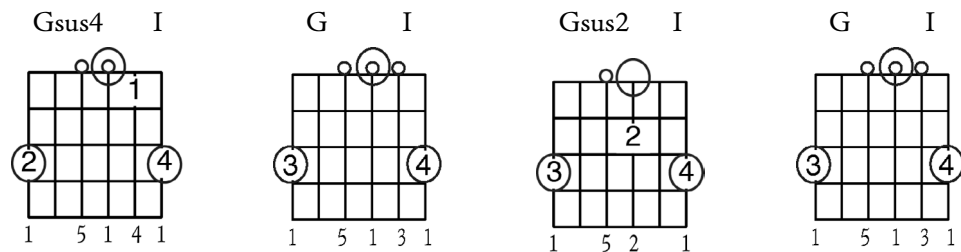
key of C, capo V (see [keys with the capo](#))

verse: 3X ||: Am | F | C | G :|| F (hold) | (hold) | (hold) | (hold) G |

chorus: 2X: ||: C | G/B | Am | G | F C | G :||, F C | G |

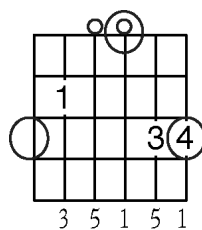
dramatic verse: | Am | F | C | G | Am | F | C | E |

| Am | F | C | G | Am | F | Gsus4 | G | Gsus2 | G |



solo (same as chorus with different ending (instead of F C G): | F | C | E | E |

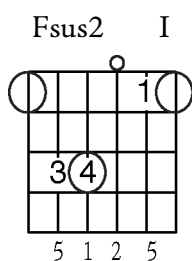
G/B (I/3) I



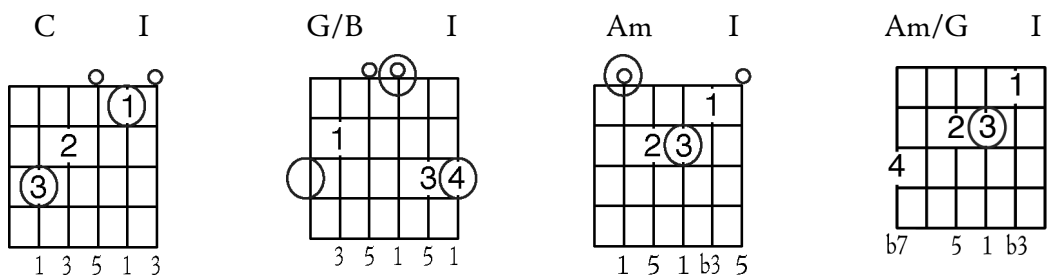
Home (Phillip Phillips) Verse style

key of C (original key)

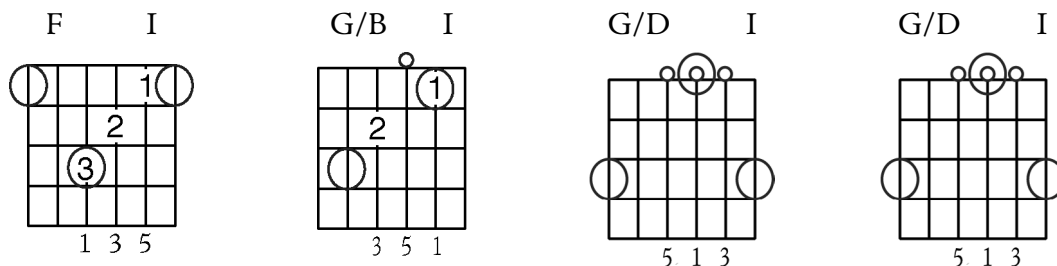
intro ||: C | Fsus2 :||
 verse 4X ||: C | Fsus2 :||
 | Am | C | C | Fsus2 |
 | C G/B Am Am/G | Am | 2/4 Am |
 (4/4) | F C/E G/D G/D | C | C ||



first one-chord-per-beat progression



second one-chord-per-beat progression



Little Talks Style

key of C, capo I (see [keys with the capo](#))

verse | Am | F | C | G |

key of G, capo VI (see [keys with the capo](#))

verse | Em | C | G | D |

Stand by Me Style

key of G, capo II (see **keys with the capo**)

verse ||: G | G | Em | Em | C | D | G | G :||

The image displays a musical score for the song "The Sound of Silence" by Simon & Garfunkel. It is presented in a two-system format, with the first system covering measures 1 through 4 and the second system covering measures 5 through 8. The score is written for guitar and bass, with a treble clef and a key signature of one sharp (F#).

System 1 (Measures 1-4):

- Measure 1:** Treble clef, F#4, 4/4 time. Notes: G4 (quarter), A4 (quarter). Fingering: 0, 3. Chord: G.
- Measure 2:** Treble clef, F#4, 4/4 time. Notes: G4 (quarter), A4 (quarter). Fingering: 0, 3. Chord: G.
- Measure 3:** Treble clef, F#4, 4/4 time. Notes: G4 (quarter), A4 (quarter). Fingering: 0, 3. Chord: G.
- Measure 4:** Treble clef, F#4, 4/4 time. Notes: G4 (quarter), A4 (quarter). Fingering: 0, 3. Chord: G.

System 2 (Measures 5-8):

- Measure 5:** Treble clef, F#4, 4/4 time. Notes: G4 (quarter), A4 (quarter). Fingering: 0, 3. Chord: G.
- Measure 6:** Treble clef, F#4, 4/4 time. Notes: G4 (quarter), A4 (quarter). Fingering: 0, 3. Chord: G.
- Measure 7:** Treble clef, F#4, 4/4 time. Notes: G4 (quarter), A4 (quarter). Fingering: 0, 3. Chord: G.
- Measure 8:** Treble clef, F#4, 4/4 time. Notes: G4 (quarter), A4 (quarter). Fingering: 0, 3. Chord: G.

The score includes a guitar tab (G) and a bass tab (B) for each measure. The guitar tab is written on a six-line staff, and the bass tab is written on a four-line staff. The guitar tab includes fret numbers (0, 3, 4) and a bar line. The bass tab includes fret numbers (0, 3, 4) and a bar line.

G major scale

letter names G A B C D E F# G

TAB 3 0 2 3 0 2 4 0

How Sweet It Is Style

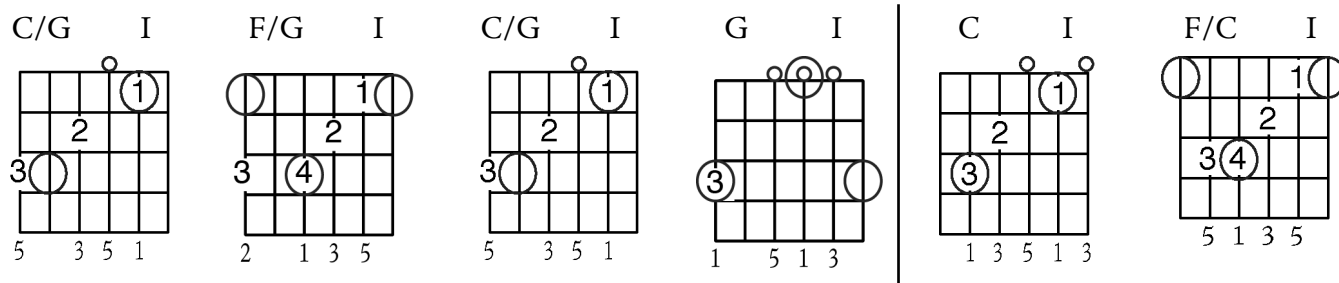
C major, open (original key)

intro/chorus ||: F | C/G F/G C/G G | C F/C C F/C | C F/C C F/:||

verse ||: C | Am | G | F :||

bridge 4X ||: C | F :||

repeat intro/chorus



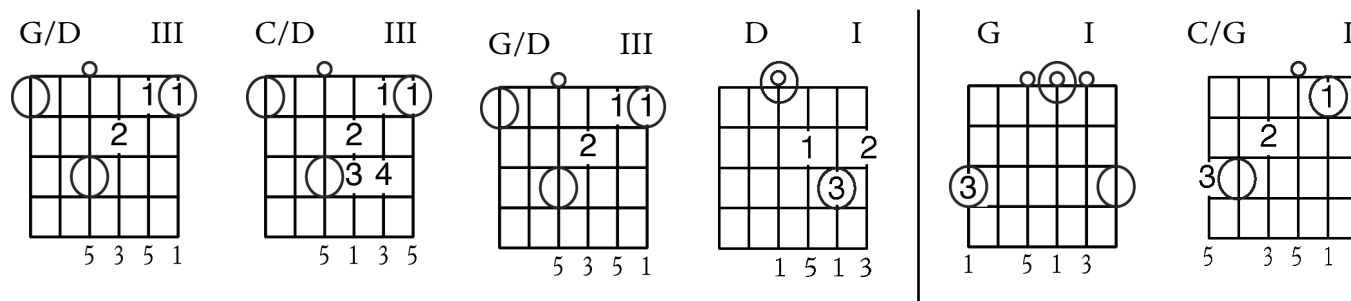
key of G, capo V (see keys with the capo)

vintro/chorus ||: C | G/D C/D G/D D | G C/G G C/G | G C/G G C/G :||

verse ||: G | Em | C | D :||

bridge 4X ||: G | F :||

repeat intro/chorus



Flake Style

key of C, capo V (see [keys with the capo](#))

verse 3X: ||: Am | C | F | C :||, Am | C | F | G |
 bridge | C | G | Am | E | F | G | C | G |

key of G, capo X (see [keys with the capo](#))

verse 3X: ||: Em | G | C | F :||, Em | G | C | D |
 bridge | G | D | Em | B7 | C | D | G | D |

F major (original key)

verse 3X: ||: Dm | F | Bb | F :||
 bridge | F | C | Dm | A | Bb | C | F | C |

Brown-Eyed Girl Style

key of G, open

intro ||: G | C | G | D :||
 verse 4X: ||: G | C | G | D :|| C | D |
 chorus | G | Em | C | D | G | D |
 repeat verse
 bridge | D | D ||: G C | G D :|| G | G |
 bass solo | G | G | G | C | G | D |
 repeat verse, chorus, bridge, end on “G”

key of C, capo VII (see [keys with the capo](#))

intro ||: C | F | C | G :||
 verse 4X: ||: C | F | C | G :|| F | G |
 chorus | C | Am | F | G | C | G |
 repeat verse
 bridge | G | G ||: C F | C G :|| C | C |
 bass solo | C | C | C | F | C | G |
 repeat verse, chorus, bridge, end on “C”

Under the Boardwalk Style

G major (original key), open position

verse | G | G | D | D | D | D | G | G |
 | C | C | G | G | G | D | G | G |
 bridge ||: Em | Em | D | D :|| Em | Em ||

key of C, capo VII (see [keys with the capo](#))

verse | C | C | G | G | G | G | C | C |
 | F | F | C | C | C | G | C | C |
 bridge ||: Am | Am | G | G :|| Am | Am ||

D'Yer Ma'Ker Style

C major (original key)

verse 3X: ||: C | Am | F | G :||, Am (hold 2 bars)
 bridge 3X: ||: Am | Am | G | G :||, F (hold 2 bars) | G (hold 2 bars) |

key of G, capo V (see [keys with the capo](#))

verse 3X: ||: G | Em | C | D :||, Em (hold 2 bars)
 bridge 3X: ||: Em | Em | D | D :||, C (hold 2 bars) | D (hold 2 bars) |

Waiting On The World To Change Style

key of C, capo II (see [keys with the capo](#))

verse ||: C Am | F C | G Am | F C :||
 bridge | C Dm | Am Dm | G Am | F C |

key of G, capo VII (see [keys with the capo](#))

verse ||: G Em | C G | D Em | C G :||
 bridge | G Am | Em Am | D Em | C G |

D major (original key)

verse ||: D Bm | G D | D Bm | C G :||
 bridge | D Em | Bm Em | D Bm | C G |

Peace Train Style

“^” indicates that a chord is played a half beat early

C major (original key), open position

| C / ^F C | C | F / ^G F | F |
| F / ^G Am | Am | F / ^G F | F |

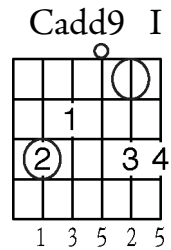
key of G, capo V (see [keys with the capo](#))

| G / ^C G | G | C / ^D C | C |
| C / ^D Em | Em | C / ^D C | C |

Time Of Your Life Style

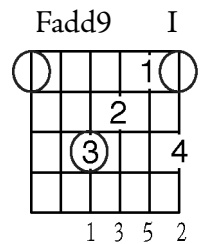
key of G, open (original key)

intro ||: G | G | Cadd9 | D :||
verse ||: G | G | Cadd9 | D :||
 ||: Em | D | C | G :||
chorus | Em | G | Em | G | Em | D ||



key of C, capo VII (see [keys with the capo](#))

intro ||: C | C | Fadd9 | G :||
verse ||: C | C | Fadd9 | G :||
 ||: Am | G | F | C :||
chorus | Am | C | Am | C | Am | G ||



Wonderful Tonight Style

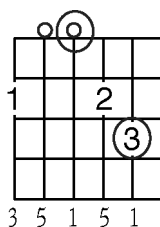
G major (original key), open position

verse | G | D/F# | C/E | D/F# |

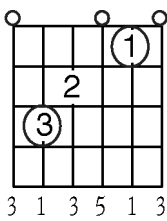
key of C, capo VII (see [keys with the capo](#))

verse | C | G/B | F/A | G/B |

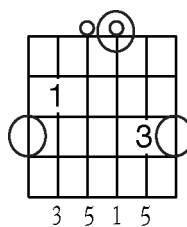
D/F# I



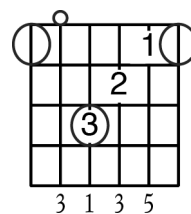
C/E I



G/B I



F/A I



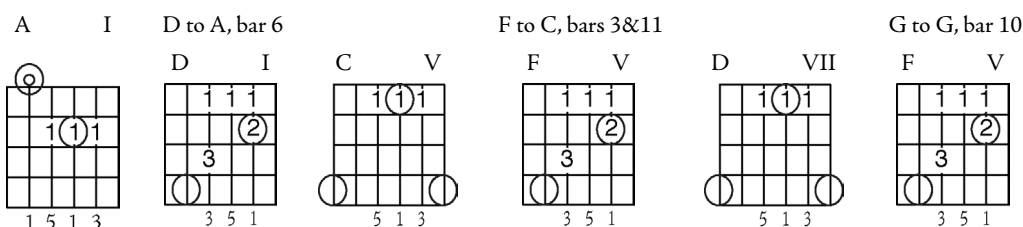
I-IIIm-IV-V-VIm SONGS

Honky Tonky Women Style

key of G (original key)

verse | G | G | C // F | C |
G	A DA	D // G	D
G	G	C // F	C
G	D GD	G	G

chorus ||: G | D | G | G :||



One (U2) Style

parent major scale C, key of Am (original key)

verse ||: Am | Am | D | D | F | F | G | G :||

chorus ||: C | C | Am | Am | F | F | C | C :||

repeat verse, chorus, verse, chorus

bridge ||: C | C | Am | Am :|| C | C | G | G | F | F |

repeat chorus and end on C

parent major scale G, capo V (see [keys with the capo](#))

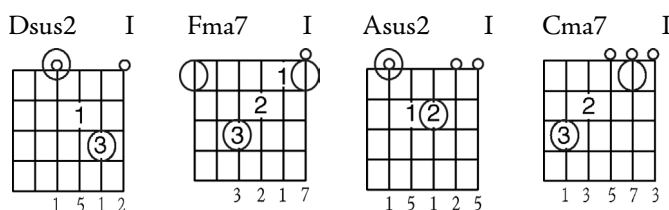
verse ||: Em | Em | A | A | C | C | D | D :||

chorus ||: G | G | Em | Em | C | C | G | G :||

repeat verse, chorus, verse, chorus

bridge ||: G | G | Em | Em :|| G | G | D | D | C | C |

repeat chorus and end on G



Redemption Song Style

key of G, open position (original key) (see [keys with the capo](#))

verse 3X: ||: G | Em | C C/B | Am :|| G | Em | C C/B | D/A |

chorus 1 ||: G | C D :|| Em | C D ||: G | C D :||

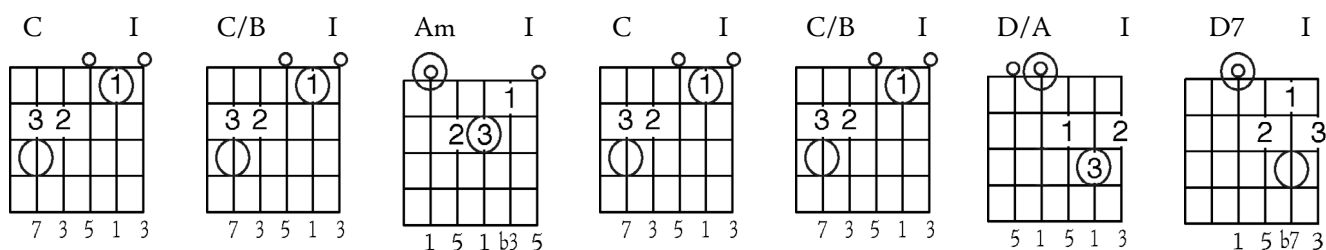
repeat verse

chorus 1 ||: G | C D :|| Em | C D |, 3X: ||: G | C D :||

interlude 4X: ||: Em | C D :||

repeat verse

ending ||: Em | C D :|| G | C D | G | C C/B | Am | D7 ||



Soul To Squeeze Style

key of C, capo V (see [keys with the capo](#))

intro eight bars of A

verse ||: C ^G | Am ^F | Am C | ^G / ^Dm ^F :||

F major (original key)

eight bars of A

verse ||: F ^C | Dm ^Bb | Dm F | ^C / ^Gm ^Bb :||

Soul To Squeeze Style jazz Voicings

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
I6	V	VIIm7	IVma7	VIIm7	I6	V	IIIm7
F6 I	C III	Dm7 III	Bbma7 I	Dm7 III	F6 I	C III	Gm7 III

F major parent scale-tone chords

Ima7	IIIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5	Ima7
Fma7 I	Gm7 III	Am7 V	Bbma7 VI	C7 VIII	Dm7 X	Em7b5 XI	Fma7 XIII

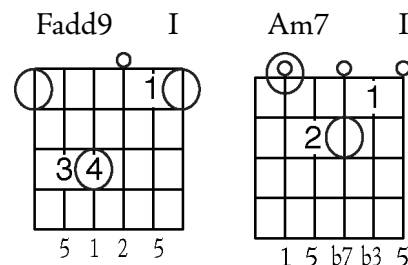
Ima7	IIIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5	Ima7
Fma7 VIII	Gm7 X	Am7 XII	Bbma7 I	C7 III	Dm7 V	Em7b5 VII	Fma7 VIII

I THROUGH VI^m SONGS

When You Were Young verse style

C major parent scale, key of Am (original key)

verse ||: Fadd9 | G Am | C | Fadd9 :||



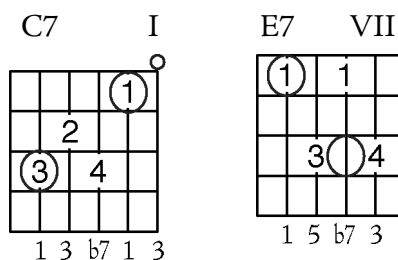
All I Have To Do Is Dream Style

key of C, capo IV (see keys with the capo)

intro & verse 3X: ||: C Am | F G :|| C F | C C7 |
 bridge | F | Em | Dm | C C7 |
 | F | Em | D | G |

key of E (original key)

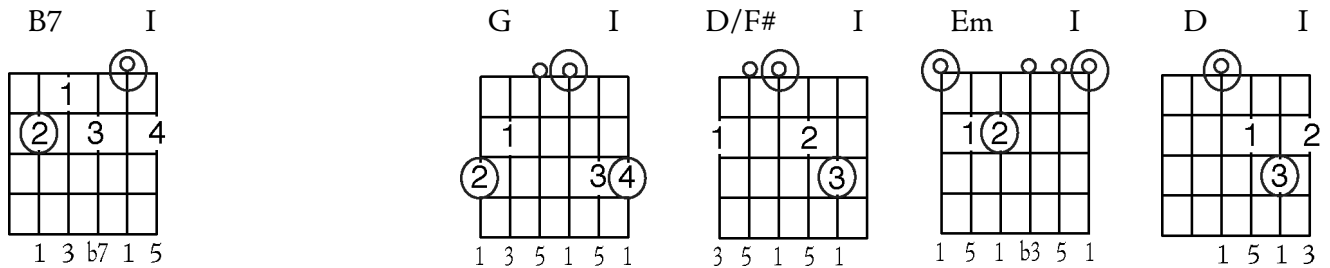
intro & verse 3X: ||: E C#m | A B :|| , then | E A | E E7 |
 bridge | A | G#m | F#m | E E7 |
 | A | G#m | F#m | B |



Billionaire intro Verse Style

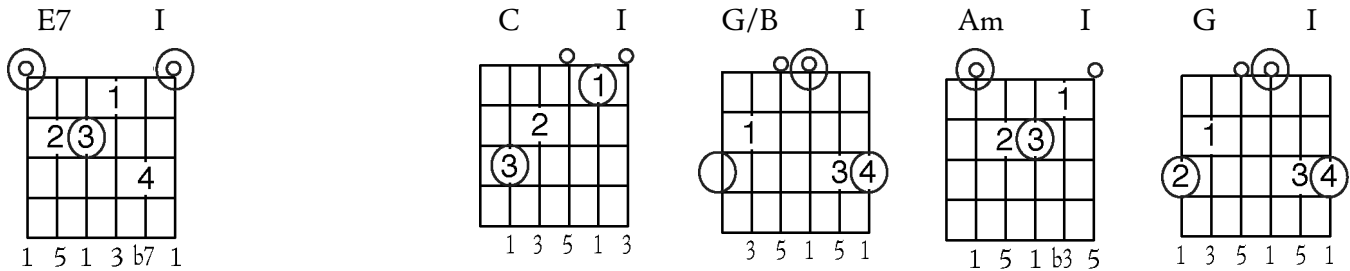
key of G, capo II (see [keys with the capo](#))

verse ||: G | G | B7 | B7 | Em | Em | D | D :||
 chorus ||: C | D | Em | Em :||
 | C | D | G D/F# | Em D | C | C | B7 | B7 | Em (break)|



key of C, capo IX (see [keys with the capo](#))

verse ||: C | C | E7 | E7 | Am | Am | G | G :||
 chorus ||: F | G | Am | Am :||
 | F | G | C G/B# | Am G | F | F | E | B7 | Am (break)|



Billionaire Style jazz Voicings - E Form

intro verse

bar 1 I6 A6 VII

 1 6 3 5

bar 2 III7 C#7 IV

 1 5 b7 3

bar 3 VIIm7 F#m7 II

 5 1 b3 b7

bar 4 V7 E7 I

 5 1 3 b7

bridge

bar 1 IV6 D6 IV

 1 5 6 3

bar 2 V7 E7 V

 1 3 b7 1

bar 3-4 VIIm7 F#m7 VI

 b7 b3 5 1

bar 5 IV6 D6 IV

 1 5 6 3

bar 6 V7 E7 V

 1 3 b7 1

bar 7-8 VIIm7 F#m7 VI

 b7 b3 5 1

bar 9 IV6 D6 IV

 1 5 6 3

bar 10 V7 E7 V

 1 3 b7 1

bar 11 IV6 Ama7 VII

 1 5 7 3

bar 12 V7 G#m7b5 VI

 1 b5 b7 b3

bar 13 VIIm7 F#m7 IV

 1 5 b7 b3

bar 13 V7 E7 V

 1 5 b7 3

bar 13 IV6 D6 IV

 1 5 6 3

bar 13 III7 C#7 IV

 1 5 b7 3

bar 15-16 VIIm7 F#m7 VI

 b7 b3 5 1

A major parent scale-tone chords with alternates below

IIm7 Bm7 VII

 1 b7 b3 5

IIIIm7 C#m7 IV

 1 5 b7 b3

IVma7 Dma7 V

 1 5 7 3

V7 E7 V

 1 3 b7 1

VIIm7 F#m7 VI

 b7 b3 5 1

VIIIm7b5 G#m7b5 VI

 b3 1 b5 b7

IIma7 Ama7 V

 1 7 3 5

I6 A6 IV

 1 6 3 5

III7 C#7 IV

 1 5 b7 3

IV6 D6 IV

 1 5 6 3

V13 E13 V

 b7 3 6 1

I6 A6 IV

 1 6 3 5

Billionaire style jazz Voicings - C Form

intro verse

bar 1	bar 2	bar 3	bar 4
I6	III7	VIIm7	V7
A6 X	C#7 IX	F#m7 IX	E7 IX
1 3 6 1	1 b7 3 5	1 5 b7 b3	3 b7 1 5

bridge

bar 1	bar 2	bar 3-4	bar 5	bar 6	bar 7-8	bar 9	bar 10
IV6	V7	VIIm7	IV6	V7	VIIm7	IV6	V7
D6 IX	E7 VII	F#m7 IX	D6 IX	E7 VII	F#m7 IX	D6 IX	E7 VII
1 6 3 5	1 5 b7 3	1 5 b7 b3	1 6 3 5	1 5 b7 3	1 5 b7 b3	1 6 3 5	1 5 b7 3

bar 11	bar 12	bar 13	bar 13	bar 15-16
IV6	V7	VIIm7	V7	VIIm7
Ama7 XII	G#m7b5 XI	F#m7 IX	E7 VII	C#7 IX
1 5 7 3	1 b5 b7 b3	1 5 b7 b3	1 6 3 5	1 b7 3 5

A major parent scale-tone chords with alternates below

Ima7	IIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5	Ima7
Ama7 IX	Bm7 IX	C#m7 XI	Dma7 XII	E7 VII	F#m7 IX	G#m7b5 XI	Ama7 XII
1 7 3 5	1 b7 b3 5	1 5 b7 b3	1 5 7 3	1 5 b7 3	1 5 b7 b3	1 b5 b7 b3	1 5 7 3

I6	III7	IV6	V13	I6
A6 X	C#7 IX	D6 IX	E9 IX	A6 XI
1 3 6 1	1 b7 3 5	1 6 3 5	1 b7 2 3	1 5 6 3

Boulevard Of Broken Dreams verse And Chorus Style

verse: 3X ||: Em G D A :|| Em G D A B(note only or B7)

chorus: 3X ||: C G D Em :|| C G B7 B7 (break)

Grenade Style

parent scale C major, key of Am, capo V (see [keys with the capo](#))

verses 1 & 3 | Am | Am | Em | Em | Am | Am | Em | E (break) |

verses 2 & 4 | Am | Am | Em | Em | Am | Am | F | E |

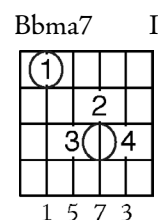
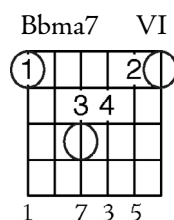
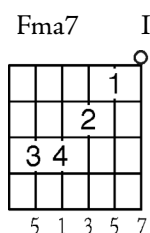
chorus 4X: ||: Am Fma7 | C G :|| Fma7 | G | C E | Am G | Fma7 | E (break) |

interlude on bars 1-4 of the verse, repeat verses 1 and 2, chorus

bridge | Dm | Dm | Am | Am | Dm | Dm | E | E |

interlude on the last four bars of verse 2, repeat chorus

ending | Am | Am | Em | Em | Am | Am | Em | Em (abrupt stop)



parent scale F major, key of Dm (original key)

verses 1 & 3 | Dm | Dm | Am | Am | Dm | Dm | Am | A (break) |

verses 2 & 4 | Dm | Dm | Am | Am | Dm | Dm | Bbma7 | A |

chorus 4X: ||: Dm Bbma7 | F C :|| Bbma7 | C | F A | Dm C | Bbma7 | A (break) |

interlude on bars 1-4 of the verse, repeat verses 1 and 2, chorus

bridge | Gm | Gm | Dm | Dm | Gm | Gm | A | EA |

interlude on the last four bars of verse 2, repeat chorus

ending | Dm | Dm | Am | Am | Dm | Dm | Am | Am (abrupt stop)

People Get Ready Style

key of C, capo I (see [keys with the capo](#))

intro ||: C ^Am | F/G ^C :||

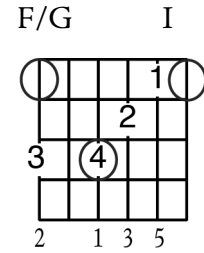
verse 3X: ||: C ^Am | F/G ^C :||, Em ^Dm | F/G ^C|

intro once, repeat verse, intro

quickly move the capo to the second fret

key of Db, capo II

repeat verse twice, break, intro



Db major (original key)

intro ||: Db ^Bbm | Gb/Ab ^Db :||

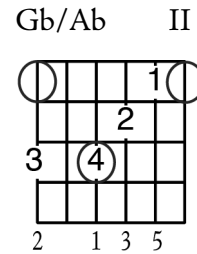
verse 3X: ||: Db ^Bbm | Gb/Ab ^Db :||, Fm ^Ebm | Gb/Ab ^Db |

intro once, repeat verse, intro

quickly move the capo to the second fret

key of D, capo II

repeat verse twice, break, intro



Under the Bridge Verse and Bridge Style

key of x, capo IV (see [keys with the capo](#))

verse ||: C ^G | Am / ^Em ^F | C ^G | Am ^F :|| Cma7 | Cma7 |

bridge ||: - ^Dm C / | G ^Dm :||

E major (original key)

verse ||: E ^B | C#m / ^G#m ^A | E ^B | C#m ^A :|| Ema7 | Ema7 |

bridge ||: - ^F#m E / | B ^F#m :||

Just What I Needed Style

key of C, capo IV (see [keys with the capo](#))

verse 3X: ||: C | G | Am | E :|| C | G | E | F |
interlude | C | G | Am | E | C | G | E | F |
chorus | C ^G | ^F / ^A ^G | C ^G | ^F / ^A | 4/4 A | 2/4 A |
solo on interlude progression

E major (original key)

verse 3X: ||: E | B | C#m | B :|| E | B | G# | A |
interlude | E | B | C#m | B | E | B | G# | A |
chorus | C ^G | ^F / ^A ^G | C ^G | ^F / ^A | 4/4 A | 2/4 A |
solo on interlude progression

Santeria Style

key of C, capo IV (see [keys with the capo](#))

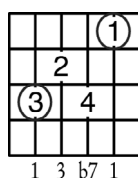
verse ||: C | E | Am | G :||
bridge 3X ||: F G | C Bm Am :|| F G |
E major (original key)
verse ||: E | G# | C#m | B :||
bridge 3X ||: A G | E D#m C#m :|| A B |

Can't Buy Me Love Style

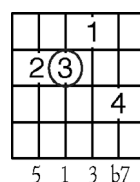
C major (original key)

intro | Em | Am | Em | Am | Dm | G |
verse ||: C7 | C7 | C7 | C7 | F7 | F7 |
| C7 | C7 | G7 | F7 (break) | F7 | C7 |

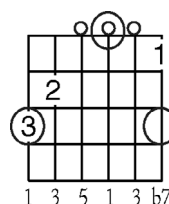
C7 I



F7 II



G7 I



Wild Horses Style

G major (original key)

intro | G | Am | G | Am | G | G |
verse ||: Bm | G | Bm | G | Am | C / / D | G | D :||
chorus ||: Am | C / / D | G F | C :||
repeat verse
guitar solo | F | C | F | C / / D | G | G |
repeat verse, chorus, instrumental verse, chorus, end on G

I THROUGH VI^m SONGS, KEY ON VI^m

Can't Stop Style

C major parent scale. Verse in Am, chorus in C. (see keys with the capo)

verse ||: Am | G | Em | F :||

chorus 3X: ||: C ^G | Em ^F :|| C ^G | Em F / / |

G major parent scale. Verse in Em, chorus in G. (original key)

verse ||: Em | D | Bm | C :||

chorus 3X: ||: G ^D | Bm ^C :|| G ^D | Bm C / / |

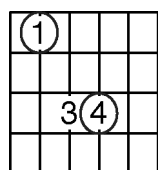
Gimmie Shelter Style

parent scale E major, key of C#m (original key)

verse | C#m |

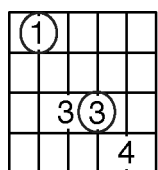
intro & chorus | C#5 C#sus4 | B5 Bsus4 | A | A B |

C#5 IV



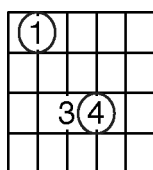
1 5 1

C#sus4 IV



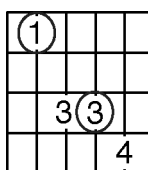
4 5 1 4

B5 II



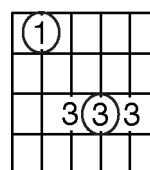
1 5 1

Bsus4 I



4 5 1 4

A I



1 5 1 3

Locked out of Heaven Style

parent scale scale C, key of Am, capo V (see keys with the capo)

verse pickup on the "and after 3": ^G ||: ^Am / / ^G | ^F / / ^C | ^Dm | Dm / / ^G :|| ^Am

parent scale scale F, key of Dm (original key)

verse pickup on the "and after 3": ^C ||: ^Dm / / ^C | ^Bb / / ^F | ^Gm | Gm / / ^C :|| ^Dm

Californication Verse and Chorus Style

C major parent scale. Verse in Am, chorus in C. (original key)

verse ||: Am | F :||
short chorus | C G | F Dm |
repeat verse
long chorus | C G | F Am | C G | ^D7sus2 |

key of G, capo VII (see [keys with the capo](#))

verse ||: Em | C :||
short chorus | G D | C Am |
repeat verse
long chorus | C G | F Am | C G | ^D7sus2 |

Otherside Style

parent scale C, key of Am (original key)

verse ||: Am | F | C | G :||
chorus 1 3X: ||: Am | Em :|| G | A | A |
chorus 1 3X: ||: Am | Em :||: G | A :|| G | G | A | A |

parent major scale G, key of Em, capo V (see [keys with the capo](#))

verse ||: Em | C | G | D :||
chorus 1 3X: ||: Em | Bm :|| D | E | E |
chorus 1 3X: ||: Em | Bm :||: D | E :|| D | D | E | E |

Sultans of Swing Style

key of C, capo V (see keys with the capo)

verse ||: Am | G F | E | E :||
 chorus | C | C | G | G | F | F |
 | Am | Am ^F | G | G ^F | G | G |
 extend chorus ||: Am ^G | ^F | G | G :||

F major (original key)

verse ||: Dm | C Bb | A | A :||
 chorus | F | F | C | C | Bb | Bb |
 | Dm | Dm ^Bb | C | C ^Bb | C | C |
 extend chorus ||: Dm ^C | ^Bb | C | C :||

Under My Thumb Style

parent major scale C, key of Am, capo IX (see keys with the capo)

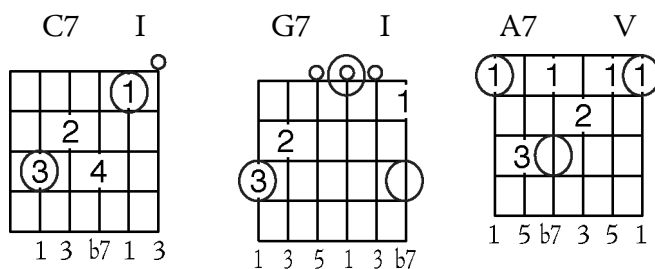
verse ||: Am | G | F | F :||
 chorus | C | C | F | D | C | G F ||: C F | C7 F :||

parent major scale G, key of Em, capo II (see keys with the capo)

verse ||: Em | D | C | C :||
 chorus | G | G | C | A | G | D C ||: G C | G7 C :||

parent major scale A, key of F#m (original key)

verse ||: F#m | E | D | D :||
 chorus | A | A | D | B | A | E D ||: A D | A7 D :||



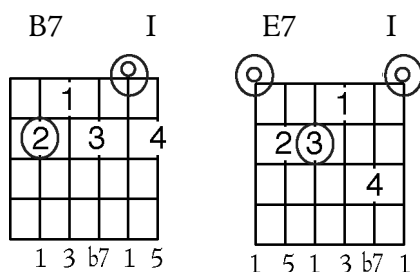
Too Close Style

parent major scale G, key of Em, capo VII (see [keys with the capo](#))

verse |: Em | G | Am | C B7 :||
 bridge |: Am | C B7 | Em | G :||

parent major scale C, key of Am, capo II (see [keys with the capo](#))

verse |: Am | C | Dm | F E7 :||
 bridge |: Dm | F E7 | Am | C :||



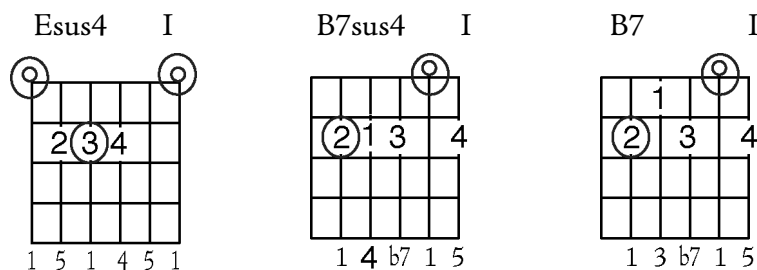
Crazy (Gnarls Barkley) Style

parent major scale C, key of Am, capo III (see [keys with the capo](#))

verses 1, 2 & 4 | Am | Am | C | C | F | F | Esus4 | E |
 verses 3, 5, "scat" verse | A | A | F | F | C | C | Esus4 | E |

parent major scale G, key of Em, capo VIII (see [keys with the capo](#))

verses 1, 2 & 4 | Em | Em | G | G | C | C | B7sus4 | B7 |
 verses 3, 5, "scat" verse | E | E | C | C | G | G | B7sus4 | B7 |



Comping Design

- **Intro to Comping Design**
- **EDCAGE Movable Triads and Arcs**
- **Rhythmic Strumming**
- **Accents**
- **Bar Rests**
- **Muting**
- **Linear Arpeggios**
- **Thumb Bass, Index Strum (or all picked bass and strum)**
- **Thumb Bass, Fingers Pluck (as group)**
- **Bass, Mid, Top (piano style)**
- **Travis Fingerpicking and Piedmont Blues**
- **Blues Comping (see also the Twelve Bar Blues Endings chapter)**
- **Ornamenting Open Chords**
- **Open Chord Basslines**
- **Harmonized and Walking Bass**
- **Close-Voiced Triads**
- **Open-Voiced Triads**
- **Voice Leading and Cadences**
- **Pedal Tone Progression and Cluster Playing**

INTRO TO COMPING DESIGN

The many rhythmic, harmonic and technical elements that make up accompaniment parts are shown here in the form of comping designs. Learn many examples of each one to be able to use it in your playing. They will enable you to quickly work up a version of a new guitar you are copying from someone's performance by recognizing the comping designs they used, having learned all the common ones here. In your song writing and arranging, these are essential for a variety of genres.

common chord fingerings

A	I	Am	I	A7	I	B7	I	C	I	D	I
1 5 1 3 5		1 5 1 b3 5		1 5 1 3 b7		1 3 b7 1 5		1 3 5 1 3		1 5 1 3	
Dm	I	Dm	I	D7	I	E	I	Em	I	Em	I
1 5 1 b3		1 5 1 b3		1 5 b7 3		1 5 1 3 5 1		1 5 1 b3 5 1		1 5 1 b3 5 1	
E7	I	F	I	G	I	G	I	G7			
1 5 1 3 b7 1		5 1 3 5		1 3 5 1 5 1		1 3 5 1 3 1		1 3 5 1 3 b7			

See [Quickening Open-Position Chords](#), if necessary.

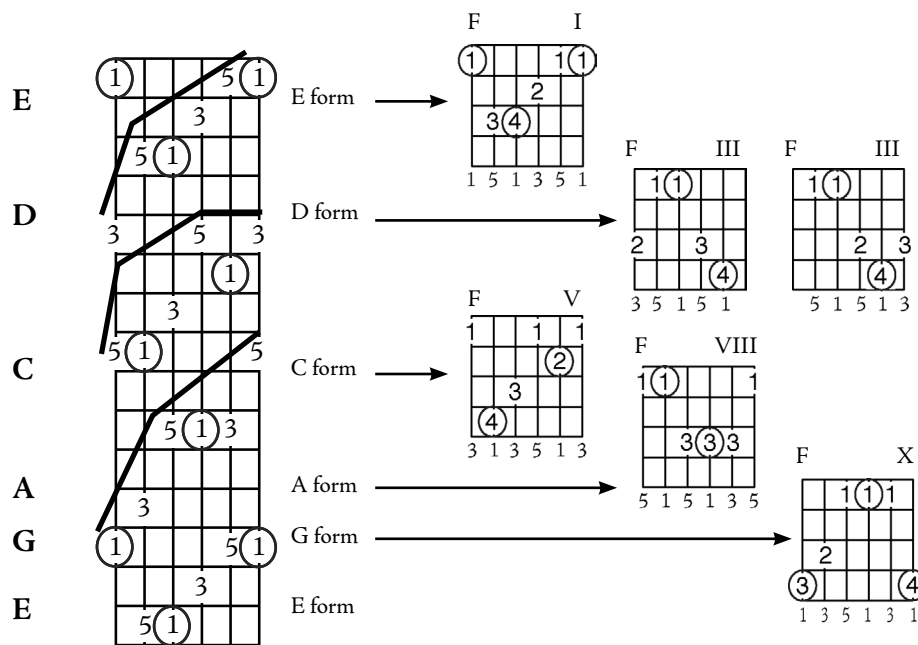
Name these movable barre chords after the circled note in the bass (on the sixth or fifth string):

major	minor	major	minor
1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 3	1 5 1 b3 5

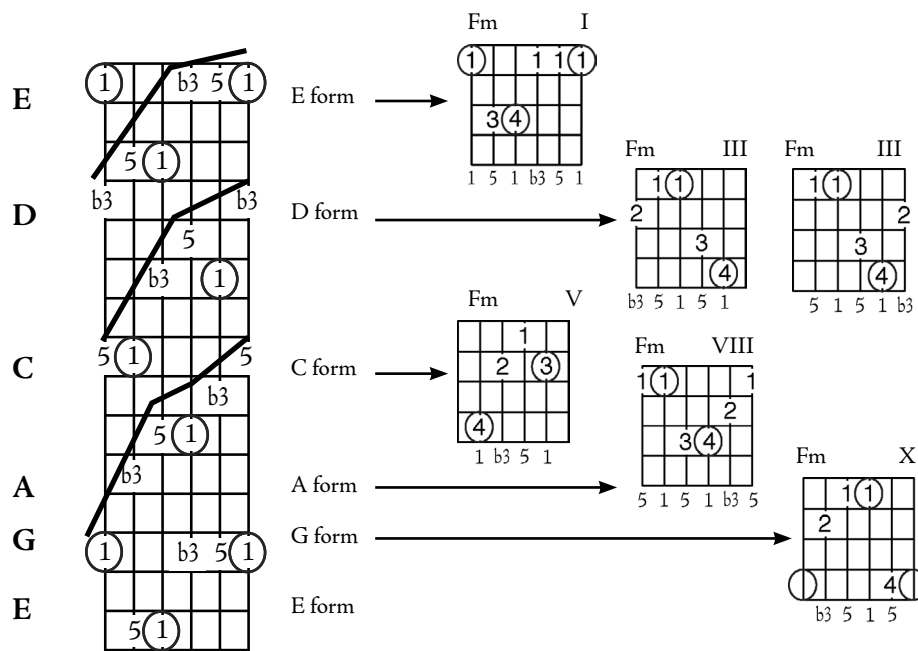
EDCAGE MOVABLE TRIADS AND ARCS

These are the basis of all chords. Study them more thoroughly in [Triad Arcs](#), [Octave Shapes](#) and [Making Major Chords Movable](#).

Full-Fretboard F Major Chord Tones



Full-Fretboard F Minor Chord Tones



RHYTHMIC STRUMMING

Rhythmic strumming involves moving the strumming hand down and up continuously and deciding which strokes actually contact the strings, sometimes "missing" the strings. The motion of the hand is never broken.

The Backbeat

4/4 time is four beats per bar where a whole note gets four beats. See Time Signatures. The measurement of time in music is called *meter*. Metric accent is a slight accent we apply to beats like the first beat of a bar to signify the grouping by bars. See Time Signatures.

The standard implied metric accent in 4/4 time is strongest on the first beat, second on the third beat (halfway through the bar), next strongest on the second and fourth beats. The second and fourth beats are nick-named the *backbeat*, since they are not the main ("front") beats.

Reggae music typically puts the guitar and some other percussion instruments like that clavichord on the backbeat.

Santeria reggae backbeat - [click to play video](#)

Locate the chord by finding their letter name on one of the three largest strings on the full-fretboard letter name chart.

intro & verse

♩ = 178

E G# C#m B play 3 times

bridge

18 A B E D#m C#m A B play 3 times

ending

28 E D#m C#m B A B E⁹ rit. (gradually slower)

♩ = 70

Stir It Up reggae backbeat - [click to play video](#)

In this more typical reggae example, pairs of eighth notes are played on the backbeat (beats two and four).

♩ = 145

A I
1 5 1 3 5

D I
1 5 1 3

E I
1 5 1 3 5 play 4 times

1+ 2 3+ 4 1+ 2 3+ 4 1+ 2 3+ 4 1+ 2 3+ 4

Waltz

The Times They Are A' Changin' - 3/4 strum (waltz)

You've Got To Hide Your Love Away has the same D D7 G/B D/A progression, and was written you year later

G I Em I C I G I Am I C I D I

1 3 5 1 5 1 1 5 1 b3 5 1 1 3 5 1 3 1 3 5 1 5 1 1 5 1 b3 5 1 1 3 5 1 3 1 5 1 3 1 5 1 3

1+ 2 + 3+ 1 2 3 1+ 2 + 3 1 2 3 1+ 2 + 3 + 1+ 2 + 3+ 1 2 3 1+ 2 + 3+ 1 2 3

G Em C G G G Am D

D I D7 I G/B I D/A I

1 5 1 3 b7 5 1 3 3 5 1 5 1 5 1 3 3

1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

You've Got To Hide Your Love Away waltz

verse

G D F C G C

1 + 2 + 3 + 1 2 3 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 +

TAB

9

1. F(add9) C 2. F(add9) C D

1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 +

3. F(add9) C D D/C Gmaj7/D D/A

1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 +

chorus

G C

1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 +

D(sus4) D D(sus2) D

1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 + 1 + 2 + 3 +

Polka

Paint It Black polka

verse

Em I

B7 I

chorus

Em I D I G I D I Em I

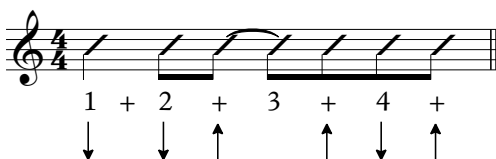
Em I D I G I D I A I B7 I

Counted and Memorized Rhythm

When strummed rhythms are repetitive, they can be first learned by counting and clapping, then memorized. While counting the syllables, clap or tap where a chord occurs. *Then* play it on the guitar, first in “air guitar” fashion. As you repeat the rhythm, gradually touch the guitar as you think the rhythm.

Dead Flowers memorized rhythm

Memorize this rhythm and apply it to the each bar of the chord progression.



verse

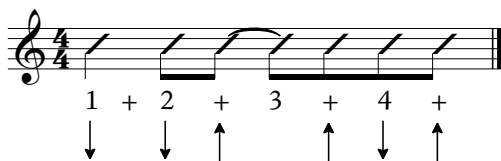
D	A	G	D	D	A	G	D
D	A	G	D	D	A	G	D

chorus

A	A	D	D	A	A	D	D
G	G	D	D	G	G	D	D
G	G	D	D	D	A	G	D

Radioactive memorized rhythm

Memorize this rhythm and apply it to the each bar of the chord progression. Notice that it's the same rhythm as Dead Flowers (also the same as Green Day's "Time Of Your Life").



Capo II

Am C G D

Knockin' On Heaven's Door memorized rhythm

Memorize this rhythm and apply it to the each pair of bars of the chord progression.

G D Am Am
G D C C
repeat

Patience memorized rhythm

Memorize this rhythm and apply it to the each bar of the chord progression. Tune down a half step. (one fret)

verse

C C G G A A D D
(repeat)

chorus

C G C Em C G D D
(repeat)

Society memorized rhythm - capo II

intro	Am	Am	Am	Am		
verse	C	G	C	C		
	C	F	G	G		
	F	G	Am	Am		
	F	G	Am	Am	Am	Am
chorus	F	F	C	C		
	G	G	Am	Am	Am	Am

Semi-Charmed Life memorized rhythm

G I D I Dsus.4 I Cadd9 I

1 3 5 1 5 1 1 5 1 3 1 5 1 4 1 3 5 2 5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↑ ↓ ↑ ↓ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓

T 3 3 1 0 .

A .

B .

Louie Louie memorized rhythm

A V D V Em VII D V

1 5 1 3 5 1 1 5 1 3 1 5 1 b3 1 5 1 3

chorus

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

verse

1 + 2 + 3 + 4 + 1 + 2 + 3 e + a 4 e + a

↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↑ ↑ ↓

Me And Julio Down By The Schoolyard memorized rhythm

A I D I A I E I

1 5 1 3 5 1 5 1 3 1 5 1 3 5 1 5 1 3 5 1

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

↓ ↓ ↓ ↑ ↓ ↑ ↑ ↓ ↑ ↓

Reading Rhythms Too Long to Memorize

A common method of learning a strummed rhythm is by counting and clapping it first. Count the syllables “1 + 2 + 3 + 4 +”, pronounced “one - and - two - and - three - and - four - and”. While counting the syllables, clap or tap where a chord or not occurs. *Then* play it on the guitar, first in “air guitar” fashion, not touching the guitar. Then gradually touch the guitar as you think the rhythm.

Hey Joe count and strum

The musical score for "The Wind" by The Beatles is presented in a multi-staff format. The top staff is the guitar part, written in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. It consists of four measures, each labeled with a chord: C, G, D, and A. The guitar part is a simple melody using diamond-shaped notes. Below the guitar staff is a series of rhythmic markings: "1 + 2 + 3 + 4 +" repeated four times, with arrows indicating downstrokes for the first four notes and upstrokes for the fifth note in each measure.

The bottom staff is the bass part, written in treble clef. It also consists of four measures, each labeled with a chord: E, G, D, and A. The bass part is a simple melody using diamond-shaped notes. Below the bass staff is a series of rhythmic markings: "1 + 2 + 3 + 4 +" repeated four times, with arrows indicating downstrokes for the first four notes and upstrokes for the fifth note in each measure.

Below the bass staff is a four-line tablature system. The first line is labeled "T" (Treble) and the second line is labeled "B" (Bass). The tablature shows fret numbers (0, 1, 2) for each string in each measure, corresponding to the notes in the bass part. The fret numbers are: Measure 1 (E): T=0, B=0; Measure 2 (G): T=1, B=2; Measure 3 (D): T=2, B=2; Measure 4 (A): T=2, B=2.

Wheels count and strum

capo II

verse

C I G I Em I D I

1 3 5 1 3 1 3 5 1 5 1 1 5 1 b3 5 1 1 5 1 3

1 2 3 4 1 2 3 4 1 2 3 + 4 + 1 2 3 4

chorus

C G Em D

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

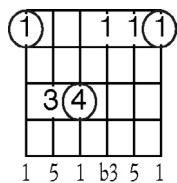
interlude

C G Em D

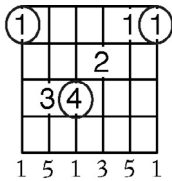
1 2 3 4 1 2 3 4

Slow Ride count and strum

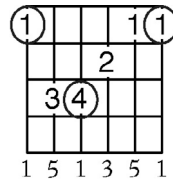
Bm VII



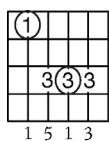
G III



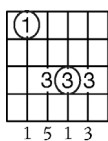
A V



D V



C III

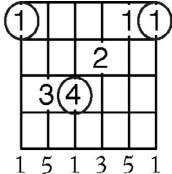


play these four bars four times

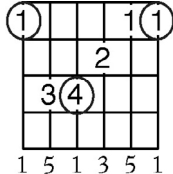
G



A V



Bb VI



A



Brown-Eyed Girl count and strum

If you need any chord fingerings, refer to [common chord fingerings](#).

intro

verse

play these four bars four times

chorus

repeat verse and chorus, end on G:

interlude and bass solo

six-bar bass solo

repeat verse and chorus, end on G:

In Bloom count and strum

intro

B \flat VI G III F I A \flat IV

1 5 1 3 5 1 1 5 1 3 5 1 1 5 1 3 5 1 1 5 1 3 5 1

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

5

B \flat G F A \flat

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 4

verse

9

B \flat VI G \flat II B II E \flat VI B VII A V

1 5 1 3 5 1 1 5 1 3 5 1 1 5 1 3 1 5 1 3 5 1 1 5 1 3 5 1

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

slide slide

chorus

13

B \flat I C III G III F I C III E \flat VI

1 5 1 3 1 5 1 3 1 5 1 3 5 1 1 5 1 3 1 5 1 3 1 5 1 3

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

play these two bars four times repeat the chorus

Up On Cripple Creek count and strum.

 See [common chord fingerings](#).

verse

A D

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

A D E

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

chorus

A D

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

E I F#m II G I

1 5 1 3 5 1 1 5 1 b3 5 1 1 3 5 1 5 1

ending

A I D I

1 5 1 3 5 1 5 1 3

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 4 1 2 3 4

repeat verse and chorus repeat and fade out

The Weight count and strum

A V C#m IV D V A V

1 5 1 3 5 1 1 5 1 b3 5 1 5 1 3 1 5 1 3 5 1

verse

play these four bars four times

1 + 2 + 3 + 4 +

A I E/G# II D/F# I D I

1 5 1 3 3 1 5 1 3 5 1 5 1 1 5 1 3

chorus

9

1 2 3 4 1 2 3 4 1 + 2 3 4 1 2 3 4

play these two bars three times

A I E/G# II D/F# I A/E I D/F# I

1 5 1 3 3 1 5 1 3 5 1 5 1 5 1 5 1 3 5 1 5 1

15

1 2 3 4 1 2 3 4 1 + 2 3 4 1 2 3 4

repeat verse and chorus

verse A

A I

○			
	1	1	1

1 5 1 3

F I

1				1	1
			2		
	3	4			

1 5 1 3 5 1

C I

			○	①
	2			
③				
1	3	5	1	3

chorus

A 4x4 grid with numbers and circles. The top row has 'E' above the first column and 'I' above the fourth column. The first and fourth columns have a circle at the top. The second row has '1' in the third column. The third row has '2' in the first column and '3' in the second column. The bottom row has '1' in the first column, '5' in the second column, '1' in the third column, '3' in the fourth column, '5' in the fifth column, and '1' in the sixth column.

A I

○			
	1	(1)	1

1 5 1 3

interlude 1

B II

1			
	3	3	3
1	5	1	3

B/D# IV

3 5 1 3

B VII

○				1	○
			2		
	3	④			
	5	1	3	5	

play verse A, chorus (4X this time)

interlude 2

The first measure of the piece is marked with a treble clef and a key signature of one flat (B-flat). The note is a half note, G4, with a stem and a flag. The measure is labeled 'B' above it. Below the staff, there are two arrows: a downward arrow labeled '1+2' and an upward arrow labeled '+', indicating a specific fingering or bowing technique.

B/D#

B/F#



2 + 3 + 4 +

↓ ↑ ↑ ↓

F#

1+2+3+4+

↓ ↓ ↑

B

4+ 1 +

↓ ↓ ↑

D# B/F

2 + 3 + 4

↓ ↑ ↑ ↓

play these four bars three times

verse B

Asus.2 I

1 5 1 2 5

D I

	⊙		
		1	2
		(3)	

1 5 1 3

B II

①			
	3	③	3
1	5	1	3

Bsus.2 I

①			1	1
	3	④		
1	5	1	2	5

play these two bars four times

play these two bars four times

repeat chorus and fade
with improv solos

Like a Rolling Stone count and strum - [click to play video](#)

intro

C I Fma7 I

1 3 5 1 3 5 1 3 5 7

verse

C I Dm I Em I F I

1 3 5 1 3 1 5 1 b3 1 5 1 b3 5 1 5 1 3 5

G III

5 1 3 5

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

F G F G

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

F Em Dm C F Em Dm C

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Dm F G

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

C Fmaj7 G

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

play these two bars 6 times for verse 1, 7 times for verses 2, 3 and 4

end on a C chord

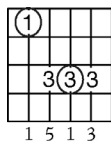
click to play

[illegible]

Rhythmic Selection

Sympathy For The Devil rhythmic selection

E VII



step one. Fully mute all of the strings while you strum.

E

step two. Press the fingers the fret where you see the chord slash. Think of it as causing the rhythm with your fretting hand.

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

step three. Notice that the last three sounded chords are upstrokes. Make the rhythm with your fretting hand.

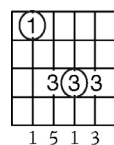
step four. Remember the three sounded upstrokes halfway through. Now you are sounding the entire fourth beat with chords.

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

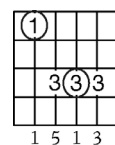
step five. Repeat step four, but don't contact the strings with the pick where you don't fret. Notice the three consecutive upstrokes beginning on the "a" of "2".

1 e + a 2 e + a 3 e + a 4 e + a

E VII

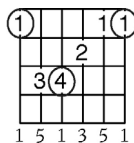
step six.
apply the
chord progression

D V

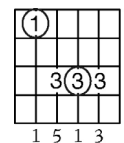


1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

A V



E VII



1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

Flake rhythmic selection

verse

Dm V

F I

1e+ a 2 e + a 3 e + a 4 e + a 1e+ a 2 e + a 3 e + a 4 e + a

chorus

3 1., 2., 3. 4.

B^b I

F I

C III

Dm V

6

A V

B^b VI

C III

9

F I

C III

12

The musical score is written for guitar in standard notation. It consists of three systems of music. The first system, labeled 'verse', contains measures 1 through 8. It features two main chord voicings: Dm V (first system) and F I (second system). The rhythmic notation below the staff uses a mix of eighth and sixteenth notes, with some measures containing rests. The second system, labeled 'chorus', contains measures 9 through 12. It features four main chord voicings: B^b I (first system), F I (second system), C III (third system), and Dm V (fourth system). The rhythmic notation continues with similar patterns. The third system, labeled 'chorus', contains measures 13 through 16. It features three main chord voicings: A V (first system), B^b VI (second system), and C III (third system). The rhythmic notation continues with similar patterns. The score is written in a key signature of one flat (Bb) and a 4/4 time signature.

ACCENTS

Simple rhythmic themes are important. There can only be two or three significant ideas going on at a time in an arrangement to make it understandable. So usually instruments play the same rhythmic themes in unison, or play variations of one another's rhythmic themes. Two or three well-placed accents during a bar are effective in giving a tune likable character. Here are some examples.

Full-Band Accents

Steppin' Out accent - [click to play video](#)

Swing Eighth
♩ = 170

The musical score is presented in three systems, each with a piano (P), guitar (G), and bass (B) staff. The tempo is marked as 'Swing Eighth' with a quarter note equal to 170 beats per minute. The key signature is one sharp (F#). The piano part features a steady eighth-note accompaniment with occasional accents. The guitar and bass parts provide harmonic support with chords and single notes. The score includes chord symbols (G7, C7, D7) and rhythmic notation (eighth notes, quarter notes, and rests).

System 1 (Measures 1-5): The piano part begins with a rest in measure 1, followed by a series of eighth notes. The guitar and bass parts play chords and single notes. Chord symbols: G7.

System 2 (Measures 6-10): The piano part continues with eighth notes and accents. The guitar and bass parts play chords and single notes. Chord symbols: C7, G7.

System 3 (Measures 11-15): The piano part continues with eighth notes and accents. The guitar and bass parts play chords and single notes. Chord symbols: D7, C7, G7.

Evil Ways accent version 1 - [click to play an example of both below](#)

Evil Ways accent version 2

Tighten Up accent

Four guitar chord diagrams are shown above the staff:

- F#m V**: Fretboard diagram showing notes b3, 5, 1, b3. Fingering: 1, 2, 3, 4.
- Ama7 IV**: Fretboard diagram showing notes 1, 3, 5, 7. Fingering: 1, 2, 3, 4.
- Bm II**: Fretboard diagram showing notes 5, 1, b3, 5. Fingering: 1, 2, 3, 4.
- C# IV**: Fretboard diagram showing notes 5, 1, 3, 5. Fingering: 1, 2, 3, 4.

The staff shows a sequence of chords with rests, and the rhythm is marked with numbers 1 through 4 and plus signs.

BAR RESTS

Bar Rests Challenge Your Sense of Time

full-band breaks

Silence can be as effective as sound. It can be very dramatic to have full-band breaks (silences) in the accompaniment. It can be challenging to resume with the other musicians in correct time. Sometimes the drummer or other percussionist will play through the break with eighth notes or some other multiple pulses per beat, keeping the time. Other times you just have to imagine the continuing rhythm through the break, in sync with the other musicians and listeners.

Song Examples

Here are some songs that use breaks (with youtube links):

Johnny B. Goode (solo sections)

solo

Up on Cripple Creek

comping

The Weight

comping

I'm Tore Down

Hoochie Coochie Man

Monkey Wrench

Memo From Turner

I'm Yours

comping

Summertime Blues rest exercise - [click to play video](#)

♩ = 140

1 e + a 2 + 3 e + a 4 + 1 e + a 2 + 3 e + a 4 + 1 e + a 2 + 3 + 4 + 1 + 2 + 3 + 4 +

6 Bb⁶ F

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

10 F Bb C F

1 e + a 2 + 3 e + a 4 + 1 e + a 2 + 3 e + a 4 + 1 e + a 2 + 3 + 4 + 1 + 2 + 3

+

Moanin' rest exercise - [click to play video](#)

Swing Eighths

♩ = 120

melody or improv in F minor here

melody or improv in F minor here

3 1 2 3

5 Bb/F F Bb/F F

melody or improv in F minor here

melody or improv in F minor here

3 1 2 3

MUTING

Fretting Hand Chord Muting to Limit Duration

This is used to limit the duration of chords, which stops their sustain. Muting to limit the duration of chords (stop their sustain) should be performed with the fretting hand, so the picking/plucking hand is free to do other things.

When possible, mute an open string with the pad of the finger on the adjacent larger string. Use straightened free fingers to mute an entire chord, such as the little finger on a D chord or the free fingers on the "A" chord barred with the first finger.

Open Position Chords Muting Exercise - [click to play video](#)

Create the silences between chords with your fretting hand.

♩ = 80

C G D A E play 4 times

Dm Am Em Am play 4 time

Green Grass & High Tides fretting hand muting exercise - [click to play](#)

♩ = 200

Em C G D Am⁷

Fretting Hand Chord Muting as a Percussive Sound

Get Back intro muting - [click to play video](#)

Where the “x’s” are shown, the strings are muted.

The notation shows a guitar staff in G major (one sharp) and 4/4 time. The bass staff is in standard notation. The guitar part features a series of chords: A (1 5 1 3), I (1 1), G (1 3 5 1 5 1), I (1 3 5 1 5 1), and D (1 5 1 3). The fretting hand diagrams show the fingerings for each chord. The guitar part includes muting (x's) on the strings, indicated by arrows pointing down to the strings. The bass part includes muting (x's) on the strings, indicated by arrows pointing up to the strings. The guitar part is marked "play 3 times".

Flake full muting example - [click to play video](#)

In this example, the chords are fully muted with the fretting fingers, laying one or more fingers flat across the strings so they have no recognizable pitch. Of course, the strings are not pressed to the frets but are muted against your finger(s). Where the “x’s” are shown, the strings are muted.

The notation shows a guitar staff in D minor (two flats) and 4/4 time. The bass staff is in standard notation. The guitar part features a series of chords: Dm (1 5 1 b3 5), V (1 1), F (1 5 1 3 5 1), I (1 1), Bb (1 5 1 3), and I (1 1). The fretting hand diagrams show the fingerings for each chord. The guitar part includes muting (x's) on the strings, indicated by arrows pointing down to the strings. The bass part includes muting (x's) on the strings, indicated by arrows pointing up to the strings. The guitar part is marked "3" at the beginning of the first measure.

Stand By Me full chord muting example - [click to play video](#)

For the first mute on each chord, still fret the previous chord.

The image displays a musical score for the song "The Sound of Silence" by Simon and Garfunkel. It includes guitar and piano parts with chord diagrams and fingerings.

Guitar Part:

- Chord Diagrams:**
 - G I:** Fretboard diagram for G major (open strings, 1st fret on B, 3rd fret on D, 4th fret on G). Fingering: 1 (B), 2 (D), 3 (G).
 - Em I:** Fretboard diagram for E minor (open strings, 1st fret on B, 2nd fret on D, 3rd fret on G). Fingering: 1 (B), 2 (D), 3 (G).
 - C I:** Fretboard diagram for C major (open strings, 1st fret on B, 2nd fret on D, 3rd fret on G). Fingering: 1 (B), 2 (D), 3 (G).
 - D7 I:** Fretboard diagram for D7 major (open strings, 1st fret on B, 2nd fret on D, 3rd fret on G, 4th fret on A). Fingering: 1 (B), 2 (D), 3 (G), 4 (A).
 - G I:** Fretboard diagram for G major (open strings, 1st fret on B, 3rd fret on D, 4th fret on G). Fingering: 1 (B), 2 (D), 3 (G).
- Staff:** The guitar part is written on a single staff with a key signature of one sharp (F#) and a 4/4 time signature. It features a series of chords and single notes, with fingerings indicated by numbers 1-4.

Piano Part:

- Staff:** The piano part is written on a single staff with a key signature of one sharp (F#) and a 4/4 time signature. It features a series of chords and single notes, with fingerings indicated by numbers 1-4.

Lyrics:

5
 In the silence of the night
 I hear you singing in my mind
 And sometimes when I close my eyes
 You are close to me
 And sometimes when I close my eyes
 You are close to me
 And sometimes when I close my eyes
 You are close to me
 And sometimes when I close my eyes
 You are close to me

It' Alright chord muting example - [click to play video](#)

[illegible]

When I Come Around muted bass and sounding mutes

verse

G III (1) 1 5 1 3 5 1

D V (1) 1 5 1 3

Em VII (1) 1 5 1 b3

C III (1) 1 5 1 3

fret hand mute

palm mute

fret hand mute (change position during the mute)

palm mute

fret hand mute (change position during the mute)

fret hand mute

bridge

A I (1) 1 5 1 3 5

C III (1) 1 5 1 3

A I (1) 1 5 1 3 5

C III (1) 1 5 1 3

all downstrokes

Cold Sweat half muting example

In this example, the chords are fingered with enough pressure to give a hint of pitch, but not enough to press them to the frets. You could say the chords are “half muted”.

D⁹

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

moderately bright, muted with the fretting hand by not letting the strings touch the frets

C⁷

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

F⁷

Pride and Joy muting specific strings - [click to play video](#)

♩ = 125

Swing Eighths

[illegible]

The chords muted by fretting hand, except at the arrow, the end of the stroke picks the sixth string while the ring finger mutes the fifth string.

The chords muted by fretting hand, except at the arrow, the end of the stroke picks the sixth string while the ring finger mutes the fifth string.

The chords muted by fretting hand, except at the arrow, the end of the stroke picks the sixth string while the ring finger mutes the fourth string.

The chords muted by fretting hand, except at the arrow, the end of the stroke picks the sixth string while the ring finger mutes the fifth string.

verse 1

Higher Ground muting specific strings

Strum the staccato open-strings chords with up strokes and cut their duration short by muting with the fretting hand.

Swing Eighths

"safety" muting with the thumb and fingers

It is often difficult to consistently strum only the strings intended for a chord. Of course, a strummed chord only includes consecutive strings (like the first through fourth or second through fifth strings), but you will often erroneously strum an adjacent string.

To mute the unwanted adjacent larger strings, use the fingertips and/or thumb of the fretting hand. For the unwanted adjacent smaller strings, mute with the portion of the fingers below the fingertips.

Plucking Hand Muting

limiting duration with the plucking/picking hand

Though the standard muting to stop chords should be performed with the fretting hand, you can sometimes mute with the plucking/picking hand. This is practical to use at the end of a phrase before a rest (break) when you want to make sure you are stopping the chord.

For example, in [Summertime Blues style comping](#), the “F” chord that begins a two bar rest period (other than the F chord), could be muted with the plucking/picking hand. This would assure a clean break.

Stir It Up style reggae muting to soften the chord sound

A V

1 3 5 1

D VII

5 1 3

E IX

5 1 3

mute with the edge of the picking hand, very close to the bridge

T	.	5	5	5	5	5	5	5	5	7	7	7	7	9	9	9	9
A	.	5	5	5	5	5	5	5	5	7	7	7	7	9	9	9	9
B	.	7	7	7	7	7	7	7	7	7	7	7	7	9	9	9	9

I Put A Spell On You cascading linear arpeggios - [click to play](#)

♩ = 70

p = thumb
i = index
m = middle
a = ring

6

10

14

Maggot Brain linear arpeggios - [click to play](#)

♩ = 120

1

Em

D

Bm

C

Em

House of the Rising Sun linear arpeggios - [click to play](#)

If you need to learn any of these chord fingerings, see [common chord fingerings](#).

1 Am C D F Am E

7 Am E Am C D F

13 Am C E Am C

19 D F Am E Am C

25 D F Am E Am E Am

Same Old Blues linear arpeggios - [click to play](#)

plucking hand finger abbreviations

p = thumb

i = index

m = middle

a = ring

$\bullet = 45$

p = thumb
i = index
m = middle
a = ring

♩. = 45

① 2 ①
3 4
1 5 1 3 5 1

② 1 1 ①
3 ①
1 6 b3 b5

① 3 ③ ③
1 5 1 3

① 3 ③ ③
1 5 1 3

① 3 ③ ③
1 5 1 3

G G#o7 D C B

m m m p i m a m i p i m a m i p i a m p i a m p i m a m i

5 6 5 3 5
(0) (0) (4)

5 4 3 4 5 3 4 3 4 3 5 7 3 5 2 4 4 4 4

① 2 ①
③ 4
1 3 b7 1

① 1 1 ①
3 ① 2
1 5 b7 3 5 1

① ③ ③ ③
1 5 1 3

① 1 1
② 3
4 3 4 5 1 3 4 5

3 E7 A7 D Augmented

p i m a m i p i m a m i p i m a m i a a m i p p p p p i p p

7 6 7 5 7 6 5 6 5 5 7 7 7 7 7 10 6 6 7 8 9 5 9 8 7 8 9

① ③ ③ ③
1 5 1 3

① 2 ①
③ 4
1 3 b7 1

① 1 1 ①
3 ④
1 5 1 b3 5 1

① ③ ③ ③
1 5 1 3

① 2 ①
③ 4
1 3 b7 1

① 1 1 ①
3 ④
1 5 1 b3 5 1

② 3 ③ ③ ①
①
1 b7 b3 5

① 1 1
② 3 ③ ③
1 3 b7 2 5

6 D F#7 Bm D F#7 Bm Am7 D9

p i m a m i p i m a m i p i m a m i p i m a m i p i a m p i a m

5 7 7 7 7 9 8 9 9 8 9 7 7 9 9 7 7 9 5 7 7 7 7 9 8 9 9 8 9 7 7 9 5 5 5 4 5

10 G G#o7 D C B E7 A7 D Augmented

p i m a m i p i m a m i p i a p i a m p i m a m i p i m a m i p i m a m i a a m i p p

5 4 3 4 5 3 4 3 4 3 5 7 3 5 4 4 4 4 7 6 7 5 7 6 5 6 5 6 5 5 7 7 7 7 10 6 6 7 8 9

Because linear arpeggios - [click to play](#)

♩ = 130

C#m IV

 1 5 1 b3 5

D#m^{7b5} IV

 1 b3 b7 1

G# IV

 1 5 1 3 5 1

A V

 1 5 1 3 5 1

7

C#m IV

 1 5 1 b3 5

A⁷ V

 1 5 b7 3 b7

A¹³ V

 1 b7 3 6

D V

 1 5 1 3

Ddim V

 1 b5 1 b3

Fi

12

F# II

 1 5 1 3 5 1

G# IV

 1 5 b7 3 1 1

D.S. al F

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jazz blues linear arpeggios, version 2 - [click to play](#)

♩ = 100

1 2 3 4 5

B \flat 7

1 3 b7 2

E \flat 9

1 2 3 4

B \flat 7

1 b7 3 5

B \flat 13

1 2 3 4 5

B \flat 7(#5)

1 b7 3 #5

6

E \flat 9

1 3 b7 2

E \flat 7

1 b5 6 b3

B \flat 7

1 2 3 4

G7

1 2 3 4

G7(#5)

1 b7 3 #5

10

Cm7

1 2 3 3 3 1

1 b7 b3 5

G \flat 9

1 2 3 4

1 3 b7 2

F9

1 2 3 4

C \flat 7(#5)

1 2 3 4

1 b7 3 #5

12

B \flat 7

1 2 3 4

1 b7 3 5

G7(#9)

1 2 3 4

1 3 b7 #9

Cm7

1 2 3 3 3 1

1 b7 b3 5

F7(#9)

1 2 3 4

1 b7 3 #9

B \flat 7

1 2 3 4

1 b7 3 5

gospel blues linear arpeggios - [click to play](#)

♩ = 70

Measures 1-5: A7, A9, D9, D#9

Measures 6-10: A7, F#7, Bm7, E7, A7, D, A, E+

Fretboard diagrams are provided for each chord, showing fingerings (1-4) and positions (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12).

THUMB BASS, INDEX STRUM (or all picked)

Love Me Tender - [click to play](#)

♩ = 77

1 D E7 A7 D

7 D E7 A7 D

11 D F#7/C# Bm D7/A G Gm D

15 D B7 E7 A7 D

While My Guitar - thumb bass, index strum

Strum the chords all down for more drive, or alternate down-up for a gentler feeling.

The musical score is written in 4/4 time and consists of four systems of music. Each system includes a guitar line (treble clef) and a bass line (bass clef). Chord diagrams are provided above the guitar line, and fingering numbers (1-4) are indicated below the bass line. The score is divided into measures by vertical bar lines.

System 1 (Measures 1-4):

- Measures 1-2: Am chord. Bass line: 0 0 0 0.
- Measures 3-4: Am/G chord. Bass line: 3 3.
- Measures 5-6: D/F# chord. Bass line: 2 2.
- Measures 7-8: F chord. Bass line: 1 1.

System 2 (Measures 9-14):

- Measures 9-10: Am chord. Bass line: 0 0 0 0.
- Measures 11-12: G chord. Bass line: 3 3 3 3.
- Measures 13-14: D chord (first ending). Bass line: 0 0.
- Measures 15-16: E chord. Bass line: 0 0.
- Measures 17-18: C chord (second ending). Bass line: 3 3.
- Measures 19-20: E chord. Bass line: 0 0.

System 3 (Measures 21-26):

- Measures 21-22: A chord. Bass line: 5 5 5 5.
- Measures 23-24: C#m chord. Bass line: 4 4 4 4.
- Measures 25-26: F#m chord. Bass line: 2 2.
- Measures 27-28: C#m chord. Bass line: 4 4.

System 4 (Measures 29-34):

- Measures 29-30: Bm chord. Bass line: 2 2.
- Measures 31-32: E chord. Bass line: 2 2.
- Measures 33-34: E chord. Bass line: 0 0.

I'm Yours thumb bass, index strum

Mute the staccato notes (with a dot immediately below them) after playing them to shorten their duration.

capo IV

Swing eighths

G I D I

TAB

3 3 3 3 3 3 3 3 2 2 2 2 2 2 2 2

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

3 3 3 3 3 3 3 3 0 0 0 0 0 0 0 0

Em I C I A/C# I

TAB

0 0 0 0 0 0 0 0 1 1 0 0 1 1 0 0

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

0 0 0 0 0 0 0 0 3 3 3 3 3 3 3 3

G I Bm/F# II Em I D I C I A/C# I

TAB

3 3 2 2 0 0 2 2 0 0 0 0 2 2 2 2

5 5 4 4 4 4 2 2 0 0 0 0 0 0 0 0

5 5 4 4 4 4 0 0 0 0 3 3 2 2 2 2

Another Brick in the Wall thumb bass, index strum

The image displays a musical score for the song "The Sound of Silence" by Simon & Garfunkel. It includes a guitar part (treble clef) and a bass part (bass clef). The guitar part features a Dm chord at the beginning, followed by a series of chords: Dm, C, Dm, C, G, and F. The bass part is primarily a single-note line, with some chords indicated by the guitar part. The score is written in 4/4 time and includes a key signature of one flat (B-flat). The guitar part includes a Dm chord at the beginning, followed by a series of chords: Dm, C, Dm, C, G, and F. The bass part is primarily a single-note line, with some chords indicated by the guitar part. The score is written in 4/4 time and includes a key signature of one flat (B-flat).

Chord Diagrams:

- Dm:** Fretboard diagram showing notes D (1st fret), F (2nd fret), and A (3rd fret) on strings 1, 2, and 3 respectively. Fingering: 1, 1, 1.
- C:** Fretboard diagram showing notes C (open), E (2nd fret), and G (3rd fret) on strings 1, 2, and 3 respectively. Fingering: 1, 2, 3.
- G:** Fretboard diagram showing notes G (open), B (2nd fret), and D (3rd fret) on strings 1, 2, and 3 respectively. Fingering: 1, 2, 3.
- F:** Fretboard diagram showing notes F (open), A (2nd fret), and C (3rd fret) on strings 1, 2, and 3 respectively. Fingering: 1, 2, 3.

Tablature:

The tablature is written for the guitar part, showing fret numbers for each string. The bass part is written in standard notation.

Lyrics:

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

The image shows a musical score for the song "The Sound of Silence" by Simon & Garfunkel. It includes a guitar part (top) and a bass part (bottom). The guitar part is written in standard notation with a key signature of one flat (Bb) and a 6/8 time signature. The bass part is written in standard notation with a key signature of one flat (Bb) and a 6/8 time signature. The score is divided into measures, with some measures containing chords and others containing single notes or rests. Chord diagrams are provided for the guitar part, showing the fingerings for the chords: F (1 5 1 3 5 1), I (1 2 3 4), C (1 5 1 3), III (3 4 3), Dm (1 5 1 b3), and V (1 2 3 4). The tablature for the guitar part is shown below the staff, with numbers 1 through 5 indicating the frets. The bass part is written in standard notation, with some measures containing chords and others containing single notes or rests. The score is divided into measures, with some measures containing chords and others containing single notes or rests. The bass part is written in standard notation, with some measures containing chords and others containing single notes or rests.

Tune down one step (two frets).

Count on Me thumb bass, index strum

The musical score for "Count on Me" is written in 4/4 time and consists of five systems of guitar and bass notation. The guitar part is in treble clef, and the bass part is in bass clef. The score includes chord changes and fingerings for both instruments.

System 1: Chord C. The guitar part consists of a single note (C4) followed by a series of eighth notes. The bass part consists of a series of eighth notes. The fingerings for the bass are: 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2.

System 2: Chords C, Em, Am, G, F. The guitar part consists of a series of eighth notes. The bass part consists of a series of eighth notes. The fingerings for the bass are: 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2.

System 3: Chords Dm, Em, F, G. The guitar part consists of a series of eighth notes. The bass part consists of a series of eighth notes. The fingerings for the bass are: 1, 3, 2, 5, 1, 3, 2, 5, 1, 3, 2, 5, 1, 3, 2, 5.

System 4: Chords C, Em, Am, G, F. The guitar part consists of a series of eighth notes. The bass part consists of a series of eighth notes. The fingerings for the bass are: 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2.

System 5: Chords C, Em, Am, G, F, G. The guitar part consists of a series of eighth notes. The bass part consists of a series of eighth notes. The fingerings for the bass are: 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2, 0, 1, 0, 2.

I Saw Her Standing There picked bass and index strum

verse

Chords: E7, A7, E7, B7, E7, A7, E7/G#, C7, E7, B7, E7

bridge

Chords: E7, A7, E7, B7, E7, A7, E7/G#, C7, E7, B7, E7

B⁶ A⁶

repeat verse

ending

E⁷ B⁷ E⁷

E⁷ B⁷ A E E⁷

Just the Way You Are thumb bass, index strum

Capo V

C I

Am7 I

Fma7 I

C I

1 2 e + a 3 e + a 4

1 2 e + a 3 e + a 4

1 2 e + a 3 e + a 4

1 2 e + a 3 e + a 4

1 2 e + a 3 e + a 4

1 2 e + a 3 e + a 4

1 2 e + a 3 e + a 4

1 2 e + a 3 e + a 4

Can't Buy Me Love thumb bass, index strum

Swing Eighths

intro

Em Am Em Am Dm G¹³

verse

7 C⁷

second fret

11 F⁷ C⁷

fourth fret

15 G⁷ F⁷ C⁷

The score is written for guitar and bass. The guitar part is in 4/4 time with a swing eighth feel. The bass part is in 4/4 time with a thumb bass feel. The score includes chord diagrams for Em, Am, Dm, G¹³, C⁷, F⁷, and G⁷. The guitar part is written in treble clef, and the bass part is written in bass clef. The score includes a key signature of one flat (Bb) and a tempo of 120 bpm.

chorus

19 Em Am C7

23 Em Am Dm G13

Diagram of Em chord: 1 3 b7 1 3 6

Help! style thumb bass, index strum

Bm G

E A9 A13(#11) G7/A A9 A

System 1: A, C#m

System 2: F#m, D, G, A

System 3: Bm, Bm/A

System 4: G, G/F#

System 5: E

System 6: A⁹, A¹³(#11), G⁷/A, A⁹, 1. A

System 7: 2. F#m, A⁶

I Shot the Sheriff thumb bass, index strum

The musical score for "The Wind" by The Beatles is presented in a multi-staff format. The top staff is for guitar, featuring a treble clef, a key signature of one flat (B-flat), and a 4/4 time signature. The guitar part includes a chorus section marked with a double bar line and repeat dots. Above the guitar staff, three fretboard diagrams are shown for the Gm III and Cm III chords, with fingerings indicated by numbers in circles. The guitar staff itself contains a series of chords and melodic lines, with some notes marked with a 'z' for a natural harmonium effect. Below the guitar staff, a series of arrows indicates the fretting and strumming patterns for the bass part. The bottom staff is for the bass, featuring a bass clef and a key signature of one flat. The bass part includes a series of chords and melodic lines, with some notes marked with a 'z' for a natural harmonium effect. The bass staff is labeled with 'T' for thumb-strum and 'B' for bass. The entire score is titled "The Wind" and is attributed to The Beatles.

E♭ VI

(1) | |
| 3(3)3
1 5 1 3

Dm V

(1) | 1
| 2
| 3(4)
1 5 1 b3 5

Gm III

(1) | 1 1(1)
| 3(4)
1 5 1 b3 5 1

verse

5

(theme on this rhythm)

1 e + a 2 e + a 3e+ a 4 e + a 1e+ a 2 e + a 3e+ a 4 e + a 1e+a 2e+a3e+a4e+a 1e+a 2e+a 1 2 3 4

TAB

6 5 3 3

3 3 3 3 6 6 6 6 3 3 3 3 3 3 3 3 . :|| || ||

4 4 4 4 7 7 7 7 3 3 3 3 3 3 3 3 . :|| || ||

3 3 3 3 7 7 7 7 3 3 3 3 3 3 3 3 . :|| || ||

Demons thumb bass, index strum

The image displays a musical score for the song "The Wind" by The Beatles. It includes a guitar part with a treble clef and a key signature of two sharps (F# and C#). The guitar part is accompanied by five chord diagrams: D, A, Bm, G, and Gmaj7. Each diagram shows a 4x4 grid with fingerings indicated by circled numbers. Below the guitar staff is a bass part with a bass clef and a 4-string fretboard. The bass part includes a double bar line at the beginning and a series of fret numbers (0, 2, 4, 5) for the first four measures. The score is presented in a clean, black-and-white format with a white background.

Kodachrome-capo IV [click to play](#)

♩ = 120

intro

mf

2 C 1 3 5 1 3

4 F 1 5 1 3 5 1

barre the first and second string
and lift off of the sixth and fifth as necessary

6 Dm 1 5 1 b3

7 G7 1 3 5 1 3 b7

8 C

9 Dm

10 G7

verse 1

10 C

11 C7 1 3 b7 1 3

12 F

13

barre the first and second string
and lift off of the sixth and fifth as necessary

14 Dm

15 G7

16 C

17 Dm

18 G7

verse 2

18 C

19 C7

20 F

21 Dm

22 G7

23 C

24 C7

barre the first and second string
and lift off of the sixth and fifth as necessary

chorus

Measures 25-30: F, A⁷, D⁷, G^m, C, F, B^b

Measures 31-38: G⁷, C, F, A⁷, D⁷, G^m, C, F, B^b

Measures 39-44: G⁷, C, F, A^m, D^m, G⁷

Fretboard diagrams show fingering for notes: 1, 2, 3, 4, 5, b7, b9, 10, 11, 12.

THUMB BASS, FINGERS PLUCK (AS GROUP)

Pairs of eighth bass notes on the same string can be plucked down-up.

Coming Home Baby thumb bass, fingers pluck - [click to play video](#)

♩ = 104
Swing Eighths

Fm I
② ③ ③ ③ ①
1 b7 b3 5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Bbm I
① ②
3(4)
1 5 1 b3

Fm I
② ③ ③ ③ ①
1 b7 b3 5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Ab IV
① ② ③
1 3 5

G III
① ② ③
1 3 5

Gb II
① ② ③
1 3 5

Fm I
② ③ ③ ③ ①
1 b7 b3 5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Girl From Ipanema thumb bass, fingers pluck

III

guitar & vocal only

Db^b9 (5 bass)

III

V

5

Db^b9 (5 bass)

E^b9 (5 bass)

9

E^bm⁹ (5 bass)

D7([#]9) (5 bass)

Db^b9 (5 bass)

D7([#]9) (5 bass)

A full band

13

Db^b9 (5 bass)

E^b9 (5 bass)

17

E^bm⁹ (5 bass)

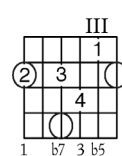
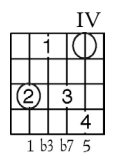
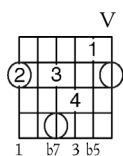
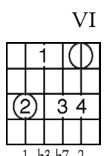
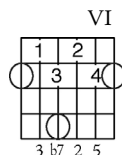
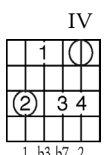
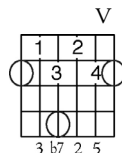
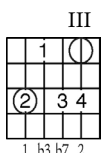
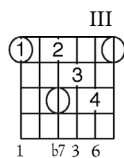
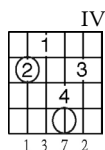
A^b7(b5)

Db^b9 (5 bass)

1. D7([#]9) (5 bass)

2. Db^b9 (5 bass)

The musical score is written in 4/4 time and B-flat major. It features a guitar and vocal part (measures 1-12) and a full band part (measures 13-17). The guitar and vocal part uses a thumb bass line and finger plucking. The full band part includes a variety of chords and bass lines. Chord diagrams are provided for each measure, showing the fretboard positions for the guitar and vocal parts. The diagrams are labeled with Roman numerals (III, IV, V) and chord names (Db^b9, E^b9, E^bm⁹, D7([#]9), A^b7(b5)).



repeat bars 13-20 twice
(end with bars 11, 12, 11, 12, Db6/9)

aternate
more lively rhythm



In My Life thumb bass, fingers pluck

A I A I E I
 1 5 1 3 1 5 1 3 1 5 1 3
 1 2 3 4 1 2 3 4 1 2 3 4
 2 5 4 3 2 4 3 2 1 4 3 2
 0 0 0 0 0 0 0 0 0 0 0 0
 A I E I F#m II A/G II D/F# I Dm/F I A I
 1 5 1 3 5 1 5 1 3 5 1 5 1 b3 5 1 b7 5 1 3 3 5 1 5 1 b3 1 5 1 1 5 1 3 5
 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
 2 0 2 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
 0 0 0 0 2 3 3 2 2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 F#m II D I G I A I
 1 5 1 b3 5 1 1 5 1 3 1 3 5 1 5 1 1 5 1 3 5
 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
 2 2 2 2 2 3 3 3 3 0 2 2 2 2 2 2 2 2 2 2 2 2 2 2
 2 2 2 2 0 0 0 0 3 3 3 0 0 0 0 0 0 0 0 0 0 0 0 0
 B II
 1 5 1 3
 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4
 2 4 2 4 2 4 2 4 2 4 2 4 2 4 2 4
 2 2 2 2 0 0 0 0 0 0 0 0 0 0 0 0

The Way You Make Me Feel thumb bass, fingers pluck - [click to play](#)

Capo I

♩. = 114

verse

1 5 1 3 E

1 1(1)1 2 5 1 3 D/E

1 1(1)1 5 1 3 E

1 3 5 1 A/E

play 4 times

10

A 5 1 3

G/A 1 1(1)1 5 1 3

A 1 1(1)1 5 1 3

D/A 1 1(1)1 5 1 3

A 1 1(1)1 5 1 3

G/A 1 1(1)1 5 1 3

A 1 1(1)1 5 1 3

B 1 1(1)1 5 1 3

14

E 1 1(1)1 5 1 3

D/E 1 1(1)1 5 1 3

E 1 1(1)1 5 1 3

A/E 1 1(1)1 5 1 3

E 1 1(1)1 5 1 3

D/E 1 1(1)1 5 1 3

E 1 1(1)1 5 1 3

chorus

18

E 1 1(1)1 5 1 3

A/E 1 1(1)1 5 1 3

D/E 1 1(1)1 5 1 3

E 1 1(1)1 5 1 3

E 1 1(1)1 5 1 3

D/E 1 1(1)1 5 1 3

play 4 times

The musical score is written for guitar and bass. The guitar part is in treble clef with a key signature of three sharps (F#, C#, G#) and a 12/8 time signature. The bass part is in bass clef. The score is divided into a verse, a chorus, and a final section. Fretboard diagrams are provided for various chords and melodic lines. The verse starts with a 'verse' label and a tempo of 114. The chorus is marked 'chorus' and includes a 'play 4 times' instruction. The final section also includes a 'play 4 times' instruction. The score ends with a double bar line.

BASS, MID, TOP (PIANO STYLE)

This imitates simple pop piano accompaniments that sequence:

1. a bass note with the piano left hand, played with thumb on guitar
2. a mid-range note with the piano right hand (usually the lower note in a triad), plucked with the index finger on guitar.
3. the remaining note or two in a three-note chord with the piano right hand, plucked with the middle or middle and ring fingers on guitar.
4. a mid-range note with the piano right hand (usually the lower note in a triad), plucked with the index finger on guitar.

Freebird bass, mid, top

The image shows a musical sequence for 'Freebird' in 4/4 time, featuring a bass, mid, and top line. The sequence is divided into two systems, each with six measures. The first system includes chords G, D/F#, and Em. The second system includes chords F, C, and D. Each chord is accompanied by a guitar fretboard diagram showing fingerings. The musical score is written in treble clef with a key signature of one sharp (F#). The guitar tablature is provided below the staff, with fret numbers and picking directions (T for thumb, A for index, B for middle/ring) indicated.

Chord Diagrams:

- G:** Fretboard diagram showing a G major triad (G-B-D) with fingerings 1, 3, 5, 1, 5, 1.
- D/F#:** Fretboard diagram showing a D major triad (D-F#-A) with fingerings 3, 5, 1, 5, 1.
- Em:** Fretboard diagram showing an E minor triad (E-G-B) with fingerings 1, 5, 1, b3, 5, 1.
- F:** Fretboard diagram showing an F major triad (F-A-C) with fingerings 1, 3, 5, 1.
- C:** Fretboard diagram showing a C major triad (C-E-G) with fingerings 1, 3, 5, 1, 3.
- D:** Fretboard diagram showing a D major triad (D-F#-A) with fingerings 1, 5, 1, 3.

5

Hey Jude Bass, Mid, Top

Chords: G, D, D7(sus4), G, C, G, D, G, G7, C, C/B, C/A, C/G, D7/F#, G, G7, C, C/B, C/A, C/G, D7/F#, G, G7, D7, G, F(add9), C, G.

Measures: 1-4, 5-8, 9-12, 13-16, 17-18, 19-22, 23-24.

Time signature: 4/4 (Measures 1-18), 2/4 (Measures 19-24).

Key signature: G major (Measures 1-18), 2/4 (Measures 19-24).

Musical score for "The Sound of Silence" by Simon & Garfunkel. The score is in G major and 4/4 time. It features a guitar part with chords G, F(add9), C, and G, and a bass line. The guitar part is written in treble clef, and the bass line is written in bass clef. The guitar part includes a capo on the 2nd fret. The bass line is written in bass clef. The score is for a guitar and bass ensemble.

Black bass, mid, top

p = thumb
i = index
m = middle
a = ring

0 0 0 0

5

E A E

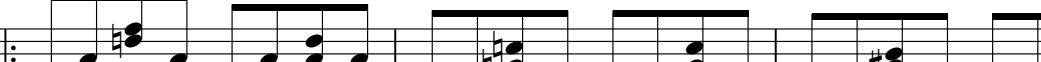
pami pami pami pami pami pami pami pami

0 0 2 2 0 0 2 2 0 0 2 2

2 1 2 2 2 2 2 2 2 2 2 2

0 0 0 0

13



p i a m i p i a m i p i a m i p i a m i

piano-style 12/8 jazz blues - [click to play](#)

♩. = 105

Chord progression: B \flat 7, B \flat 9(sus4), E \flat 9, E \circ 7, B \flat 7, B \flat 9(sus4), B \flat 7, B \flat 9(sus4), E \flat 9, E \flat 9, E \circ 7, B \flat 7, B \flat 9(sus4), G7(#9), D \flat 13, Cm7, F7(sus4), C \flat 13, B \flat 7, G7(#9), D \flat 13, Cm7, F7(sus4), B \flat 7.

Measure numbers: 1, 6, 10.

TRAVIS FINGERPICKING AND PIEDMONT BLUES

Playing the notes of held chords one or two notes at a time is the basis of “Travis fingerpicking”, “Piedmont Blues” (also called “East Coast Blues”).

Travis fingerpicking is named after Merle Travis. Piedmont blues is more African American in origin. “Piedmont” refers to the Piedmont plateau region of the Appalachian, on the East Coast from Virginia to Northern Florida. The style expanded geographically to most of the Appalachians mountains.

In these styles, a bass note is generally played on every beat. Occasionally, two or more notes are played together. These styles are an evolution of Ragtime style and are more regular in their patterns than Ragtime.

Dust in the Wind patterned arpeggios

First system: C, Cmaj7, C(add9), Cmaj7

Second system: 5 A(sus2), A(sus4), Am, A(sus2)

Fragile - Travis fingerpicking style - [click to play video](#)

plucking hand fingers: p= thumb, i = index, m = middle, a= ring

♩ = 82

First system: Em⁹, Am⁹, B¹¹, Em⁹

Second system: Am, B⁷, Em⁹

Travis Fingerpicking Variations - [click to play video](#)

Legend of plucking fingers: p = thumb, i = index, m = middle, a = ring. Let the notes of each chord ring until the next

quarter notes, except two eighth notes on the second beat

= 100

2 G 1 3 5 1 5 1 3 B⁷ 1 3 b7 1 5 4 Em 1 5 1 b3 5 1 5 C 1 3 5 1 3

6 G 1 3 5 1 5 1 7 Am 1 5 1 b3 5 8 D 1 5 1 3 9 D/A 5 1 5 1 3

quarter notes, except two eighth notes on the second and third beats

10 11 G 12 B⁷ 13 Em 14 C

15 G 16 Am 17 D

the high first note in each bar voice leads down and back up

18 19 D/A 20 G 21 B⁷ 22 Em 23 C

24 G 25 Am 26 D 27 D/A

m p p i p m p m p p i p m p m p p i p m p

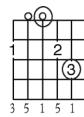
3 0 0 3 0 1 2 2 1 2 3 2 3 0 2 2 0 0 2 0 0

the high first note in each bar voice leads continuously downward

28 29 G 30 B⁷ 31 Em 32 D/A

a p p i p m p a p p i p m p a p p i p m p p p i p m p

3 0 0 0 0 2 1 2 1 0 2 0 0 2 3 0 2 0 0 0



33 Am 34 G 35 D/F[♯] 36 D

m p p i p m p m p p i p m p p p i p m p

1 2 2 1 0 0 0 0 2 0 2 3 0 2 2 3 0 3 2

ascending chord tones on the offbeat

37 38 G 39 B⁷ 40 Em 41 C

p i p m p a p p i p m p a p p i p m p a p p i p m p a p

3 0 0 3 3 2 2 1 0 2 1 0 2 0 0 2 3 0 2 1 0 2

42 G 43 Am 44 D 45 D/A

p i p m p a p p i p m p a p p i p m p i p p i p m p a p

0 3 3 2 2 1 0 2 3 2 2 3 2 2 3 2 0 0 0 0

descending chord tones on the offbeat

46 47 G 48 B⁷ 49 Em 50 C

p a p m p i p p a p m p i p p a p m p i p p a p m p i p

3 0 3 0 2 1 0 2 1 0 2 0 0 2 3 2 1 0 2

with plucked chords

chord on beat 2

55 56 G 57 B⁷ 58 Em 59 C

m i p p i p p m i p p i p p m i p p i p

3 0 0 0 2 1 2 2 1 0 2 0 0 2 3 2 0 2

60 61 Am 62 D 63 D/A

m i p p i p p m i p p i p p m i p p i p

3 0 0 0 1 2 2 0 2 3 2 3 0 2 2 0 2

chords on the backbeat (2 and 4)

64 65 G 66 B⁷ 67 Em 68 C

i p i p i p p i p i p i p p i p i p i p p i p i p i p

3 0 0 0 2 2 1 2 2 1 0 0 0 0 3 0 2 3 0 2

69 G 70 Am 71 D 72 D/A

p i p i p i p m i p p m i p p i p p m i p p i p

TAB 3 0 0 0 3 0 0 0 2 1 2 2 2 1 2 0 3 2 3 2 2 3 2 0 2 2 3 0

73 Charleston push 74 G 75 B7 76 Em 77 C

a m i p p a m i p i p i a m i p p a m i p p i p i a m i p p a m i p p i p i

TAB 3 0 0 0 3 0 0 0 2 0 2 2 1 2 0 0 0 0 2 0 0 3 2 3 0 2 0 2 0 3 2 3 0

78 G 79 Am 80 D 81 D/A

a m i p p a m i p i p i a m i p p a m i p p i p i a m i p p a m i p p i p i

TAB 3 0 0 0 3 0 0 0 2 2 2 2 2 2 2 3 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

82 Charleston pickup 83 G 84 B7 85 Em 86 C

a m i p p a m i p i p i a m i p p a m i p p i p i a m i p p a m i p p i p i

TAB 3 0 0 0 3 0 0 0 2 0 2 2 1 2 0 0 0 0 2 0 0 3 2 3 0 2 0 2 0 3 2 3 0

87 G 88 Am 89 D 90 D/A

a m i p p a m i p i p i a m i p p a m i p p i p i a m i p p a m i p p i p i

TAB 3 0 0 0 3 0 0 0 2 2 2 2 2 2 2 3 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

with Celtic ornamentation

5

eighth and sixteenth notes

91 92 G 93 94 95 G

96 G 97 98 99

thumb pluck on the sixth and fourth string

eighth triplets (thinking in four-beat bars)

♩. = 125 G 100 101 102 103

thumb pluck on the sixth string only

Travis Fingerpicking Pedal Point Exercise in G - [click to play](#)

♩ = 100

2 3 G 4

5 G 6 7 Am7 8

9 B7 10 11 C 12

13 D7 14 15 Em 16

17 D7/F# 18 19 G 20

TAB

Travis Fingerpicking Pedal Point Exercise in C - [click to play](#)

♩ = 100

This guitar score is for a Travis fingerpicking exercise in the key of C major, 4/4 time, at a tempo of 100 beats per minute. The exercise consists of 20 measures, organized into five systems of four measures each. The notation includes a standard musical staff and a guitar tablature (TAB) staff. The TAB staff uses numbers 0-4 to indicate fret positions and 'T' for natural harmonics. The exercise features a consistent bass line (pedal point) of alternating open strings (E and A) and a complex, rhythmic treble line. Chord changes are indicated by measure numbers and chord symbols: C (measures 3, 5, 19), Dm7 (measure 7), Em (measure 9), F (measure 11), G7 (measure 13), Am (measure 15), and G/B (measure 17). The piece concludes with a double bar line and repeat dots at the end of measure 20.

2 3 C 4

5 C 6 7 Dm7 8

9 Em 10 11 F 12

13 G7 14 15 Am 16

17 G/B 18 19 C 20

Travis Fingerpicking Melody Exercises in C and Am - [click to play](#)



This page contains 24 measures of Travis fingerpicking exercises in 4/4 time. Each measure is represented by a musical staff with a treble clef and a corresponding TAB line below it. The exercises are divided into two main sections: C major (measures 5-12) and D minor (measures 13-24). Measures 1-4 are introductory chords. Measures 5-12 are in C major, with measures 5, 6, 11, and 12 featuring a C major chord symbol. Measures 13-24 are in D minor, with measures 13, 15, 17, and 18 featuring a D minor chord symbol. The TAB lines use numbers 0-3 to indicate fret positions and include vertical dashed lines to show the timing of the fingerpicks. The exercises focus on alternating bass and treble lines, a characteristic of Travis picking.

Measures 5-12: C major exercises. Measures 13-24: D minor exercises.

25 26 27 Em 28

29 Em 30 31 32

33 34 35 36

37 38 39 F (thumb bass) 40

41 F (thumb bass) 42 43 44

45 46 47 48

C major and A minor Travis picking melody exercises

3

49 50 51 G 52

53 G 54 55 56

57 58 59 60

E usually precedes Am in the key of Am or C major

61 62 63 E 64

65 E 66 67 68

69 70 71 72

73 74 75 Am 76

77 Am 78 79 80

81 82 83 84

85 86 87 Am/G 88

89 Am/G 90 C/G 91 Am/G 92

93 C/G 94 Am/G 95 96

The musical score is written for guitar, spanning measures 73 to 96. It features a pentatonic scale in the key of A minor (A, C, D, E, G) across measures 77-84. Chords indicated include Am, Am/G, and C/G. The TAB notation is provided for each measure, showing fret numbers and string numbers.

G/B is commonly between Am and C major

97 98 99 G/B 100

101 G/B 102 103 104

105 106 107 108

109 combining chords 110 111 112

1 Am 2 C/G 3 F 4 Am/G

5 Am⁷ 6 C/G 7 Fmaj⁷ 8 Am

Travis Fingerpicking Melody Exercises in G and Em - [click to play](#)



This image displays a series of 24 measures of Travis fingerpicking exercises, organized into six systems of two measures each. Each system consists of a musical staff in G major (one sharp) and a corresponding guitar tablature (TAB) below it. The exercises are numbered 2 through 24. Measures 15 and 17 are marked with the chord 'Am' (A minor). The notation includes various fingerpicking patterns, such as alternating bass and treble lines, and specific fingering instructions (e.g., 0, 2, 0, 1, 3, 0, 2, 3). The TAB lines show fret numbers (0-3) and picking patterns (e.g., 3, 3, 3, 3, 3, 3, 3, 3). The exercises are designed to be played in a 4/4 time signature, with a key signature of one sharp (F#).

2

3 G

4

5 G

6

7

8

9

10

11

12

13

14

15 Am

16

17 Am

18

19

20

21

22

23

24

25 26 27 G/B 28

29 G/B 30 31 32

33 34 35 36

37 38 39 C 40

41 G/B 42 43 44

45 46 47 48

49 50 51 D 52

53 D 54 55 56

57 58 59 60

B7 usually precedes Em

61 62 63 B7 64

65 B7 66 67 68

69 70 71 72

73 74 75 Em 76

77 Em 78 79 80

81 82 83 84

85 86 87 D/F# 88

89 D/F# 90 91 92

93 94 95 96

97 98 99 G 100

101 G 102 103 104

105 106 107 108

combine chords

109 110 111 112

1 G 2 C 3 D 4 B7

5 Em 6 D/F# 7 C 8 G

Piedmont Blues (originated in Ragtime music)

Stung Again - [click to play video](#)

♩ = 110 Swing Eighths

Chords: C, G, C, C7/G, F, Fm6, C, A° G/B, C, C7/G, D7/A, G13/Ab, G, F, C, G7, C, G, C7/G, F, Fm6, C, A° G/B, C, G, C7/G, D9, G9, Am7(b5) G7/B, C, F, C, G7, C7/G, F, Fm6, C, C7, B7, E, F, Fm6, C, Bbaug A7, D9, G9, A°, G7/B, C, F, C, G7.

27

3.

C C⁷/G F Fm⁶ C B^baug A⁷ D⁹ G⁹ A^o G⁷/B C C⁷

T 1 2 2 3 3 0 1 3 3 0 1 2 3 3 0 5 3 4 3 1 3

A 3 0 1 3 1 3 3 1 0 0 3 0 2 3 3 3

B 3 0 1 3 1 3 3 1 0 0 3 0 2 3 3 3

Secondary Dominant Patterned Arpeggio Exercises

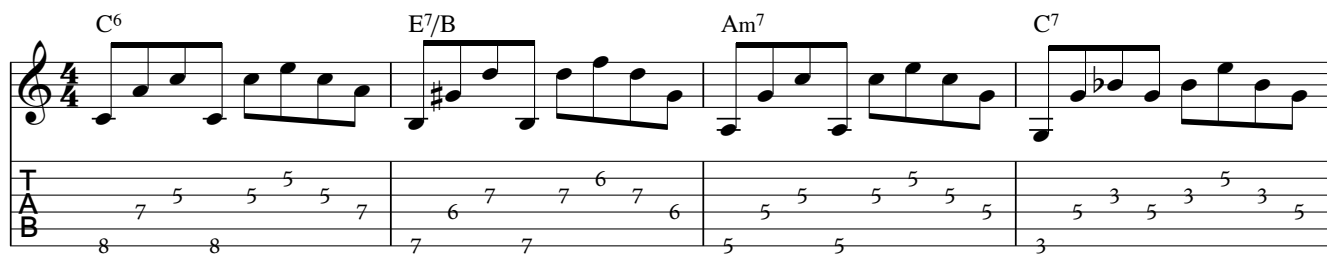
In these exercises, every second chord (E7/B, C7, A7, the seventh chords) establishes the temporary key of the chord that follows it. Songs commonly move to a temporary key in the course of the song. Each of these dominant seventh chords (E7) "setup" the movement to the new key creating a familiar two chord cadence from setup chord (E7) to target chord (Am). See the chapter "[Secondary Dominant](#)".

secondary dominant exercise 1

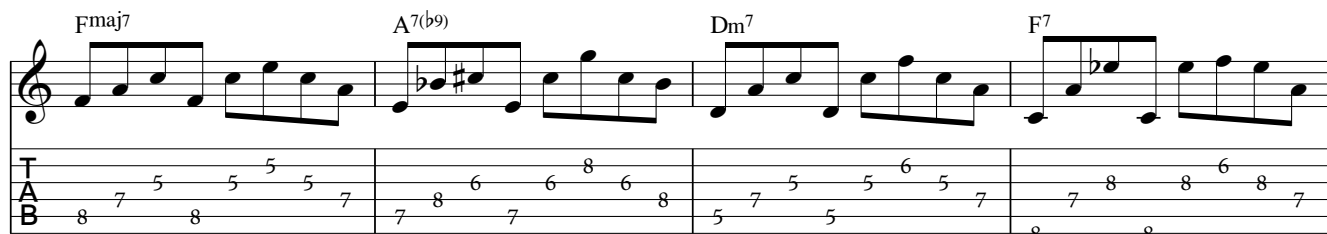
The exercise consists of four systems of music, each with a treble clef staff, a bass staff with tablature, and a grid of fingerings for the chords. The chords are: C, E7/B, Am, C7, F, A7, Dm, F7, Bb, D7, G, B7, Em, G7, C, G7, C. The tablature uses numbers 0-4 and includes triplets and slurs. The fingering grids show finger numbers 1-4 and circles indicating specific fret positions.

secondary dominant exercise 2

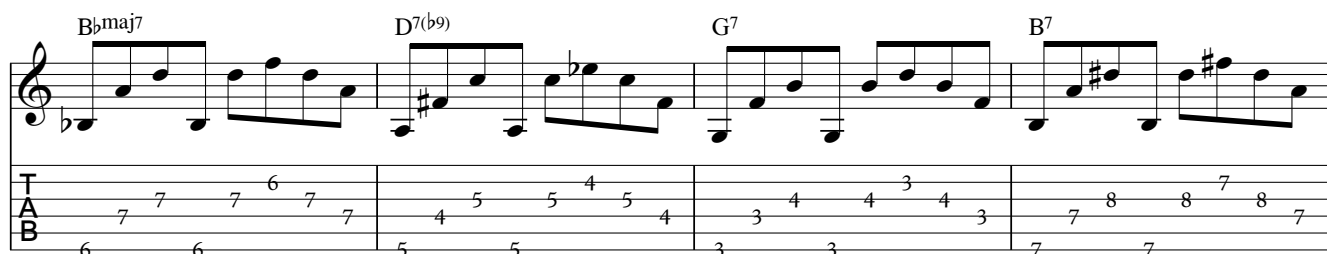
C⁶ E⁷/B Am⁷ C⁷



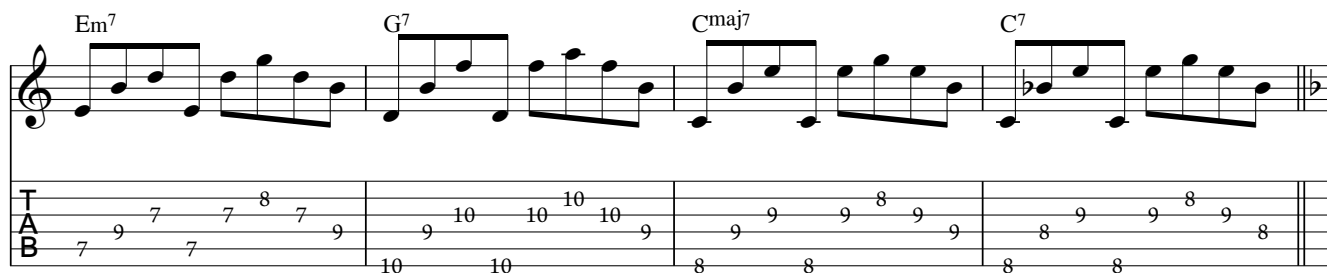
Fmaj⁷ A⁷(b⁹) Dm⁷ F⁷



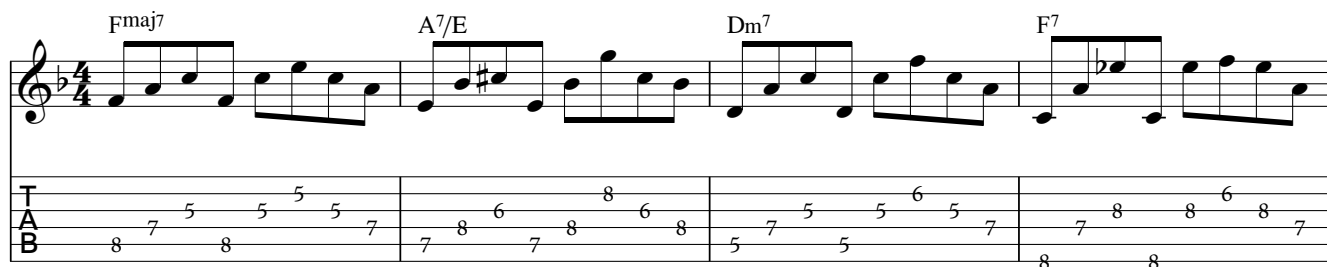
B^bmaj⁷ D⁷(b⁹) G⁷ B⁷



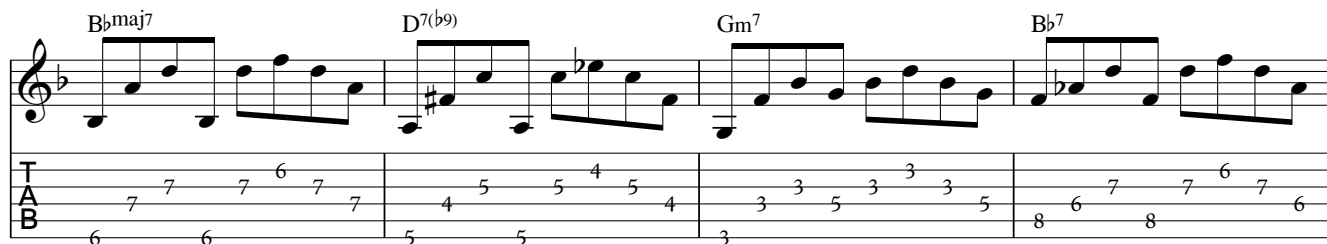
Em⁷ G⁷ Cmaj⁷ C⁷



Fmaj⁷ A⁷/E Dm⁷ F⁷



B^bmaj⁷ D⁷(b⁹) Gm⁷ B^b⁷



The image displays two systems of guitar tablature, each consisting of a treble clef staff with a melody line and a corresponding six-string guitar fretboard with numerical fret numbers.

System 1:

- Staff 1: Treble clef, key signature of one flat (Bb). Chord labels: Ebmaj7, G7(b9), C7, E7(b9).
- Staff 2: Treble clef, key signature of one flat (Bb). Chord labels: Am7, C7, Fmaj7, G7.

System 2:

- Staff 1: Treble clef, key signature of one flat (Bb). Chord labels: Ebmaj7, G7(b9), C7, E7(b9).
- Staff 2: Treble clef, key signature of one flat (Bb). Chord labels: Am7, C7, Fmaj7, G7.

Tablature Details:

System 1:

- Staff 1: Treble clef, key signature of one flat (Bb). Chord labels: Ebmaj7, G7(b9), C7, E7(b9).
- Staff 2: Treble clef, key signature of one flat (Bb). Chord labels: Am7, C7, Fmaj7, G7.

System 2:

- Staff 1: Treble clef, key signature of one flat (Bb). Chord labels: Ebmaj7, G7(b9), C7, E7(b9).
- Staff 2: Treble clef, key signature of one flat (Bb). Chord labels: Am7, C7, Fmaj7, G7.

Travis Fingerpicking Library in Table Form

p= thumb, i=index, m=middle, a=ring, c = little finger

Most of these that have the chord roots on the beat are "Travis fingerpicking". The bass notes on beats 1-2-3-4 are plucked with the thumb. Open position Am, A, B7, G/B and C have a fifth-string bass. Em, D/F#, F and G have a sixth string bass. D and Dm have a fourth string bass. Travis style examples: Can't Find My Way Home, Dear Prudence, Don't Think Twice, Dust in the Wind, Embryonic Journey, Guaranteed, Helplessly Hoping, Hero, Landslide, Simple Twist of Fate, Time of Your Life,

Landslide

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
5		4	2	5	3	4			6		4	2	6	3	4			4		3	1	4	2	3	
p		p	m	p	i	p			p		p	m	p	i	p			p		p	m	p	i	p	

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
5		4	1	5	2	4	3		6		4	1	6	2	4	3		4		3	1	4	1	3	2
p		p	a	p	m	p	i		p		p	a	p	m	p	i		p		p	m	p	m	p	i

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
2 5		4	3	5	2	4			2 6		4	3	6	2	4			1 4		3	2	4	1	3	
m p		p	i	p	m	p			m p		p	i	p	m	p			m p		p	i	p	m	p	

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
2 5		4	3	5	2	4	3		2 6		4	3	6	2	4	3		1 4		3	2	4	1	3	2
m p		p	i	p	m	p	i		m p		p	i	p	m	p	i		m p		p	i	p	m	p	i

Can't Find My Way Home 5 in bass on Cadd9-G/B-G/Bb-D; 6 in bass on F-G; 4 in bass on D (after F-G)

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
2 5		3	2	6	1	3	2		2 6		4	3	6	2	4	3		1 4		3	2	4	1	3	2
m p		p	i	p	m	p	i		m p		p	i	p	m	p	i		m p		p	i	p	m	p	i

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
1 5		4	3	5	2	4			1 6		4	3	5	2	4			1 4		3	2	3	1	3	
a p		p	i	p	m	p			a p		p	i	p	m	p			m p		p	i	p	m	p	

Dear Prudence

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
1 5		4	3	6	2	4			1 6		4	3	4	2	4			1 4		3	2	3	1	3	
a p		p	i	p	m	p			a p		p	i	p	m	p			m p		p	i	p	m	p	

Tom Dooley (swing eighths)

C

G7

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
5	4		2		3	4			6	4		2		3	4			4	3		1		2	3	
p	i		a		m	i			p	i		a		m	i			p	i		a		m	i	

Can't Wait

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
2 5		4	3		2	4	3		2 6		4	3		2	4	3		1 4		3	2		2	1	2
m p		p	i		m	p	i		m p		p	i		m	p	i		m p		p	i		i	m	i

Time of Your Life

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
5		5	2		3	4	3		6		6	2		3	4	3		4		4	2		3	4	3
p		p	m		i	p	i		p		p	m		i	p	i		p		p	m		i	p	i

continuous rhythm

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
5	2	4	3	5	2	4	3		6	2	4	3	6	2	4	3		4	1	3	2	4	1	3	2
p	m	p	i	p	m	p	i		p	m	p	i	p	m	p	i		p	m	p	i	p	m	p	i

1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+		1	+	2	+	3	+	4	+
5	3	4	2	5	3	4	3		6	3	4	2	6	3	4	3		4	2	3	1	4	2	3	2
p	i	p	m	p	i	p	i		p	i	p	m	p	i	p	i		p	i	p	m	p	i	p	i

Can't Find My Way Home - [click to play video](#)

♩ = 140

The sheet music is arranged in two systems, each containing three staves. The top staff is for guitar, the middle for bass, and the bottom for a second bass line. Chords are indicated above the guitar staff, and fingering numbers (0-4) are provided for both guitar and bass. The key signature has two sharps (F# and C#), and the time signature is 4/4.

System 1 (Measures 1-12):

- Measures 1-4: Chords G(add9), G/B, Gm/Bb, D/A.
- Measures 5-8: Chords F, G, D.
- Measures 9-12: Chords G, A.

System 2 (Measures 13-24):

- Measures 13-16: Chords D, Em⁹.
- Measures 17-20: Chords G, D/F#, Em, D.
- Measures 21-24: Chords D⁷sus⁴/C, G/B, Gm/Bb, D.

System 3 (Measures 25-36):

- Measures 25-28: Chords F, G, D.
- Measures 29-32: Chords D⁷sus⁴/C, G/B, Gm/Bb, D.
- Measures 33-36: Chords D⁷sus⁴/C, G/B, Gm/Bb, D.

2

34 F G D

38 D⁷sus⁴/C G/B Gm/B^b D

42 F G D

46 D⁷sus⁴/C G/B Gm/B^b D

50 F G D

54 G A

58 D Em⁷

62 G G/F[#] Em⁷ A(sus4) D

66 D7sus4/C G/B Gm/B^b D

70 F G D

74 D7sus4/C G/B Gm/B^b D

78 F G D

82 D7sus4/C G/B Gm/B^b D

86 F G D

90 D7sus4/C G/B Gm/B^b D

94 F G D

BLUES COMPING

Alternate Fifth and Sixth

Alternating the fifth to the sixth in a chord was first established in blues piano, then copied to the guitar. If you've heard much blues, you'll find it very familiar.

Five To Six Open Position Blues - [click to play video](#)

Swing Eighthts ♩ = 110

A⁶

1 0 1 3 3 1 1 3 3 1 0 1 3 3 1 0 1 3 3 1 0 1 3 3 1 0 1 3 3 1 0 1 3 3 4 4 3 3

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

T
A
B

2 2 4 4 2 2 4 4 2 2 4 4 2 2 4 4 2 2 4 4 2 2 4 4 2 2 4 4 2 2 4 4 5 5 4 4

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

6 **D⁶** **A⁶**

1 0 1 3 3 1 1 3 3 1 0 1 3 3 4 4 3 3 1 0 1 3 3 1 0 1 3 3 1 0 1 3 3 4 4 3 3

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

T
A
B

2 2 4 4 2 2 4 4 2 2 4 4 5 5 4 4 2 2 4 4 2 2 4 4 2 2 4 4 2 2 4 4 5 5 4 4

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

10 **E⁶** **A** **A⁷** **A⁶** **Bm⁷(b5)/A** **1. A** **E** **2.**

1 0 1 3 3 1 1 3 3 1 0 1 3 3 4 4 3 3 1 4 3 2 1 1 1 1 1 1 1 1 1 2 2

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

T
A
B

2 2 4 4 2 2 4 4 2 2 4 4 5 5 4 4 2 5 4 3 2 2 2 2 2 2 2 2 2 5 6

0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

Crossroads alternate fifth and sixth - [click to play video](#)

open position

♩ = 130

Measures 1-12: A7, D7, E7, A7

E form

"Push" the beginning of every second bar (as written), by playing on the "and (+) of 4" before it and sustaining on to the first beat,.

Measures 13-24: A, D, A, D, E, D, A

D form

25

A D (G) D A

29

D (G) D (G) D (G) D⁷ (G) A

33

E D (G) D (G) A

C form

37

A (D) A (D) D (G) D (G) A (D) (A) A (D) A (D) (A) A (D) (A)

41

D (G) D (G) D (G) D⁷ (G) A (D) (A) A (D) A (D) (A) A (D) (A)

45

E (A) E (A) D (G) D (G) A (D) (A) A (D) A (D) (A) A (D) (A)

A form

49 A D A

53 D A

57 E D A

G form

61 A (D) (A) (D) D (G) (D) (G) A (D) (A) (D) A (D) (A) (D)

65 D (G) (D) (G) D (G) D9 (G) A (D) (A) (D) A (D) (A) (D)

69 E (A) (E) (A) D (G) (D) (G) A (D) (A) (D) A (D) (A) (D)

Communication Breakdown alternate fifth and sixth

E D A D

play these four bars four times

3 A A⁶ A A⁶ A A⁶ A A⁶ A A⁶ A A⁶ A A⁶ A A⁶ A A⁶

7 B B⁶ B B⁶ B B⁶ B B⁶ B B⁶ B B⁶ B B⁶ B B⁶ B B⁶

repeat the first two bars four times and end on "E"

Rock And Roll Blues style alternate fifth and sixth comping

A D A

1/4 1/2 1/4 1/2

5 D A

1/4 1/2 1/4 1/2

9 E D A

TAB: 9 9 11 9 9 9 11 7 | 7 9 7 7 7 9 7 | 2 2 3 2 5 2 4 3

Stevie's Shuffle alternate fifth and sixth comping

Swing Eighths

A⁷

TAB: 2 2 3 4 2 2 4 2 | 2 5 2 4 2 3 4 | 2 2 3 4 2 2 4 2 | 2 5 2 4 2 3 4

0 0 3 4 0 0 0 0 | 0 0 0 0 0 3 4 | 0 0 3 4 0 0 0 0 | 0 0 0 0 0 3 4

5 D⁷ A⁷

TAB: 2 2 3 4 2 2 4 2 | 2 5 2 4 2 3 4 | 2 2 3 4 2 2 4 2 | 2 5 2 4 2 3 4

0 0 3 4 0 0 0 0 | 0 0 0 0 0 3 4 | 0 0 3 4 0 0 0 0 | 0 0 0 0 0 3 4

9 E⁷ D⁷ A D A E

TAB: 2 2 3 4 2 2 4 2 | 2 5 2 4 2 3 4 | 2 2 3 4 2 2 4 2 | 2 5 2 4 2 3 4 | 2 2 3 4 2 2 4 2 | 2 5 2 4 2 3 4

0 0 3 4 0 0 0 0 | 0 0 0 0 0 3 4 | 0 0 3 4 0 0 0 0 | 0 0 0 0 0 3 4 | 0 0 3 4 0 0 0 0 | 0 0 0 0 0 3 4

Red House alternating fifth and sixth - [click to play video](#)

Swing Eighths

♩ = 65

1 B⁶ B⁷ B⁶ E⁷ B⁶ B⁷ B⁶

5 E⁷ B⁶

9 1. F^{#6} E⁷ B⁶ B⁶ 3

13 2. F^{#6} E⁷ B⁷ B⁹/D[#] E⁹ E^{#o7} F^{#9} C¹³ B¹³

Hideaway comping in E

Swing Eighth

E⁷

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

T 5 3 5 3 (3)
A 6 4 6 4 (4)
B 2 6 4 6 4 2 0 0 0 0 0 0 0

5 **A⁷** **E⁷**

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

T 7 5 7 5 (5)
A 6 4 6 4 (4)
B 2 7 5 7 5 2 0 0 0 0 0 0 0

9 **B⁷** **A⁷** **E⁷** **B⁷(#9)**

1 trip let 2 trip let 3 trip let 4 trip let 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

T 7 7 7 7 7 7 7 7 7 7 7 7 8
A 8 8 8 8 8 8 8 8 8 8 8 8 6
B 7 7 7 7 7 7 7 7 7 7 7 7 7

1. **E⁷** **A⁷** **E⁷** **B⁷(#9)**

T 5 5 3 3 (3)
A 7 6 4 2 (2)
B 6 5 2 1 (1)

Straight Eighth

13 **2. E⁷** **A⁷** **A^{#7}** **B⁷** **F⁹** **E⁹**

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

T 7 7 6 6 3 3
A 6 6 5 5 5 5
B 7 7 7 7 4 4

T 4 8 7
A 4 8 7
B 6 8 7

Rockabilly Shuffle In G - [click to play audio](#)

Swing Eighths

Sheet music for "Rockabilly Shuffle In G" in 4/4 time, featuring a Swing Eighths feel. The key signature is one sharp (F#), and the tempo is marked "Swing Eighths".

The music is written for guitar (T) and bass (B). The first system includes a G⁶ chord and a sequence of eighth notes. The second system includes C⁶, C⁹, C⁶, C⁹, C⁶, and G⁶ chords. The third system includes D⁶, D⁹, C⁶, C⁶, G⁶, and D⁷(#9) chords. The fourth system is a single measure with a G⁶ chord.

The notation includes a treble clef and a key signature of one sharp (F#). The bass line is written in a 4/4 time signature. The guitar part includes a sequence of eighth notes and a final measure with a G⁶ chord.

The first system includes a G⁶ chord and a sequence of eighth notes. The second system includes C⁶, C⁹, C⁶, C⁹, C⁶, and G⁶ chords. The third system includes D⁶, D⁹, C⁶, C⁶, G⁶, and D⁷(#9) chords. The fourth system is a single measure with a G⁶ chord.

The notation includes a treble clef and a key signature of one sharp (F#). The bass line is written in a 4/4 time signature. The guitar part includes a sequence of eighth notes and a final measure with a G⁶ chord.

The first system includes a G⁶ chord and a sequence of eighth notes. The second system includes C⁶, C⁹, C⁶, C⁹, C⁶, and G⁶ chords. The third system includes D⁶, D⁹, C⁶, C⁶, G⁶, and D⁷(#9) chords. The fourth system is a single measure with a G⁶ chord.

The notation includes a treble clef and a key signature of one sharp (F#). The bass line is written in a 4/4 time signature. The guitar part includes a sequence of eighth notes and a final measure with a G⁶ chord.

♩ = 92

Dm7

play 4 times

A

G

B

A

G

A

Dm7

play 4 times

♩ = 126

1 E 2 B 3 C#m 4 G#

P.M.-----| P.M.-----| P.M.-----| P.M.-----|

TAB

5 E A/E E A/E E 6 B E/B B E/B B 7 G#5 8 A5

TAB

Jazz Blues

Three Finger Jazz Blues In G, E form

Locate the chords with the fretboard letters and the beginning of the chord name.

Diagram illustrating the fretboard positions for the Three Finger Jazz Blues in G, E form. The fretboard is shown with letters indicating the notes for each fret (open, III, V, VII, IX, XII). The chords are listed below the fretboard, along with their corresponding fretboard diagrams and musical notation.

Chords and Fretboard Diagrams:

- open:** E A D G B E (Fretboard diagram: 1 3 b7 3)
- III:** G C F D G (Fretboard diagram: 1 3 b7 3)
- V:** A D G C E A (Fretboard diagram: 1 3 b7 3)
- VII:** B E A D B (Fretboard diagram: 1 3 b7 3)
- IX:** C F G C (Fretboard diagram: 1 3 b7 3)
- XII:** E A D G B E (Fretboard diagram: 1 3 b7 3)

Chord Progression:

First Line: G⁷ C⁷ G⁷

Second Line: C⁷ C^{#o7} G⁷ E⁷

Third Line: Am⁷ D⁷ G⁷ E⁷ Am⁷ D⁷ G⁷

Three Finger Jazz Blues In C, A form

Diagram illustrating the fretboard positions for the Three Finger Jazz Blues in C, A form. The fretboard is shown with letters indicating the notes for each fret (open, III, V, VII, IX, XII). The chords are listed below the fretboard, along with their corresponding fretboard diagrams and musical notation.

Chords and Fretboard Diagrams:

- open:** E A D G B E (Fretboard diagram: 1 3 b7 3)
- III:** G C F D G (Fretboard diagram: 1 3 b7 3)
- V:** A D G C E A (Fretboard diagram: 1 3 b7 3)
- VII:** B E A D B (Fretboard diagram: 1 3 b7 3)
- IX:** C F G C (Fretboard diagram: 1 3 b7 3)
- XII:** E A D G B E (Fretboard diagram: 1 3 b7 3)

Chord Progression:

First Line: C⁷ F⁷ C⁷

Second Line: F⁷ F^{#o7} C⁷ A⁷

Third Line: Dm⁷ G⁷ C⁷ A⁷ Dm⁷ G⁷ C⁷

Jazz Blues In Bb, E form #1

Locate the chords with the fretboard letters and the beginning of the chord name.

open E A D G B E
F C F
B E A
III G C F D G
V A D G C E A
VII B E A D B
IX C F G C
D G C F A D
XII E A D G B E

1 2 3 4
3 b7 2 5
Bb⁹

1 2 3 4
1 3 b7 2
Eb⁹

1 2 3 4
3 b7 2 5
Bb⁹

1 2 3 4
1 3 b7 2
Eb⁹

1 2 3 4
1 b5 6 b3
E^{o7}

1 2 3 4
1 5 b7 3 5
Bb⁷

1 2 3 4
1 3 b7 #9
G7(#9)

2 3 3 3
1 b7 b3 5
Cm⁷

1 2 3 4
1 3 b7 2
F⁹

1 2 3 4
1 5 b7 3 5
Bb⁷

1 2 3 4
1 3 b7 #9
G7(#9)

2 3 3 3
1 b7 b3 5
Cm⁷

1 2 3 4
1 3 b7 2
F⁹

1 2 3 4
3 b7 2 5
Bb⁹

9 Cm⁷ F⁹ Bb⁷ G7(#9) Cm⁷ F⁹ Bb⁹

Jazz Blues In Bb, E form #2

open E A D G B E
F C F
B E A
III G C F D G
V A D G C E A
VII B E A D B
IX C F G C
D G C F A D
XII E A D G B E

1 2 3 4
5 1 3 6
Bb⁶

1 2 3 4
1 5 b7 3
Eb⁷

1 2 3 4
5 1 3 6
Bb⁶

1 2 3 4
1 b7 3 6
Bb¹³

1 2 3 4
1 5 b7 3
Eb⁷

1 2 3 4
1 b5 6 b3
E^{o7}

1 2 3 4
5 1 3 6
Bb⁶

1 2 3 4
b7 3 6 1
G¹³

1 2 3 4
b3 b7 1 5
Cm⁷

1 2 3 4
1 3 b7 2
F⁹

1 2 3 4
5 1 3 6
Bb⁶

1 2 3 4
b7 3 6 1
G¹³

1 2 3 4
b3 b7 1 5
Cm⁷

1 2 3 4
1 3 b7 2
F⁹

1 2 3 4
5 1 3 6
Bb⁶

9 Cm⁷ F⁹ Bb⁶ G¹³ Cm⁷ F⁹ Bb⁶

Jazz Blues In F, A form

open E A D G B E
F C F
B E A
III G C F D G
V A D G C E A
VII B E A D B
IX C F G C
D G C F A D
XII E A D G B E

1 3 4
1 3 b7 2
F⁹

1 3 4
5 1 3 6
B^b6

1 3 4
1 3 b7 2
F⁹

1 3 4
5 1 3 6
B^b7

1 3 4
b5 1 b3 6
B^o7

1 3 4
1 5 b7 3
F⁷

1 3 4
3 b7 b2 5
D7(b9)

1 3 4
1 b3 b7 b3
Gm⁷

1 3 4
1 b7 3 6
C¹³

1 3 4
1 5 b7 3
F⁷

1 3 4
3 b7 b2 5
D7(b9)

1 3 4
1 b3 b7 b3
Gm⁷

1 3 4
1 b7 3 6
C¹³

1 3 4
1 3 b7 2
F⁹

Jazz Blues In F, C form

open E A D G B E
F C F
B E A
III G C F D G
V A D G C E A
VII B E A D B
IX C F G C
D G C F A D
XII E A D G B E

1 2 3 4
1 3 b7 1
F⁷

1 2 3 4
3 b7 2 5
B^b9

1 2 3 4
1 3 b7 1
F⁷

1 2 3 4
b7 3 6 1
F¹³

1 2 3 4
3 b7 2 5
B^b9

1 2 3 4
1 6 b3 b5
B^o7

1 2 3 4
b7 3 6 1
F¹³

1 2 3 4
1 3 b7 #9
D7(#9)

1 2 3 4
b7 3 6 1
Gm⁷

1 2 3 4
3 b7 2 6
C¹³

1 2 3 4
b7 3 6 1
F¹³

1 2 3 4
1 3 b7 #9
D7(#9)

1 2 3 4
b7 3 6 1
Gm⁷

1 2 3 4
3 b7 2 6
C¹³

1 2 3 4
1 3 b7 2
F⁹

ORNAMENTING OPEN CHORDS

These decorations of open position chords began in Appalachian music and became prevalent in folk rock music. They are related to [Double Stops](#), by moving changing them to movable versions. [click to play video](#)

♩ = 115

1 C

6 G

10 D

14 A

18 Am Am7

22 Dm Dm

26 E

30 Em

I'll Feel a Whole Lot Better - [click to play](#)

♩ = 134

1 A A(sus2) A A(sus4) A A(sus2) A A(sus4) A A(sus2) A A(sus4) A A(sus2) A A(sus4)

5 A A(sus2) A A(sus4) 6 A A(sus2) A(sus4) 7 A A(sus2) A A(sus4) 8 A A(sus2) A(sus4)

9 E 10 F#m7 11 B 12 B

13 A A(sus2) A A(sus4) 14 A A(sus2) A(sus4) 15 D 16 Bm7

17 A A(sus2) A E 18 D 19 D E 20

21 D G 22 D G 23 D G 24 D G 25 A G 26 play 4 times A

27

Dear Mr. Fantasy - [click to play](#)

♩ = 70

A G

4

D A A

2 2 2 2 2 3 0 3 2 2 2 3 2 0 2 0 0 3 3 3

0 2 3 2 2 3 0 3 0 3 0 3 0 3

1/4 1/4

OPEN CHORD BASSLINES

Descending Minor Bass

Summer in the City descending minor bass in seven keys

Sheet music for the descending minor bass line in seven keys, featuring guitar and bass notation with fret numbers.

Key 1: C Minor (Cm)

Chords: Cm, Cm/B \flat , Cm/A, Cm/A \flat , Cm/G, Am, Am/G, Am/F \sharp , Am/F, Am/E

Key 2: B Minor (Bm)

Chords: Bm, Bm/A, Bm/G \sharp , Bm/G, Bm/F \sharp , Dm, Dm/C, Dm/B, Dm/B \flat , Dm/A

Key 3: E Minor (Em)

Chords: Em, Em/D, Em/C \sharp , Em/C, Em/B, F \sharp m, F \sharp m/E, F \sharp m/D \sharp , F \sharp m/D, F \sharp m/C \sharp

Key 4: G Minor (Gm)

Chords: Gm, Gm/F, Gm/E, Gm/E \flat , Gm/D

Sunny Afternoon descending minor bass in seven keys

Cm Cm/B \flat Cm/A Cm/A \flat Cm/G Am Am/G Am/F \sharp Am/F Am/E

TAB: 4 4 4 4 4 1 2 2 2 2 2

Bm Bm/A Bm/G \sharp Bm/G Bm/F \sharp Dm Dm/C Dm/B Dm/B \flat Dm/A

TAB: 3 3 3 3 3 1 2 2 2 2 2

Em Em/D Em/C \sharp Em/C Em/B F \sharp m F \sharp m/E F \sharp m/D \sharp F \sharp m/D F \sharp m/C \sharp

TAB: 0 0 0 0 0 2 2 2 2 2

Gm Gm/F Gm/E Gm/E \flat Gm/D

TAB: 3 3 3 3 3

While My Guitar Gently Weeps descending minor bass in seven keys

While My Guitar Gently Weeps in Am

Am Am/G Am/F# Fmaj7 Am G

1. D E C E

While My Guitar Gently Weeps in Bm

Bm Bm/A Bm/G# Gmaj7 Bm A

1. E F# D F#

While My Guitar Gently Weeps in Cm

Cm Cm/Bb Cm/A Abmaj7 Cm Bb

1. F G Eb G

While My Guitar Gently Weeps in Dm

Chords: Dm, Dm/C, Dm/B, Bbmaj7, Dm, C

1. G A

2. F A

While My Guitar Gently Weeps in Em

Chords: Em, Em/D, Em/C#, Cmaj7, Em, D

1. A B

2. G B

While My Guitar Gently Weeps in F#m

Chords: F#m, F#m/E, F#m/D#, Dmaj7, F#m, E

1. B C#

2. A C#

While My Guitar Gently Weeps in Gm

The musical score is written for guitar and bass. The guitar part is in G minor (one flat) and features a melody of eighth notes. The bass part provides a harmonic accompaniment using triplets and single notes. The score is divided into two systems, each with a guitar staff and a bass staff.

System 1:

- Guitar:** Chords Gm, Gm/F, Gm/E, Ebmaj7, Gm, F.
- Bass:** Triplets of eighth notes (3 3 3 3) and single notes (1 1, 2 2, 1 1, 3 3, 3 3).

System 2:

- Guitar:** First ending: C, D; Second ending: Bb, D.
- Bass:** First ending: 0 0 0 0, 2 2 2 2; Second ending: 1 1 1 1, 3 3 3 3.

We Can Work It Out descending minor bass in seven keys**We Can Work It Out in Bm**

Bm G F#(sus4) F# Bm Bm/A Bm/G Bm/F#

T A B

We Can Work It Out in Am

Am barré 3 strings F E(sus4) E Am Am/G Am/F Am/E

T A B

We Can Work It Out in Cm

Cm Ab G(sus4) G Cm Cm/Bb Cm/Ab Cm/G

T A B

We Can Work It Out in Em

F#m7 B7 Em Em/D Em/C Em/B C D G

T A B

Σ

Time In A Bottle descending minor bass in four keys

Time in a Bottle in Dm

Dm Dm/C# Dm/C Dm/B Em^{7(b5)} A Dm

T 1 3 3 3 1 3 3 3 3 0 1 3 1 2 3 0 3 1 0 1 3
 A . 2 2 2 2 2 2 2 2 2 2 5 2 3 . 2
 B . 0 4 3 2 2 4 0 2 0 4 0 1 4 2 0 4 . 0

Time in a Bottle in Em

Em Em/D# Em/D Em/C# F#m7(b5) B Em

TAB

Time in a Bottle in Am

Am Am/G# Am/G Am/F# Bm7(b5) E Am

1 1 1 1 3 0 1 3 1 0 1 2 0 3 1 0 1 2 0

2 2 2 2 2 2 2 2 4 0 2 0 4 0 1 4 2 0 4

0 4 3 2 2 4 0 4 0 1 4 2 0 4

Time in a Bottle in Bm

Descending Major Bass

Tears In Heaven major descending bass in seven keys

Tears in Heaven in A

Chords: A, E/G#, F#m, A/E, D/F#, A/E, E, A

Tears in Heaven in B

Chords: B, F#/A#, G#m, B/F#, E/G#, B/F#, F#, B

Tears in Heaven in C

Chords: C, G/B, Am, C/G, F/A, C/G, G, C

Tears in Heaven in D

Tears in Heaven in E

Chords: E, B/D#, C#m, E/B, A/C#, E/B, B, E

Guitar TAB:

Measure	1	2	3	4	5	6	7	8	9	10	11	12
Notes	G4	A4	B4	A4	G4	F#4	E4	D4	C#4	B3	A3	G3
Chords	E	B/D#	C#m	E/B	A/C#	E/B	B	E				
TAB	2 4	2	0 4 5 4 0	7 7 4 5	4 4 4 5	5 5 4 5	2 2 2 2	4 4 4 2 2 2	2 2 2 2	2 2 2 2	2 4	

Tears in Heaven in F

[illegible]

Tears in Heaven in G

Chords: G, D/F#, Em, G/D, C/E, G/D, D, G

Chords: G, D/F#, Em, G/D, C/E, G/D, G/D, D, G/D, D⁷

Tablature (T, A, B strings):

System 1: 0 2 | 0 0 1 0 | 0 2 2 0 | 0 0 0 0 | 1 0 1 0 | 0 2 0 0 | 0 2 0 0 | 0 0 0 0

System 2: 0 0 1 0 | 0 2 2 0 | 0 0 0 0 | 1 0 1 0 | 0 2 0 0 | 0 2 0 0 | 0 2 0 0 | 2 2 4 5

Ascending Minor Bass

James Bond ascending minor bassline in seven keys

Am **Bm**

1 1 1 1
3 3 3 3
0 2 T 2 T 2 T 2

2 2 2 2
4 4 4 4
1 3 1 3 2 3 1 3

T 1 1 1 1
A 2 2 2 2
B 0 1 2 1

3 3 3 3
4 4 4 4
2 3 4 3

Cm **Dm**

2 4 4 4
0 3 0 0 0 3 0

1 1 1 1
4 4 4 4
0 3 1 3 2 3 1 3

T 4 4 4 4
A 0 0 0 0
B 3 4 0 4

1 1 1 1
3 3 3 3
0 1 2 1

barré five strings, tilt the fingertip away for the first bass note

Em **F#m**

0 0 0 0
0 0 0 0
2 0 3 0 4 0 3 0

1 1 2 1
1 1 2 1
3 1 0 1 1 2 0 1

T 0 0 0 0
A 0 0 0 0
B 2 3 4 3

2 2 2 2
2 2 2 2
4 0 1 2 0 2

Gm

3 3 2 3
3 3 2 3
0 3 1 3 1 3 1 3

T 3 3 3 3
A 3 3 3 3
B 0 1 2 1

barré 3 strings

HARMONIZED AND WALKING BASS

With a Little Help from My Friends harmonized bass

Swing Eighth

verse

E VII B/D# IX F#m/C# IX F#m II F#m IX B VII E VII

5

chorus

D V A V E VII

bridge

C#m IX F# IX E VII D V A/C# VII

The score is written for guitar and bass. The guitar staff uses a treble clef and the bass staff uses a bass clef. The key signature is three sharps (F#, C#, G#). The time signature is 4/4. The piece is in a swing style with eighth notes. The verse consists of 8 measures, the chorus of 8 measures, and the bridge of 11 measures. Each section includes fretboard diagrams for the chords: E VII, B/D# IX, F#m/C# IX, F#m II, F#m IX, B VII, and E VII. The diagrams show fingerings for the guitar and bass. The bass line is a walking bass line, and the guitar line is a harmonized bass line.

Stir It Up bass and comping - [click to play](#)

The musical score for 'The Wind' by The Beatles is presented in two systems. The first system includes a guitar part in treble clef with a key signature of three sharps (F#, C#, G#) and a 4/4 time signature. The tempo is marked as ♩ = 95. The guitar part features a repeating melodic phrase with a 'play 4 times' instruction. Below the staff are fretboard diagrams for positions A, D, and E, each showing fingerings for the four strings. The bass part is shown in a separate staff with a tablature (TAB) system, indicating fret numbers for the left hand and string numbers for the right hand. The second system, starting at measure 10, continues the guitar and bass parts with similar melodic and rhythmic patterns, also including fretboard diagrams and a 'play 4 times' instruction.

See also [Triad Bass Harmonization](#) and [Jazz Bass Harmonization](#).

CLOSE-VOICED TRIADS

In comping, three-note close-voice triads are effective in making a concise chord sound that is easy to hear in an arrangement. A progression of close-voiced triads can be used with a constant pedal point bass note, See the chapter "[Pedal Point Progression](#)".

See the chapter "[Full-Fretboard Chord Tones](#)"/[Close-Voiced Three-Note Triads](#) and the chapter "[Fingering Common Chords](#)"/[Three-Note Chords](#).

OPEN-VOICED TRIADS

As with close-voiced triads, three-note open-voice triads are effective in making a concise chord sound that is easy to hear in an arrangement and they span a wider range of pitch, sounding "big".

See the chapter "[Full-Fretboard Chord Tones](#)"/[Open-Voiced Three-Note Triads](#). See the chapter "[Fingering Common Chords](#)"/[Three-Note Chords](#).

VOICE LEADING AND CADENCES

See the chapter "[Voice Leading](#)".

PEDAL POINT PROGRESSION AND CLUSTER PLAYING

See the chapter "[Pedal Point Progression](#)"/[Modal Triad Improv And Cluster Playing](#).

Twelve-Bar Blues Endings

[click here to play a video of the entire chapter](#)

- **I-IV-I-V Endings**
- **Descending Diminished Endings (I7-Idim7-IVm6-I)**
- **Contrary Motion Endings**
- **Harmonized Bassline Endings**

I-IV-I-V ENDINGS

♩ = 110

Swing Eighth

Spider and the Fly - end of intro

Spider and the Fly - end of intro

Chords: E, A7, E7, B7, E, A7, E7, B7, E, A7, E7, B7

Fretboard diagram (Capo 2):

Bar 1: 0 1 2 0 1 2 0 3 0

Bar 2: 2 0 1 2 0 1 2

Bar 3: 12 13 14 12 13 14 12 15 12

Bar 4: 14 12 13 14 12 13 14

Bar 5: 1 2 3 4 1 2 3

Bar 6: 1 2 3 1 2 3 1 4 1 4

Bar 7: 1 2 3 4 1 2 3 4

Bar 8: 1 2 3 4 1 2 3

Bar 9: 7 8 9 7 8 9 7 10 7

Bar 10: 9 7 8 9 10 7 8 9

Bar 11: 7 8 9 10 7 8 9

Bar 12: 7 8 9

Peter Green - The Stumble, end of solo 3

Peter Green - The Stumble, end of solo 3

Chords: E7, A7, E7, B7, E7, B7, E7, B7, E7, B7, E7, B7

Fretboard diagram (Capo 2):

Bar 1: 0 3/5 0 0 2 0 0

Bar 2: 2 2

Bar 3: 12 15 12 12 14 12 12

Bar 4: 14 14

Bar 5: 12 15 12 12 14 12 12

Bar 6: 14 14

Bar 7: 12 15 12 12 14 12 12

Bar 8: 14 14

Bar 9: 12 15 12 12 14 12 12

Bar 10: 14 14

Bar 11: 12 15 12 12 14 12 12

Bar 12: 14 14

Peter Green - The Stumble, end of first solo

Peter Green - The Stumble, end of first solo

Chords: E7, A7, E7, B7, E7, B7, E7, B7, E7, B7, E7, B7

Fretboard diagram (Capo 2):

Bar 1: 0 0 3 0 2/4 3 4 2 0 2

Bar 2: 0 3 0

Bar 3: 12 15 12 14 15 12 14 12

Bar 4: 12 15 12 12 14 12 12

Bar 5: 12 7 10 7 10 10 10 8 9

Bar 6: 12 10 7

Bar 7: 12 15 12 12 14 12 12

Bar 8: 14 14

Bar 9: 12 15 12 12 14 12 12

Bar 10: 14 14

Bar 11: 12 15 12 12 14 12 12

Bar 12: 14 14

Hideaway - Freddie King, bars 11 and 12

Hideaway - Freddie King, bars 11 and 12

Chords: E7, A7, E7, B7, E7, B7, E7, B7, E7, B7, E7, B7

Fretboard diagram (Capo 2):

Bar 1: 0 3 0 2/4 3 4 2 0 2

Bar 2: 0 3 0

Bar 3: 12 15 12 14 15 12 14 12

Bar 4: 12 15 12 12 14 12 12

Bar 5: 12 7 10 7 10 10 10 8 9

Bar 6: 12 10 7

Bar 7: 12 15 12 12 14 12 12

Bar 8: 14 14

Bar 9: 12 15 12 12 14 12 12

Bar 10: 14 14

Bar 11: 12 15 12 12 14 12 12

Bar 12: 14 14

Hideaway - Freddie King, bars 47 and 48

Hideaway - Freddie King, bars 47 and 48

Chords: E7, A7, E7, B7, E7, B7, E7, B7, E7, B7, E7, B7

Fretboard diagram (Capo 2):

Bar 1: 0 0 3 4 0 1 0 0 2

Bar 2: 0 2 2

Bar 3: 12 12 15 11 12 13 12 14 14

Bar 4: 12 14 14

Bar 5: 7 7 10 6 7 6 7 9

Bar 6: 7 9 8 8

Bar 7: 12 15 12 12 14 12 12

Bar 8: 14 14

Bar 9: 12 15 12 12 14 12 12

Bar 10: 14 14

Bar 11: 12 15 12 12 14 12 12

Bar 12: 14 14

Living On A Fault Line-Chris Cain, ending

[illegible]

Drinking Straight Tequilla-Chris Cain, ending

Before You Accuse Me - Clapton, end of first verse

[illegible]

Before You Accuse Me - Clapton, end of intro

The Stumble - Peter Green, ending of last solo

Hideaway-Clapton, bars 59-60

54 E A7 E7 B7 E A7 E7 B7

full 15 15 14 (14) 12 14 12 14 15 12 14/16 10 10 10 (10) 8 10 8 9 10 7 10/12

58 E A7 3 E7 B7

3/5 3 2/4 2 0 2 0 2 3/5 0 2/4

Pride and Joy, end of intro

Hide and say, end of intro

The musical score for 'Hide and say, end of intro' is presented in two systems. The first system contains measures 60 through 64. Measure 60 is a whole rest. Measure 61 features a B7 chord and a triplet of eighth notes (G4, A4, B4). Measure 62 has an A7 chord and a triplet of eighth notes (C5, B4, A4). Measure 63 has an E7 chord and a triplet of eighth notes (G4, A4, B4). Measure 64 has a B7 chord and a triplet of eighth notes (G4, A4, B4). The second system contains measures 65 through 68. Measure 65 has a 2/4 time signature and a triplet of eighth notes (G4, A4, B4). Measure 66 has a 2/4 time signature and a triplet of eighth notes (G4, A4, B4). Measure 67 has a 2/4 time signature and a triplet of eighth notes (G4, A4, B4). Measure 68 has a 2/4 time signature and a triplet of eighth notes (G4, A4, B4). The tablature for the guitar is shown below the staff, with fret numbers and bar lines corresponding to the notes in the melody.

Pride and Joy-Stevie Ray Vaughan, end of verse 1

Pride and Joy-Stevie Ray Vaughan, end of verse 2

[illegible]

Chris Cain - Drinking Straight Tequilla, end of intro

79 B^7 A^7 E^7 A $A^{\#dim7}$ E B^7

0 0 2 4 0 3 0 3 0 2 3 2 0 1 1 2 2 3 3 4 5 4 0 1 2

83 B^7 A^7 E^7 A $A^{\#dim7}$ E B^7

12 12 14 12 15 12 15 12 14 (14) 12 14 13 13 10 10 11 11 12 14 14 10 10 11 11 12 11 12 13 14

Hideaway - Eric Clapton, end of solo 3

Straight Eighths

87 E^7 A^7 E^7 B^7 E^7 A^7 E^7 B^7

15 (15) 12 14 12 14 12 14 12 12 9 10 (10) 8 10 8 9 7 9 7 9

ZZ Top - Tush , ending

Swing Eighths E^7

91 E^7 F^7 E^7 E^7 F^7 E^7

5 5 4 2 0 2 2 8 7 8 7 14 17 12 12 14 12 14 16 15 14 14 15 14

Hideaway - Freddie King (ending, straight eighths)

Generic Sixteenth Ending #1

Swing Sixteenths

95 E A E E^7 E^7 B^7

0 3 2 0 2 0 2 3 4 0 4 4 12 13 12 14 13 12 15 12 15 14 12 14 12 13 14 12 14 12 13 12 13 14

Generic Sixteenth Ending #2

99 E^7 B^7

15 12 12 15 12 12 15 12 15 12 15 12 15 14 12 14 12 13 12 12 15 12 14

Crossroads - Eric Clapton, end of intro.

Straight Eighths

straight eighths

101 102 103 104

E7 B7 E7 B7

T 2 0 1 0 3 0 2 0 0 1

A 2 6 1 0

B 14 12 13 12 15 12 14 12 12 13 14 12 13 14

Crossroads - Eric Clapton, end of solo 2.

Crossroads - Eric Clapton, ending

DESCENDING DIMINISHED ENDINGS

Dust My Broom - Elmore James, ending of verse
Swing Eighth

Chords: E, E7, Edim7, Am6, E, B7, E, E7, Edim7, Am6, E, B7

Measure numbers: 113, 114, 115, 116

Sweet Home Chicago -- Robert Johnson

Chords: E6, Am, E7, B7

Measure numbers: 117, 118, 119

Generic

Chords: E, E7, Edim7, Am6, E, B7, E, E7, Edim7, Am6, E, B7

Measure numbers: 120, 121, 122

Led Zeppelin - Bring It On Home, ending

Outskirts Of Town - Big Bill Broonzy

Chords: E, Am6, Edim7, E7, E, E7, Edim7, Am6, E, B7

Measure numbers: 123, 124, 125, 126, 127

Generic

Miss Celie's Blues - the Color Purple Soundtrack, ending
(last two orig. bl I)

Chords: E, E7, Edim7, Am6, E, B7, E, E7, Edim7, Am6, E, C7, B7

Measure numbers: 128, 129, 130, 131

The Stumble - Peter Green, solo 3, bar 14

Chords: Am6, Edim7, E7

Measure number: 132

CONTRARY MOTION ENDINGS

Contrary Motion

The score is written for guitar (T) and bass (B) in the key of E major (three sharps). It consists of six systems of music, each with a guitar staff and a corresponding bass staff. Chord symbols are placed above the guitar staff, and fret numbers are written below the strings. Measure numbers are indicated at the start of some systems.

System 1 (Measures 135-136): Chords: E, E⁷, A⁷, B^{b9}, B⁷, A, Em, B. Measure 135 starts with a whole rest on guitar and a half note on bass.

System 2 (Measures 137-140): Chords: E, E⁷, A⁷, B^{b9}, B⁷, A, Em, B. Measure 137 starts with a half note on guitar and a whole note on bass.

System 3 (Measures 141-144): Chords: E, E⁷, A⁷, B^{b9}, B⁷, A, Em, B. Measure 141 starts with a half note on guitar and a whole note on bass.

System 4 (Measures 145-149): Chords: E, E⁷, A⁷, A^{#dim7}, B, C^{#m7}, Ddim⁷, B⁷/D[#], E⁷, E⁹, A⁹, A^{#dim7}. Measure 145 starts with a half note on guitar and a whole note on bass.

System 5 (Measures 150-153): Chords: B⁷, E, E⁷, C^{#m7}, B⁷, G^{#dim7}, B⁷/F[#]. Measure 150 starts with a whole note on guitar and a half note on bass.

System 6 (Measures 154-157): Chords: E, E⁹/G[#], A⁷, B^{b9}, B⁷, C⁷, B⁷, E, E⁷, A, C⁷, B⁷, A, Gdim⁷, B⁷/F[#]. Measure 154 starts with a half note on guitar and a whole note on bass.

158 E E7 A B7 E A B7sus4

159 160 161

HARMONIZED BASSLINE ENDINGS

162 163 164 165

Built For Comfort - Howlin' Wolf, ending of verse 1

166 167 168 169

I I/3 IV #IVdim7 bII I ending

170 171 172 173

I I/3 IV #IVdim7 ending with continuing bassline

174 175 176 177

178 179 180 181

Keeping Time

- **Multiple Perspectives**
- **Meter Your Time**
- **Keep the Meter Running**
- **Count, Vocalize, Hear**
- **Sing the Part**
- **Build Memories of Rhythms**

When James Earl Jones was in elementary school he started to study acting to overcome a speech impediment. He was so successful in overcoming it that he became a world-renowned speaker. If you don't feel capable in the area of rhythm, you can do that with your rhythm. If you have a weakness in rhythm (or any area of your playing), work on it intensely and intelligently, so you are known for your expertise rather than weakness in that area.

MULTIPLE PERSPECTIVES

As with most of my pedagogy, I'm using multiple perspectives to strengthen your rhythm. One or another of them may be more relevant in the particular situation.

METER YOUR TIME

play with a metronome

The old-school mechanical metronome has traditionally trained musicians to play with even time. It is a very necessary skill. You need to know even time as a point of reference. You need to communicate a tempo to the musicians you are playing with and "lock" into the same pulse. You also need to communicate the pulse or beat to the listener, so you play what they expect.

The tempo is not always consistent. Sometimes the music is intentionally played at increasing or decreasing tempos. Even between musicians playing at the same tempo can intentionally vary the *placement* of the beat. A drummer may play *ahead* of the beat (before it) to make the music feel aggressive or *behind* it to make the music feel relaxed. We're really splitting hairs here. This involves a small percentage of the tempo.

Swing eighths are interpretations of half beats where the first "half" is changed to two thirds and the last "half" to one third. So, you can conceive the beat as a triplet, where you are playing on the first and third part. This is a starting point. You can change this ratio anywhere from 50% to 75%. Closer to 50% (like 60%) is called *light swing*. Closer to 75% (like 71%) is called *heavy swing*.

I used to practice light and heavy swing by tilting my Seth Thomas pyramid-shaped metronome (maybe you've seen one in a museum, ha,ha) by putting a thick pencil eraser closer or further away from the outside edge. Crude, but functional.

It is essential to play both with a metronome and other musicians (separately), so you know even time and how to flexibly interpret it.

play with a looper rhythm track

Playing with a looper is ideal to practice with an accompaniment by yourself. You will get practice in comping as you record the part. Make sure the looper has quantization, so you can easily make seamless loops. My favorite looper is the Boss RC-3 with the FS-5U accessory (two standard-length guitar cables and a third cable six inches or less one to connect the two devices).

You can also buy rhythm tracks (many are included with this course) or use iReal Pro on Mac, iOS or Android.

Playing with a looper or rhythm track is better than a metronome, but usually not as much of a challenge on your being interactive as playing with people. Software rhythm tracks are very useful when you can loop any desired section of the music you need work on.

Rhythmic Levels

Practice individual components of the rhythm separately when your part is an ensemble part, such as bass and strum. For example, you may combine the guitar and bass for the intro to Californication. Practice just the guitar part, then just the bass part, then combine them. See [Rhythmic Layers](#).

memorize the tempo

Tempo is measured in beats-per-minute. iTunes actually has a BPM field you can make visible and plug-ins allow you to tap and register BPM or some even analyze the music and give you a read-out.

It's very useful to be able to identify the tempo of a piece by ear so you know what sorts of memorized rhythms will fit and what you are technically capable of (see think in notes per minute, below). After decades of four or five nights a week playing top forty gigs, my friend Kevin had played most common instruments on the job. He amazingly could ask you to say "go" while watching a second hand on a watch (out of his view, of course) and he would tell you when one minute was up with accuracy of less than one second! The most common tempo in American music is 120 beats-per-minute, so he was thinking two beats per second and using his memorized 120 BPM.

be able to think in notes per minute

Notes per minute gives you a common perspective on how fast you are playing. At 120 beat per minute, quarter notes are 130 notes per minute (NPM), eighth notes are 260 NPM, eighth-note triplets are 390 NPM and sixteenth notes are 520 BPM.

Generally, people think of over 500 notes per minute as "fast" and exciting. So, if you are not capable of playing over 520 notes per minute, don't try to play sixteenth notes at over 130 BPM ($4 \times 130 = 520$). In developing your technical speed, it's very useful to know how many notes per minute you can play each element of your soloing or comping. For example, people like to hear you play "fast" in at least part of your performance.

KEEP THE METER RUNNING

Changes of Time Signature Usually Don't Change the Tempo

Most pop songs retain the tempo throughout. They may double or halve the tempo, but rarely anything else. The examples in this section involve change of time signature where the tempo remains the same.

Changing 4/4 Straight or Swing Eighth to 12/8

The numbered beats should remain evenly-spaced in time. 12/8 is a compound time signature. It is usually thought of as four beats with three eighth notes on each of the four beats. Each of the four groups of three eighth notes in the 12/8 parts of the example below are counted "1-2-3", emulating four beats with three eighth notes on each. [click to play](#)

♩ = 100 Straight Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

♩ = 100

Swing Eighths

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3 1 2 3

Changing from Quarter Notes to Quarter Note Triplets

on beats one or three in 4/4

on beats two or four in 4/4

COUNT, VOCALIZE, HEAR

“Map Out” the Time

Conceive the beat subdivisions, get the math. If we can sense the beat or pulse rate, we can easily divide each beat or pulse into two, three or four parts. There are three math operations in rhythmic music notation: halving and doubling, dotting (multiply by 1.5) and triplets. Triplets divide a time period into a different number of equal parts than originally planned.

mark your sheet music

If you use printed sheet music and can write on it (preferably in pencil for edit ability),

write dotted vertical lines in the tab

Segregate the beats in tablature by drawing dotted vertical lines between the beats. Of course, this is not necessary at the bar line between the last beat of one bar and first beat of the next, where there is already a bar line.

If reading a piece with plucked bass notes mixed with plucked notes on the smaller strings, drawn vertical lines separating the beats can be very helpful. Even though I am an experienced reader drawing “beat divider” lines (or imagining them) makes the piece much easier to work out rhythmically.

The bass part typically plays on every beat, on the numbered beat. In this case, the options for each beat are:

- “both” - bass and a treble note or chord (on the smaller strings) played together
- “both-top” - a bass note on the beat followed by a treble note on the offbeat (and)
- “top” - a treble note or treble chord (on the smaller strings) played alone
- “bass” - a bass note played alone

Actually speak these words as you play the part below.

Swing Eighths

Am Em/G C F Dm

both top bass top both top both top both bass top both top both top

3 F G(sus4) C G Am E7 Am

bass top both top both top none top bass both both both both

Step Time

Counting in “step time” you are allowed to slow down or pause while playing a part because you are speaking counting syllables to note where you are in time. Demonstrating to someone else, your counting syllables can show where every note goes in time without yet keeping even time. As you repeat the part you are practicing, make your time progressively more even as you play repetitions of the phrase. Step time can clarify pitches and time mapping. Be careful to not take too long before starting to establish a regular tempo, or you may subconsciously memorize an incorrect rhythm that you are practicing.

Transistion from Counting to Hearing Rhythm

“Count and clap” means to count the beat in numbers and subdivisions (“1 and 2 and”, etc) and clap the rhythm for the musical part, clapping each event at the right time.

Vocalizing the part with “ums” is useful when the rhythm is selected from a regular pulse like all half beats. On each half beat, sing “ba” for a note and “um” where a note is not to be played. A more advanced version of this vocalization could include surging your voice to sustain the “ba” immediately before with “aa” and by singing “bop” instead of “ba” when the next event will be a silence (“um”).

Transition from (1) count and clap to (2) vocalize while playing (ba, um) to (3) fade out the ums and begin to get an auditory image “hearing the sound of the rhythm” with a metronomic sense from steps 1 and 2.

Learn to change rhythmic level (see “the counting game” in [Rhythmic Words and Comping](#)) and avoid fatigue by counting fewer subdivisions when appropriate.

SING THE PART

Sing What You Play

Sing the part as you play, focusing on your vocal mechanism, not the mechanics of your guitar technique at the necessary possible expense of technical errors on the guitar. Sing the part with note names, key scale-tone numbers, vocalization (ba, um), as described below.

Play What You Sing

Turning the process around can be very useful, too. You will often learn melodic structures kinesthetically and graphically on the guitar. You may be able to conjure up some melodic phrases on the guitar more easily than with your voice. In such cases, copy what you play on the guitar with your voice.

Seeing the graphics of playing a part on the guitar or piano is very helpful in getting a part in mind. Vocalists should play what they sing on an instrument to make it more clear to themselves that their voice is an instrument that “plays notes”.

Sing the Part with Letter Names

Singing the part with letter names can help you memorize the melody and the location of the notes on the guitar. When notes have sharps or flats, you can omit singing the word “flat” or “sharp” if there is only one version of the letter involved.

Sing Key Scale-Tone Numbers

I have always preferred singing in numbers to solfeggio, the “do, re, mi” system. If you know one of the solfeggio systems and are comfortable with it, use it, of course. If not, you may want to try my “number-feggio” system, shown below.

numberfeggio

Arabic number	solfeggio			numberfeggio		
	solfeggio	solfeggio flat (pronunciation)	solfeggio sharp (pronunciation)	sung number	sharp number	flat number
1	do	di (die)	(not needed)	one	wine	(not needed)
2	re	ri (right)	ra	two	tie	taough
3	mi	(not needed)	ma	three	(not needed)	thra
4	fa	fi (fee)	(not needed)	four	fire	(not needed)
5	sol (soul)	si (sigh)	se (say)	five	feeve	fav
6	la	li (lee)	le (lay)	six	seeks	sax
7	ti	(not needed)	ta (tay)	sev	(not needed)	salve

It's more important to communicate the thought of a musical part to the listener than the actual sound. They can "hear" what you are thinking if you communicate well.

Fade from Air Guitar to Real Guitar

Sing the part without playing guitar. Get it in your mind first. While singing the part, gesture it with "air guitar", not actually touching the guitar. This assures that you are thinking the part. When learning a part on the guitar, the mechanics of performing the part can distract you from the correct rhythm, though you could think the rhythm without the guitar physically involved.

As you repeat the part, gradually touch the guitar more and more until you "fade in" your physical connection with the guitar and retain your focus on the rhythm. You should probably record yourself to verify your rhythmic accuracy. It is often surprising how your rhythm is not perfect when your mind is on the strings and frets.

It is very effective to make a multi-track recording and put the part you are learning on a reference track and record yourself mimicking it on another track. Make sure you can hear the reference track and your guitar easily while you record. Then play back the recording and pan the reference track full left, your guitar full right and balance them so you can clearly hear both. Any necessary corrections in your performance will probably be obvious.

BUILD MEMORIES OF RHYTHMS

Model Rhythms

“Model” rhythms you have in memory, such as military snare. Jimi Hendrix seems to be recalling the military snare he heard when he was in the army in the intro to Voodoo Child Slight Return.

Use a “Keeping Time Rhythm” As a Reference

Play with the original recording: focus on “keeping time” rhythms like hi-hat, ride, walking bass or “pumping” bass (The Pump by Jeff Beck, many Satriani songs like Surfing With the Alien)

Memorize Rhythms

rhythmic words

Rhythmic words are the rhythmic syllables that build rhythms. See [Rhythmic Words and Comping](#). By memorizing the most common rhythmic words, you have building blocks to conceive rhythms.

comping rhythms

Memorize comping rhythms as models. Get especially proficient at [Varying Rhythms](#).

Establishing a Key

- **Key Defined**
- **Beginning Modal Improv**
- **Melodic Emphasis**
- **General Means of Establishing a Key**
- **Establishing Keys with Major Scales**
- **Establishing Keys With Melody and Chord Progression**
- **Relative Major and Minor Keys on Steps One and Six**
- **Using Key on One with Altered Tones**

KEY DEFINED

What does that mean a song is said to be in a key? It means there is a main note that is the focal point of the whole piece of music. It can be defined in various ways, but a favorite is: “the root of the chord you would expect the piece to end on (in a traditional sense, as in the common practice period of classical music from 1600 to 1900)”.

A chord “root” is the lowest imaginable note in a chord. You can play a “C” major chord with a “G” in the bass (one of its three notes), but if you imagine the lowest note played in the bass in a classic ending, the lowest imaginable note would be “C”. For common chords (triads,, sevenths, ninths), organizing the notes of the chords in thirds (F-A-C-E-G-B-D-F, etc.) would show the chord root as the lowest pitch.

C with G or its root “C” in the bass [link to video](#)

C/G

C major chord with "G" in the bass

C major chord with the root "C" in the bass

T A B

authentic and deceptive cadences

What is meant by “you would expect the piece to end on”? A cadence is a chord progression of two or three chords that establishes a key or temporary sense of key. An authentic cadence sounds finished and progresses from a chord built on the fifth step of the key (G major) to one built on the first step (C major). A deceptive cadence can end on an unexpected chord, like ending on an “F” chord in the key of “C”. In a deceptive cadence, the melody usually ends on a note that is in the expected chord *and* in the alternate chord.

In the Deceptive Cadence example below, the melody progresses to the note “E” at the C#m chord, where you would have expected an E chord. The melody note “E” is ambiguous, since it is in E and C#m. This progression to C#m is a deceptive cadence. The piece ends with an authentic cadence, repeating the last phrase ending on “E” in the melody, this time on the expected “E” chord.

deceptive cadence [link to video](#)

The image displays three systems of musical notation for guitar, illustrating deceptive and authentic cadences in the key of E major (three sharps: F#, C#, G#).

System 1: Shows a sequence of chords: E, G#m, A, B(sus4), E, G#m, A, B7. The notation includes a treble clef staff with notes, a bass staff with fret numbers, and a guitar tablature staff with fingerings (T, A, B). A deceptive cadence is indicated by a bracket over the final two measures (A and B7).

System 2: Shows a sequence of chords: E, G#m, A, B(sus4), A, B7, C#m. The notation includes a treble clef staff with notes, a bass staff with fret numbers, and a guitar tablature staff with fingerings (T, A, B). A deceptive cadence is indicated by a bracket over the final two measures (B7 and C#m).

System 3: Shows a sequence of chords: A, B7, E. The notation includes a treble clef staff with notes, a bass staff with fret numbers, and a guitar tablature staff with fingerings (T, A, B). An authentic cadence is indicated by a bracket over the final two measures (B7 and E).

Deceptive cadences have been used often enough in pop music the twentieth century and later that it may be difficult to conceive an authentic cadence that ends on the chord the key is named after. To gain this sense of a final ending, listen to old music from the baroque and classical period of western art music. For the baroque period, listen to music by Antonio Vivaldi, Johann Sebastian Bach and George Frideric Handel. For the classical period, listen to Joseph Haydn, Wolfgang Amadeus Mozart and Ludwig van Beethoven.

BEGINNING MODAL IMPROV

Let's make modes tangible and have fun along the way! See also [Modes](#); [Key Scales](#), [Parent Scales](#) and [Chord Scales](#); and [Parent Scale Improv](#). During the course of the exercises in this section, play along with the tracks linked below:

I - C major (Ionian)

II - D Dorian

III - E Phrygian

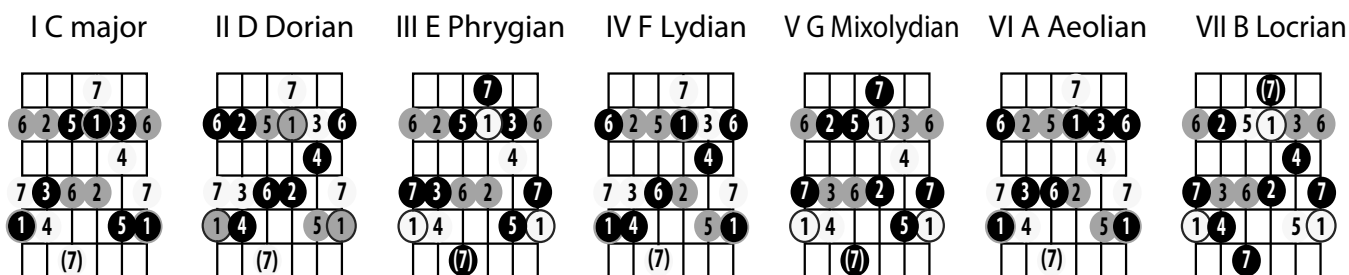
IV - F Lydian

V - G Mixolydian

VI - A Aeolian

VII - B Locrian

Locate the scale with the fingerings below so "1" on the sixth (largest) string is on "C" (little finger) at the eighth fret.



Perform the steps listed below for each of the modes shown above.

Begin with C major. Locate the notes on the I major diagram below so "C" is on "1", which would place it at the sixth string, eighth fret, fretted with your little finger. Each of the six other modes, D Dorian through B Locrian would use the same C major scale, but each would be focused on a different number. D Dorian focused on "2", E Phrygian focused on "3" and so on.

1. Play the triad arpeggio. Each of the modes is based on a triad. Modes I, IV and V are based on a major triad. Modes II, III and VI are based on a minor triad. Mode seven is based on a diminished triad. For each mode, the triad it is based on is shown by notes with a black-circled background. Ascend and descend all the black-backed notes in the mode with even rhythm, playing all the notes clearly and legato (long, with minimal silence between notes). Count "1-2-3-4" repeatedly while listening to the track, labeling the four beats in each bar. Play only as fast as you can clearly with a steady rhythm. Play one note every two beats, one note a beat or two notes a beat, whatever is practical according to your current ability.

2. Sing a triad melody aloud or in your mind. Choose three or four consecutive black notes that you can sing, or at least think the pitches. Verify that you are thinking each of the notes by singing or thinking it before you sound it on the guitar, then sounding it on the guitar to verify. Once you can predict the sound of the three or four consecutive black notes you have chosen, go about applying a simple rhythm to them and make a theme of four or so notes. Give it a good try, but if you find this difficult, don't worry we'll come back to it later, better-prepared.
3. Play the pentatonic scale. Each of the modes contains a pentatonic scale of the same quality as its triad. Modes I, IV and V are based on a major pentatonic scale. Modes II, III and VI are based on a minor pentatonic. Mode seven is based on a minor pentatonic scale with a flat five. A minor triad with a flat five is diminished. For each mode, its pentatonic scale is shown by the combination of notes with a black-circled background and those with a gray-circled background.

Like with the triad in step 1 above, ascend and descend the pentatonic scale with an even rhythm and with legato. Get in the habit of beginning each scale passage at any whimsical point in the scale. Also, get comfortable with changing direction from ascending to descending whimsically.

4. Emphasize a triad tone in the scale by sustaining it. As you ascend and descend the scale, periodically come to rest on a black note (a triad tone), which will strengthen the listeners concept of key for the mode you are playing in. The key triad should be regularly sounded to reinforce its sound for the listener, giving an aural sense of focus on that chord as a key. We will go over the many melodic devices to emphasize and bring attention to a note or group of notes, now starting with sustaining a note. Later, you will learn to continue the emphasis of the key triad, while simultaneously emphasizing the notes of another chord in the progression that is note the key chord (tonic chord, such as C major triad in C major mode).
5. Emphasize a triad tone in the scale by ending on a black tone without sustaining it. It will sustain in the listener's memory and have much the same effect as having been physically sustained.

See [Melodic Emphasis](#) for additional methods of emphasis

Three Important Elements To Incorporate Into Your Improvisation

think vocally

Learn the sound of the notes by singing them. Then construct a short phrase in your mind, copying it to the guitar. Drive the guitar with your mind, don't let the graphics on the guitar drive your melody. The graphics should just be an aid.

be inventive rhythmically

Strum a muted rhythm, then pick it on a single note. Next apply the rhythm to changing notes on one string, then apply it to changing notes between two strings, then to a scale or arpeggio.

think like composer

Find the seed for melodic idea that you like. It may be the replication of something you heard before or a new creation. Develop it with harmonic (pitch) theme and variation and with rhythmic theme and variation.

MELODIC EMPHASIS

Why Emphasize Certain Tones

Emphasize tones to keep them in mind as the tone center of the piece of music, part of the key chord or as part of the current chord. The tone center is the note that is the main focal point of the piece of music. The tonic chord is the chord we hear recurring throughout a piece of music and expect the piece to end on. When the current chord is not the tonic chord (such as the current chord Dm in the key of A minor), there are two focal points, the less important current chord (Dm) and the more important tonic chord (Am), both of which should be represented.

How To Emphasize Tones

The various melodic devices below are used to bring attention to notes that are in the tonic chord or in the current chord.

Sustain it.

End a phrase with it. Even if the last note in a phrase is of a short duration, it will sustain in the listener's memory.

Play it repeatedly or more frequently.

Play it on the beat, especially on the first beat (or on the third beat in 4/4, with lesser effect). See [Relating Chord Tones to the Beat](#).

Play it louder.

Draw attention to it with ornamentation. Bends, hammers, pull-offs, slide. Incorporate mordents and turns.

Use pickups and pushes or change of rhythm to draw attention to it.

Pickups can be one or more notes of equal value or can be an irregular rhythmic word, like the Creedence.

Pushes can be rest pushes or sustain pushes

Change of rhythm, such as changing from eighth notes to quarter note triplets to draw attention to a note following the triplet.

Pivot tone. Alternate from the emphasized note to ascending or descending scale or arpeggio.

Establish the emphasized note as part of a chord. This can establish a chord different from that in the comping. For example, establish a Cm6 during a Cm7 chord.

Contrast with Non-Chordal Tones

To add contrast, occasionally end a phrase with a non-chordal tone, followed by a variation of the same phrase that does end with a chord tone (pitch-wise right next to the non-chord tone you ended the last phrase).

Develop Themes (Licks)

Dabble with a small number of lick and theme ideas, then focus on one of theme and develop it into a theme and variation set that you memorize.

GENERAL MEANS OF ESTABLISHING A KEY

Establishing The Tone Center

Different devices in the music can contribute to establishing a key. The key may temporary and is the root of a primary chord. The key is usually established by more than one device. Each device draws attention to the tone center. The devices that can establish a key include:

- ✦ **Using a tonic scale.** Making melody with a scale named after the tone center
- ✦ **Play it louder.** Playing the tone center louder or more often than other notes
- ✦ **Sustain it.** Sustaining the tone center or ending a phrase with it
- ✦ **Pivot tone.** Using the tone center as a pivot tone, where the melody alternates between it and other notes (see [Melodic Cells/Pivot Tone](#))
- ✦ **Establish a tonic chord.** Establishing the tone center by establishing the tonic chord in these ways (see [Establishing the Key With Chord Progression and Cadences](#) and [Modes](#)) :
 - ✦ **Starting with** the desired key chord
 - ✦ **Ending with** the desired key chord
 - ✦ **More frequent occurrence** of the tonic chord
 - ✦ Using the tone center as a **pedal point**, which is a sustained note, usually in the bass (see [Pedal Point Chord Progression](#))
 - ✦ **Resolving to the tonic chord with a cadence** (a well-known chord progression used to lead to a tonic chord). See [Secondary Dominant](#).
- ✦ **Scalar chord root movement.** A progression of chord roots up or down a scale to the root of the intended tonic chord.
- ✦ **Dissonance.** Preceding the intended tonic chord by one or more dissonant, tension-producing chords.
- ✦ **Low-pitched tonic root.** Use the root of the main chord in a low range of pitch.
- ✦ **Define a section with it.** Ending or beginning a section with a chord, where sections are typically multiples of four measures. Ending with the desired tonic chord establishes stronger tonality than beginning with it.

ESTABLISHING KEYS WITH MAJOR SCALES

Melodies, chords, scales and chord progression can be expressed in terms of pitch by relating the notes to a major scale in the key of the melody or chord progression or in the key named after the chord or scale. You can read about this in [Note Sets, Structure And Design](#).

The common initial illustration of key with a major scale is done by playing the major scale up and down for an octave, optionally followed by a three-note chord made of steps one, three and five of the scale (every other note). That example is shown below in C, G and F major. Play the example on your guitar and play the video tab in your browser, if you can. You should be able to hear the relationship between each chord and the scale of the same name. Each chord (C major triad) should serve aurally as a summary of the scale (C major scale). This relationship is the basis of keys.

C, F and G major scale examples [link to video](#)

C major scale

C major triad

TAB: 3 0 2 3 0 2 0 1 | 0 2 0 3 2 0 3 | 0 3 3

G major scale

C major triad

TAB: 10 7 9 10 7 9 7 8 | 7 9 7 10 9 7 10 | 7 9 10

F major scale

F major triad

TAB: 8 5 7 8 5 7 9 6 | 5 7 5 8 7 5 8 | 5 7 8

ESTABLISHING KEYS

WITH MELODY AND CHORD PROGRESSION

Melody is an expression of both the chord progression and the scales named after the key that are used in each section of music. It brings attention to the tones of a main chord more than the other chords. It establishes the key best when melody is made primarily of scales named after the key, such as C major pentatonic scale, C Mixolydian and C major scale all used during a piece in the key of C.

C key scales establishing a melody in the key of C [link to video](#)

The musical notation is presented in three systems, each with a melody line, a guitar fretboard diagram, and a bass line.

System 1: The melody line starts with a whole rest, followed by a half note G4, a quarter note A4, and a quarter note B4. The guitar fretboard diagram shows the first four frets of the guitar. The bass line starts with a whole rest, followed by a half note G2, a quarter note A2, and a quarter note B2.

System 2: The melody line starts with a whole rest, followed by a half note G4, a quarter note A4, and a quarter note B4. The guitar fretboard diagram shows the first four frets of the guitar. The bass line starts with a whole rest, followed by a half note G2, a quarter note A2, and a quarter note B2.

System 3: The melody line starts with a whole rest, followed by a half note G4, a quarter note A4, and a quarter note B4. The guitar fretboard diagram shows the first four frets of the guitar. The bass line starts with a whole rest, followed by a half note G2, a quarter note A2, and a quarter note B2.

Chord Progressions: C6, Dm7, G, D9, Dm7, G13, C6

Scales: C minor 6/9 pentatonic scale, C Mixolydian scale, C minor 6/9 pentatonic scale, C major scale

Chord Scales Are Less Effective in Establishing an Overall Key

When scales in many keys are used, each named after the key of a different chord, you are not continually reminded of the key as you would be with the primary use of key scales. This weakens the sense of key. I call a scale named after a chord a *chord scale*.

chord scales weaken the key [link to video](#)

The musical notation is presented in three systems, each with a treble clef, a 4/4 time signature, and a bass line. The scales are labeled as follows:

- System 1:** C⁶ (D minor pentatonic scale), Dm⁷ (G major pentatonic), G.
- System 2:** C⁶ (C minor 6/9 pentatonic scale), D⁹ (D minor pent.), Dm⁷ (G major pent.), G¹³ (C major pentatonic), C⁶.

The notation includes a treble clef, a 4/4 time signature, and a bass line. The scales are labeled: D minor pentatonic scale, G major pentatonic, C minor 6/9 pentatonic scale, D minor pent., G major pent., and C major pentatonic.

Establishing the Key With Chord Progression and Cadences

The *tonic chord* represents the tonal focal point in a piece of music. It is expected the piece will end on the tonic chord, although a [deceptive cadence](#) may prove otherwise. Elements of chord progression can contribute to establishing a sense of key, including:

- starting with the desired key chord
- ending with the desired key chord
- more frequent occurrence of the tonic chord
- a pedal point (repeating a note) in the bass on the root of the desired key chord
- resolving to the tonic chord with a cadence

Any and all of the above elements can be used in combination to strengthen the expected resolution on the tonic chord. [link to video](#)

C Am F G Dm G F C
expected end

ending with the tonic chord

Am F C C F C C
expected end

starting and ending with the tonic chord

C Am F Dm G C C
expected end

frequent occurrence of the tonic chord

F C G C Dm G C C
expected end

pedal point

C F/C Em/C F/C Am/C G/C F C
expected end

cadences

Dm7 G9 Cmaj7 Dm9 Db9(#11) C9 A7(#5) Dm11(b5) G9 Cm7

RELATIVE MAJOR AND MINOR KEYS ON STEPS ONE AND SIX

For over five hundred years, Western (European) music has predominantly used steps one and six of the major scale as focal points. When scale tone one of the major scale is used as a focal point, the scale is said to be major or *Ionian mode*, its name in the modified Greek system of modes. When scale tone six is the focal point, it is called *Aeolian mode*.

Major (Ionian) Mode on Step One

The earlier section [Establishing Keys With Major Scales](#) demonstrated the illustration of a key with a major scale, by playing up and down an octave and sounding a chord by sustaining its first, third and fifth scale tones together. In the chapter on [Modes](#), you'll learn that this can be done with any of the seven scale tones of the major scale or with three other seven-tone (heptatonic) scales.

Aeolian Mode on Step Six of the Major Scale

As with major mode on step one, Aeolian mode can be established as a scale with a sense of key on the sixth step of the major scale by playing step six to six up and down an octave. Likewise, you can sustain a three-note chord made with every other tone ascending from six: scale tones six, one and three sustained together (one is the same tone as eight, so 6-1-3 is every other numbered tone).

The major scale and the scale built on its sixth step are referred to as relative major and minor and are most common modes of the major scale.

relative G major and E minor [link to video](#)

G major scale **G major triad**

numbered scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1

E Aeolian mode (G major from scale tone six to six) **E minor triad**

6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

USING KEY ON ONE WITH ALTERED TONES

With the African-American influence in the last two hundred years (especially since the late nineteenth century), the scales have been modified with flatted notes for expression. The African-American musicians and composers specifically flatted the seventh and third of major scales, bringing back some of the modes that were used from 400 A.D. to 1500 A.D.

Key Signatures

- **The Purpose of Key Signatures**
- **Five Steps to Memorizing Key Signatures**
- **12 Steps to Memorizing Key Signatures**
- **The Major Scale Pattern**
- **Conceiving and Writing Key Signatures**
- **The Relative Major and Minor System**
- **The Cycle of Fifths**
- **Q&A on Key Signatures**

THE PURPOSE OF KEY SIGNATURES

Standardizing Major Scales

In music, our tonal system is based on the major scale. We relate the notes of other scales, of chords and melodies to the major scale, using it as a point of reference.

Key signatures standardize scales so every major scale uses the same seven letters and has the same intervals from step to step. Every major scale uses each letter only once.

An interval is the distance between notes, measured in steps or frets. A whole step is equal to two frets. A half step is equal to one fret. A major scale spans or “scales” an octave with a particular combination of intervals.

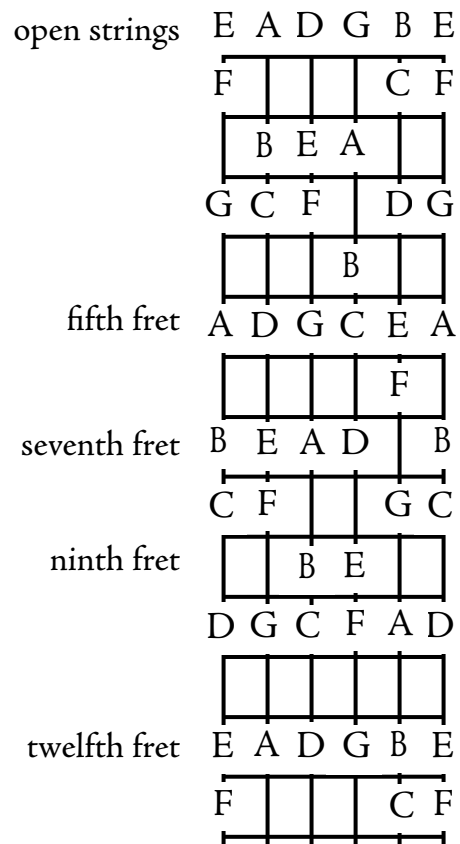
The intervals in every key are whole steps (two frets, leaving an “empty” fret between them) from each numbered tone to the next in numbered order, except steps three to four and seven to one are a half step (one fret, with no note between them).

lettered note spacing

Lettered notes differ in distances on the fretboard. B to C and E to F are a half step apart (one fret, with no note between them). All other alphabetical pairs of notes are two frets apart (two frets, leaving an “empty” fret between them), including “G” to “A”, where the musical alphabet starts over.

Look up and down any string on the fretboard diagram at the right to see this spacing between letters.

See also [Numbered Note Spacing](#).



accidentals (sharps, flats and naturals)

Sharps (#), flats (b) and naturals (♮), are called accidentals. They are placed before a written note in and spoken (or read) after a letter name to indicate an alteration of the note.



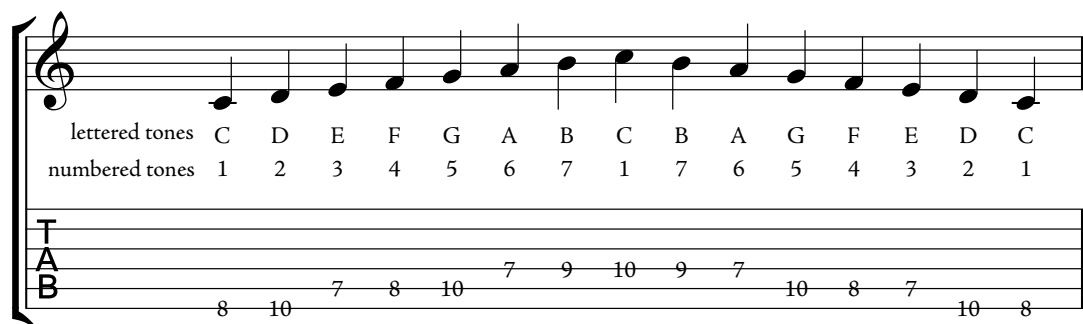
The flat (b) placed before a written note (see above) or after a letter name (see below) indicates that the note should be played 1 fret (one half step) lower than the original note.

The sharp (#) placed before a written note (see above) or after a letter name (see below) indicates that the note should be played 1 fret (one half step) higher than the original note.

The natural (♮) placed before a written note (see above) or after a letter name (see below) indicates that a previous sharp or flat on the note is cancelled and the note is played unaltered.

The seven letters A-B-C-D-E-F-G are used to name musical notes. Each letter may include a sharp or flat in its name. Each major scale has specific versions of each letter, such as in the examples below.

C major scale, no sharps or flats



F major scale, with all "B's" flat

lettered tones F G A B \flat C D E F E D C B \flat A G F

numbered tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1

T
A
B

8 10 7 8 10 7 9 10 9 7 10 8 7 10 8

G major scale, with all "F's" sharp

lettered tones G A B C D E F \sharp G F \sharp E D C B A G

numbered tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1

T
A
B

10 7 9 10 7 9 7 8 7 9 7 10 9 7 10

D major scale, with all "F's" and "C's" sharp

lettered tones D E F \sharp G A B C \sharp D C \sharp B A G F \sharp E D

numbered tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1

T
A
B

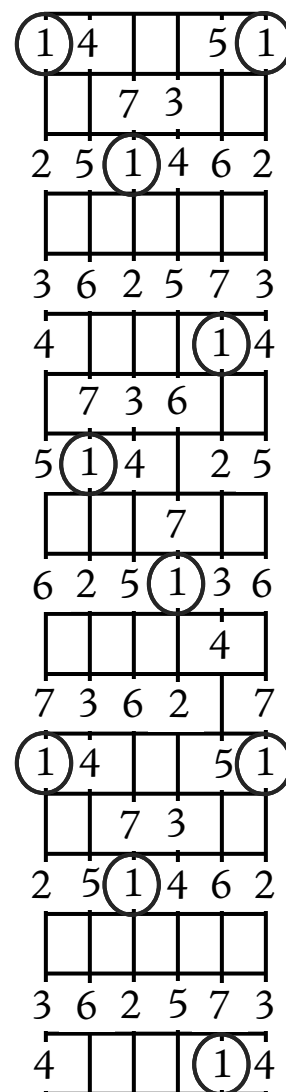
10 7 9 10 7 9 11 7 11 9 7 10 9 7 10

the major scale pattern (numbered note spacing)

Major scales have fixed intervals (distances) between notes. This universal pattern can be seen by numbering the tones of the major scale.

The diagram at the right is movable. In the key of “F”, the “1” on the sixth string at the top left of the diagram would be at the first fret on the note “F”. In “G”, the “1” on the sixth string at the top left would be at the third fret, on the note “G”.

See also [Lettered Note Spacing](#).



The major scale is spaced as follows:

major scale tone	1	2	3	4	5	6	7	1
steps apart		1	1	1/2	1	1	1	1/2
frets apart		2	2	1	2	2	2	1

Correcting the Letter Intervals with Sharps and Flats

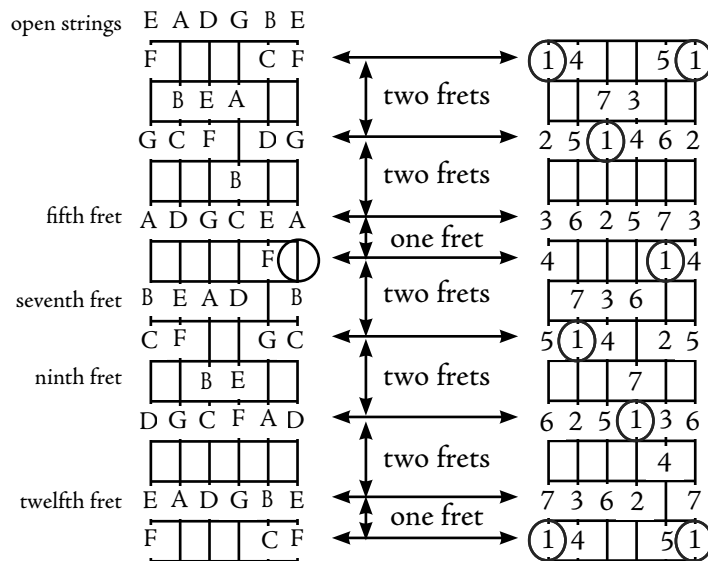
In the key of “C”, steps three to four should be a half step and they are, since “E” to “F” (the third to fourth letters alphabetically in the C scale) are also a half step (one fret) apart. Likewise, in the key of “C”, steps seven to one should be a half step, and they are, since “B” to “C” are also a half step apart. Sharps and flats adjust the intervals for all the other keys, where letters would not be the correct interval (distance) otherwise.

key signatures don't mix sharps and flats

Key signatures adjust the intervals of the major scale (if necessary) with sharps or flats, but don't mix them. They have one to seven sharps or one two seven flats. In the case of C major, the key signature has no sharps or flats, as noted above.

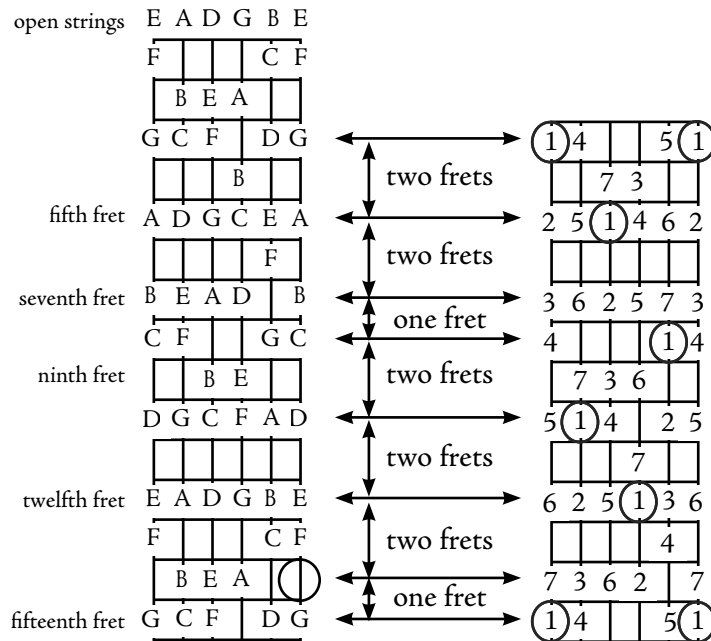
F major needs B flat

Each of the intervals from one letter to the next in the F major scale conforms to the numbered pattern for a major scale except “A” to “B”, the third to fourth letters should be a half step. “A” to “B” is a whole step. By flattening the “B” the interval from “A”, the third step to “Bb” (B flat, at the circle), the fourth step is a half step, as it should be. Also, with “B” to C as four and five, they would only be a half step. Flattening the “B” makes four to five (“Bb” to C”) a whole step, as it should be.



G major needs F sharp

Each interval in alphabetical order in the G major scale conforms to the numbered pattern for a major scale except “E” to “F”, the sixth to seventh tones should be a whole step and “F” to “G” the seventh and eighth tones (the eighth tone is the same name as the first, “G”) should be a half step. By sharpening the “F”, the sixth to seventh is a whole step (“E” to “F#”, at the circle) and the seventh to eighth tones are a half step (“F#” to “G”).



twelve different keys by sound

Twelve different configurations of half and whole steps between alphabetically lettered notes can be indicated with key signatures. Each of the twelve produces the same intervallic pattern of steps and half steps. This pattern is shown in the circle on the next page. To the left of each fretboard diagram, an example of the scale is indicated on the sixth string for one octave.

A key signature is one or more accidentals shown on the staff to indicate the major or minor scale used in the piece of music. It contains (1) one or more sharps, (2) one or more flats or (3) no sharps nor flats (which is the key signature for “C” major or “A” minor).

Each key signature creates a pattern of half and whole steps between an alphabetical sequence of notes. With every eighth note, the alphabetical pattern repeats. Each eight note alphabetical sequence represents a scale. The scale types are determined by their step to step intervals.

enharmonic keys

There are more than twelve keys if you include enharmonic keys, which provide alternate letter names for the same major scale by sound. F sharp major and G flat major have the same pitches, but alternate names. C sharp major and D flat major likewise have alternate names for the same pitches.

A song may have a section in C sharp minor, which uses the E major key signature with four sharps. If the same piece of music had another section in C sharp major, you may want to use the C sharp major key signature with *seven* sharps, instead of its equivalent Db major with five flats, just so you're always thinking in the key of "C#", minor or major.

Guitarists tend to use sharp keys, since keys named after the open strings all use sharps, not flats. Horn players and other transposing instruments (ones that have to be thought in different keys from the names on the piano or guitar) often like flat keys, because when they play in a simple key like "C", other non-transposing instruments like the guitar or piano have to play in B flat or E flat.

flat names and sharp names

All keys with flat names have flats in their key signature. F is the only key with a flat in its key signature that has a natural name. The two keys with sharp names, F# and C#, have sharps in their key signature. All keys with natural names have sharps in their key signature except C and F (see above).

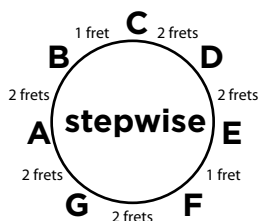
FIVE STEPS TO MEMORIZING KEY SIGNATURES

(the most important of the twelve in the next section)

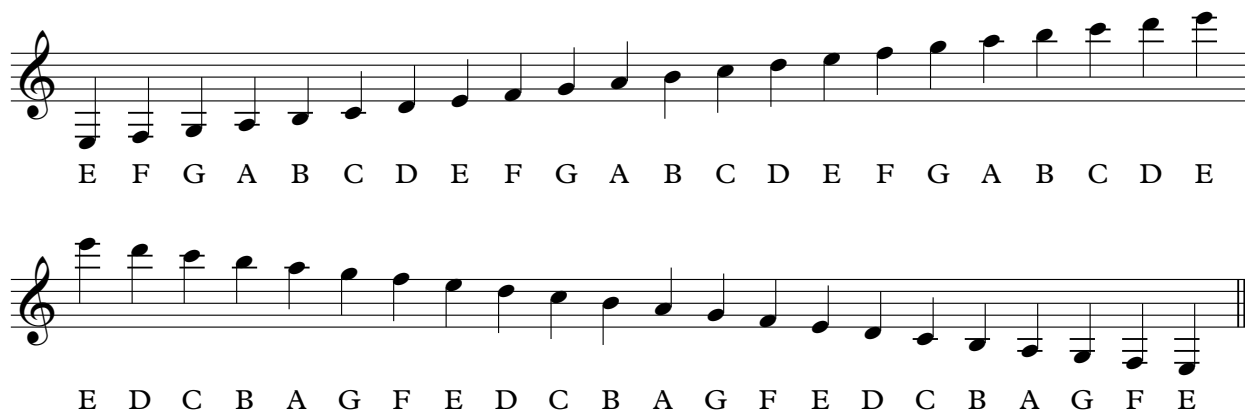
1. C major has no sharps nor flats.
2. F major has one flat: Bb.
3. All of the other keys “accumulate” sharps or flats in their key signatures. In key signatures, sharps are written in the order F-C-G-D-A-E-B (Fat Cats Get Down At Ed’s Barbecue), flats in the reverse order: B-E-A-D-G-C-F (Bead Go Catch Fish). These sharps and flats accumulate in order. If a key has one sharp, the sharp is F#. If it has two sharps, they are F# and C#. If a key has one flat, the flat is Bb. If it has two flats, they are Bb and Eb. Sharp keys accumulate sharps from the beginning of F-C-G-D-A-E-B (Fat Cats Get Down At Ed’s Barbecue). Flat keys accumulate flats from the beginning of B-E-A-D-G-C-F (Bead Go Catch Fish). The order for sharps and flats are the opposites of one another.
4. To determine a sharp key, raise the last sharp a half step. When reading the sharps as they appear in the key signature from left to right, raise the last sharp (on the right) in a key signature a half step to produce the name of the key.
5. To determine a flat key, name it after the next to last flat. When reading the flats as they appear in the key signature from left to right, look at the next-to-last flat. It is the literal name of the key.

12 STEPS TO MEMORIZING KEY SIGNATURES

1. Each key signature indicates the notes of a particular major scale.
2. Every major scale uses the same seven letters: A B C D E F G. These seven letters form an alphabetical cycle:



3. Each major scale starts on the letter after which it is named and follows the alphabetical cycle around to the same letter.
4. Each major scale has one or more notes sharpened or flatted except C major, which has no sharps or flats.
5. Each major scale uses each letter (A-B-C-D-E-F-G) once and only once (F and F#, B and Bb are never used in the same major scale). Major scales never combine sharps and flats; they always use one or the other.
6. Memorize the note names on the staves (below). See [Reading Standard Music Notation](#).



7. Memorize the C major key signature and C major scale (see the previous pages).
8. Memorize the F major key signature and F major scale (see the previous pages).
9. There is a series of “sharp” keys which have one or more sharps in their key signature:

- If a key has one sharp (#), the sharp is F#.
- If the key has two sharps, the sharps are F#-C#.
- If the key has three sharps, the sharps are F#-C#-G#.
- If the key has four sharps, the sharps are F#-C#-G#-D#.
- If the key has five sharps, the sharps are F#-C#-G#-D#-A#.
- If the key has six sharps, the sharps are F#-C#-G#-D#-A#-E#.
- If the key has seven sharps, the sharps are F#-C#-G#-D#-A#-E#-B#.

If sharp keys are placed in order with 1 through 7 sharps, they are in order of perfect fifths: F#-C#-G#-D#-A#-E#-B#.

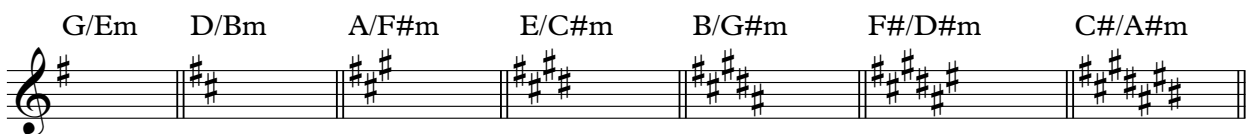
So, sharps accumulate in the order F-C-G-D-A-E-B:

Fat Cats Get Down At Ed's Barbecue

The last sharp in the key signature is always the seventh degree of the scale. The next to the last is the third degree. Third from last is the sixth degree, etc., accumulating the following sequence:

position in key signature	seventh from last sharp	sixth from last sharp	fifth from last sharp	fourth from last sharp	third from last sharp	second from last sharp	last sharp
numbered tone in scale	4	1	5	2	6	3	7

10. Seven major keys with sharps in their key signature are named after the note one fret (1/2 step) higher than the last sharp in the key signature. The last sharp is on the far right in the key signature. The relative minor key is a whole step below the last sharp.



11. There is a series of six flat keys which have two or more flats in their key signatures:
- If a key has two flats, the flats are Bb-Eb.
 - If a key has three flats, the flats are Bb-Eb-Ab.
 - If a key has four flats, the flats are Bb-Eb-Ab-Db.
 - If a key has five flats, the flats are Bb-Eb-Ab-Db-Gb.
 - If a key has six flats, the flats are Bb-Eb-Ab-Db-Gb-Cb.
 - If a key has seven flats, the flats are Bb-Eb-Ab-Db-Gb-Cb-Fb.

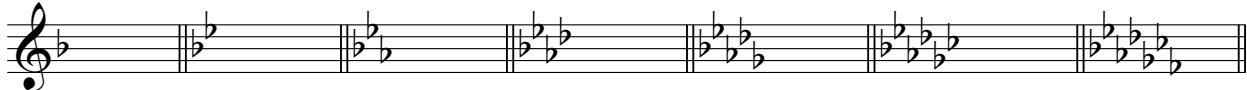
If flat keys are placed in order with 1 through 7 flats in their key signature, they are in order of perfect fourths: Bb-Eb-Ab-Db-Gb-Cb-Fb.

So, flats accumulate in the order B-E-A-D-G-C-F:

Bug Eyes Are Darn Good Cat Fish

12. To name any of the six major keys with two or more flats: the flat next to the far right names the key. As usual, the relative minor key (Aeolian mode) is 1 1/2 steps below the major key.

F/Dm Bb/Gm Eb/Cm Ab/Fm Db/Bbm Gb/Ebm Cb/Abm



The last flat in the key signature is always the fourth degree of the scale. The next to the last flat is the first degree. Third from last is the fifth degree, and so on, accumulating the following sequence:

position in key signature	seventh from last flat	sixth from last flat	fifth from last flat	fourth from last flat	third from last flat	second from last flat	last flat
numbered tone in scale	7	3	6	2	5	1	4

CONCEIVING AND WRITING KEY SIGNATURES

Reading key signatures is one thing. Writing or conceiving them for a particular key is another. In a sense, you have to reverse-construct what you learned about reading them.

Determining Key Signatures

To create a signature for a key that includes flats, recite the accumulative order Bb-Eb-Ab-Db-Gb-Cb-Fb (Bead Go Catch Fish) from the beginning through the name of the key and one more letter name (in the B-E-A-D-G-C-F series, not alphabetical order).

To create a key signature for a key that includes sharps, first determine the last sharp as written in a key signature from left right. The last sharp is the seventh step of the scale and is one fret below the note that is the name of the key. It is one letter alphabetically before the name of the key. Then name the sharps by reciting the accumulative order F#-C#-G#-D#-A#-E#-B# (Fat Cats Get Down At Ed's Barbecue) from the beginning through that letter name that is the seventh step of the scale.

Does the Key Use Flats or Sharps?

C major uses neither: it has no sharps nor flats. Every key with a flat name uses some flats (but no sharps). Every key with a sharp name uses sharps, but no flats. All keys with natural names have one or more sharps, except C (no sharps nor flats) and F (one flat, which is Bb).

Fourths and Fifths As the Origin of Key Signatures

Each flat key uses seven notes in fourths, representing the scale in the order 7-3-6-2-5-1-4. We only show the flats in the key signature, but if there are two or more flats, the key name will be next to the last in the "1" position.

flats/fourths 7-3-6-2-5-1-4 Bead Go Catch Fish

B#-E#-A#-D#-G#-C#-F# B-E-A-D-G-C-F-Bb-Eb-Ab-Db-Gb-Cb-Fb

Each sharp key uses seven notes in fifths, representing the scale in the order 4-1-5-2-6-3-7. We only show the sharps in the key signature, but the last sharp will always be visible in the "7" position. The last sharp can then be raised a half step (one fret) to determine "1", the name of the key.

sharps/fifths 4152637 Fat Cats Get Down At Ed's Barbecue

Fb-Cb-Gb-Db-Ab-Eb-Bb F-C-G-D-A-E-B-F#-C#-G#-D#-A#-E#-B#

Conceive flat keys as an expression of B-E-A-D-G-C-F, each with a certain number of flats in a row, then the rest are natural (i.e. B \flat -E \flat -A-D-G-C-F or B \flat -E \flat -A \flat -D-G-C-F). Conceive sharp keys as an expression of F-C-G-D-A-E-B, each with a certain number of sharps in a row, then the rest are natural (i.e. F \sharp -C-G-D-A-E-B or F \sharp -C \sharp -G-D-A-E-B).

Where Key Signatures Apply in Written Music

Key signatures apply throughout a piece of music except:

1. Where indicated otherwise, in which case the new accidental (\sharp , \flat or \natural) applies throughout the remainder of the measure. The accidental can carry over into the next measure to complete a tied note.



Here is the same example with “courtesy” accidentals, as reminders.



2. Where a new key signature is shown, in which case the new key signature is used except where indicated otherwise.



review the rules

Sharps or naturals accumulate in fourths. If you have one sharp or naturals, it's on scale tone 7. If you have two sharps or naturals, they are on 7 and 3. Three sharps or naturals are on 7-3-6. Four are on 7-3-6-2. Five are on 7-3-6-2-5.

C major has no sharps nor flats, so every letter is natural. C sharp major has every letter sharp, since every letter is raised a half step from C major.

F major has only one flatted note, B flat. F sharp major has every note sharp, except B is natural.

As the keys with one through five sharps (G, D, A, E and B) proceed through their accumulative order of sharps in fifths (F#-C#-G#-D#-A#), their key names proceed in an order of fifths (G-D-A-E-B). The scale tones with a different accidental accumulate in an order of fourths (7-3-6-2-5). The seventh step of the G scale (one half step below G) is F#, so its key signature is just F#.

The seventh step of the D major scale (one half step below D) is C#, so its key signature is F#-C#.

The seventh step of the A major scale (one half step below A) is G#, so its key signature is F#-C#-G#.

The seventh step of the E major scale (one half step below E) is D#, so its key signature is F#-C#-G#-D#.

The seventh step of the B major scale (one half step below B) is A#, so its key signature is F#-C#-G#-D#-A#.

G major has a sharp on step 7 (F#) and the remaining notes (3-6-2-5-1-4) are natural. Gb major has all notes flat (3-6-2-5-1-4), except step 7 is natural (F \natural). Step 7 is the different accidental.

D major has sharps on steps 7 and 3 (C# and F#) and the remaining notes (6-2-5-1-4) are natural. Db major naturals on steps 7 and 3 (F \natural and C \natural) and the remaining notes (6-2-5-1-4) are flat. Steps 7 and 3 are the steps with accidentals different from the remaining notes for these two keys named with the letter D.

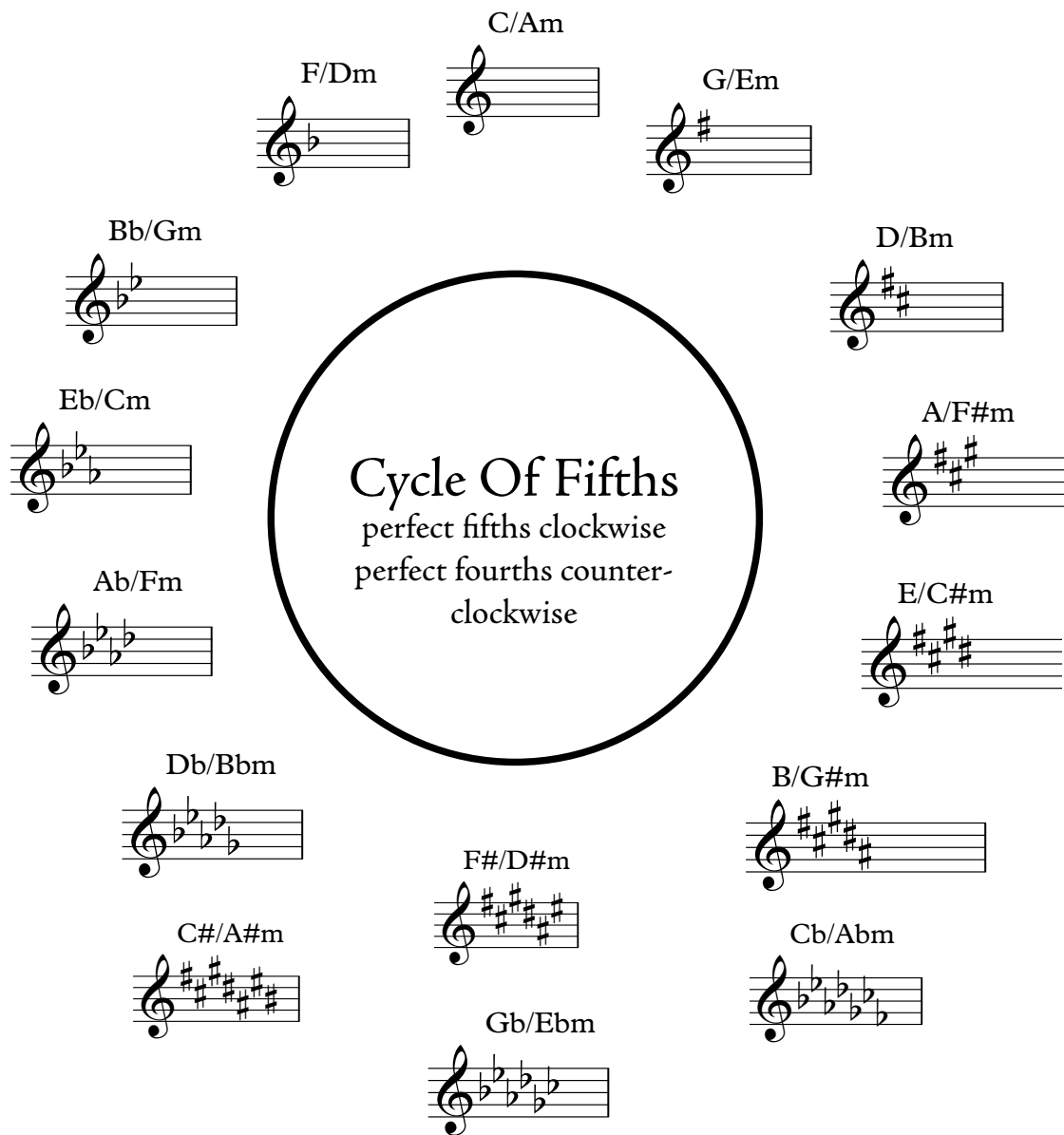
A major has sharps on steps 7, 3 and 6 (G#, C# and F#) and the rest (2-5-1-4) are natural. Ab major has naturals on 7, 3 and 6 (F \natural , C \natural and G \natural) and the rest are flat (2, 5, 1, 4). 7, 3, 6 are the steps with accidentals different from the remaining notes for these two keys named with the letter A.

E major has sharps on steps 7, 3, 6, 2 (D#, G#, C# and F#), and naturals on 5-1-4 (B-E-A). Eb major has naturals on 7, 3, 6 and 2 (D \natural -G \natural -C \natural and F \natural) and flats on 5-1-4 (Bb-Eb-Ab). 1, 4 and 5 are the steps with accidentals different from the remaining notes (7-3-6-2) for these two keys named with the letter E.

B major has sharps on steps 7-3-6-2-5 (A#-D#-G#-C#-F#), and naturals on 1-4 (B-E). Bb major has naturals on 7-3-6-2-5 (A-D-G-C-F) and flats on 1 and 4 (Bb and Eb). 1 and 4 are the steps with accidentals different from the remaining notes (7-3-6-2-5) for these two keys named with the letter B.

THE CYCLE OF FIFTHS

The **cycle of fifths** displays the fifteen key signatures in a circle. There are twelve *different* keys, but three of them can be written in two ways. Moving clockwise around the circle adds sharps or deletes flats. Moving counterclockwise around the circle adds flats or deletes sharps.



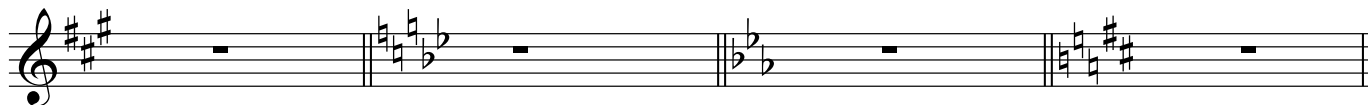
Courtesy naturals are used in key signatures to remind the reader that certain notes are no longer sharped or flat-
ted. They are written at the left of each line or at the beginning of each page and at each change of key or scale.

"A" major with
"F, C and G" sharps

"B flat" major with
"B and E" flats and a
cautionary reminder that "F,
C and G" are natural.

"E flat" major with
"B, E and A" flats

"D" major with
"F and C" sharps and a
cautionary reminder that
"B, E and A" are natural.



THE RELATIVE MAJOR AND MINOR SYSTEM

In the *relative major and minor* system of keys, there are two possible keys with each major scale. The key may be on steps one or six of a major scale. So, when you initially interpret a key signature for a major scale, naming it after the note on step one, you need to also consider its *relative minor* tone center on step six of the major scale.

The intervals between major scale tones by number in consecutive order are all whole steps (they are two frets apart) *except* scale tones three to four is a half step (one fret) and steps seven to one is a half step. The interval between step one and its relative minor on step six is one and a half steps down (three frets down).

Here are each of the fifteen key names (named after step one for each), showing each key along with its relative minor key after a forward slash: C/Am, F/Dm, Bb/Gm, Eb/Cm, Ab/Fm, Db/Bbm, Gb/Bbm, C/Abm, G/Em, D/Bm, A/F#m, E/C#m, B/G#m, F#/D#m and C#/A#m.



relative major and minor scales and parent scales

Each scale has an alternate major and minor name, called relative major and relative minor. Notice that the flats and sharps do not have to be written before each altered note. A key signature applies throughout a piece of music until another key signature is shown. A Aeolian uses the notes of the C major scale, with the focus on “A”, so the *parent scale* for A Aeolian is C major.

C major scale													A Aeolian mode (scale)												
lettered tones C D E F G A B C B A G F E D C													A B C D E F G A G F E D C B A												
parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1													6 7 1 2 3 4 5 6 5 4 3 2 1 7 6												
key scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1													1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1												

F major scale **D Aeolian mode (scale)**

lettered tones F G A B \flat C D E F E D C B \flat A G F D E F G A B \flat C D C B \flat A G F E D

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

TAB: 8 5 7 8 5 7 5 6 5 7 5 8 7 5 8 5 7 8 5 7 8 5 7 5 8 7 5

B \flat major scale **G Aeolian mode (scale)**

lettered tones B \flat C D E \flat F G A B \flat A G F E \flat D C B \flat G A B \flat C D E \flat F G F E \flat D C B \flat A G

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

TAB: 8 5 7 8 6 8 5 6 5 8 6 8 7 5 8 5 7 8 6 8 6 8 7 5 8 7 5

E \flat major scale **C Aeolian mode (scale)**

lettered tones E \flat F G A \flat B \flat C D E \flat D C B \flat A \flat G F E \flat C D E \flat F G A \flat B \flat C B \flat A \flat G F E \flat D C

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

TAB: 11 8 10 11 8 10 12 8 12 10 8 11 10 8 11 8 10 11 8 10 11 11 10 8 11 10 8

A \flat major scale **F Aeolian mode (scale)**

lettered tones A \flat B \flat C D \flat E \flat F G A \flat G F E \flat D C B \flat A \flat F G A \flat B \flat C D E \flat F E \flat D \flat C B \flat A \flat G F

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

TAB: 11 8 10 11 8 10 12 9 12 10 8 11 10 8 11 8 10 11 8 10 11 11 10 8 11 10 8

Db major scale **Bb Aeolian mode (scale)**

lettered tones Db Eb F Gb Ab Bb C Db C Bb Ab Gb F Eb Db Bb C Db Eb F Gb Ab Bb A Gb F Eb Db C Bb

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

T
A
B

9 6 8 9 6 8 10 6 10 8 6 9 8 6 9 6 8 9 6 8 9 9 8 6 9 8 6

Gb major scale **Eb Aeolian mode (scale)**

lettered tones Gb Ab Bb Cb Db Eb F Gb F Eb Db Cb Bb Ab Gb Eb F Gb Ab Bb Cb Db Eb Db Cb Bb Ab Gb F Eb

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

T
A
B

9 6 8 9 6 8 6 7 6 8 6 9 8 6 9 6 8 9 6 8 9 9 8 6 9 8 6

Cb major scale **Ab Aeolian mode (scale)**

lettered tones Cb Db Eb Fb Gb Ab Bb Cb Bb Ab Gb Fb Eb Db Cb Ab Bb Cb Db Eb Fb Gb Ab Gb Fb Eb Db Cb Bb Ab

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

T
A
B

9 6 8 9 7 9 6 7 6 9 7 9 8 6 9 6 8 9 6 8 9 7 9 7 9 8 6 9 8 6

Most keys with sharps in their key signature don't have a sharp in their name:

G major scale **E Aeolian mode (scale)**

lettered tones G A B C D E F# G F# E D C B A G E F# G A B C D E D C B A G F# E

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

T
A
B

10 7 9 10 7 9 7 8 7 9 7 10 9 7 10 7 9 10 7 9 10 10 9 7 10 9 7

D major scale **B Aeolian mode (scale)**

lettered tones D E F# G A B C# D C# B A G F# E D B C# D E F# G A B A G F# E D C# B

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

TAB 10 7 9 10 7 9 11 7 11 9 7 10 9 7 10 7 9 10 7 9 10 10 9 7

A major scale **F# Aeolian mode (scale)**

lettered tones A B C# D E F# G# A G# F# E D C# B A F# G# A B C# D E F# E D C# B A G# F#

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

TAB 7 4 6 7 5 7 4 5 4 7 5 7 6 4 7 4 6 7 4 6 7 5 7 5 7 6 4 7 6 4

E major scale **C# Aeolian mode (scale)**

lettered tones E F# G# A B C# D# E D# C# B A G# F# E C# D# E F# G# A B C# B A G# F# E D# C#

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

TAB 12 9 11 12 9 11 13 9 13 11 9 12 11 9 12 9 11 12 9 11 12 12 11 9 12 11 9

B major scale **G# Aeolian mode (scale)**

lettered tones B C# D# E F# G# A# B A# G# F# E D# C# B G# A# B C# D# E F# G# F# E D# C# B A# G#

parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 6 7 1 2 3 4 5 6 5 4 3 2 1 7 6

key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1

TAB 9 6 8 9 7 9 6 7 6 9 7 9 8 6 9 6 8 9 6 8 9 7 9 7 9 8 6 9 8 6

F# major scale															D# Aeolian mode (scale)														
lettered tones F# G# A# B C# D# E# F# E# D# C# B A# G# F#															D# E# F# G# A# B C# D# C# B A# G# F# E# D#														
parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1															6 7 1 2 3 4 5 6 5 4 3 2 1 7 6														
key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1																													

C# major scale															A# Aeolian mode (scale)														
lettered tones C# D# E# F# G# A# B# C# B# A# G# F# E# D# C#															A# B# C# D# E# F# G# A# G# F# E# D# C# B# A#														
parent scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1															6 7 1 2 3 4 5 6 5 4 3 2 1 7 6														
key scale tones 1 2 b3 4 5 b6 b7 1 b7 b6 5 4 b3 2 1																													

enharmonic keys

Enharmonic keys have notes with the same pitches, but different note names. There are 12 different major scales, but three of them have two possible names.

1. F# and Gb major both have the same pitches, with different names.
2. Cb and B major scales both have the same pitches, with different names
3. C# and Db major scales both have the same pitches, with different names

Q & A ON KEY SIGNATURES

Questions (Q) and Answers (A) :

- Q: What is the key signature for C major? A: no sharps nor flats
- Q: What is the key signature for F major? A: Bb
- Q: What is the order of sharps? A: F-C-G-D-A-E-B
- Q: What is the order of flats? A: B-E-A-D-G-C-F
- Q: If you had two sharps in a key signature, what would they be? A: F# and C#
- Q: If you had two flats in a key signature, what would they be? A: Bb and Eb
- Q: If you had three sharps in a key signature, what would they be? A: F#, C# and G#
- Q: If you had three flats in a key signature, what would they be? A: Bb, Eb and Ab
- Q: If you had four sharps in a key signature, what would they be? A: F#, C#, G# and D#
- Q: If you had four flats in a key signature, what would they be? A: Bb, Eb, Ab and Db
- Q: If you had five sharps in a key signature, what would they be? A: F#, C#, G#, D# and A#
- Q: If you had five flats in a key signature, what would they be? A: Bb, Eb, Ab, Db, Gb
- Q: If you had six sharps in a key signature, what would they be? A: F#, C#, G#, D#, A# and E#
- Q: If you had six flats in a key signature, what would they be? A: Bb, Eb, Ab, Db, Gb, and Cb
- Q: If you had seven sharps in a key signature, what would they be? A: F#, C#, G#, D#, A#, E# and B#
- Q: If you had seven flats in a key signature, what would they be? A: Bb, Eb, Ab, Db, Gb, Cb and Fb
- Q: What is a natural letter name? A: One that has no flat or sharp
- Q: If a key has a sharp letter name, does it have sharps or flats in its key signature? A: Sharps.
- Q: If a key has a flat letter name, does it have sharps or flats in its key signature? A: Flats.
- Q: If a key signature uses flats, is its name a letter with a flat, sharp or natural? A: With a flat or it is the key of F major (which has Bb in its key signature).
- Q: If a key signature uses sharps, is its name a letter with a flat, sharp or natural? A: With a natural, except F# major (F-C-G-D-A-E, all sharped), C# major (F-C-G-D-A-E-B, all sharped).
- Q: How do you name a key which has sharps in its key signature. A: Raise the last sharp a half step and make sure the letter has increased by one alphabetically as well.
- Q: How do you name a key which has flats in its key signature. A: It is the literal name of the next-to-last flat.

Pentatonic Fingering

- **Open Position Pentatonic Scales**
- **Transposing Open Pentatonic Fingerings To Movable Fingerings**
- **Favored Pentatonic Fingering**
- **Triads and Pentatonic Scales**
- **Locating Pentatonic Scales**
- **Wide-Range Pentatonic Scales**
- **Pentatonic Scale Naming Conventions**
- **Seven Pentatonic Scale Types**
 - **Seven Pentatonic Scale Types by Fingering Number**
 - **Seven Pentatonic Scale Types by Octave Shape and Formula**
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- **Movable Pentatonic with One Chromatic**
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- **Pentatonic Exercises**
- **Introduction to Chromatics**
- **Lower Chromatic Embellishment**
- **Passing Chromatics**
- **Blue Notes and Microtonal Bends**
- **Synthetic Pentatonic Scales**

OPEN POSITION PENTATONIC SCALES

Primary Open Position Pentatonic Scales

	Em/G fingering 1 |	Am/C fingering 4 |	Dm/F fingering 2 |	Cm/Eb fingering 3 |	Gm/Bb fingering 5 |
fingerings					
minor chord					
minor 7/11 pentatonic					
major chord					
major 6/9 pentatonic					

Open Position Pentatonic Scales with Chromatics

	Em/G	Am/C	Dm/F	Cm/Eb	Gm/Bb
fingerings	fingering 1 | 0 0 0 0 0 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	fingering 4 | 0 0 0 0 0 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	fingering 2 | 0 0 0 0 0 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	fingering 3 | 0 0 0 0 0 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	fingering 5 | 0 0 0 0 0 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4
minor chord	Em | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Am | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Dm | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Cm | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Gm | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4
minor 7/11 with grayed chromatics	Em7/11 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Am7/11 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Dm7/11 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Cm7/11 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Gm7/11 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4
major chord	G | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	C | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	F | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Eb | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Bb | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4
major 6/9 with grayed chromatics & grayed added fourth	G6/9 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	C6/9 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	F6/9 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Eb6/9 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Bb6/9 | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4
transposable minor 7/11 with grayed chromatics	Em7/11 XII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Am7/11 XII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Dm7/11 XII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Cm7/11 XIII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Gm7/11 XII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4
transposable major 6/9 with grayed chromatics and added fourth	G6/9 XII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	C6/9 XII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	F6/9 XII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Eb6/9 XIII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4	Bb6/9 XII | 1 1 1 1 1 2 2 2 2 2 3 3 3 3 3 4 4 4 4 4

Open Position Pentatonic Scales with Major Scale-tone Triads

C major - Stepwise Order

C 	Dm 	Em 	F 	G 	Am 	Bm7b5 	C
C6/9 	Dm7/11 	Em7/11 	F6/9 	G6/9 	Am7/11 	Bm7b5 	C6/9

C major - Perfect Fourth Order (7362514)

VII Bm7b5 	III Em 	VI Am 	II Dm 	V G 	I C 	IV F
Bm7/11b5 	Em7/11 	Am7/11 	Dm7/11 	G6/9 	C6/9 	F6/9

G major - Stepwise Order

G 	Am 	Bm 	C 	D 	Em 	F#m7b5 	G
G6/9 	Am7/11 	Bm7/11 	C6/9 	D6/9 	Em7/11 	F#m7/11b5 	G6/9

G major - Perfect Fourth Order (7362514)

VII F#m7b5 	III Bm7 	VI Em 	II Am 	V D 	I G 	IV C
F#m7/11b5 	Bm7/11 	Em7/11 	Am7/11 	D6/9 	G6/9 	C6/9

F major - Stepwise Order

F 1 1 1 1 2 3 4	Gm 1 1 3 4	Am 1 1 2 3	Bb 1 1 3 3 3	C 1 1 2 3	Dm 1 1 2 3	E dim. 1 1 2 3	F 1 1 1 1 2 3 4
F6/9 | 1 1 1 1 2 3 3 3 3 3 3	Gm7/11 | 1 1 1 1 3 3 3 3 3 3	Am7/11 | 1 1 1 1 2 2 3 3 3 3	Bb6/9 | 1 1 1 1 3 3 3 3 3 3	C6/9 | 1 1 1 1 2 2 3 3 3 3	Dm7/11 | 1 1 1 1 2 3 3 3 3 3	Em7/11b5 | 1 1 1 1 2 2 3 3 3 3	F6/9 | 1 1 1 1 2 3 3 3 3 3 3

F major - Perfect Fourth Order (7362514)

VII E dim. | 1 1 2 3 3	III | Am | 1 1 2 3	VI | Dm | 1 1 2 3	II | Gm | 1 1 3 4	V | C | 1 1 2 3	I | F | 1 1 1 1 2 3 4	IV | Bb | 1 1 3 3 3
Em7/11b5 | 1 1 1 1 2 2 3 3 3 3	Am7/11 | 1 1 1 1 2 2 3 3 3 3	Dm7/11 | 1 1 1 1 2 3 3 3 3 3	Gm7/11 | 1 1 1 1 3 3 3 3 3 3	C6/9 | 1 1 1 1 2 2 3 3 3 3	F6/9 | 1 1 1 1 2 3 3 3 3 3 3	Bb6/9 | 1 1 1 1 3 3 3 3 3 3

D major - Stepwise Order

D 1 2 3	Em 2 3 3 3 3 3	F#m7 2 3 3 3 3 3	G 1 1 2 3 4	A 2 3 4	Bm 1 1 3 4	C#m7b5 2 3 4	D 1 2 3
D6/9 | 2 2 2 2 2 2 3	Em7/11 | 2 2 2 2 2 2 3 3 3 3	F#m7/11 | 2 2 2 2 2 2 4 4	G6/9 | 2 2 2 2 2 2 3 3 3 3	A6/9 | 2 2 2 2 2 2 4 4	Bm7/11 | 2 2 2 2 2 2 3	F#m7/11 | 2 2 2 2 2 2 4 4 4 4	D6/9 | 2 2 2 2 2 2 3

D major - Perfect Fourth Order (7362514)

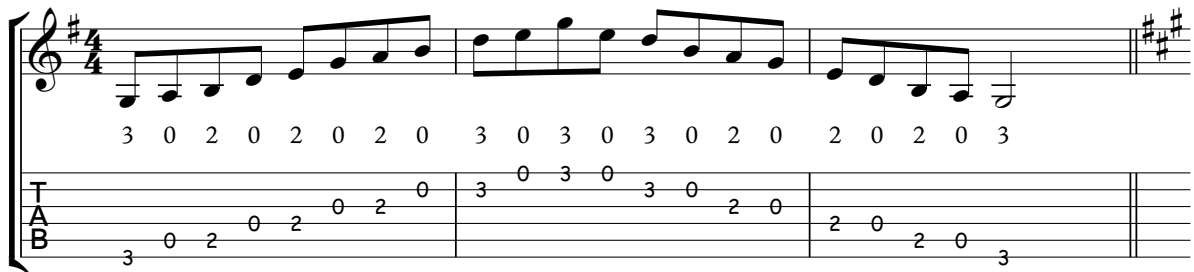
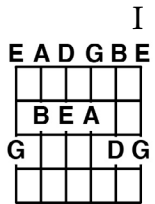
VII C#m7b5 | 2 3 4	III | F#m7 | 2 3 3 3 3 3	VI | Bm | 1 1 2 3 4	II | Em | 2 3	V | A | 2 3 4	I | D | 1 2 3	IV | G | 1 1 2 3 4
F#m7/11 | 2 2 2 2 2 2 3 4 4 4	F#m7/11 | 2 2 2 2 2 2 4 4	Bm7/11 | 2 2 2 2 2 2 3	Em7/11 | 2 2 2 2 2 2 3 3 3 3	A6/9 | 2 2 2 2 2 2 4 4	D6/9 | 2 2 2 2 2 2 3	G6/9 | 2 2 2 2 2 2 3 3 3 3

TRANSPOSING OPEN PENTATONIC FINGERINGS TO MOVABLE FINGERINGS

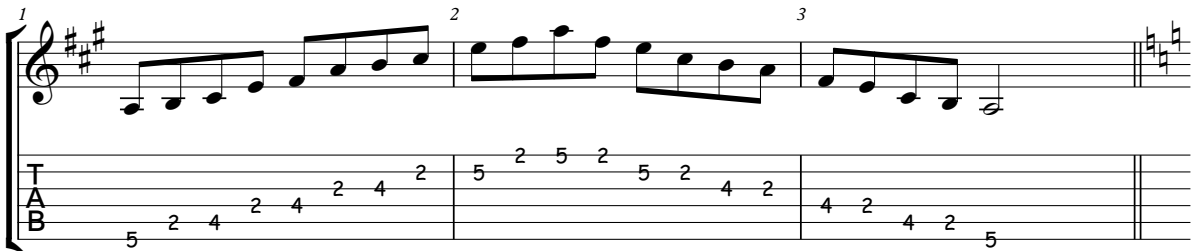
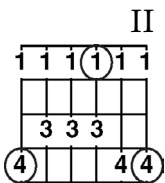
In this section, you will play each common open position pentatonic scale fingering, then a two versions of it each moved up a number of frets. Each time a fingering is moved, the new version will move all notes in the fingering up the same number of frets. This concept will be shown graphically at the bottom of each page. Moving the fingerings up in this manner transposes them to a new key, much like a capo. We are fortunate that transposing can be so easy on the guitar. Each of the pentatonic scales can be elaborated to a major scale or Aeolian mode.

Transposing Open G Major Pentatonic Scale to Movable Fingerings

G major pentatonic scale - open position fingering 1

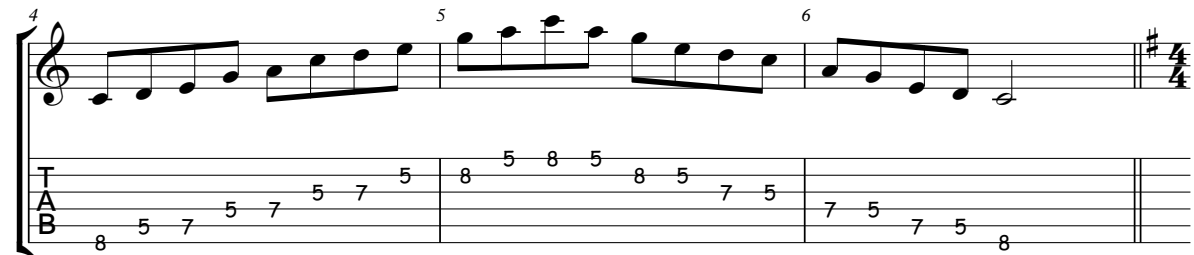
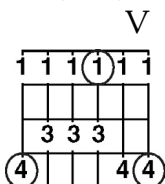


A major pentatonic scale -movable fingering 1



fingering 1

C major pentatonic scale movable fingering 1

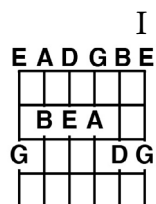


note that the pattern is the same without the grid and position numbers

E A D G B E 1 1 1 1 1 1

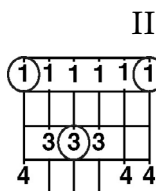
B E A 3 3 3
G D G 4 4 4

Transposing Open E Minor Pentatonic Scale to Movable Fingerings



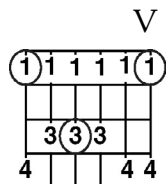
E minor pentatonic scale - open position fingering 1

0 3 0 2 0 2 0 2 0 3 0 3 0 3 0 2 0 2 0 2 0 3 0



F# minor pentatonic scale - movable fingering 1

1 2 3 4 2 5 2 5 2 5 2 4 2 4 2 4 2 5 2



A minor pentatonic scale - movable fingering 1

4 5 6 7 5 8 5 8 5 8 5 7 5 7 5 7 5 8 5

note that the pattern is the same without the grid and position numbers

E	A	D	G	B	E	1	1	1	1	1	1
B	E	A				3	3	3			
G			D	G		4			4	4	

Transposing Open G Major Scale to Movable Fingerings

G major scale - open position

I

E	A	D	G	B	E
				C	
F#	B	E	A		F#
G	C		D	G	
		F#			

7 8 9 10 11

T A B

3 0 2 3 0 2 4 0 2 0 1 3 0 2 3 2 0 3 1 0 2 0 4 2 0 3 2 0 3 2 0 2 3

A major scale - movable fingering 6

II

1	1	1	(1)	1	1
				2	
3	3	3	3		3
(4)	(4)			(4)	(4)
		4			

12 13 14 15 16

T A B

5 2 4 5 2 4 6 2 4 2 3 5 2 4 5 4 2 5 3 2 4 2 6 4 2 5 4 2 5 4 2 4 5

C major scale - movable fingering 6

V

1	1	1	(1)	1	1
				2	
3	3	3	3		3
(4)	(4)			(4)	(4)
		4			

17 18 19 20 21

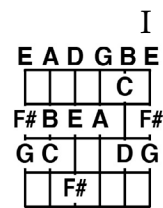
T A B

8 5 7 8 5 7 9 5 7 5 6 8 5 7 8 7 5 8 6 5 7 5 9 7 5 8 7 5 8 7 5 7 8

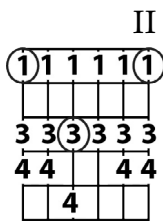
note that the pattern is the same without the grid and position numbers

E A D G B E	1 1 1 1 1 1
C	2
F# B E A F#	3 3 3 3 3
G C D G	4 4 4 4
F#	4

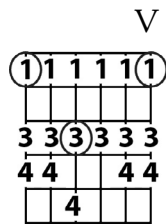
Transposing Open E Aeolian Mode to Movable Fingerings



E Aeolian mode (E natural minor scale) - open position



F# Aeolian mode (E natural minor scale) - movable fingering 6



Aeolian mode (E natural minor scale) - movable fingering 6

note that the pattern is the same without the grid and position numbers

E	A	D	G	B	E
					C
F#	B	E	A		F#
G	C		D	G	
	F#				

1	1	1	1	1	1
					2
3	3	3	3		3
4	4			4	4
	4				

Transposing Open C major Pentatonic Scale to Movable Fingerings

C major pentatonic scale - open position fingering 1

I

E A D G E

C

E A

G C D G

37

38

39

3 0 2 0 2 1 3 0 3 0 3 1 2 0 2 0 3 0 3 0 3 0 3

T

A

B

3 0 2 0 2 1 3 0 3 0 3 1 2 0 2 0 3 0 3 0 3 0 3

D major pentatonic scale -movable fingering 4

II

1 1 1 1 1

(2)

3 3

4 (4) 4 4

1

2

3

5 2 4 2 4 3 5 2 5 2 5 3 4 2 4 2 5 2 5 2 5 2 5

T

A

B

5 2 4 2 4 3 5 2 5 2 5 3 4 2 4 2 5 2 5 2 5 2 5

F major pentatonic scale -movable fingering 4

V

1 1 1 1 1

(2)

3 3

4 (4) 4 4

4

5

6

8 5 7 5 7 6 8 5 8 5 8 6 7 5 7 5 8 5 8 5 8 5 8

T

A

B

8 5 7 5 7 6 8 5 8 5 8 6 7 5 7 5 8 5 8 5 8 5 8

note that the pattern is the same without the grid and position numbers

E A D G E

C

E A

G C D G

1 1 1 1 1

2

3 3

4 4 4 4

Transposing Open A Minor Pentatonic Scale to Movable Fingerings

I A minor pentatonic scale - open position fingering 1

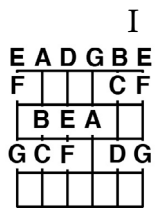
II B minor pentatonic scale -movable fingering 4

V D minor pentatonic scale -movable fingering 4

note that the pattern is the same without the grid and position numbers

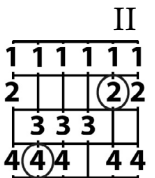
E	A	D	G	E	1	1	1	1	1
				C					2
	E	A						3	3
G	C		D	G	4	4		4	4

Transposing Open C major Scale to Movable Fingerings



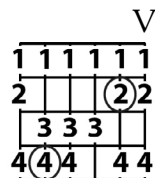
C major scale - open position

3 0 2 3 0 2 0 1 3 0 1 3 1 0 3 1 0 2 0 3 2 0 3 2 0 3 1 0 1 3 0 2 3



D major scale - movable fingering 3

5 2 4 5 2 4 2 3 5 2 3 5 3 2 5 3 2 4 2 5 4 2 5 4 2 5 3 2 3 5 2 4 5



F major scale - movable fingering 3

8 5 7 8 5 7 5 6 8 5 6 8 6 5 8 6 5 7 5 8 7 5 8 7 5 8 6 5 6 8 5 7 8

note that the pattern is the same without the grid and position numbers

E	A	D	G	B	E	1	1	1	1	1	1
F				C	F	2				2	2
	B	E	A				3	3	3		
G	C	F		D	G	4	4	4		4	4

Transposing Open A Aeolian Mode to Movable Fingerings

A Aeolian mode ("A" natural minor scale) - open position

E A D G B E
F C F
B E A
G C F D G

22 23 24 25 26

0 2 3 0 2 3 0 2 0 1 3 0 1 3 1 0 3 1 0 2 0 3 2 0 3 2 0 3 1 0 1 3 0

T
A
B 0 2 3 0 2 3 0 2 0 1 3 0 1 3 1 0 3 1 0 2 0 3 2 0 3 2 0 3 1 0 1 3 0

B Aeolian mode (B natural minor scale) - movable fingering 3

II

1 (1) 1 1 1 1
2 2 2
3 3 (3)
4 4 4 4 4

27 28 29 30 31

2 3 5 2 3 5 3 2 5 3 2 4 2 5 4 2 5 4 2 5 3 2 3 5 2

T
A
B 2 4 5 2 4 5 2 4 2 3 5 2 3 5 3 2 5 3 2 4 2 5 4 2 5 4 2 5 3 2 3 5 2

D Aeolian mode (D natural minor scale) - movable fingering 3

V

1 (1) 1 1 1 1
2 2 2
3 3 (3)
4 4 4 4 4

32 33 34 35 36

5 6 8 5 6 8 6 5 8 6 5 7 5 8 7 5 8 7 5 8 6 5 6 8 5

T
A
B 5 7 8 5 7 8 5 7 5 6 8 5 6 8 6 5 8 6 5 7 5 8 7 5 8 7 5 8 6 5 6 8 5

note that the pattern is the same without the grid and position numbers

E A D G B E	1 1 1 1 1 1
F C F	2 2 2
B E A	3 3 3
G C F D G	4 4 4 4 4

Transposing Open F Major Pentatonic Scale to Movable Fingerings

F major pentatonic scale

I

A D G

F C F

A

G C F D G

37

38

39

G major pentatonic scale - movable fingering 2

II

1 1 1

2 1 1

3

4 4 4 3 3

40

1

2

Bb major pentatonic scale - movable fingering 2

V

1 1 1

2 1 1

3

4 4 4 3 3

3

4

5

note that the pattern is the same without the grid and position numbers

A D G

1 1 1

F C F

2 1 1

A

2

G C F D G

4 4 4 3 3

Transposing Open D Minor Pentatonic Scale to Movable Fingerings

I

D minor pentatonic scale

Fretboard diagram (I):

	A	D	G		
F				C	F
		A			
G	C	F		D	G

Scale notation (I):

Treble clef: 0 3 0 2 1 3 1 3 1 3 1 2 0 3 0 3 0 3 0 3 0

Bass clef: 0 3 0 2 1 3 1 3 1 3 1 2 0 3 0 3 0 3 0 3 0

II

E minor pentatonic scale - movable fingering 2

Fretboard diagram (II):

1	(1)	1			
2			1	1	
			3		
4	4	4	(3)	3	

Scale notation (II):

Treble clef: 1 3 1 2 0 3 0 3 0 3 0 3 0 3 0 3 0 3 0 3 0

Bass clef: 2 5 2 4 3 5 3 5 3 5 3 4 2 5 2 5 2 5 2 5 2

V

G minor pentatonic scale - movable fingering 2

Fretboard diagram (V):

1	(1)	1			
2			1	1	
			3		
4	4	4	(3)	3	

Scale notation (V):

Treble clef: 1 3 1 2 0 3 0 3 0 3 0 3 0 3 0 3 0 3 0 3 0

Bass clef: 5 8 5 7 6 8 6 8 6 8 6 7 5 8 5 8 5 8 5 8 5

note that the pattern is the same without the grid and position numbers

	A	D	G		1	1	1
F			C	F	2		1
		A				2	
G	C	F	D	G	4	4	3

Transposing Open F major Scale to Movable Fingerings

I

E	A	D	G	E
F	Bb		C	F
		E	A	
G	C	F	Bb	D

F major scale - open position

II

1	1	1	1	1
2	2			2
		3	3	
4	4	4	4	4

G major scale - movable fingering 7

V

1	1	1	1	1
2	2			2
		3	3	
4	4	4	4	4

Bb major scale - movable fingering 7

note that the pattern is the same without the grid and position numbers

E	A	D	G	E	1	1	1	1	1	
F	Bb		C	F	2	2			2	
		B	E	A			3	3		
G	C	F	Bb	D	G	4	4	4	4	4

Transposing Open D Aeolian Mode to Movable Fingerings

I

D Aeolian mode (D natural minor scale) - open position

0 2 3 0 2 3 1 3 0 1 3 1 0 3 1 3 2 0 3 2 0 3 1 0 3 1 0 1 3 0 1 3 0

II

E Aeolian mode (E natural minor scale) - movable fingering 7

2 4 5 2 4 5 3 5 2 3 5 3 2 5 3 4 2 5 4 2 5 3 2 5 3 2 3 5 2 3 5 2

V

G Aeolian mode (G natural minor scale) - movable fingering 7

5 7 8 5 7 8 6 8 5 6 8 6 5 8 6 7 5 8 7 5 8 6 5 5 6 8 5

note that the pattern is the same without the grid and position numbers

E A D G E	1 1 1 1 1
F B \flat C F	2 2 2 2
B E A	3 3
G C F B \flat D G	4 4 4 4 4 4

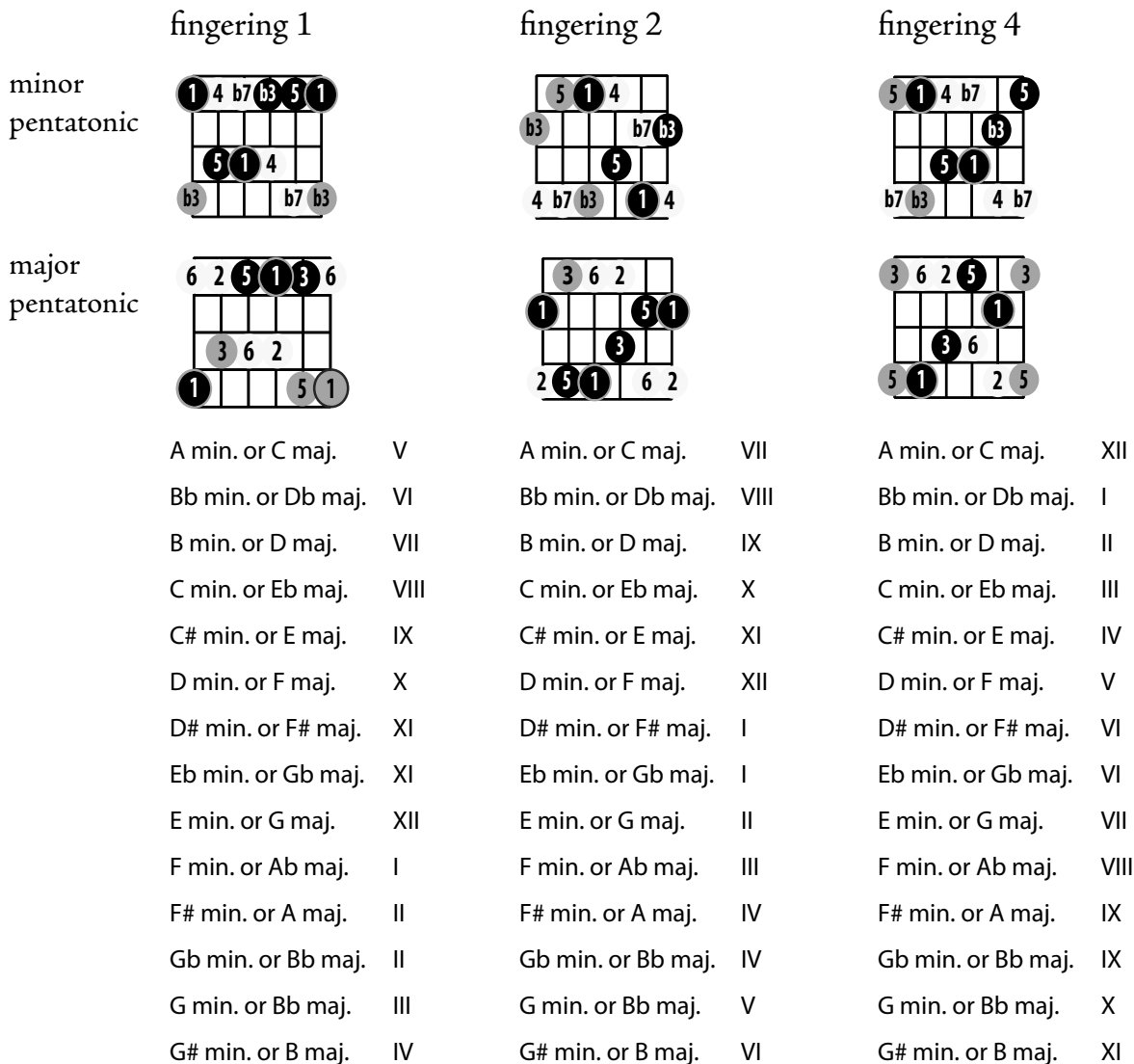
FAVORED PENTATONIC FINGERING

Favored pentatonic are the three fingerings that players use most of the time. As you can see in the previous section, [Transposing Open Pentatonic Fingerings to Movable Fingerings](#), the G/Em, C/Am and F/Dm open pentatonic scales can be considered the origin of the favored movable fingerings shown here. There are five common fingerings for the pentatonic scale, but two of them (fingerings 3 and 5) have challenging fingering when playing fast or complex phrases. The favored pentatonic fingerings are 1, 2 and 4.

Minor pentatonic can be used throughout a major key blues. Blues can use minor pentatonic with natural three or major pentatonic on major sounds. In blues, major pentatonic should generously use the flat three option and the minor pentatonic should not use too much natural three. The IV chord should use flat three of the key, not flat three.

The Favored Pentatonic Table

diagram legend: chord = black, arpeggio = black and grey, pentatonic scale = all numbers



“Both, Minor, Major, Minor, Major”

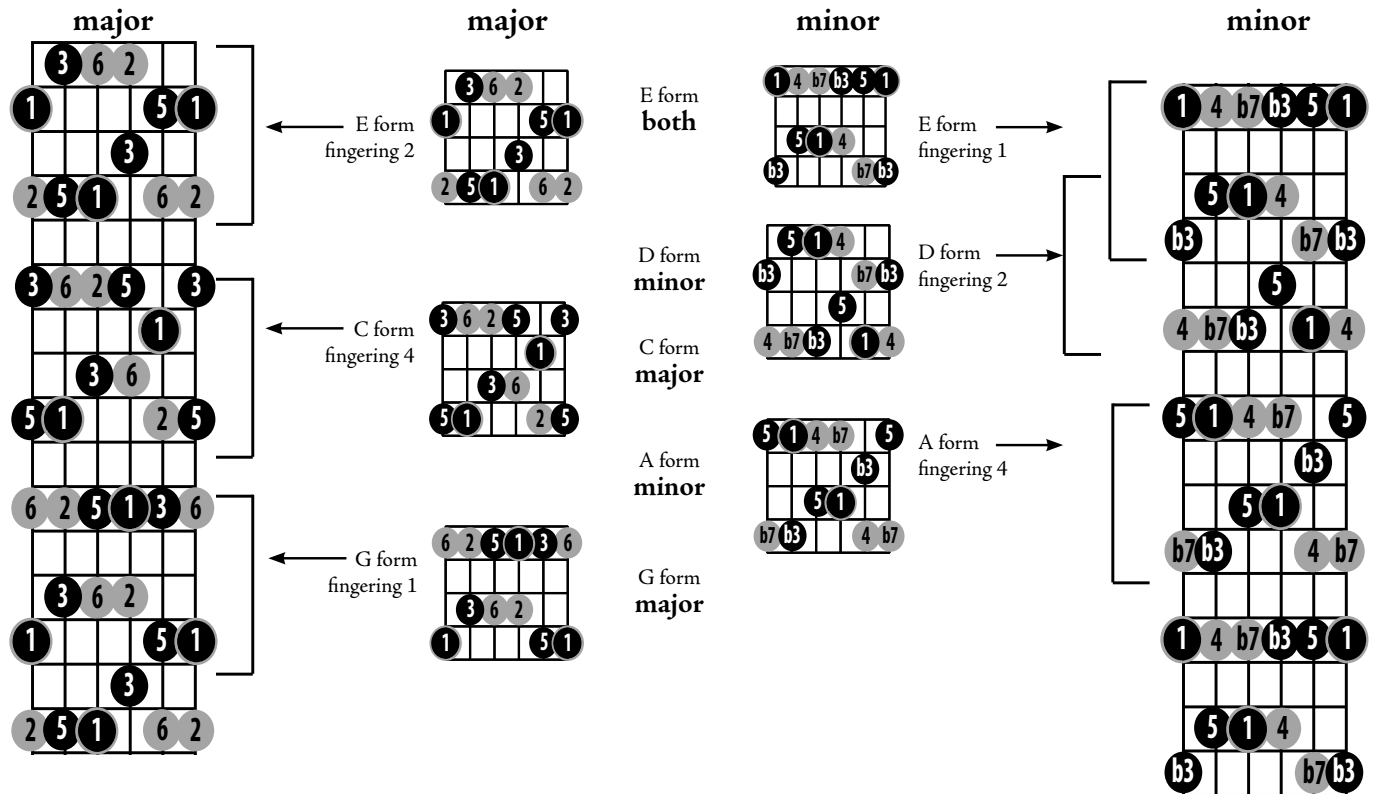
As you ascend the [octave shapes](#) in the order EDCAG, using *only* favored pentatonic fingerings 1, 2 and 4, the summary of the available major or minor pentatonic scales is both in E form, minor in D form, major in C form, minor in A form and major in G form. This can be summarized as “both, minor, major, minor, major”. Note that each fingering repeats in pairs of major and minor, such as fingering 2 for G major in II position and fingering 2 for G minor in V position.

In B.B. King’s style, he plays blues in major keys with both major and minor pentatonic. Eric Clapton adopted this practice for his blues. Neil Schon is said to have admired Eric Clapton and adopted this practice second hand from Eric. Angus Young and Leslie West seem to also play in the B.B./Clapton mold and combine major and minor pentatonic.

Albert King used exclusively minor pentatonic. If you were using this strategy to play as he did only in minor (or were playing in a minor key where you must use minor), you could visualize the “both, minor, major, minor, major” sequence and choose only the minor pentatonic.

Country music, some pop and some southern rock often uses exclusively major pentatonic. As with the minor pentatonic strategy, you could visualize the “both, minor, major, minor, major” sequence but choose only the major pentatonic.

This may be placed at any fret. Chord tones are black, pentatonic scale are black and grey.



Locate Pentatonic Scales by Chords on the Smallest Three Strings

be able to quickly locate these fingerings and play licks

Develop the ability to quickly locate either a minor or major pentatonic scale fingering in a given key *and* immediately play licks with it. You can build a repertoire of licks for minor pentatonic with [Minor Pentatonic Blues Rock Cells](#) and for major pentatonic with [Major Pentatonic Swing Blues Cells](#).

minor pentatonic

	Gm III	Gm VI	Gm X
	G minor pentatonic scale fingering 1	G minor pentatonic scale fingering 2	G minor pentatonic scale fingering 4
scale numbers	III	V	X
note 1, b3, 5 on the first three strings			
finger numbers			

major pentatonic

The major chord at the far right with its circled root on the third string needs to be conceived on the second third and fourth strings, to have it be part of one of the three preferred major pentatonic fingerings, fingering 1.

	G III	G VII	G XII
	G major pentatonic scale fingering 2	G major pentatonic scale fingering 4	G major pentatonic scale fingering 1
scale numbers	II	VII	XII
finger numbers			

three fingerings

Historically, blues, rock and blues rock guitar uses pentatonic scales in single note solos, not seven note scales based on the major scale. Favoring the fingerings with easier access to the important chord tones, three of the five pentatonic fingerings stand out. You can view the five fingerings on the following pages.

Fingering 1 is overwhelmingly used most, around half the time. For the most part, fingerings 2 and 4 are used the remainder of the time with only occasional use of fingerings 3 and 5. This doesn't mean you shouldn't explore fingerings 3 and 5, just explore 1, 2 and 4 first. When you get to exploring more options on how to slur notes and other melodic devices (other than blues licks) such as double stops, you'll then find more of a need for pentatonic fingerings 3 and 5.

three strings

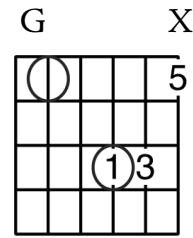
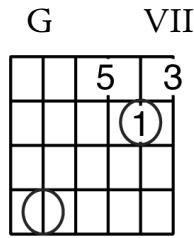
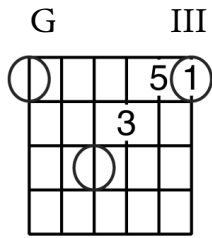
Blues licks tend to be played on the smaller strings. We'll be looking at the three smallest strings (one, two and three). The fourth string is used often as well, arguably as much as the first string (though I don't think so). By looking at the three commonly used pentatonic fingerings 1, 2 and 4 mentioned above and looking at them on the first three strings, the chord tones on which the themes and licks are based are easy to visualize and memorize.

three triads

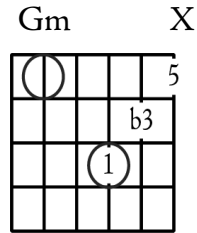
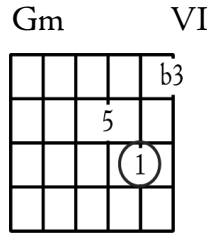
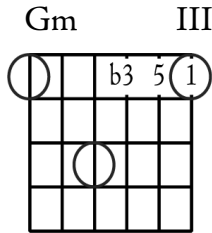
I'm orienting these pentatonic fingerings to three major triads (three-note chords), each fingered on the smallest three strings (one, two and three). These are shown in the top row of diagrams below. Each triad uses part of the cycle of chord tones 1-3-5-1-3-5, etc. In the bottom row of diagrams below, minor versions of each of the three major triads are shown. They each have been made minor by moving the note numbered "3" one fret lower in pitch, one fret toward the head of the guitar.

Note that for each pair of triads below, the minor triad shown below the major triad has its third lowered by a half step, moved one fret toward the head of the guitar.

major triads

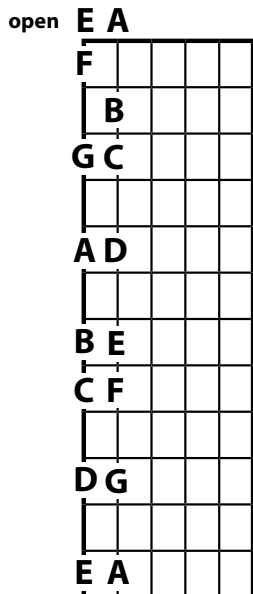


minor triads
with flat three



Locate Favored Pentatonic Scales and Barre Chords

On the sixth and fifth strings, memorize open and twelfth fret "E" and "A", then "A-B-C-D-E-F" at the fifth position, then the tenth fret notes D and G, each one letter lower than the letter name for the twelfth fret.



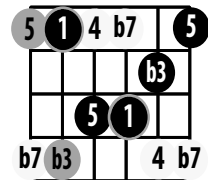
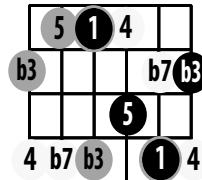
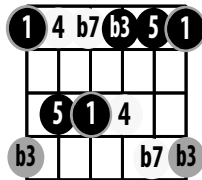
favored pentatonic scales

fingering 1

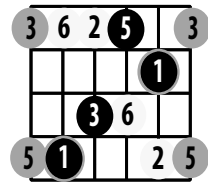
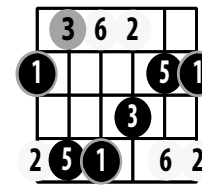
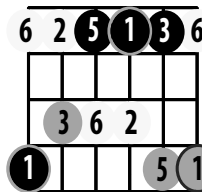
fingering 2

fingering 4

minor
pentatonic



major
pentatonic



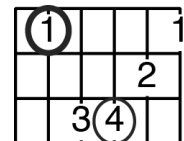
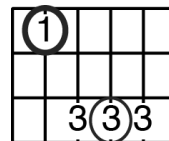
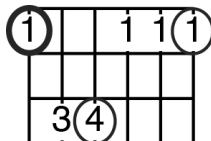
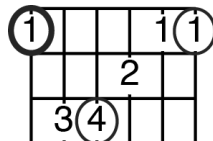
barre chords

major

minor

major

minor



A Specific Minor Pentatonic Fingering for Each Minor Chord

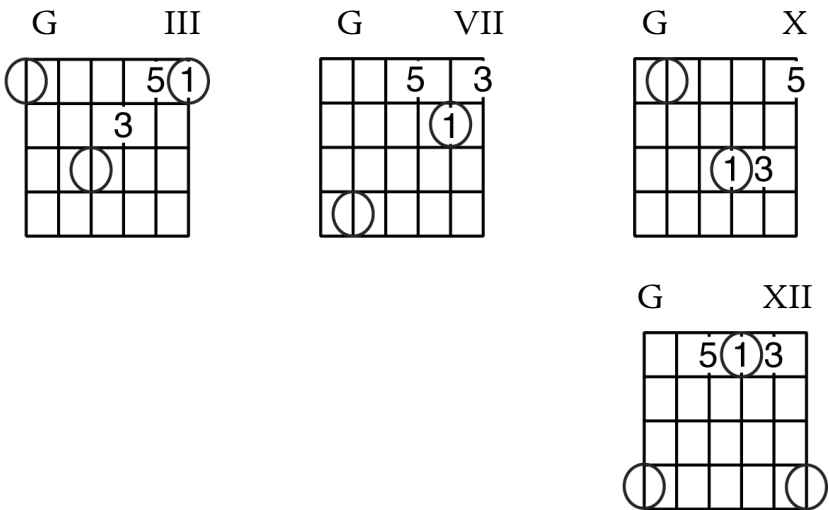
For each of the three minor chords shown above, there is a specific minor pentatonic scale fingering which has the chord as the part of it after which it is named. Each G minor chord is part of a G minor pentatonic scale.

	Gm III	Gm VI	Gm X
	G minor pentatonic scale fingering 1	G minor pentatonic scale fingering 2	G minor pentatonic scale fingering 4
finger numbers most relevant part	III 	V 	X
scale numbers note 1, b3, 5 on the first three strings			
finger numbers			

A Specific Major Pentatonic Fingering for Each Major Chord

For each of the three major chords shown in the [Three Triads](#) section above, there is a specific major pentatonic scale fingering which has the chord as the part of it after which it is named. Each G major chord is part of a G major pentatonic scale.

The major chord with its root on the third string needs to be conceived on the second third and fourth strings, to have it be part of one of the three preferred major pentatonic fingerings, fingering 1.



The major chord at the far right with its circled root on the third string needs to be conceived on the second third and fourth strings, to have it be part of one of the three preferred major pentatonic fingerings, fingering 1.

	G major pentatonic scale fingering 2	G major pentatonic scale fingering 4	G major pentatonic scale fingering 1
finger numbers	II	VII	XII
most relevant part			
scale numbers			
finger numbers			

TRIADS AND PENTATONIC SCALES

	E form	D form	C form	A form	G form
major triad chords					
major triad arpeggios					
major pent. scale					
minor triad chords					
minor triad arpeggios					
minor pent. scale					
m7b5 arpeggio					
m7b5 pent. scale					

LOCATING PENTATONIC SCALES

Minor Pentatonic Scale

minor

fingering 5

fingering 2

fingering 4

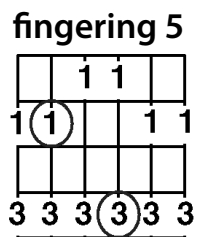
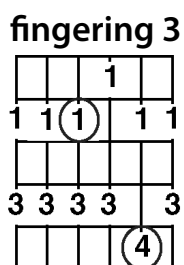
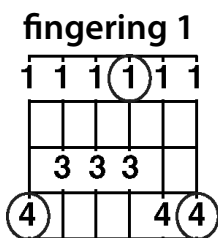
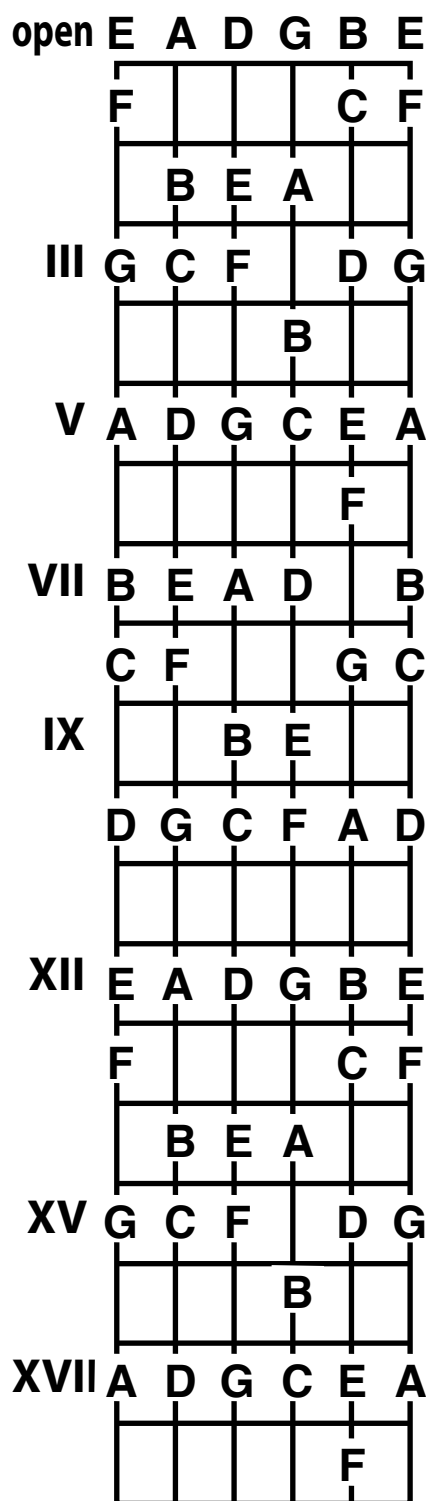
fingering 1

fingering 3

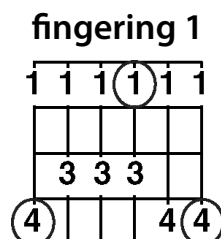
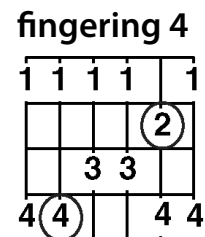
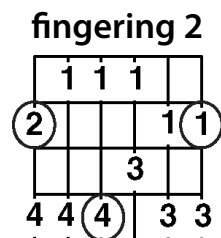
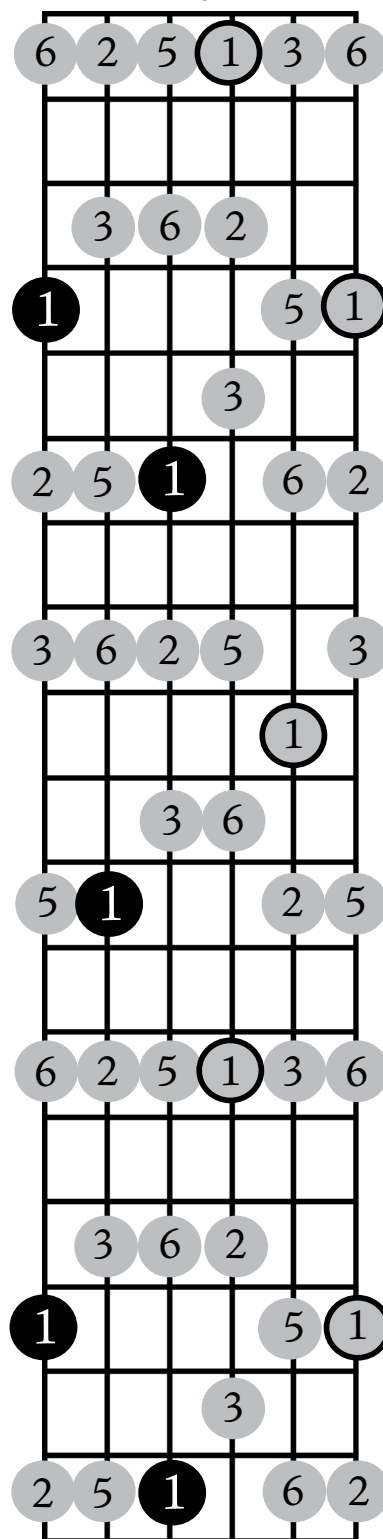
fingering 5

open E A D G B E

Major Pentatonic Scale

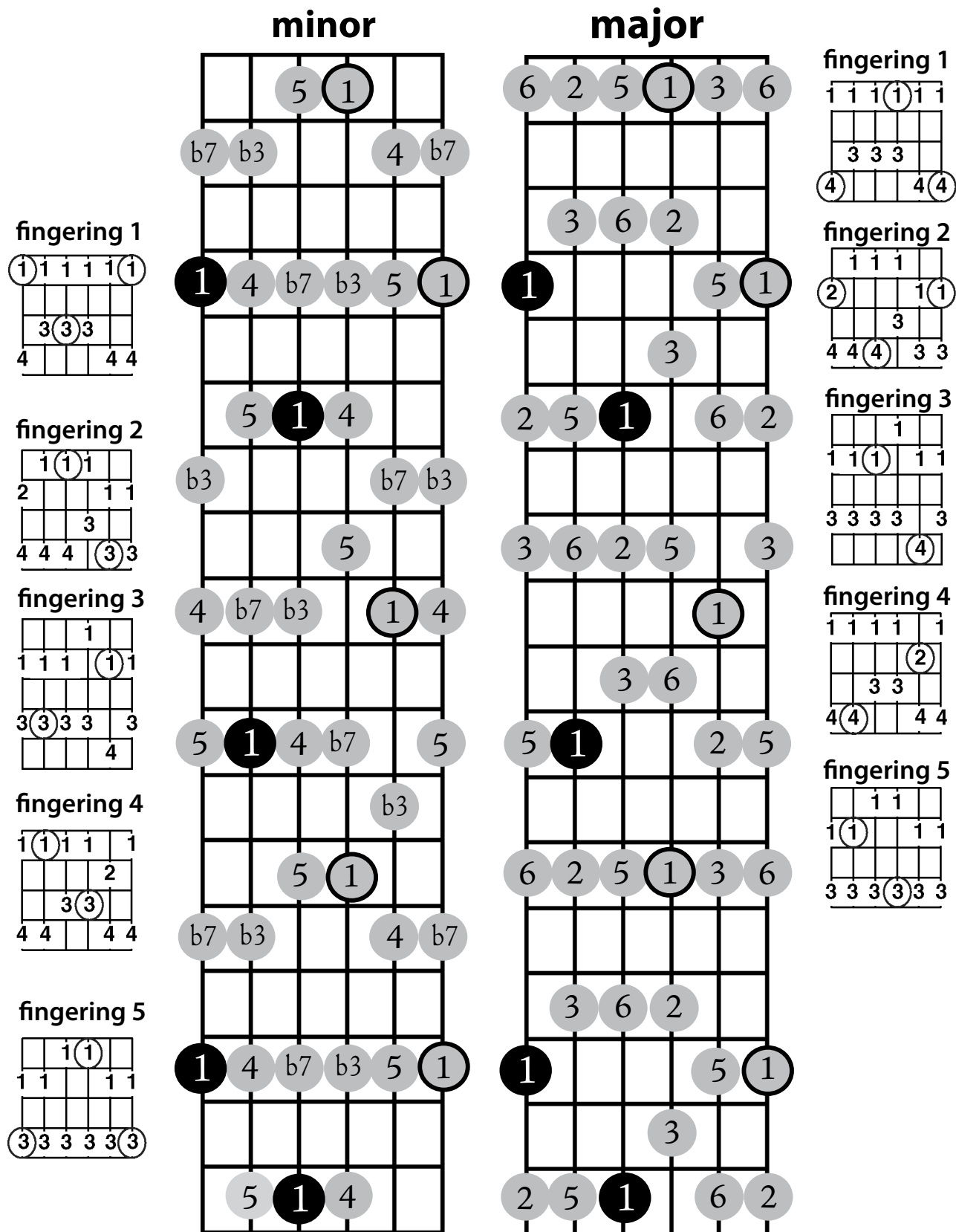


major



Parallel Major and Minor Pentatonic Scale

minor and major in the same key



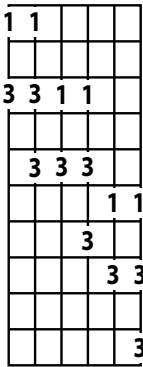
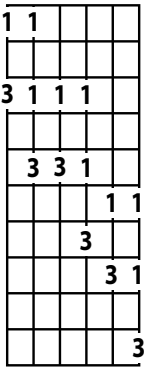
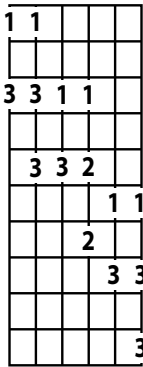
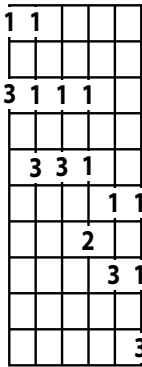
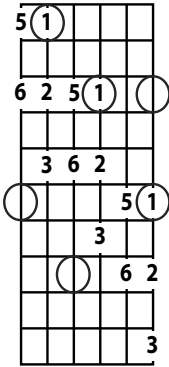
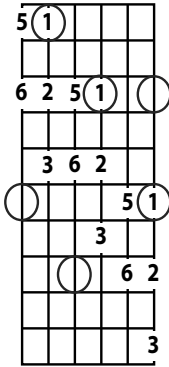
Relative Major and Minor Pentatonic Scale

two different keys: minor tone center three frets below major

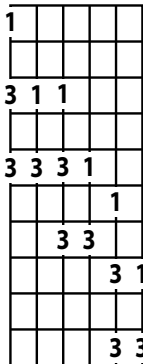
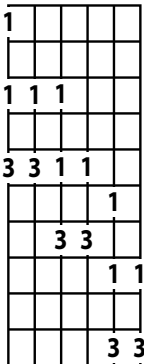
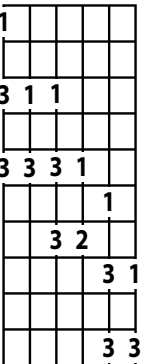
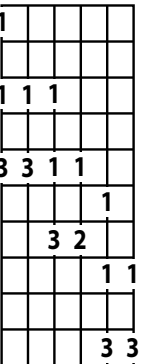
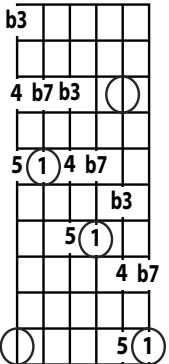
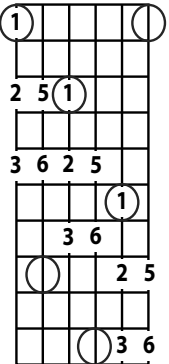
WIDE-RANGE PENTATONIC SCALES

Guitarists with wider spans would usually prefer the fingerings on the third string that use the second (middle or “2”) finger, such as “1-2-2 on 3” (indicating the ascending notes on the third string are fingered respectively with the index, middle and middle fingers).

Spanning Fingerings 5-1-2

finger numbers ascending 1-3-3 on 3	finger numbers descending 3-1-1 on 3	finger numbers ascending 1-2-2 on 3	finger numbers descending 2-1-1 on 3	minor pentatonic by formula	major pentatonic by formula
					

Spanning Fingerings 2 through 5

finger numbers ascending 1-3 on 3	finger numbers descending 1-3 on 3	finger numbers ascending 1-2 on 3	finger numbers descending 1-2 on 3	minor pentatonic by formula	major pentatonic by formula
					

PENTATONIC SCALE NAMING CONVENTIONS

Chord-Style Pentatonic Scale Names

In the 1960's, when I started teaching, there was not a common agreement on the naming of pentatonic scales. "Jazz minor pentatonic", the "blues scale" and other terms were each used to define different pentatonic scales. So I started using the established chord naming system (see [Chord-Naming Conventions](#) and [All Scale-Tone Chords](#)) to clarify.

Here are examples of chord style pentatonic scale names: major 6/9 pentatonic, minor 6/9 pentatonic, minor 7/11 pentatonic, 7/11 pentatonic (dominant 7/11 pentatonic), minor 7/11b5 pentatonic. See the chapter [Pentatonic Fingering/7 Pentatonic Scale Types by Octave Shape](#).

Chord-style names may not yet be known to a beginner or intermediate player, so I usually start by referring to the more universal major pentatonic (1-2-3-5-6) and minor pentatonic (1-b3-4-5-b7). Afterward, I show how to modify those scales.

Building the Pentatonic Scale Name

begin with a letter name or roman numeral

The scale name may begin with a letter or roman numeral. The letter shows the tone center for the scale, after which it is named. You should find the tone center in the lowest octave in the area you want to play (on the sixth, fifth or fourth strings) and identify the octave shape in which it occurs.

When the first part of a chord style pentatonic scale is a roman numeral, it refers to the numbered tones of a major scale named after the current key.

Immediately after the Roman numeral the triad basis of the pentatonic scale will be shown. This occurs before any Arabic numbers (1, 2, 3, etc).

"ma" means the scale is based on major, with 1, 3 and 5

nothing (such as nothing between IV and 7 in "IV7/11") means major

"m" means the scale is based on minor, with 1, b3 and 5

follow the letter name or roman numeral with a number

Numbers in pentatonic scale names commonly include “6”, “7”, “9” and “11”.

“6” means six

“7” means flat seven, unless “major” * (“ma”) occurs before it, which means natural 7

“9” is “2”

“11” is “4”.

For any number above “7”, subtract 7. So, 9 is 2, 10 is 3, 11 is 4, 12 is 5, 13 is 6.

numbers may have alterations

“b5” replaces five with flat five

“#11” means sharp four, and adds that to the scale (C7/#11 is C E F# G Bb).

“ma7” means natural seven (as stated above)

three implications of the number seven

In standard chord naming, “7” means flat seven. The two exceptions are (1) when it says ma7, maj7, major 7, Δ7 or 7 (avoid: this is sometimes used to “distinguish” 7 from other numbers) and (2) diminished seventh, which is double-flat seven (or “6”).

ambiguous use of the term “major”

In “ma6” (major sixth), “ma” refers to a major triad with an added sixth. It is assumed that the sixth is major, since a b6 is not used (unless to imply the use of a fifth and sharp fifth, by calling the sharp fifth a “b13”). and ma7 refers to a major chord with major 7. Confusingly, “major” refers to major 7 when before 7.

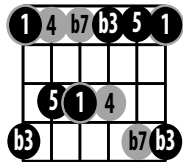
SEVEN PENTATONIC SCALE TYPES

Learn These Six Pairs First

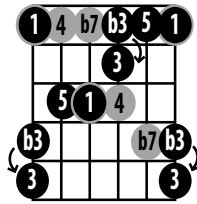
Triad tones are black, the addition pentatonic tones are grey. With minor pentatonic & 3, the arrows illustrate that “b3” should precede three. Using flat three with major pentatonic gives the scale a minor sound, but a different minor sound compared to minor pentatonic. Using natural three with minor pentatonic gives it a different major sound compared to major pentatonic.

fingering 1 - E form minor

G min. pent. III

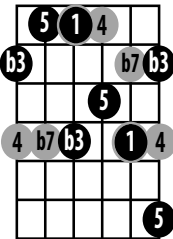


Gm pent. & 3 III

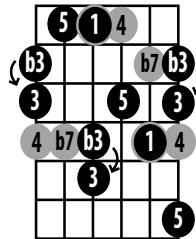


fingering 2 - D form minor

G min. pent. V

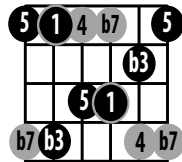


Gm pent. & 3 V

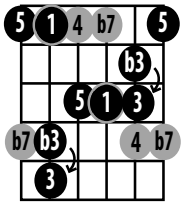


fingering 4 - A form minor

G min. pent. X

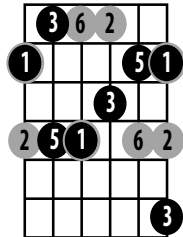


Gm pent. & 3 X

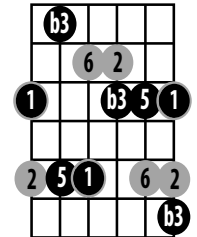


fingering 2 - E form major

G maj. pent. II

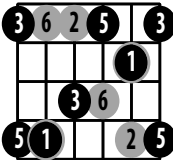


Gma pent. with b3 II

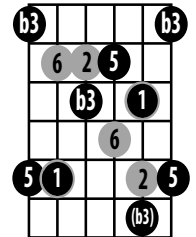


fingering 4 - C form major

G maj. pent. VII

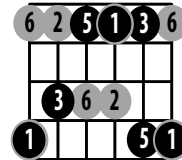


Gma pent. with b3 VI

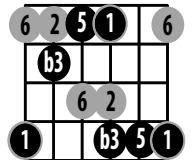


fingering 1 - G form major

G maj. pent. XII



Gma pent. with b3 XII



Seven Pentatonic Scale Types by Fingering Number

The black-backed tones below are triad tones. 1-b3-5 is a major triad and 1-3-5 is a major triad. The remaining gray tones are pentatonic scale tones not in the triad. The 7/11 (dominant 7/11) pentatonic scale has an optional “b3”. The flat three precedes the natural “3”, whether ascending or descending. “b3” is often slurred (by a bend, hammer-on or slide) to “3”.

styles where used	minor 7/11	7/11	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
	blues, all styles	raga rock, progressive rock, blues	dark blues and jazz	rockabilly	jazz and blues, not in common use	pop, country, bluegrass, jazz blues, swing	pop, country, bluegrass, jazz blues, swing
fingering 1	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
fingering 2	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
fingering 3	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
fingering 4	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
fingering 5	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9

Seven Pentatonic Scale Types by Octave Shape and Formula

The black-backed tones below are triad tones. 1-b3-5 is a major triad and 1-3-5 is a major triad. The remaining gray tones are pentatonic scale tones not in the triad. The 7/11 (dominant 7/11) pentatonic scale has an optional "b3". The flat three precedes the natural "3", whether ascending or descending. "b3" is often slurred (by a bend, hammer-on or slide) to "3".

E shape

m7/11, fing. 1	7/11 type 7/11, fing. 1	m7/11b5, fing. 1	6/11 type m6/11, fing. 1	m6/11b5, fing. 1	6/9 type major 6/9, fing. 2	minor 6/9, fing. 2

D shape

m7/11, fing. 2	7/11 type 7/11, fing. 2	m7/11b5, fing. 2	6/11 type m6/11, fing. 2	m6/11b5, fing. 2	6/9 type major 6/9, fing. 3	minor 6/9, fing. 3

C shape

m7/11, fing. 3	7/11 type 7/11, fing. 3	m7/11b5, fing. 3	6/11 type m6/11, fing. 3	m6/11b5, fing. 3	6/9 type major 6/9, fing. 4	minor 6/9, fing. 4

A shape

m7/11, fing. 4	7/11 type 7/11, fing. 4	m7/11b5, fing. 4	6/11 type m6/11, fing. 4	m6/11b5, fing. 4	6/9 type major 6/9, fing. 5	minor 6/9, fing. 5

G shape

m7/11, fing. 5	7/11 type 7/11, fing. 5	m7/11b5, fing. 5	6/11 type m6/11, fing. 5	m6/11b5, fing. 5	6/9 type major 6/9, fing. 1	minor 6/9, fing. 1

Seven Pentatonic Scale Types by Octave, Formula and Finger

The black-backed tones below are triad tones. 1-b3-5 is a major triad and 1-3-5 is a major triad. The remaining gray tones are pentatonic scale tones not in the triad. The 7/11 (dominant 7/11) pentatonic scale has an optional “b3”. The flat three precedes the natural “3”, whether ascending or descending. “b3” is often slurred (by a bend, hammer-on or slide) to “3”.

The plain-numbered rows show finger numbers.

E shape

7/11 type			6/11 type		6/9 type	
m7/11, fing. 1	7/11, fing. 1	m7/11b5, fing. 1	m6/11, fing. 1	m6/11b5, fing. 1	major 6/9, fing. 2	minor 6/9, fing. 2

D shape

7/11 type			6/11 type		6/9 type	
m7/11, fing. 2	7/11, fing. 2	m7/11b5, fing. 2	m6/11, fing. 2	m6/11b5, fing. 2	major 6/9, fing. 3	minor 6/9, fing. 3

C shape

7/11 type			6/11 type		6/9 type	
m7/11, fing. 3	7/11, fing. 3	m7/11b5, fing. 3	m6/11, fing. 3	m6/11b5, fing. 3	major 6/9, fing. 4	minor 6/9, fing. 4

A shape

7/11 type			6/11 type		6/9 type	
m7/11, fing. 4	7/11, fing. 4	m7/11b5, fing. 4	m6/11, fing. 4	m6/11b5, fing. 4	major 6/9, fing. 5	minor 6/9, fing. 5

G shape

7/11 type			6/11 type		6/9 type	
m7/11, fing. 5	7/11, fing. 5	m7/11b5, fing. 5	m6/11, fing. 5	m6/11b5, fing. 5	major 6/9, fing. 1	minor 6/9, fing. 1

MOVABLE PENTATONIC SCALES WITH ONE CHROMATIC

minor 7/11 fingering 1

ascend/descend fingering 1

minor 7/11 fingering 2

ascend/descend fingering 1/2

minor 7/11 fingering 3

ascend fingering 3, descend fingering 3/4

major 6/9 fingering 1

ascend/descend fingering 1

major 6/9 fingering 2

ascend fingering 2, descend fingering 2

major 6/9 fingering 3

ascend fingering 3/4, descend fingering 3/4

minor 7/11 fingering 4

ascend fingering 4, descend fingering 4, ascend/descend fingering 4/5

minor 7/11 fingering 5

ascend fingering 5, descend fingering 5, ascend/descend fingering 5/1

major 6/9 fingering 4

ascend fingering 4, descend fingering 4, ascend/descend fingering 4/5

major 6/9 fingering 5

ascend fingering 5, descend fingering 5, ascend/descend fingering 5/1

WIDE RANGE FINGERINGS

minor 7/11

ascend/descend fingering 5/1/2

major 6/9

ascend/descend fingering 3/4/5

minor 7/11

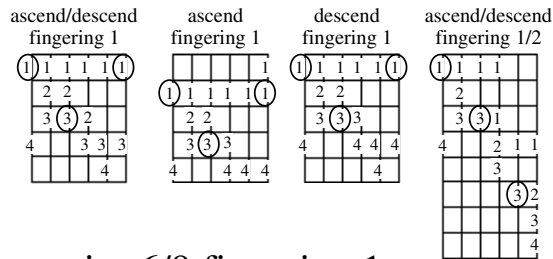
ascend/descend fingering 3/4/5

major 6/9

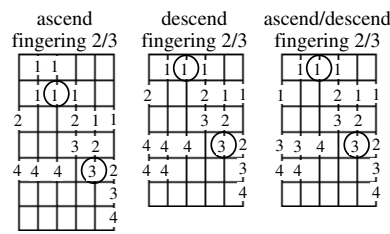
ascend/descend fingering 3/4/5

MOVABLE PENTATONIC SCALES WITH TWO CHROMATICS

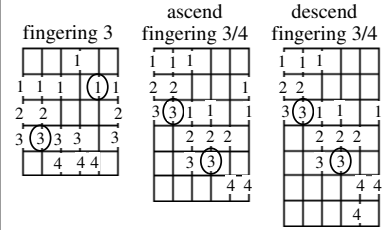
minor 7/11 fingering 1



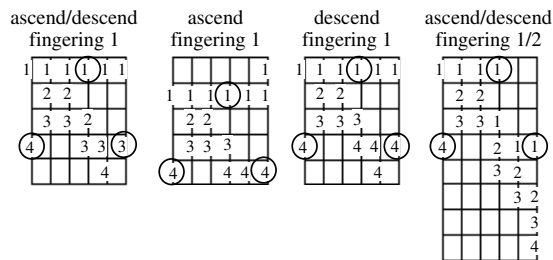
minor 7/11 fingering 2



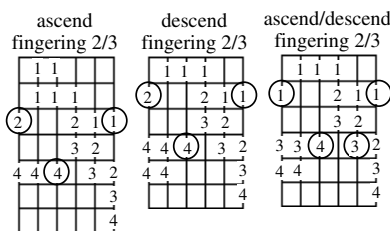
minor 7/11 fingering 3



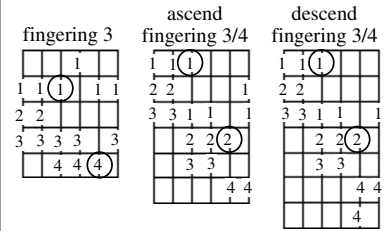
major 6/9 fingering 1



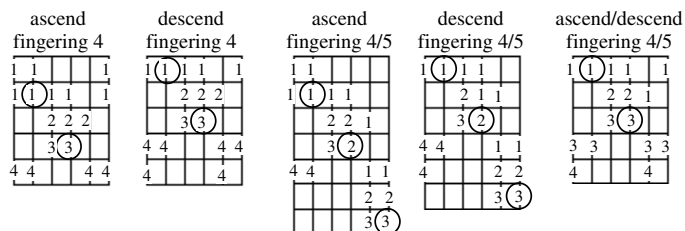
major 6/9 fingering 2



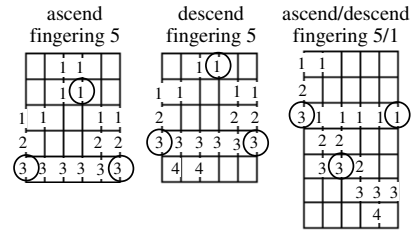
major 6/9 fingering 3



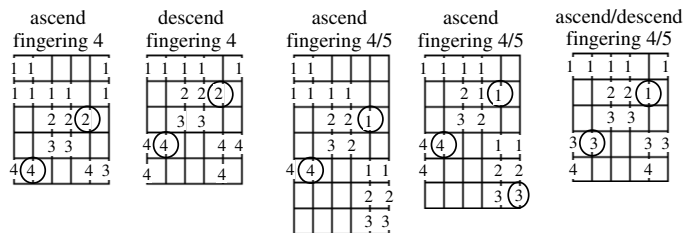
minor 7/11 fingering 4



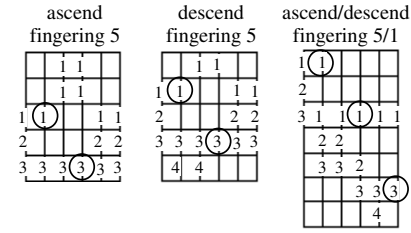
minor 7/11 fingering 5



major 6/9 fingering 4

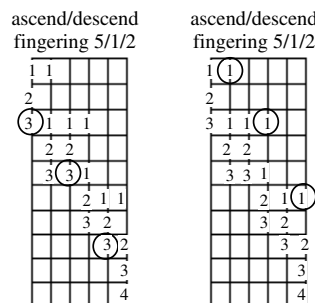


major 6/9 fingering 5

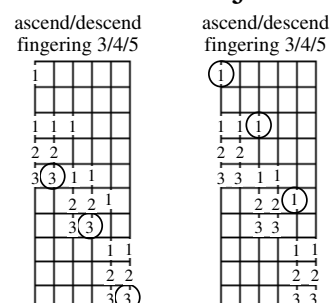


WIDE RANGE FINGERINGS

minor 7/11 major 6/9



minor 7/11 major 6/9



PENTATONIC EXERCISES

Picking

pentatonic fingering 1 - alternate picking

The image shows a musical score for guitar in 4/4 time, featuring a melody and a three-part harmony (Tenor, Alto, Bass). The key signature is one flat (Bb).

Melody:

- Measure 1: Bb2, Bb2, Bb2, Bb2 (quarter notes), Bb2, Bb2, Bb2, Bb2 (quarter notes).
- Measure 2: Bb2, Bb2, Bb2, Bb2 (quarter notes), Bb2, Bb2, Bb2, Bb2 (quarter notes).
- Measure 3: Bb2, Bb2, Bb2, Bb2 (quarter notes), Bb2, Bb2, Bb2, Bb2 (quarter notes).
- Measure 4: Bb2, Bb2, Bb2, Bb2 (quarter notes), Bb2, Bb2, Bb2, Bb2 (quarter notes).

Harmony (Tenor, Alto, Bass):

- Measure 1: Tenor (Bb2, Bb2, Bb2, Bb2), Alto (Bb2, Bb2, Bb2, Bb2), Bass (Bb2, Bb2, Bb2, Bb2).
- Measure 2: Tenor (Bb2, Bb2, Bb2, Bb2), Alto (Bb2, Bb2, Bb2, Bb2), Bass (Bb2, Bb2, Bb2, Bb2).
- Measure 3: Tenor (Bb2, Bb2, Bb2, Bb2), Alto (Bb2, Bb2, Bb2, Bb2), Bass (Bb2, Bb2, Bb2, Bb2).
- Measure 4: Tenor (Bb2, Bb2, Bb2, Bb2), Alto (Bb2, Bb2, Bb2, Bb2), Bass (Bb2, Bb2, Bb2, Bb2).

Fretboard Diagrams:

- Movable fingering:** A 4x4 grid showing fingerings (1, 3, 4) for the first four strings.
- Gm7/11 pentatonic scale:** A 4x4 grid showing fingerings (1, 4, b7, b3, 5) for the first four strings.
- Bbmaj6/9 pentatonic scale:** A 4x4 grid showing fingerings (6, 2, 5, 1, 3, 6) for the first four strings.

pentatonic fingering 1 - economy picking

pentatonic fingering 1 - triad arpeggio subsets, economy picking

[illegible]

G minor pentatonic fingering 1 with one chromatic

Gm7/11 III

1 1 1 1 1 1
2
3 3 3
4 4 4

T 4/4
A 4/4
B 4/4

3 6 3 4 5 3 5 6 3 6

3 6 3 6 5 3 5 3 5 4 3 6

Bb major pentatonic fingering 1 with one chromatic

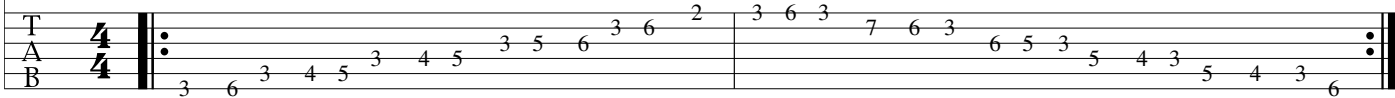
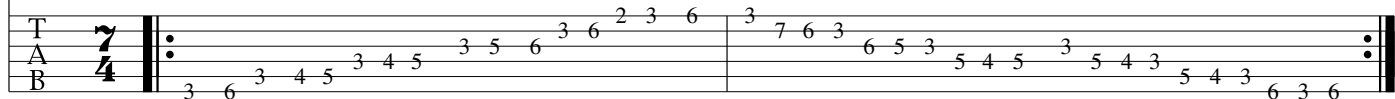
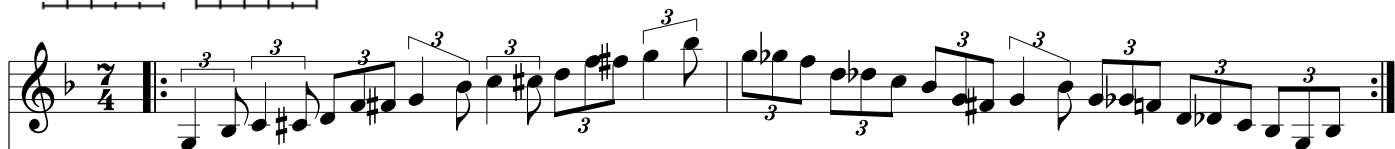
III

The musical score is for the song 'The Rose Tree'. It features a treble clef and a 3/4 time signature. The melody is written on a single staff. The key signature has one flat (B-flat). The melody starts with a repeat sign, followed by a series of eighth and quarter notes. The melody ends with a repeat sign. To the left of the staff is a guitar chord diagram for a G major triad (G-B-D) in the first position, with the root G on the first fret of the first string, B on the second fret of the second string, and D on the first fret of the third string. The diagram is labeled with Roman numerals III, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100.

pentatonic scale fingering 1 with two chromatics

ascend	descend																																																		
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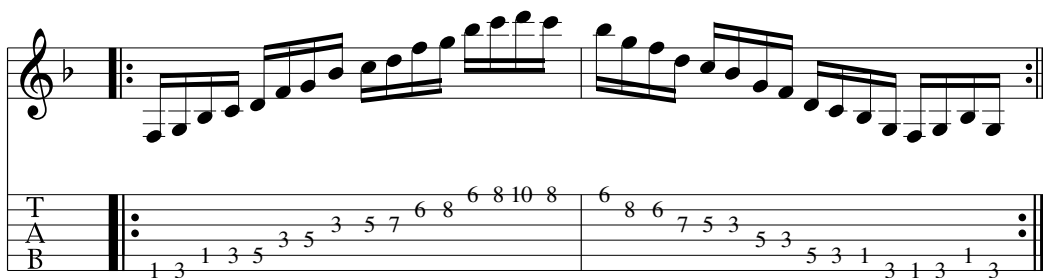
G Minor 7/11 With #4/b5, Natural 7
and Bb Major 6/9 With #2/b3, #5/b6



wide range pentatonic fingerings 5 through 2

ascending	descending																																																																																																																								
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used for both pentatonic scales:
G Minor 7/11 and Bb Major 6/9



wide range pentatonic fingerings 5 through 2 with one chromatic

used for both pentatonic scales:
G Minor 7/11 With #4/b5 and Bb Major 6/9 With #2/b3

T
A
B

wide range pentatonic fingerings 5 through 2 with two chromatics

used for both pentatonic scales:
G Minor 7/11 With #4/b5, Natural 7 Chromatics
Bb Major 6/9 With #2/b3, #5/b6 Chromatics

T
A
B

pentatonic fingering 2 - alternate picking

movable fingering

1	1	1			
2			1	1	
			3		
4	4	4	3	3	

Gm7/11 V pentatonic scale

5	(1)	4			
b3			b7	b3	
		5			
4	b7	b3	(1)	4	

Bbma6/9 V pentatonic scale

	3	6	2		
(1)			5	(1)	
		3			
2	5	(1)	6	2	

pentatonic fingering 2 - triad arpeggio subsets, economy picking

Gm V (Dm form)

(1)					2
		3			4

movable fingering

1	1				1
2			2		
		3	3		
					4

Gm V

5	(1)				
b3			5		
		b3	(1)		5

Bb VI (E form)

(1)			1	1	
		2			
	3	4			

movable fingering

1			1	1	
2			2		
	3	3			
					4

Bb V

	3				
(1)			5	(1)	
		3			
	5	(1)			3

pentatonic fingering 2 with one chromatic

Use for both G minor 7/11 Pentatonic Scale With #4/b5
and Bb major 6/9 Pentatonic Scale Fingering With #2/b3

ascending IV

1					
1	1	1			
2			2	1	1
			2		
4	4	4	3	2	
			3		
					4

descending V

1	1	1			
2			1	1	1
			2		
4	4	4	3	2	
			3		
4					4

pentatonic fingering 2 with two chromatics

G minor 7/11 Pentatonic Scale Fingering With #4/b5, natural 7
and Bb major 6/9 Pentatonic Scale Fingering With #2/b3, #5/b6

ascend **IV** descend **V**

ascend **IV** descend **V**

1 1 1 1
1 1 1 1
2 2 2 2
4 4 4 3
3 2
3 4

1 1 1 1
2 2 2 2
4 4 4 3
4 4 3 2
3 2
4 3

T 4/4
A 4/4
B 4/4

6 8 4 5 8 4 5 8 5 6 7 6 7 8 6 8 9 10 9 8 6 8 7

6 7 6 5 8 5 9 8 5 9 8 6

5 4 3 2 1 2 3 4 5 6 7 8 9 10 9 8 7 6 5 4 3 2 1

6 8 4 5 8 4 5 8 5 6 7 6 7 8 6 8 9 10 9 8 6 8 7

pentatonic fingering 3 - alternate picking

movable
fingering

Gm **VII** Bb **VII**

movable
fingering

Gm **VII** Bb **VII**

1 1 1 1
3 3 3 3
4 4
5 5

4 b7 b3 1
5 1 4 b7 5
b3

2 5 1 6
3 6 2 5
1

T 4/4
A 4/4
B 4/4

6 8 10 8 10 8 10 7 10 8 11 8 10 8 11 8 10 7 10 8 10 8 10 8 10 8 6

6 8 10 8 10 8 10 7 10 8 11 8 10 8 11 8 10 7 10 8 10 8 10 8 10 8 6

6 8 10 8 10 8 10 7 10 8 11 8 10 8 11 8 10 7 10 8 10 8 10 8 10 8 6

pentatonic fingering 3 - triad arpeggio subsets, economy picking

Diagram illustrating pentatonic fingering 3 for triad arpeggio subsets, economy picking, across various chords and forms.

Gm VII (Cm form): Fingering diagram showing 1, 2, 3, 4, 5 positions.

Gm VI: Fingering diagram showing b3, 5, b3, 1, 5, 1 positions.

movable fingering: Fingering diagram showing 1, 2, 1, 2, 4, 4 positions.

Bb VII (D form): Fingering diagram showing 1, 2, 3, 4 positions.

Bb VII (D form): Fingering diagram showing 1, 2, 3, 4 positions.

Bb VIII: Fingering diagram showing 5, 1, 3, 5, 3, 1 positions.

movable fingering: Fingering diagram showing 1, 1, 2, 2, 2, 3, 4 positions.

Musical notation shows the corresponding scale runs with picking directions (up/down arrows) and fret numbers (10, 8, 7, 6, 10, 6, 8, 7, 10, 10, 10, 10, 10, 8, 10, 11, 10, 11, 10, 12, 8, 8).

pentatonic fingering 3 with one chromatic

Use for both G minor 7/11 Pentatonic Scale With #4/b5
and Bb major 6/9 Pentatonic Scale Fingering With #2/b3

Diagram illustrating pentatonic fingering 3 with one chromatic for VI.

Fingering diagram for VI shows 1, 1, 1, 1, 2, 2, 3, 3, 3, 3, 4, 4 positions.

Musical notation shows the scale run with triplet markings and fret numbers (5, 4, 3, 2, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 10, 9, 8, 7, 6).

pentatonic fingering 3 with two chromatics

G minor 7/11 Pentatonic Scale Fingering With #4/b5, natural 7
and Bb major 6/9 Pentatonic Scale Fingering With #2/b3, #5/b6

Diagram illustrating pentatonic fingering 3 with two chromatics for VI.

Fingering diagram for VI shows 1, 1, 1, 1, 2, 2, 3, 3, 3, 3, 4, 4, 4, 4 positions.

Musical notation shows the scale run with triplet markings and fret numbers (4, 3, 2, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 10, 9, 8, 7, 6).

Exercise 1 (G major, 4/4):

Staff 1 (Treble):

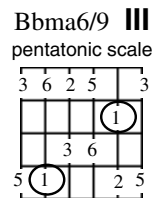
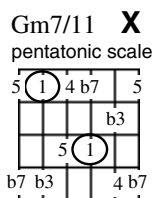
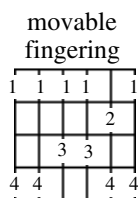
Staff 2 (Bass):

Exercise 2 (Bb major, 5/4):

Staff 1 (Treble):

Staff 2 (Bass):

pentatonic fingering 4 - alternate picking



Exercise 3 (Bb major, 4/4):

Staff 1 (Treble):

Staff 2 (Bass):

pentatonic fingering 4 - triad arpeggio subsets, economy picking

Pentatonic Scale Fingering 4 Triad Arpeggio Subsets Economy Picking

Gm **X**
(Am form)

Gm **X**

movable
fingering

Bb **X**
(C form)

Bb **X**

movable
fingering

↑ ↓ ↑ ↓ ↓ ↓ ↑ ↓ ↑ ↑ ↑ ↑ ↓ ↓ ↑ ↓ ↓ ↓ ↓ ↓ ↑ ↓ ↑ ↑ ↑ ↑ ↑

pentatonic fingering 4 with one chromatic

G Minor 7/11 Pentatonic Scale Fingering 4 With One Chromatic (#4/b5)

Gm7/11 **IX**

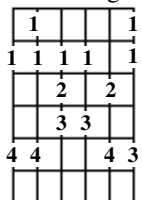
Bb Major 6/9 Pentatonic Scale Fingering 4 With One Chromatic (#2/b3)

Bbma6/9 **IX**
ascending

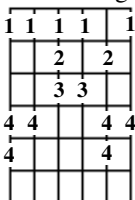
Bbma6/9 **X**
descending

pentatonic fingering 4 with two chromatics

Gm7/11 IX
ascending



Gm7/11 IX
descending

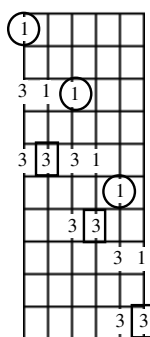


Tablature for T, A, B strings (4/4 time):

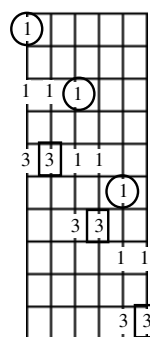
T: 10 13 10 11 12 11 13 9 10 13 10 14 13 11 12 11 10 12 11 10 13 10 14 13 10 13 9 10

pentatonic fingering 4, wide range without chromatics

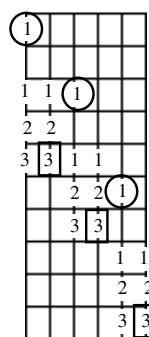
ascend



descend



with chromatics



These diagrams are movable.

Squares indicate minor 7/11 pentatonic tone centers.

Circles indicate major 6/9 pentatonic tone centers.

Tablature for T, A, B strings (5/4 time):

T: 6 8 10 8 10 8 10 12 10 12 11 13 15 13 15 18 15 13 15 13 11 12 10 12 10 8 10 8 10 8 6

pentatonic fingering 4, wide range with chromatics

T

A

B

6 8 9 10 8 9 10 8 10 11 12 10 11 12 11 13 14 15 13 14 15 18 15 14 13 15 14 13 11 12

T

A

B

11 10 12 11 10 8 10 9 8 10 9 8 6

pentatonic fingering 5 - alternate picking

movable
fingering

Gm7/11 XII
pentatonic scale

Bbma6/9 XII
pentatonic scale

T

A

B

13 15 13 15 12 15 12 15 13 15 13 15 13 15 12 15 12 15 13 15

pentatonic fingering 5 - triad arpeggio subsets, economy picking

Gm XII (Gm form) Gm XII (Gm form) movable fingering Gm XII

The first section shows two fingerboard diagrams for Gm XII (Gm form) and a movable fingering diagram. The musical staff shows a triad arpeggio subset in G minor, with notes G, Bb, D, F, Ab, B. The bass staff shows the fret numbers for the triad arpeggio subset: 15, 13, 12, 12, 15, 15, 15, 15, 12, 12, 13.

Bb XIII (A form) movable fingering Bb XII

The second section shows two fingerboard diagrams for Bb XIII (A form) and a movable fingering diagram. The musical staff shows a triad arpeggio subset in Bb major, with notes Bb, D, F, Ab, B, D. The bass staff shows the fret numbers for the triad arpeggio subset: 13, 13, 12, 15, 15, 15, 13, 18, 13, 15, 15, 15, 12, 13.

pentatonic fingering 5 with one chromatic

G Minor 7/11 Pentatonic Scale Fingering 5 With One Chromatic (#4/b5)

Gm7/11 XII

The third section shows a fingerboard diagram for Gm7/11 XII and a musical staff with a pentatonic scale in G minor. The scale is G, Bb, D, F, Ab, B, with a chromatic alteration (#4/b5) between F and Ab. The bass staff shows the fret numbers for the pentatonic scale: 15, 13, 15, 11, 12, 15, 12, 11, 13, 14, 15, 13, 15, 13, 15, 14, 13, 11, 12, 15, 12, 11, 15, 13.

Bb Major 6/9 Pentatonic Scale Fingering 5 With One Chromatic (#2/b3)

Bb6/9 XII

The musical score for 'The Rose Tree' is presented in two systems. The first system features a treble clef, a key signature of one flat (B-flat), and a 4/4 time signature. The melody is written on a single staff and includes a repeat sign at the beginning and end. The melody consists of eighth and quarter notes, with triplets indicated by a '3' below the notes. The second system shows the vocal parts for Tenor (T), Alto (A), and Bass (B). Each part has its own staff with a 4/4 time signature. The lyrics are written below the staves, corresponding to the notes. The Tenor part starts with a repeat sign and ends with a double bar line. The Alto and Bass parts follow the same structure, with the Bass part ending with a double bar line and a final note on '13'.

pentatonic fingering 5 with two chromatics

Gm7/11Pentatonic Fingering 5 With Two Chromatics(#4/b5, natural 7)

Gm7/11 **XII**

	1	1	
1	1		1 1
2			2 2
3	3	3	3 3 3
	4	4	

The image displays a musical score for the song "The Rose Tree". It consists of two staves. The top staff is a single melodic line in G major, 2/4 time, starting with a repeat sign and ending with a final cadence. The bottom staff is a three-part vocal harmony for Tenor (T), Alto (A), and Bass (B). The Tenor part begins with a repeat sign and ends with a final cadence. The Alto and Bass parts follow the Tenor part, with the Bass part starting on a lower line and the Alto part starting on a middle line. The lyrics "The Rose Tree" are written below the vocal parts.

Bb Major 6/9 Pentatonic Fingering 5 With Two Chromatics (#2/b3, #5/b6)

Bb6/9 **XII**

		1	1		
1	1			1	1
2				2	2
3	3	3	3	3	3
	4	4			
					4

The musical score for 'The Rose Tree' is presented in two systems. The first system shows the vocal melody in G major, 5/4 time, with a key signature of one flat (B-flat) and a common time signature of 5/4. The melody is written in a treble clef and features a series of eighth and sixteenth notes, with a repeat sign at the beginning and end. The second system shows the guitar accompaniment in the same key and time signature, with a treble clef and a series of eighth and sixteenth notes, also featuring a repeat sign at the beginning and end.

A Minor Pentatonic and Triad Exercises

fingering 1

1 4 1 3 1 3 1 3 1 4 1 4 1 1 3 3 4

5 8 5 7 5 7 5 7 5 8 5 8 5 5 7 7 8

fingering 2

2 4 1 4 1 4 1 2 1 3 1 4 1 3 2 3 1 1

8 10 7 10 7 10 7 9 8 10 8 12 8 10 9 10 7 7

fingering 3

2 4 2 4 2 4 1 4 2 1 2 4 1 2 1 2 4 4

10 12 10 12 10 12 9 12 10 8 10 12 8 10 9 10 12 12

fingering 4

1 4 1 4 1 3 1 3 2 4 1 4 1 2 3 3 4 1

12 15 12 15 12 14 12 14 13 15 12 15 12 13 14 14 15 12

fingering 5

2 4 2 4 1 4 1 3 1 3 1 3 3 3 1 1 2 4

15 17 15 17 14 17 14 17 15 17 15 17 17 17 14 14 15 17

C Major Pentatonic And Triad Exercises

fingering 1

4 1 3 1 3 1 3 1 4 1 4 4 1 1 1 3 4 1 4 3 1 1 1 4 4 1 4 1 3 1 3 1 3 1 4 1

T 3/4
A 3/4
B 3/4

fingering 2

2 4 1 4 1 4 1 2 1 3 1 4 1 1 2 3 3 1 2 1 3 3 2 1 1 4 1 3 1 2 1 4 1 3 1 4

T
A
B

fingering 3

1 2 1 2 1 2 4 2 1 3 1 2 3 2 4 1 1 2 2 1 1 4 2 3 2 1 3 1 2 4 2 1 2 1 2 1

T
A
B

fingering 4

1 4 1 4 1 3 1 3 2 4 1 4 1 2 1 3 4 4 1 4 4 3 1 2 1 4 1 4 2 3 1 3 1 4 1 4

T
A
B

fingering 5

2 4 2 4 1 4 1 3 1 3 1 3 1 3 3 1 2 2 2 1 3 3 3 1 3 1 3 1 3 1 3 1 4 2 4

T
A
B

Minor Pentatonic With One Chromatic Exercise

fingering 1

Gm7/11 III

1	1	1	1	1	1
2					
3	3	3			
4			4	4	

fingering 2

ascending **IV**

1			
1	1	1	
2		2	1 1
		2	
4	4	4	3 2
			3
			4

descending **V**

1	1	1	
2		1	1 1
		2	
4	4	4	3 2
4			3
			4

System 1: Treble clef, key signature of two flats, 4/4 time. Melody: eighth notes with triplet markings. Bass staff: fret numbers 6, 8, 4, 5, 8, 5, 8, 5, 8, 5, 9, 8.

System 2: Treble clef, key signature of two flats, 4/4 time. Melody: eighth notes with triplet markings. Bass staff: fret numbers 9, 5, 8, 5, 8, 5, 6, 5, 8, 5, 8, 5.

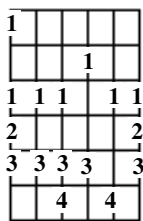
System 3: Treble clef, key signature of two flats, 4/4 time. Melody: eighth notes with triplet markings. Bass staff: fret numbers 8, 5, 8, 5, 6, 7, 6, 7, 6, 5, 8, 5.

System 4: Treble clef, key signature of two flats, 4/4 time. Melody: eighth notes with triplet markings. Bass staff: fret numbers 8, 5, 6, 7, 6, 8, 6, 8, 6, 7, 6, 5.

System 5: Treble clef, key signature of two flats, 4/4 time. Melody: eighth notes with triplet markings. Bass staff: fret numbers 6, 7, 6, 8, 6, 8, 9, 8, 6, 8, 6, 7.

fingering 3

Gm7/11 VI



fingering 4

Gm7/11 IX

1	1	1	1
2		1	
3	2		
4		3	3
		4	
			4

First system of musical notation for Gm7/11 IX, fingering 4. The melody is in treble clef with a key signature of two flats and a common key signature of one sharp. The bass line is in bass clef with fret numbers: 9 10 13 10 13 10 11 10 13 10 13 10.

Second system of musical notation for Gm7/11 IX, fingering 4. The melody is in treble clef with a key signature of two flats and a common key signature of one sharp. The bass line is in bass clef with fret numbers: 13 10 13 10 11 12 10 12 11 10 13 10.

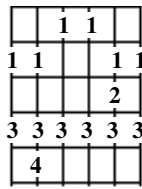
Third system of musical notation for Gm7/11 IX, fingering 4. The melody is in treble clef with a key signature of two flats and a common key signature of one sharp. The bass line is in bass clef with fret numbers: 13 10 11 12 10 12 11 12 10 12 11 10.

Fourth system of musical notation for Gm7/11 IX, fingering 4. The melody is in treble clef with a key signature of two flats and a common key signature of one sharp. The bass line is in bass clef with fret numbers: 11 12 10 12 11 13 14 13 11 12 10 12.

Fifth system of musical notation for Gm7/11 IX, fingering 4. The melody is in treble clef with a key signature of two flats and a common key signature of one sharp. The bass line is in bass clef with fret numbers: 10 12 11 13 14 10 13 10 14 13 11 12.

fingering 5

Gm7/11 XII



First system of musical notation for Gm7/11 XII, fingering 5. The melody is in the treble clef, key of Bb, and common time. It features eighth and quarter notes with triplet markings. The bass staff shows fret numbers: 13, 15, 13, 15, 16, 12, 15, 12, 16, 15, 13, 15.

Second system of musical notation for Gm7/11 XII, fingering 5. The melody continues with eighth and quarter notes and triplet markings. The bass staff shows fret numbers: 13, 15, 16, 12, 15, 12, 15, 12, 15, 12, 16, 15.

Third system of musical notation for Gm7/11 XII, fingering 5. The melody continues with eighth and quarter notes and triplet markings. The bass staff shows fret numbers: 16, 12, 15, 12, 15, 13, 14, 13, 15, 12, 15, 12.

Fourth system of musical notation for Gm7/11 XII, fingering 5. The melody continues with eighth and quarter notes and triplet markings. The bass staff shows fret numbers: 15, 12, 15, 13, 14, 15, 13, 15, 14, 13, 15, 12.

Pentatonic Exercises in All Five Fingerings

$\text{♩} = 100$ G minor pentatonic linear scales

fingering 1 fingering 2 fingering 3 fingering 4

fingering 5

fingering 1

fingering 5

fingering 4

fingering 3

fingering 2

major pentatonic keys ascending in fifths

the fingering number cycle is 1-3-5-2-4

fingering 1 - C major fingering 3 - G major fingering 5 - D major fingering 2 - A major

fingering 4 - E major fingering 1 - B major fingering 3 - F# major fingering 5 - Db major

fingering 2 - Ab major fingering 4 - Eb major fingering 1 - Bb major fingering 3 - F major

minor pentatonic keys ascending in fourths

the fingering number cycle is 4-2-5-3-1

fingering 4 - E minor fingering 2 - A minor fingering 5 - D minor fingering 3 - G minor

fingering 1 - C minor fingering 4 - F minor fingering 2 - Bb minor fingering 5 - Eb minor

2

fingering 3 - G# minor fingering 1 - C# minor fingering 4 - F#m fingering 2 - B minor

35

G minor pentatonic bends on strings 1-3

fingering 1

fingering 2

no three-fret bends (minor thirds) with the index finger

fingering 3

fingering 4

fingering 5

G minor pentatonic hammer, pull-off

fingering 1

fingering 2

fingering 3

fingering 4

fingering 5

G minor pentatonic 1234 fragment pattern

fingering 1

fingering 2

fingering 3

fingering 4

fingering 5

G minor pentatonic 123 fragment pattern

fingering 1

fingering 2

fingering 3

fingering 4

fingering 5

4

G minor pentatonic with #4/b5 chromatic

fingering 1

fingering 2

fingering 3

fingering 4

fingering 5

INTRODUCTION TO CHROMATICS

The Latin root word “chrom” means color. We supplement the tone color of scales and arpeggios by adding coloring tones called *chromatics*.

Targeting Chord and Pentatonic Tones

One or more consecutive chromatics can ascend to a chord tone to target the chord tone. When more than two ascending chromatics are used in this manner, they should be associated with the setup or target chord by putting chord tones on the beat (metric accent) or emphasized by some other means. See [Chromaticized Arpeggios](#). The simplest of these ascending chromatics is a single one, called a *lower chromatic embellishment*.

LCE = lower chromatic embellishment. Root, third, fifth and sixth are chord tones. [click to play](#)

♩ = 135

Swing Eighths

C¹³

LCE third root LCE fifth third LCE sixth

4 5 5 7 8 5 4 5 8 6 5

Upper chromatic embellishment is rare. It can be used on a diminished seventh arpeggio, in approaching each tone from a half step above, making a half/whole diminished scale

UCE = upper chromatic embellishment. CT are chord tones. [click to play](#)

♩ = 125

Swing Eighths

E^{o7} Am

UCE CT UCE CT UCE CT UCE CT UCE CT

9 8 6 5 6 5 8 7 5 8 9 8 6 5 8 5 7 5 5 7 7

One or more passing chromatics can be inserted between one chord tone and another or between one scale tone and another. When a scale tone is also a chord tone, consider it a chord tone, since the chord tone is more important.

country blues chromatics

LC = lower chromatic. PC = passing chromatic. CT = chord tone. [click to play](#)

♩ = 135

Swing Eighths

end verse 1

Chords: G, C, G

Fingering: 3 0 1 2, 3 1 2, 3 3 3, 3 3 2 1

Labels: LC LC CT, LC LC CT, PC PC

bridge

Chords: Em, G

Fingering: 0 2 1 2 0 1, 2 0 1 2, 3 5 4 5 3, 3 3 1 3 3 4

Labels: CT LC CT LC CT LC LC CT LC, LC CT

Chords: Em, A7, D7

Fingering: 0 2 1 2 0 2 1, 0 2 1 2 0, 5 4 5 5 4, 5 0 1 2

Labels: CT PC CT CT, LC LC

verse 2

Chords: G, C

Fingering: 3 3 3, 3 0 1 2, 3 3 3, 3 0 1 2

Labels: CT, LC LC CT, LC LC

LOWER CHROMATIC EMBELLISHMENT

A lower chromatic embellishment is a tone that precedes a chord tone from a half step below, immediately before the chord tone. From about 1900 to 1920, in early blues and ragtime music, lower chromatic embellishments were played with long duration, typically a half or a third of a beat (an eighth note or an eighth note triplet note in 4/4 time). I'll call that a *ragtime lower chromatic embellishment*. By about 1940, it became fashionable to play the lower chromatic as a grace note (very short duration). I'll call the grace note type a *modern lower chromatic embellishment*.

ragtime versus modern lower chromatic embellishments

LCE = lower chromatic embellishment, CT = vchord tone. [click to play](#)

♩ = 135

A¹³ A¹³

LCE CT LCE CT LCE CT LCE CT LCE CT LCE CT

TAB 6 7 5 5 6 7 6 7 6 7 5 5 6 6 7 6 7

rockabilly lower chromatic embellishments

This example includes blue notes and microtonal bends, as described later. Country music uses more ragtime lower chromatic embellishments than modern ones. In the more recent crossover country styles since the 1990's, modern lower chromatic embellishment are also common.

LCE = lower chromatic embellishment, CT = vchord tone. BN = blue note. MT = microtonal bend. [click to play](#)

♩ = 145

Swing Eighths 1 A⁶

LCE CT BN LCE CT LCE CT MT 1/4 LCE CT LCE CT MT 1/4

TAB 1 2 0 0 1 0 3 4 0 2 3 4 2 3 0 0 2 0 3 4 0 2 3 4 2 3 2 2 2

Clapton style mixing ragtime and modern lower chromatic embellishment

During the British blues revival in the mid-sixties, Clapton brought his ragtime lower chromatic embellishments he picked up from ragtime blues, including Robert Johnson and mixed it with the faster modern lower chromatic embellishment.

LCE = lower chromatic embellishment, CT = vchord tone. [click to play](#)

♩ = 100

A⁷

LCE CT LCE CT LCE CT

T A B

5 6 5 5 8 5 7 5 5 6 7 6 7

PASSING CHROMATICS

Passing chromatics fill in-between the notes of pentatonic scales. Most commonly between whole steps. The most common whole step passing chromatic is in minor pentatonic between flat seven and one and in major pentatonic between two and three.

country blues passing chromatics

PT = pentatonic scale tone. PC = passing chromatic tone. LCE = lower chromatic embellishment, CT = vchord tone

[click to play](#)

♩ = 135

Swing Eighths

A⁷

PT PC PC PT PT PC PT PT PC PT PC PC PC PC LCE CT

T A B

6 7 4 5 4 5 6 7 6 5 5 6 7 7 5 7 6 5 3 4

A major pentatonic A minor pentatonic

For fingerings, see Pentatonic Fingering/[Movable Pentatonic with One Chromatic](#) and Pentatonic Fingering/[Movable Pentatonic with Two Chromatics](#).

BLUE NOTES AND MICROTONAL BENDS

Half Step Release, Down a Whole Step

Releasing (bend) half step followed by a note down a whole step . Grace note or pre-bend a half step and release as an eighth note to a note down a whole step. The third note should be a chord tone. Use on b3-2-1, b5-4-b3 or b7-6-5 of the current chord. The example below is common in country music.

[click to play](#)

♩ = 150
Swing Eighths

G

2 b3 2 1 4 b5 4 b3 6 b7 6 5

1/2 1/2 1/2

5 (5) 3 3 (3) 1 3 7 (7) 5

T A B

Chicken Pickin'

At the beginning of the James Burton/Scotty Moore example, there is a gradual release on the third string. “Chicken pickin’” is employed on the repetitions of the note on the third string, using thumb next to the pick to mute the downstrokes and the pick on the upstrokes (upstrokes *on* the beat) while picking the pre-bent “A” bent to “B” and gradually releasing the bend. Use the middle fingernail to pick the stationary flat seven on the second string. The slur from flat three to three near the end of the James Burton portion (labeled “b3” and “3”) are a ragtime lower chromatic embellishment.

darkening natural thirds with grace note flat thirds

The James Burton/Scotty Moore example below (below “Chicken Pickin’”), ends with a modified version of Scotty’s figure, adding a grace note lower chromatic flat third before the natural third. The grace note flat third that darkens the mood. This is common in blues-related styles, like rockabilly.

basic James Burton “chicken pickin” example

This example illustrates what is discussed in the two sub-sections above, “chicken pickin”.

click to play live video

[illegible]

advanced James Burton / Scotty Moore example

This example illustrates what is discussed in the two sub-sections above, “chicken pickin” and “darkening natural thirds with grace note flat thirds”.

click to play live video

Swing Eighths

♩ = 135

James Burton Scotty Moore

gradually release from a whole step bend to full release
(not incrementally, use a continuous release)

full full full full full full 1/2 1/2 1/2

TAB

On each down-stroke, the picking hand thumb mutes the third string as the note is picked. On each up-stroke, the note is picked normally. Additionally, with each up-stroke the picking hand middle finger nail plucks the note on the second string (except on the last note in bar two, where there isn't a note on the second string).

microtonal bends

A microtonal bend is an expressive bend that raises the pitch a quarter tone, which is half of a half step (half a fret). Microtonal bends can be applied to flat three, flat five, flat seven and (rarely) flat nine tones.

microtonal bends example - [click to play](#)

$\text{♩} = 90$

The musical notation shows a sequence of notes with microtonal bends. The top staff is in 4/4 time with a tempo of 90 bpm. The bottom staff shows the corresponding fretboard positions for the notes, with fingerings (1-5) and bends (1/4) marked.

The little curved line that looks like a Nike logo is the microtonal bend symbol.

Flat three (b3) and flat seven (b7) microtonal bends are common.

Flat five (b5) microtonal bends are less common.

Flat nine (b9) microtonal bends are very rare.

SYNTHETIC PENTATONIC SCALES

Additional pentatonic scales can be created, using the categories shown earlier in [Seven Pentatonic Scale Types](#). The categories were 7/11, 6/11 and 6/9. These new scales you create can be called *synthetic pentatonic scales*, since they are not in common use.

Naming Pentatonic Scales with Chord Names

By using the existing system of chord names as shown in “[Chord Naming Conventions](#)”, any pentatonic scale can be named.

Archetypal Chords

The chapter “[Chord Archetypes](#)” defines all common chord types you’ll need to create more pentatonic scales. Also see “[Chord Naming Conventions](#)”.

Adding a Tone to a Seventh or Sixth Arpeggio

Add 2, b2, 4, b4, #4, b6 or 6 to a seventh chord. Add 2, b2, 4, b4, #4, b7 or 7 to a sixth chord. Omit redundant versions such as not adding “#4” to a chord with “b5”.

Creating More Seven Add Four Type Pentatonic Scales

“11” is the same tone as “4”. Add a four or sharp four to any seventh chord arpeggio and create a pentatonic scale.

Creating More Six Add Two Type Pentatonic Scales

Add a two or flat two and add a six or flat six to any triad and create a pentatonic scale.

Creating More Six Add Four Type Pentatonic Scales

Add a six or flat six and add a six or flat six to any triad and create a pentatonic scale.

Re-Naming Ninth Arpeggios as Pentatonic Scales

By playing the ninth of a ninth arpeggio down an octave, it becomes a pentatonic scale. “9” becomes “2”, “b9” becomes “b2” and “#9” becomes “#2”.

Library of Common and Synthetic Pentatonic Scale Fingerings

Use the circled notes as locators for the key on the largest string available in the fingering. C minor pentatonic fingering 1 would be placed where the circled note on the sixth string is on the sixth string, eighth fret.

pentatonic scales based on major sixth

	E form	D form	C form	A form	G form
major pentatonic (ma6/2 or major sixth add two)					
6/4 (sixth add four)					
6/#4 (sixth add sharp four)					
7/b2 (dominant seven add flat two)					

pentatonic scales based on dominant seventh

E form

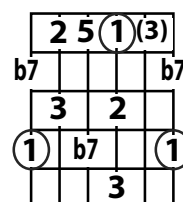
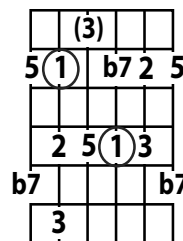
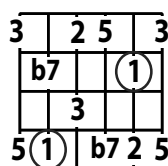
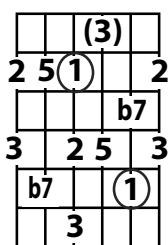
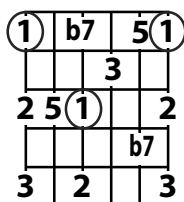
D form

C form

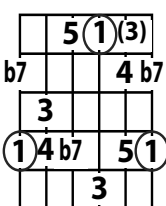
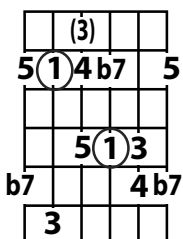
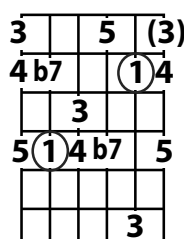
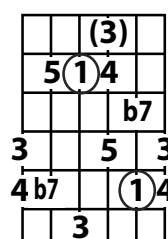
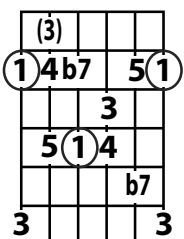
A form

G form

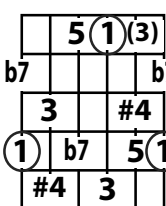
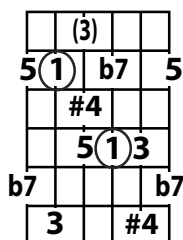
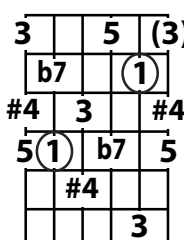
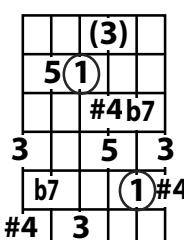
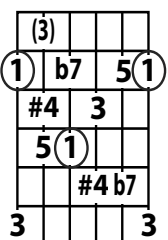
7/2
(dominant seven
add two = 9)



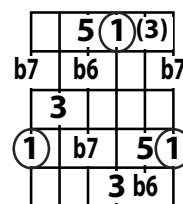
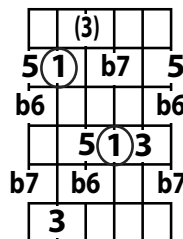
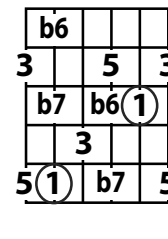
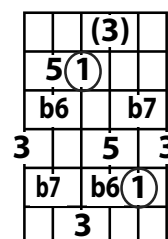
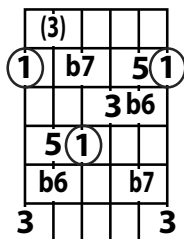
7/4
(=7/11, dominant
seven add four)



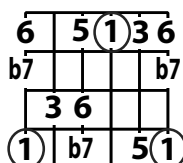
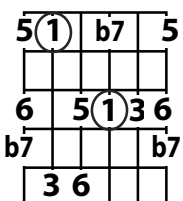
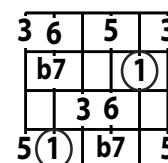
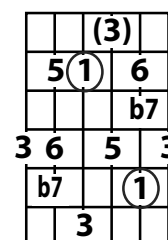
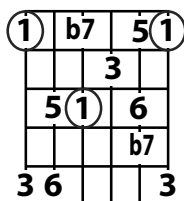
7/#4
(=7/#11, dominant
seven add sharp
four)



7/b6
(dominant seven
add flat six)



7/6
(dominant seven
add six)



pentatonic scales based on major seventh

	E form	D form	C form	A form	G form
major 7/2 (major seven add two or major ninth)					
major 7/4 (major seven add four)					
major 7/#4 (major seven add sharp four)					
major 7/6 (major seven add six)					

pentatonic scales based on minor sixth

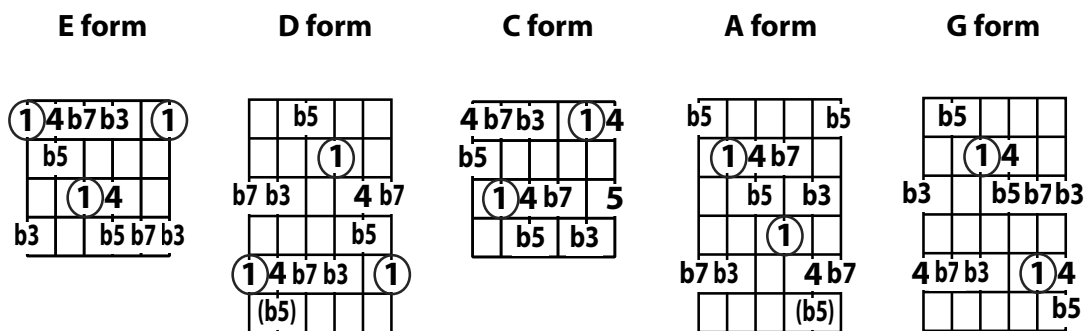
	E form	D form	C form	A form	G form
minor 6/2 (major pentatonic with flat three)					
m6/4 (minor sixth add four)					
m6/#4 (minor sixth add sharp four)					

pentatonic scales based on minor seventh

	E form	D form	C form	A form	G form
minor pentatonic (m7/4 or minor seven add four)					
m7/#4 (minor seven add sharp four)					

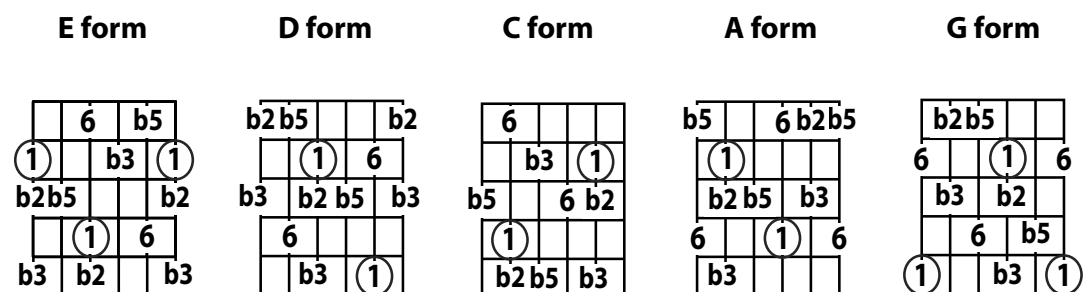
pentatonic scales based on minor seventh flat five

m7b5/4
(minor seventh
flat five add four)

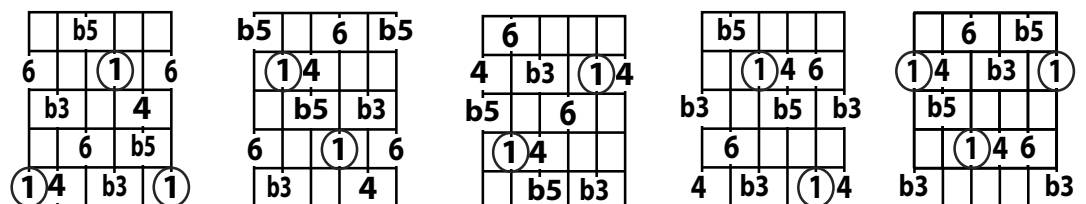


pentatonic scales based on diminished seventh

dim7/b2
(diminished
seventh add flat
two)



dim7/4
(diminished
seventh add four =
m611b5)



Improv with Minor and Major Pentatonic Scales

- **Melodic Rhythm**
- **Parent Scales and Modes**
- **Relative Major and Minor Pentatonic**
- **Arpeggio Fingering**
- **Reference Major Scale Fingering**
- **Visualizing Arpeggios on Top of Scales**
- **Progressive Improv Studies**
- **Major Scale Mode (Mood) Cycles**
- **Improv with Minor Pentatonic in Aeolian**
- **Improv with Major Pentatonic in Major (Ionian mode)**
- **Improv with Pentatonic Scales in Mixolydian**
- **Improv with Pentatonic Scales in Dorian**
- **Improv with Minor Pentatonic Scale in a Major Key (Blues)**

MELODIC RHYTHM

Beats per Bar and Tempo

beats per bar

Music is usually based on a regular pulse, likened to a heartbeat or to footsteps. This started in Greece, when one of the cast members in Greek plays would stomp his foot with a bell anklet to establish the regular pulse or beat to guide the cast members in speaking their words with a regular pulse. We commonly group beats into bars of four, three, six or twelve beats.

tempo

The rate of beats is measured in beats per minute. In the example below (Beats Grouped into Bars), quarter notes (one beat each in 4/4, 3/4; two beats each in 6/8 or 12/8) are played at the rate of 100 beats per minute, shown at the upper left with the indication “♩ = 100”.

Dividing the Beat

Beats are divided into two, three, four, six or eight parts. Usually those parts are equal. Triplets divide the beat into thirds of a beat each note, sixteenth notes divide the beat into quarter beat notes, etc.

Beats Grouped into Bars - [click to play video](#)

♩ = 100

four quarter notes per bar (or an equivalent such as eight eighth notes)

one two three four one and two and three and four and one

four quarter notes eight eighth notes

three quarter notes per bar (or an equivalent such as six eighth notes)

one two three one and two and three and one

three quarter notes six eighth notes

six eighth notes per bar (or an equivalent such as twelve sixteenth notes)

one two three four five six one and two and three and four and five and six and one

six eighth notes twelve sixteenth notes

twelve eighth notes per bar (or an equivalent such as 24 sixteenth notes)

one two three four five six sev' eight nine ten 'lev twelve one and two and three and four and fve and six and sev and eight and nine and ten and 'lev and twelve and

Three-Pulse Rhythms

Triplets

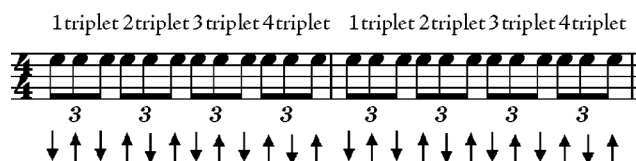
Triplets divide the beat into three equal parts, as shown previously in “[Dividing the Beat](#)”.

swing eighths

There is a common practice of dividing the beat into unequal halves, with the first part of the beat approximately two thirds of the beat and the second part around one third of the beat. This division can vary anywhere from 51% and 49% for the two parts of the beat to 75% and 25% of the beat.

The “swing eighths” below are first “written out” in triplets and then shown as eighth notes with the interpretation “swing eighths”, which means the same thing: play the first and third note in the triplet.

Triplet (three notes on each beat)



Swing Eighth (first and third of each triplet)

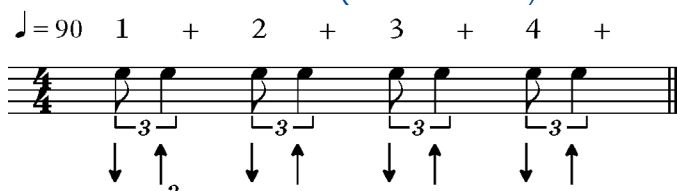


Afro-Cuban and waltz

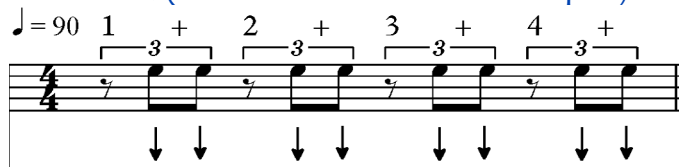
The “Afro-Cuban” selects the first two parts of a triplet. Triplets can be counted “one trip let”, “two trip let” and so on. The “Afro-Cuban” could be represented by speaking “one trip um”, “two trip um”, etc., to represent the un-played third part of the triplet with “um”.

The waltz selects the last two parts of the beat. In order to still note the numbered beats, you might could the waltz by speaking the number softly, then “trip let” loudly for each beat. The soft number could indicate the un-played note at the beginning of each triplet for the “waltz”. The formal meaning of waltz is a European dance song form in 3/4. I’m using the term loosely to describe the subdivision that select the last two parts of a beat. It is typical in a waltz that a bass note plays on the first of three beats in a measure and a chord plays on the last two parts.

Afro-Cuban (on each beat)



Waltz (second and third of each triplet)



four-pulse rhythm combinations - [click to play](#)

all four sixteenths gallop alternate all four sixteenths and gallop

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

pronounced "one-e-and-uh", "two-e-and-uh", etc.

all four sixteenths jingle bells alternate all four sixteenths and jingle bells

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

all four sixteenths Creedence alternate all four sixteenths and Creedence

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

alternate gallop and Creedence alternate gallop and tied Creedence

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 1 e + a 1 e + a 1 e + a

Pickups

Pushes

Consecutive Syncopation

Anti-Metric Phrasing

PARENT SCALES AND MODES

A single major scale can be the parent of seven scales, one built on each of its steps. It can also contain pentatonic scales on each of its scale tones and arpeggios on each of its scale tones. See [Key Scales, Parent Scales & Chord Scales/Scale Synonyms \(Modes\)](#) and [Parent Scales, Scale-Tone Arpeggios & Pentatonics](#).

RELATIVE MAJOR AND MINOR PENTATONIC

Each pentatonic scale can be used with a major tone center or a minor tone center. The minor tone center is in a key three frets (a minor third) below the major tone center. See [Pentatonic Fingering](#). Here is that relationship for all keys:

major key	A	Bb	B	C	C#	Db	D	Eb	E	F	F#	Gb	G
minor key	F#m	Gm	G#m	Am	A#m	Bbm	Bm	Cm	C#m	Dm	D#m	Ebm	Em

Triad Arpeggios and Pentatonic Scales

finger numbers
minor tone center is
the rectangle
major tone center is
the circle

fingerings 1	fingerings 2	fingerings 3	fingerings 4	fingerings 5
E form	D form	C form	A form	G form

major pentatonic
triad tones in gray

fingerings 2	fingerings 3	fingerings 4	fingerings 5	fingerings 1

minor pentatonic
triad tones in gray

fingerings 1	fingerings 2	fingerings 3	fingerings 4	fingerings 5

**alternate
major triad
arpeggio by fingers**
roots in gray

**alternate
minor triad
arpeggio by fingers**
roots in gray

ARPEGGIO FINGERING

	E form	D form	C form	A form	G form
major					
minor					
major 7					
7 (dominant)					
minor 7					
m7b5					
diminished seventh (name after either note)					

REFERENCE MAJOR SCALE FINGERING

Seven In-Position Fingerings, Numbered By Scale Tones

Major scale fingerings are numbered in this course according to the number of lowest note fingered with the index finger on the sixth string. The seven *in-position* fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the an alternate string. Head-reach (index) options are generally preferred for scale and melody, while body-reach (pinky) options are preferred for arpeggios.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

In-Position Major Scale Fingerings by Finger Number

“1” is the index finger, “2” is the middle finger, “3” is the ring finger and “4” is the little finger. Head-reach (index) options are generally preferred for scale and melody, while body-reach (pinky) options are preferred for arpeggios.

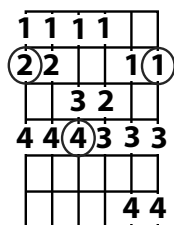
fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall.

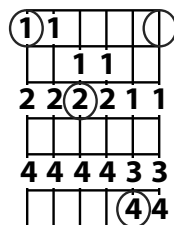
Other fingerings called *three-note-per-string major scale fingerings* use slightly different rules regarding playing in position.

Three-Note-Per-String Fingerings, numbered by fingers

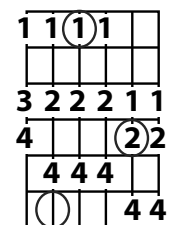
fingering 7/1



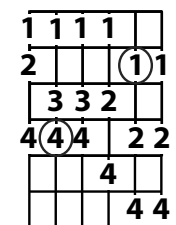
fingering 1/2



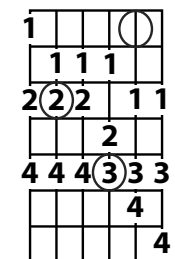
fingering 2/3



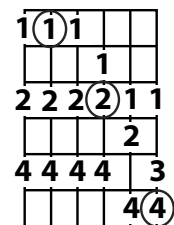
fingering 3/4



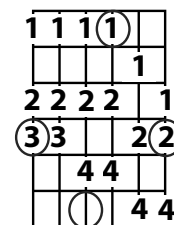
fingering 4/5



fingering 5/6



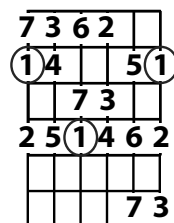
fingering 6/7



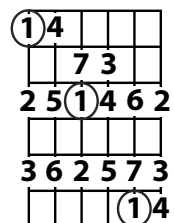
Three-note-per-string major scale fingerings shown above combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on.

Three-Note-Per-String Fingerings, numbered by scale tones

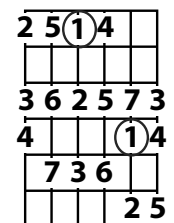
fingering 7/1



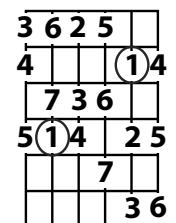
fingering 1/2



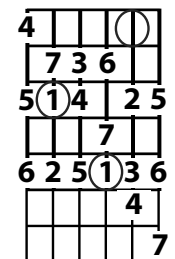
fingering 2/3



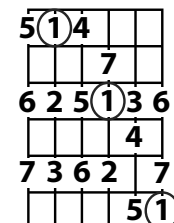
fingering 3/4



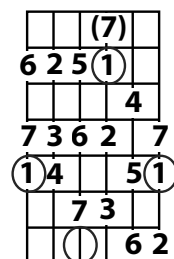
fingering 4/5



fingering 5/6

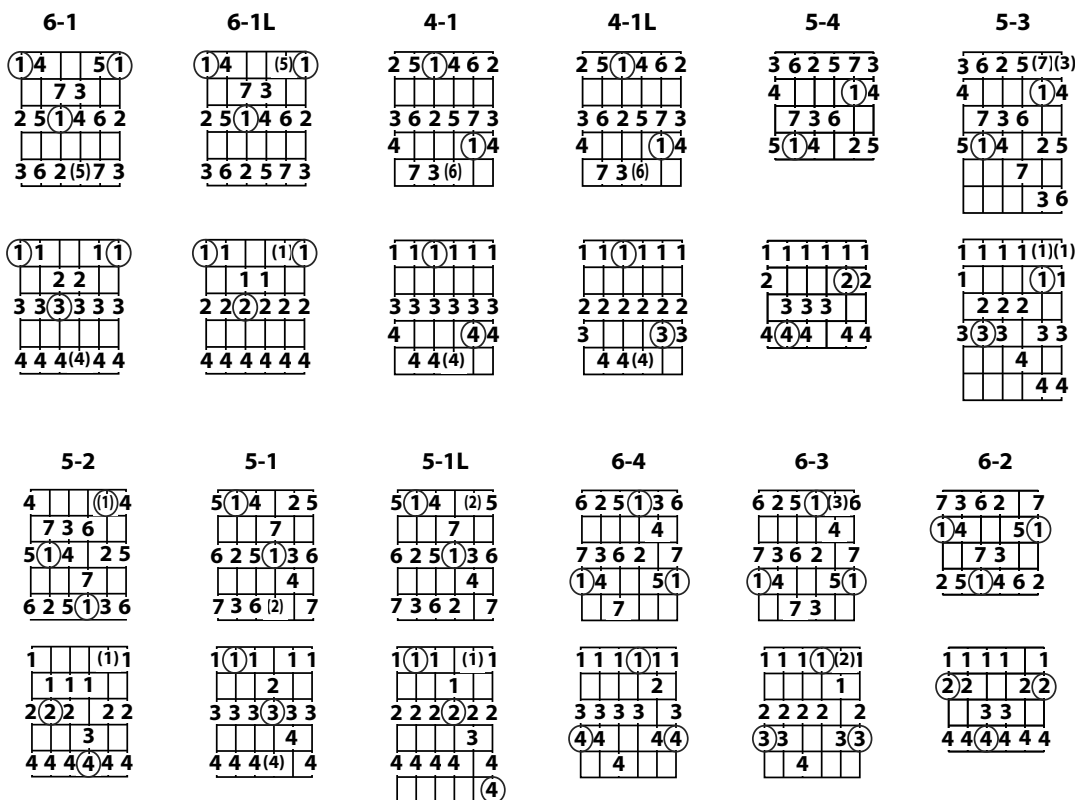


fingering 6/7



Twelve In-Position Fingerings, Numbered by Scale Tones and by Formula

In this naming system, the first number indicates the string where the lowest-octave tone center is located. The second number indicates the fretting hand finger that frets the tone center. 1 = index, 2 = middle, 3 = ring and 4 = little finger. "L" is shown after the number "1" when the index finger reaches one fret toward the head of the guitar for the low-octave tone center ("L" to indicate low pitch). A note in parenthesis indicates an optional location to fret a note on an adjacent string.



VISUALIZING ARPEGGIOS ON TOP OF SCALES

Build a Strong Memory of Arpeggios and Scales

As you build a good memory of arpeggios and scales, you can use the next five sections (each of the five pentatonic tones against chords) to verify, rather than using rote memorization for those sections. For more in-depth study, see [Emotive Qualities of Chords and Scales](#).

Duality Tones

Duality tones are notes that are in both the current scale and the current chord. See [Core Melody Built with Duality Tones/Duality Tones and Core Melody](#) and [Chord Tones in Pentatonic Scales](#).

Parent Scales

Read the section Parent Scales and Modes. On each of the following pages, titled “X (G, E, D, C or A) Form Parent Scale with Pentatonic Scales and Duality Chords)Triads or Sevenths)” each show a main reference scale in a box. On each page, this is the parent scale for the page.

Reading Diagrams on the Parent Scale Pages

The following pages, titled “X (G, E, D, C or A) Form Parent Scale with Pentatonic Scales and Duality Chords)Triads or Sevenths)” have rows and columns of diagrams, showing commonality of the scales and arpeggios, as described below

thinking graphically in key scale

The basic premise is that you should primarily build your melody with key scale pentatonic and occasionally feature arpeggio tones of the current chord (shown by gray circles). To do this effectively, memorize all the arpeggios in [Arpeggio Fingering](#), and the scales in [Relative Major and Minor Pentatonic](#).

Use one of the parent scales, such as “[G Form Parent Scale with Pentatonic Scales and Duality Triads](#)”. The boxed diagram on the upper left of the page is the parent major scale for the entire page. Notes on that diagram are numbered in relation to that parent major scale, with “1” on the note that names the parent scale’s key.

modes with pentatonic key scales

Each of the rows labeled major, Dorian, Mixolydian, Aeolian show a mode of the parent major scale. In each row, the numbered tones are a pentatonic scale named after the featured tone for that row. Only the numbered tones are pentatonic tones. Notes *without* a number shown with a gray circle are chord

tones *not* in the pentatonic scale. The numbered tones in the “I major” row are I major pentatonic. The numbered tones in the “II Dorian” row are II minor pentatonic. The number tones in the “V Mixolydian” row are V major pentatonic. The numbered tones in the “VI Aeolian” row are VI minor pentatonic.

Notice that the numbered tones in each row are identical. The key scale for VI Aeolian should have “1” on the tone center of the desired Aeolian key. For A Aeolian, that “1” should be on “A”. In the parent major scale, that “A” would be on “6”

arpeggio tones are shown with gray circles

Chord tones played one note at a time are arpeggio tones. The gray circled notes are arpeggio tones. If a gray circled note *also* has a number, it is a *duality* tone, a note both in the scale and the arpeggio. See [Core Melody Built with Duality Tones/Duality Tones and Core Melody](#) and [Chord Tones in Pentatonic Scales](#).

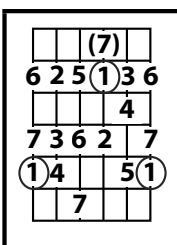
If a chord tone is not in the scale, it should be used less frequently and with less emphasis, since the scale tones should be featured to preserve the sound of the key.

Notice that in each column, for the I major, II Dorian, V Mixolydian and VI Aeolian rows, the grey arpeggio tones showing the featured arpeggio numbered at top of the column are the same.

G Form Parent Scale with Pentatonic Scales and Triad Arpeggios

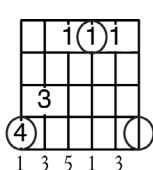
PARENT

triads in C → C



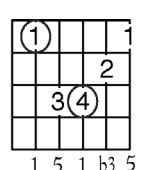
I major

VIII



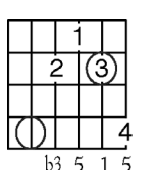
II minor

Dm VII



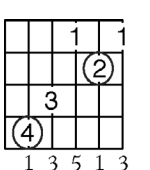
III minor

Em IV



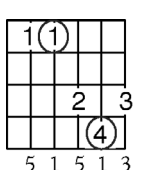
IV major

F VIII



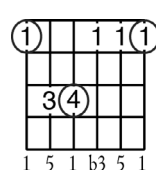
V major

G VII



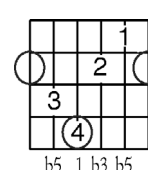
VI minor

Am VII

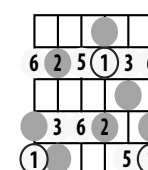
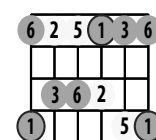
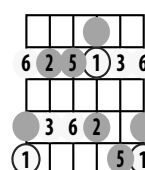
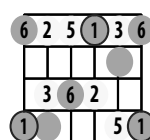
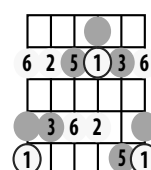
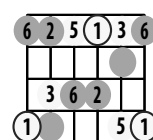
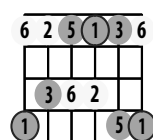
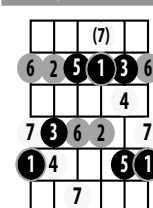


VII dim

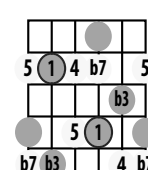
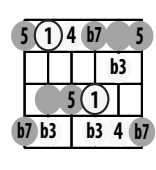
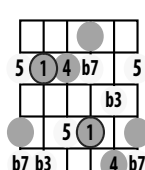
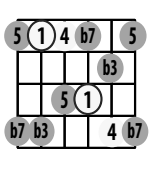
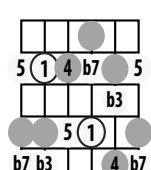
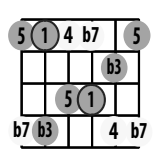
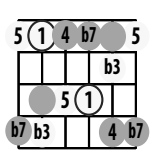
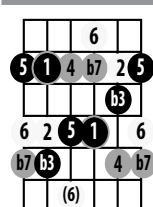
Bdim. VII



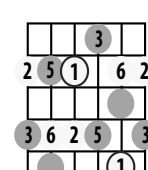
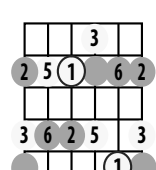
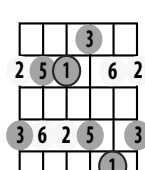
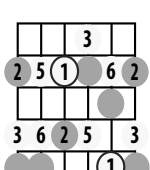
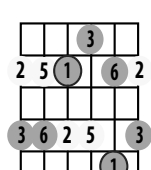
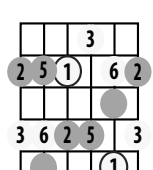
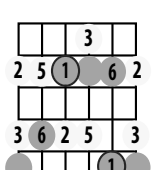
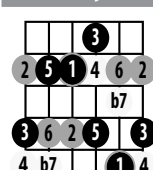
I major



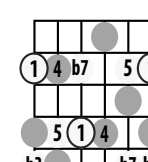
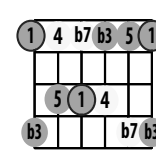
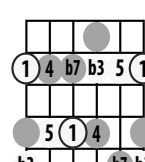
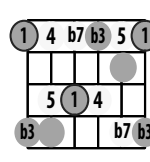
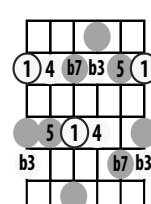
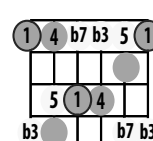
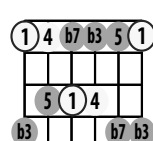
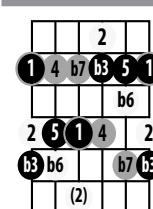
II Dorian



V Mixolydian



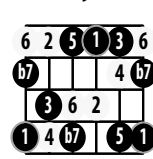
VI Aeolian



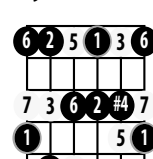
Secondary Dom., b5 Subs.

these ninth chords are numbered according to the parent scale in the box in the parent major scale in the box above

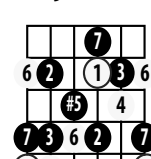
I7 I Mixolydian



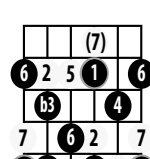
II7 I Lydian



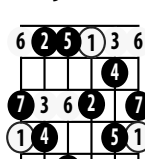
III7 I major #5



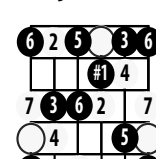
IV7 I mel. minor



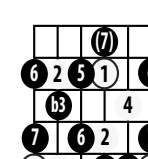
V7 I major



VI7 I major #1



VII7#5 I mel. minor



target →

IV

V

VI

III

I

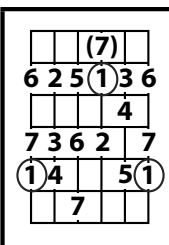
II

III

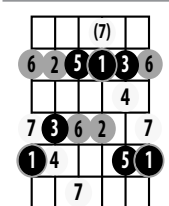
G Form Parent with Pentatonic Scales and Seventh Arpeggios

PARENT

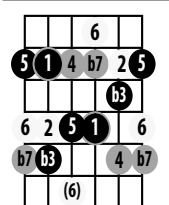
7ths in C →



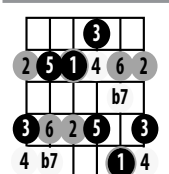
I major



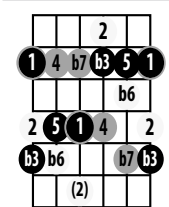
II Dorian



V Mixolydian



VI Aeolian



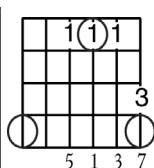
Secondary Dom., b5 Subs.

these ninth chords are numbered according to the parent scale in the box in the parent major scale in the box above

target →

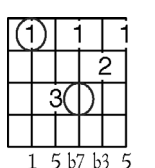
I ma7

Cma7 V



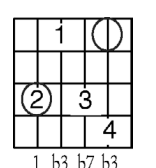
II m7

Dm7 V



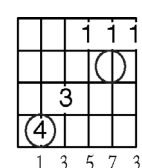
III m7

Em7 V



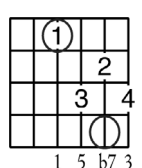
IV ma7

Fma7 V



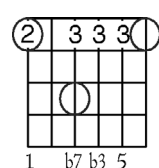
V7

G7 V



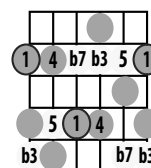
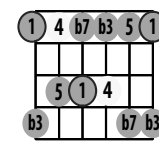
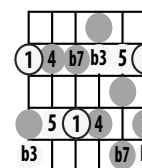
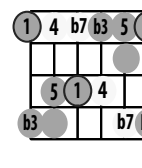
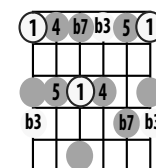
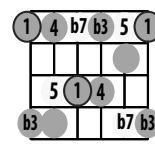
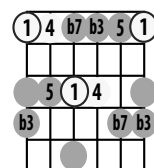
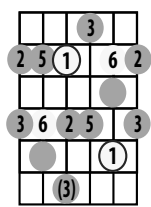
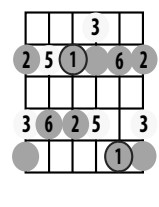
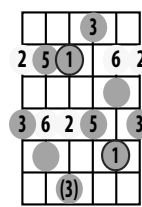
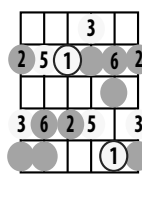
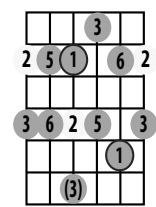
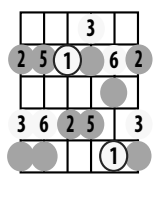
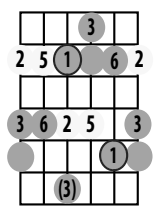
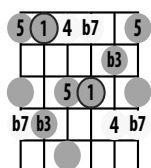
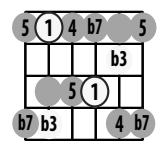
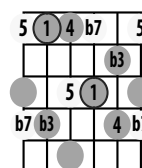
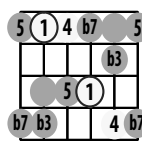
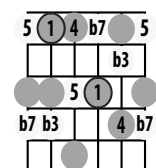
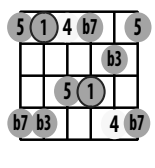
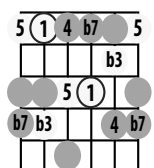
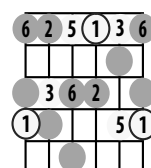
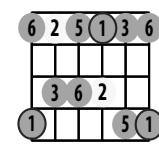
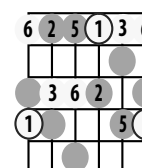
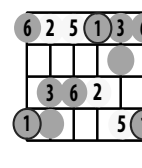
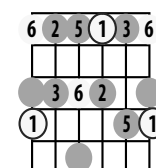
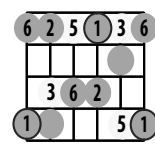
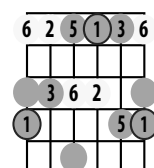
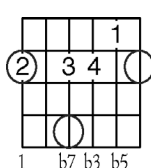
VI m7

Am7 V

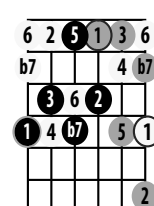


VII m7b5

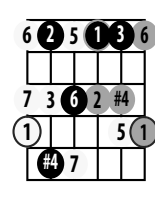
Bm7b5 VI



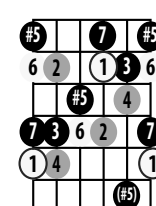
I9 I Mixolydian



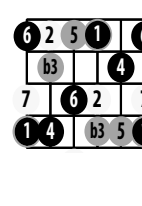
II9 I Lydian



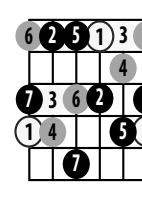
III7b9 I major #5



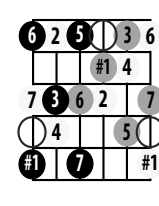
IV9 I mel. minor



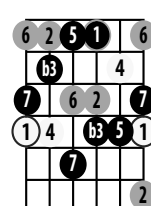
V9 I major



VI9 I major #1



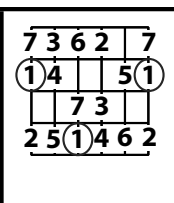
VII7#5#9 I mel. minor



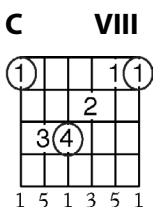
E Form Parent Scale with Pentatonic Scales and Triad Arpeggios

PARENT

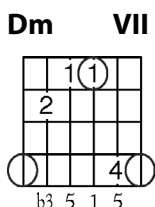
triads in C →



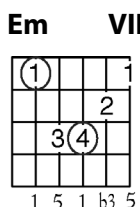
I major



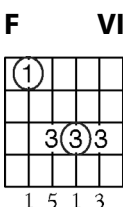
II minor



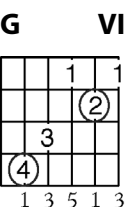
III minor



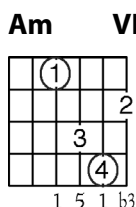
IV major



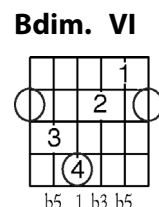
V major



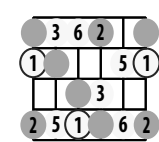
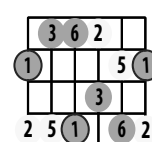
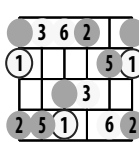
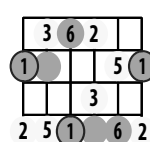
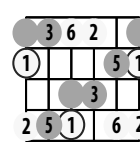
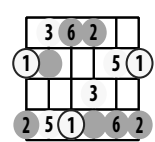
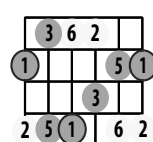
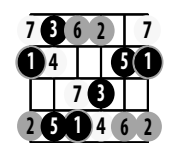
VI minor



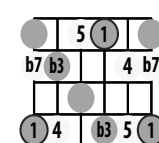
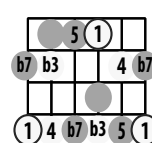
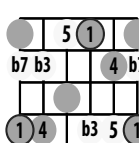
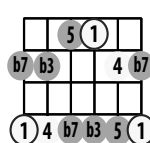
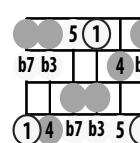
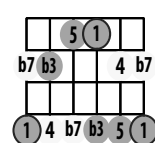
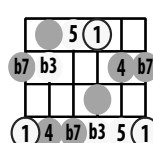
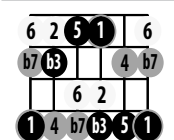
VII dim



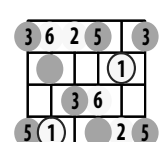
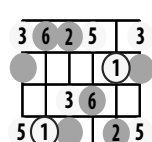
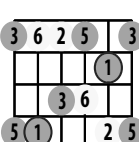
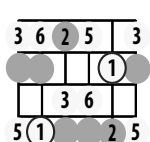
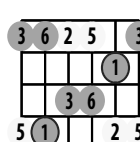
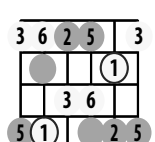
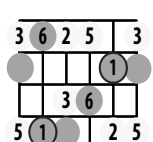
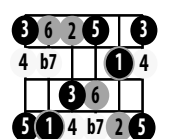
I major



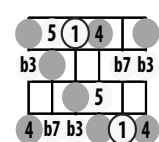
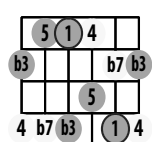
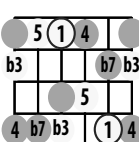
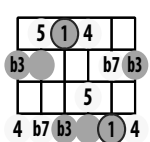
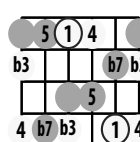
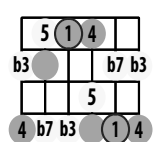
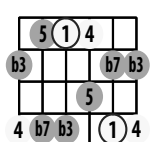
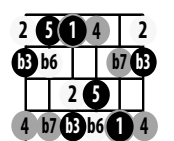
II Dorian



V Mixolydian

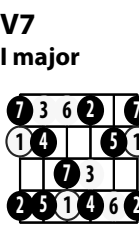
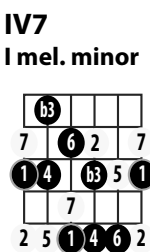
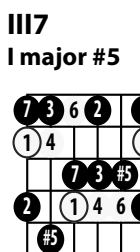
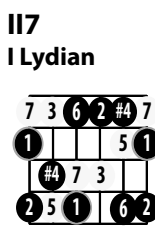


VI Aeolian



Secondary Dom., b5 Subs.

these seventh chords are numbered according to the parent scale in the box in the parent major scale in the box above



target →

IV

V

VI

III

I

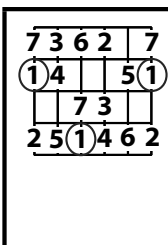
II

III

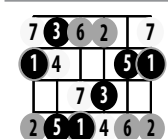
E Form Parent with Pentatonic Scales and Seventh Arpeggios

PARENT

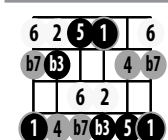
7ths in C →



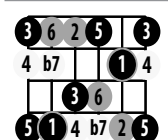
I major



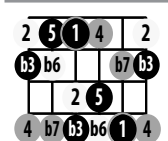
II Dorian



V Mixolydian



VI Aeolian



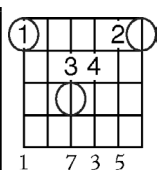
Secondary Dom., b5 Subs.

these ninth chords are numbered according to the parent scale in the box in the parent major scale in the box above

target →

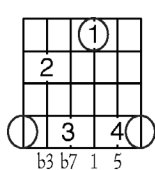
I ma7

Cma7 VIII



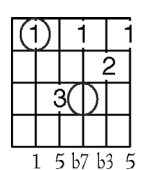
II m7

Dm7 VII



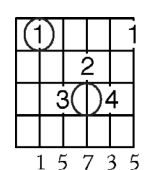
III m7

Em7 VII



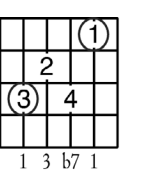
IV ma7

Fma7 VIII



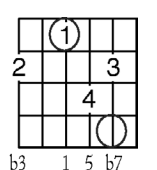
V7

G7 VIII



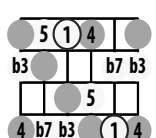
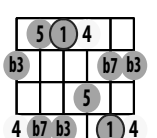
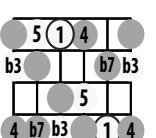
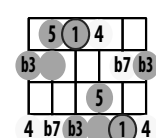
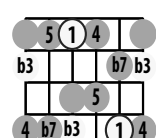
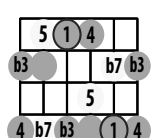
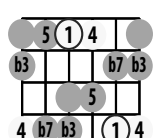
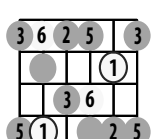
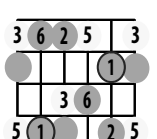
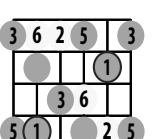
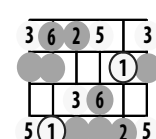
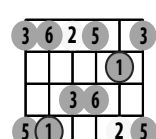
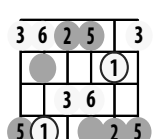
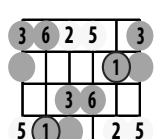
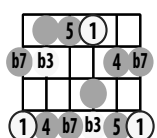
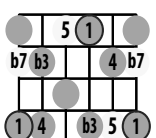
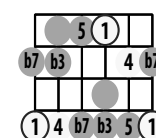
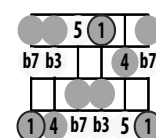
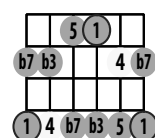
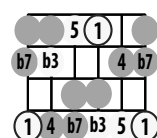
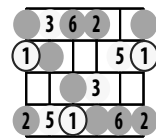
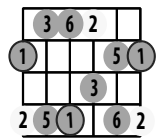
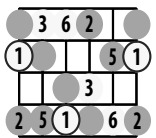
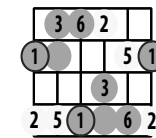
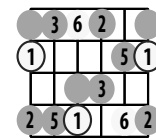
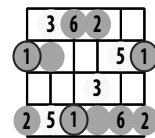
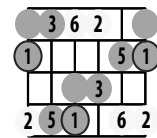
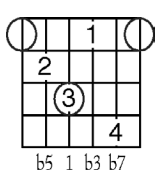
VI m7

Am7 VII

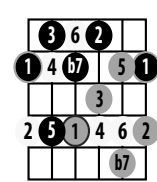


VII m7b5

Bm7b5 VII

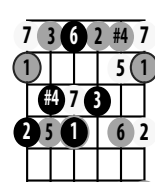


I9 I Mixolydian



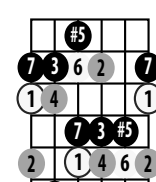
IV

II9 I Lydian



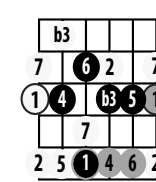
V

III7b9 I major #5



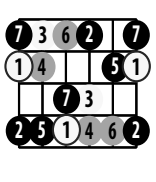
VI

IV9 I mel. minor



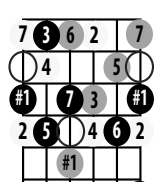
III

V9 I major



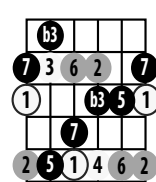
I

VI9 I major #1



II

VII7#5#9 I mel. minor

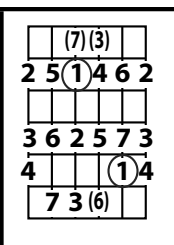


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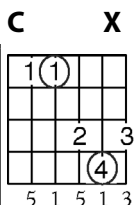
D Form Parent Scale with Pentatonic Scales and Triad Arpeggios

PARENT

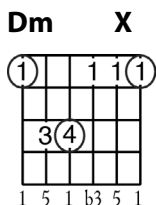
triads in C → C X



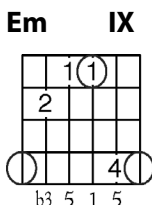
I major



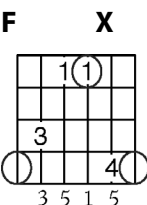
II minor



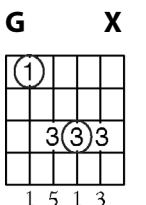
III minor



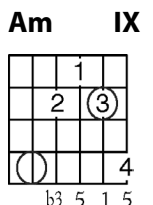
IV major



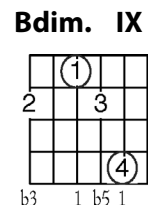
V major



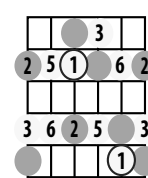
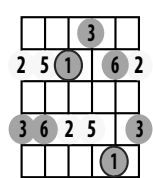
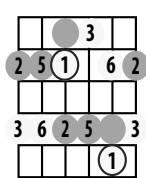
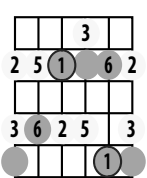
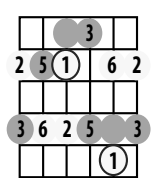
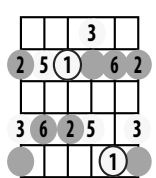
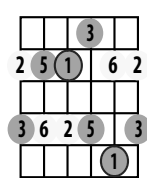
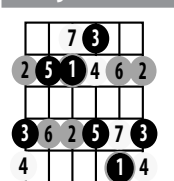
VI minor



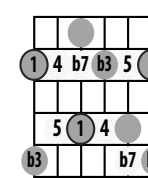
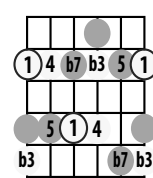
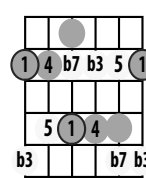
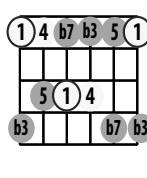
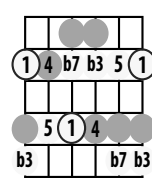
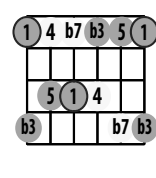
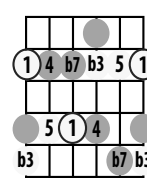
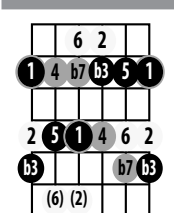
VII dim



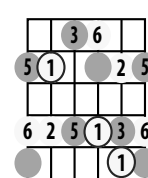
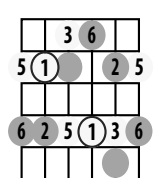
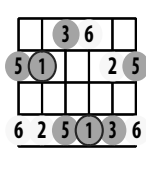
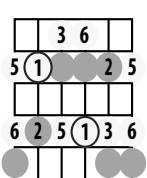
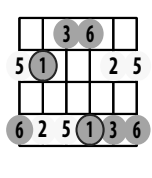
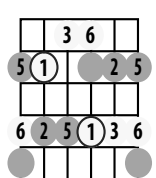
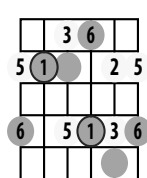
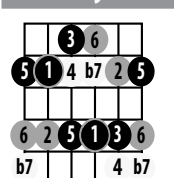
I major



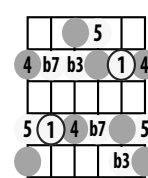
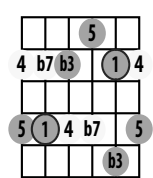
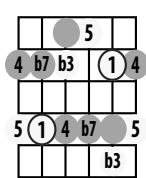
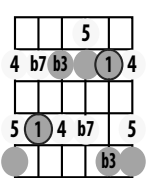
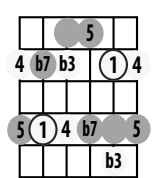
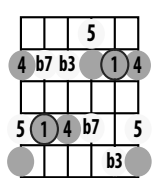
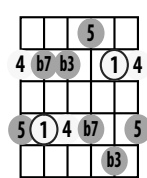
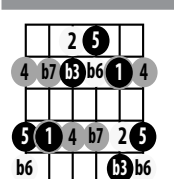
II Dorian



V Mixolydian

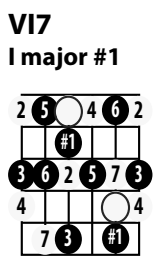
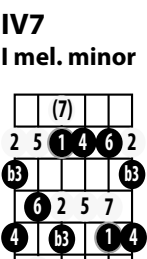
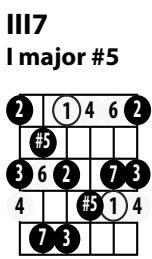
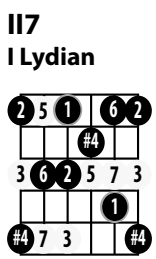
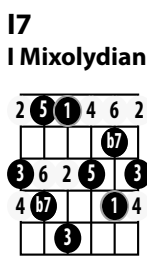


VI Aeolian



Secondary Dom., b5 Subs.

these seventh chords are numbered according to the parent scale in the box in the parent major scale in the box above



target →

IV

V

VI

III

I

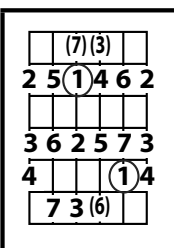
II

III

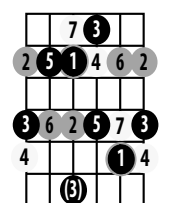
D Form Parent with Pentatonic Scales and Seventh Arpeggios

PARENT

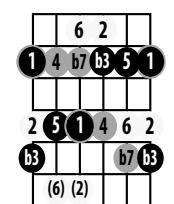
7ths in C →



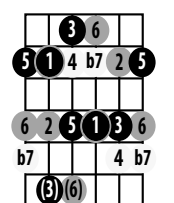
I major



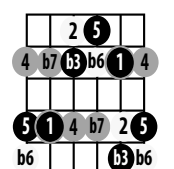
II Dorian



V Mixolydian



VI Aeolian

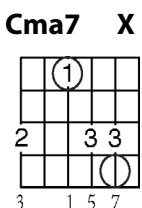


Secondary Dom., b5 Subs.

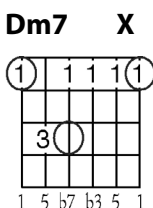
these ninth chords are numbered according to the parent scale in the box in the parent major scale in the box above

target →

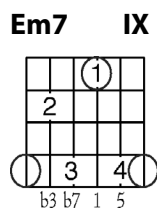
I ma7



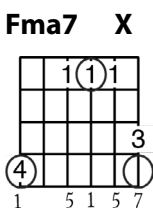
II m7



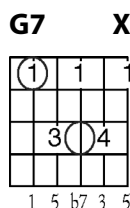
III m7



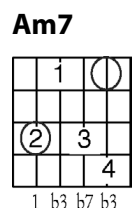
IV ma7



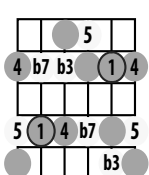
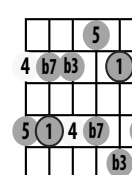
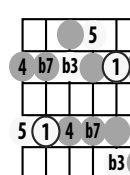
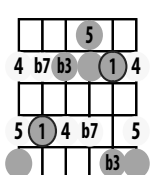
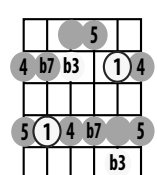
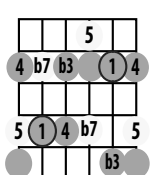
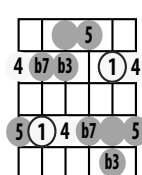
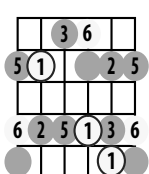
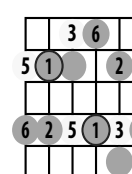
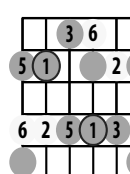
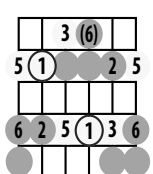
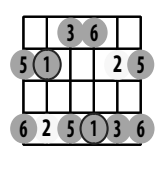
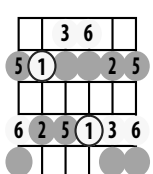
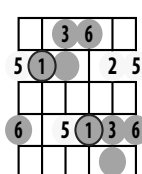
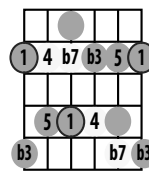
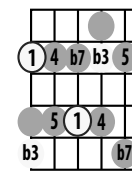
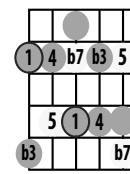
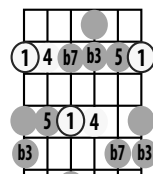
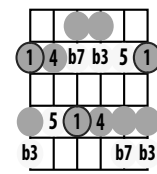
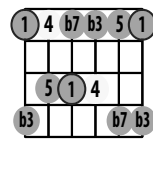
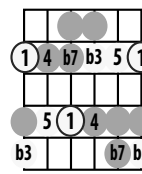
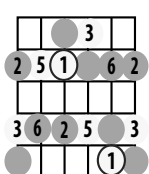
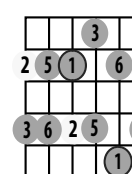
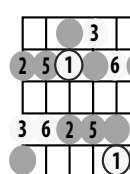
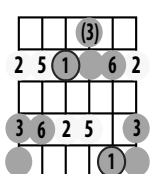
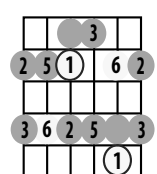
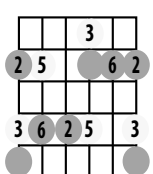
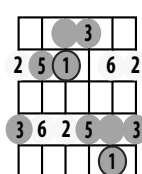
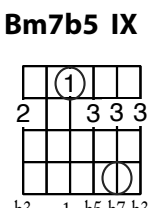
V7



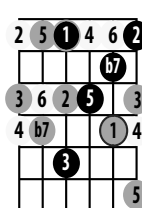
VI m7



VII m7b5

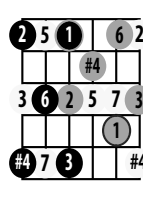


I9 I Mixolydian



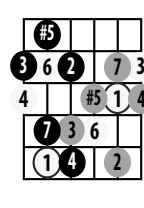
IV

II9 I Lydian



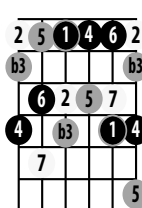
V

III7b9 I major #5



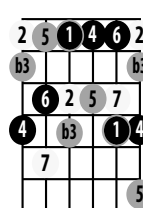
VI

IV9 I mel. minor



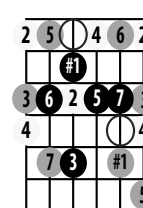
III

V9 I major



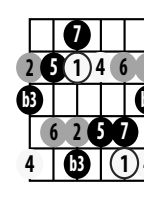
I

VI9 I major #1



II

VII7#5#9 I mel. minor



III

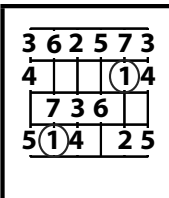
C Form Parent Scale with Pentatonic Scales and Triad Arpeggios

PARENT	I major	II minor	III minor	IV major	V major	VI minor	VII dim
triads in C → C XII	Dm XII	Em XII	F XIII	G XII	Am VII	Bdim. XIII	
I major	II Dorian	V Mixolydian	VI Aeolian	Secondary Dom., b5 Subs.	I7 I Mixolydian	II7 I Lydian	III7 I major #5
				<p>these seventh chords are numbered according to the parent scale in the box in the parent major scale in the box above</p>			
target →	IV	V	VI	III	I	II	III

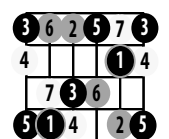
C Form Parent with Pentatonic Scales and Seventh Arpeggios

PARENT

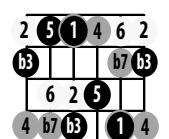
7ths in C →



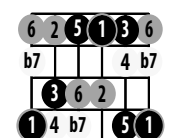
I major



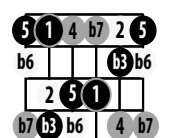
II Dorian



V Mixolydian



VI Aeolian

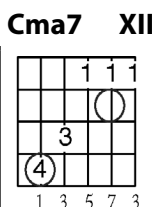


Secondary Dom., b5 Subs.

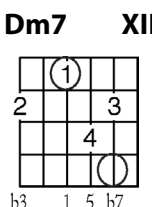
these ninth chords are numbered according to the parent scale in the box in the parent major scale in the box above

target →

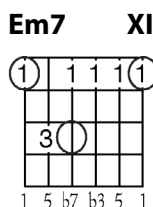
Ima7



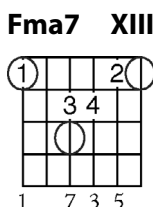
IIIm7



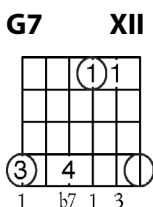
IIIm7



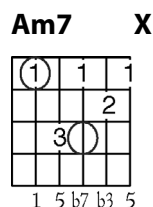
IVma7



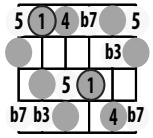
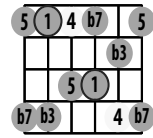
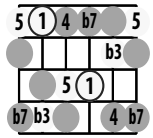
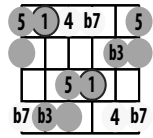
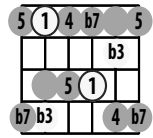
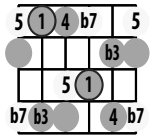
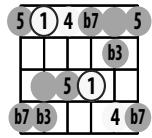
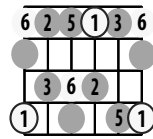
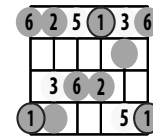
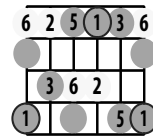
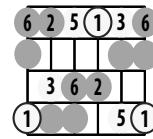
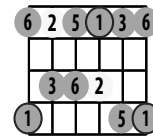
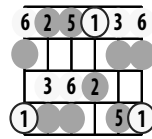
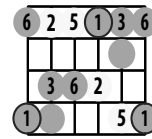
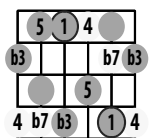
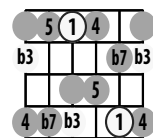
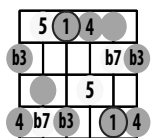
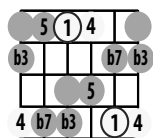
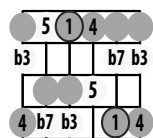
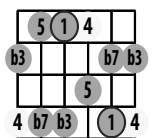
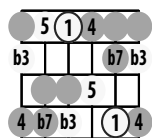
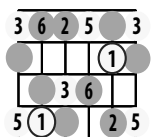
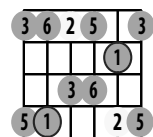
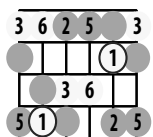
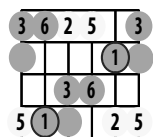
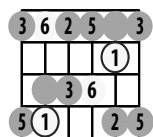
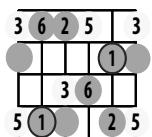
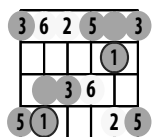
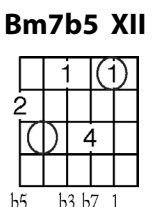
V7



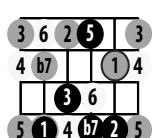
VIIm7



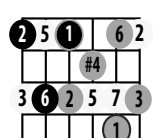
VIIIm7b5



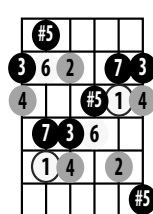
I9 I Mixolydian



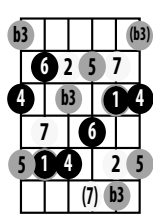
II9 I Lydian



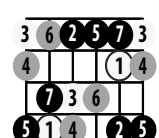
III7b9 I major #5



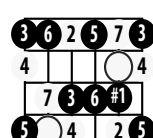
IV9 I mel. minor



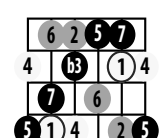
V9 I major



VI9 I major #1



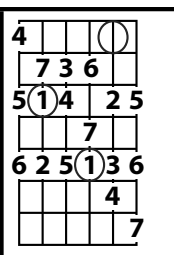
VII7#5#9 I mel. minor



A Form Parent Scale with Pentatonic Scales and Triad Arpeggios

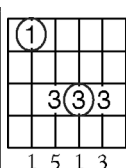
PARENT

triads in C → C III



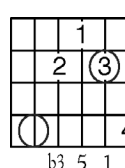
I major

C III



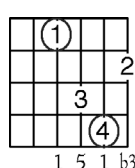
II minor

Dm II



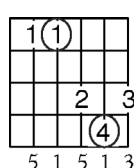
III minor

Em II



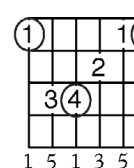
IV major

F III



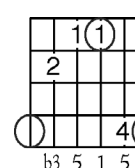
V major

G III



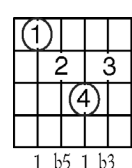
VI minor

Am II

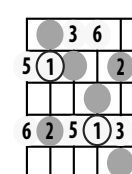
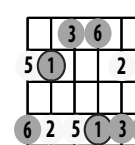
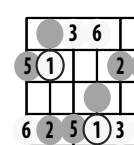
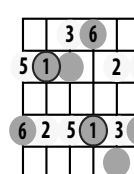
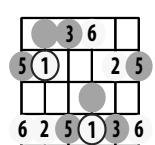
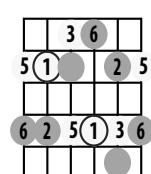
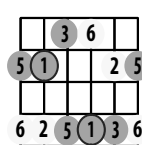
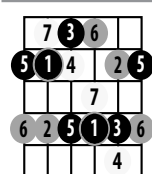


VII dim

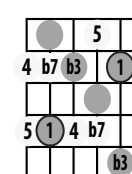
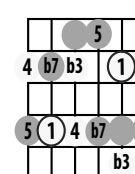
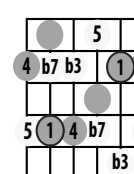
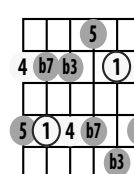
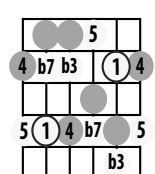
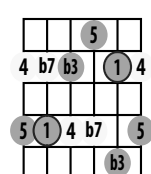
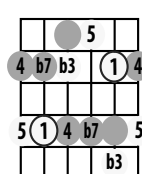
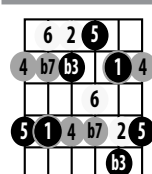
Bdim. II



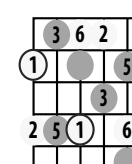
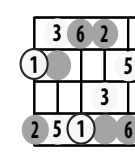
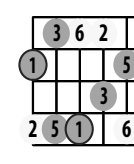
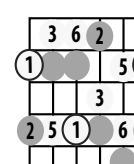
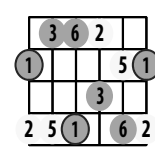
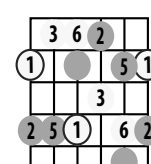
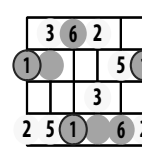
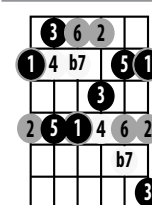
I major



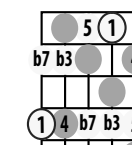
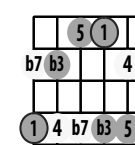
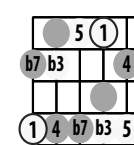
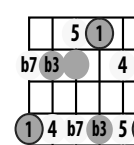
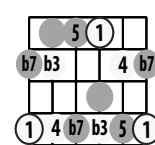
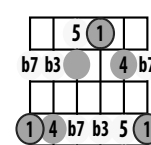
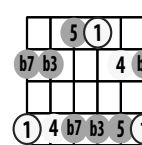
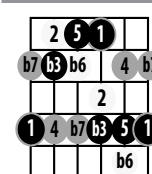
II Dorian



V Mixolydian



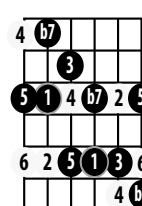
VI Aeolian



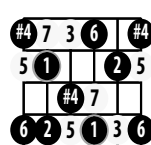
Secondary Dom., b5 Subs.

these seventh chords are numbered according to the parent scale in the box in the parent major scale in the box above

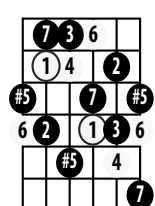
I7 I Mixolydian



II7 I Lydian



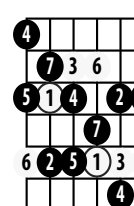
III7 I major #5



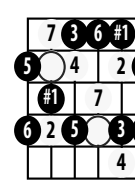
IV7 I mel. minor



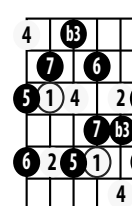
V7 I major



VI7 I major #1



VII7#5 I mel. minor



target →

IV

V

VI

III

I

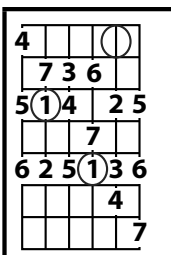
II

III

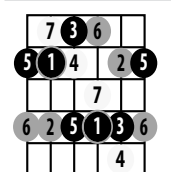
A Form Parent with Pentatonic Scales and Seventh Arpeggios

PARENT

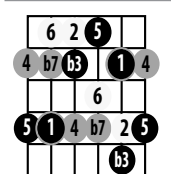
7ths in C →



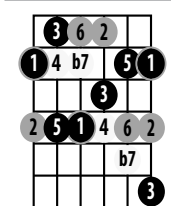
I major



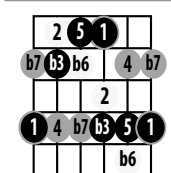
II Dorian



V Mixolydian



VI Aeolian



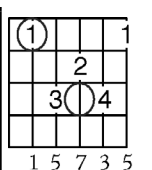
Secondary Dom., b5 Subs.

these ninth chords are numbered according to the parent scale in the box in the parent major scale in the box above

target →

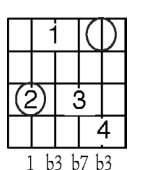
Ima7

Cma7 III



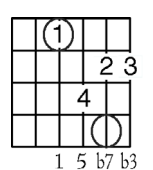
IIIm7

Dm7 III



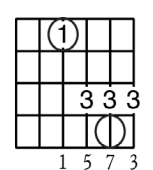
IIIIm7

Em7 II



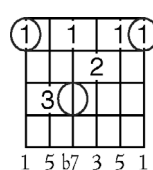
IVma7

Fma7 III



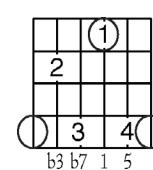
V7

G7 III



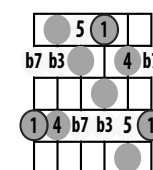
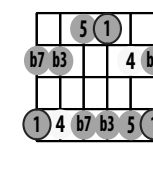
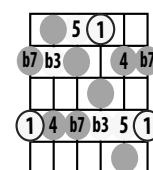
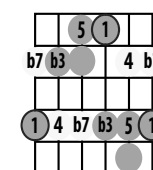
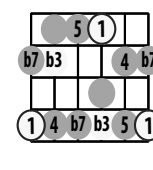
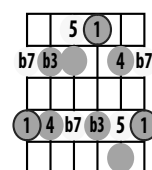
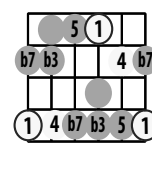
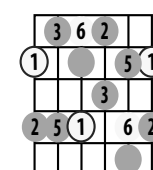
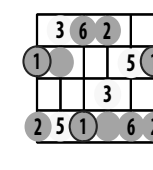
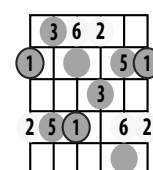
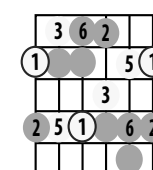
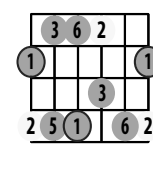
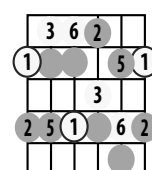
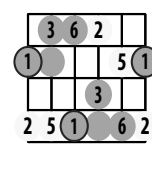
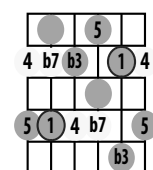
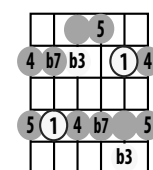
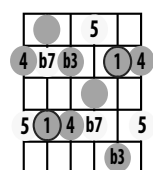
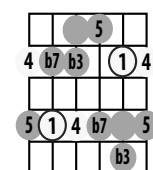
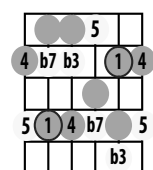
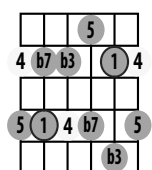
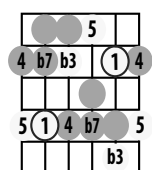
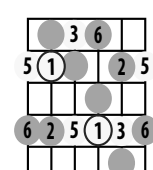
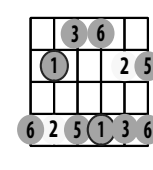
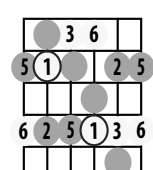
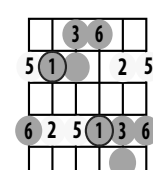
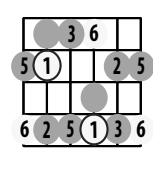
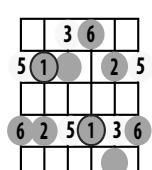
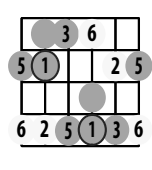
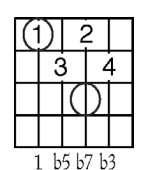
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Am7 II

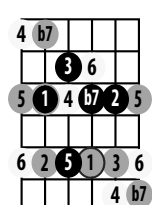


VIIIm7b5

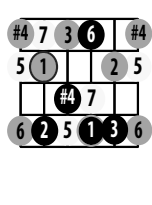
Bm7b5 II



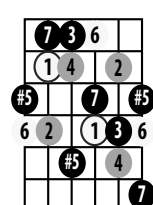
I9 I Mixolydian



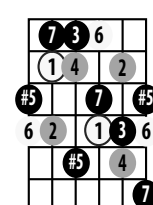
II9 I Lydian



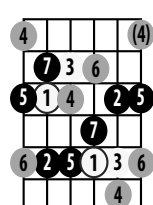
III7b9 I major #5



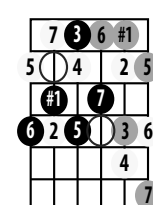
IV9 I mel. minor



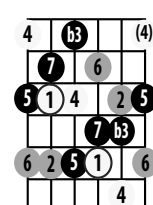
V9 I major



VI9 I major #1



VII7#5#9 I mel. minor



PROGRESSIVE IMPROV STUDIES

Specific and General Examples Below

Building ninth arpeggios is last in each of the studies and is much the same for any example. So, Building Ninth Arpeggios is shown first below, followed by specific and general examples in minor and major keys.

Building Ninth Arpeggios

Each of these studies end with “building ninth arpeggios”. The standard process in two versions is shown below.

build any ninth arpeggio from a parent major scale

Build any ninth arpeggio by recalling the formula, play the in-position reference major scale with any necessary altered tones from “1” to “9” (high 1 is 8, high 2 is 9). Once you have reached the ninth (“2”), come down to 8 and count it as “1” as you ascend the higher octave. In some of the fingerings, you may to add one to three notes in the bass on the sixth string to include “1” so you can hear the mode it its entirety.

Play in swing eighths with the odd numbered tones louder, then go back and play only the on-beat emphasized 1-3-5-7-9 tones (with any necessary alterations). $ma9=1-3-5-7-9$, $9=1-3-5-b7-9$, $m9=1-b3-5-b7-9$, $m9b5=1-b3-b5-b7-9$, $7b9=1-3-5-b7-b9$, $m9(ma7)=1-b3-5-7-9$. See [Reference Major Scale Fingering](#).

When you modify a major scale with #4, b7, b7-b3, b7-b3-b6, or b7-b3-b6-b2 each result will be another of the seven reference major scale fingerings. See [Mode Cycles](#). Also see [Modal Chord Scales of Four Seven-Tone Scales](#).

build any ninth arpeggio from a known mode fingering

If you know the mode fingering for the scale-tone ninth arpeggio you want to build, ascend from the tone center “1” to “9” (high 1 is 8, high 2 is 9) with any necessary altered tones (such as flat seven or flat three). Once you have reached the ninth (“2”), come down to 8 and count it as “1” as you ascend the higher octave. In some of the fingerings, you may to add one to three notes in the bass on the sixth string to include “1” so you can hear the mode it its entirety.

Play in swing eighths with the odd numbered tones louder, then go back and play only the on-beat emphasized 1-3-5-7-9 tones (with any necessary alterations). $ma9=1-3-5-7-9$, $9=1-3-5-b7-9$, $m9=1-b3-5-b7-9$, $m9b5=1-b3-b5-b7-9$, $7b9=1-3-5-b7-b9$, $m9(ma7)=1-b3-5-7-9$. See [Reference Major Scale Fingering](#).

General Progressive Improv Study

If you don't already have [iReal Pro](#), buy it for Mac, iOS or Android. Play with Ain't No Sunshine in the [All Favored playlist](#) (for iOS, download ALL FAVORED.html for iReal.)

1. First play only triad tones named after the key

See [Relative Major and Minor Pentatonic](#), earlier in this chapter. Choose fingering 1, 4 or 2 to begin with easier fingerings. Play the key minor pentatonic scale through all of the progression that it seems to work.

2. Rhythmic Selection

Learn to be aware of the metronomic beat while playing a rhythm.

Four-pulse rhythms

In eighth notes, there are four pulses every two beats. In sixteenth notes, there are four pulses every beat. Learn to be aware of the metronomic beat while playing a rhythm.

Using [All Possible Four-Pulse Rhythmic Words](#) (see the second page), play each four pulse rhythmic word repeatedly, while selecting from a continuous down-up-down-up strumming motion to represent 1-2-3-4) by always think all four numbers (1-2-3-4) and clearly accent the chosen numbers by pressing down and fretting a chord. On unaccented strokes, mute the strings. Practice these in this progressive order, looping each one: 1-2-3-4, 1-2-3, 1, 1-3, 1-2, 1-3-4, 1-2-4, 2-3-4, 3-4, 2-4, 2, 3, 4, 2-3, 1-4. All the 1's and 3's should be down and the 2's and 4's up.

Three-pulse rhythms

Using [All Possible Three-Pulse Rhythmic Words](#), speak each of the seven three-pulse rhythmic words. In eighth notes, there are commonly three pulses per beat, less often six per beat. Six notes per beat are thought of as three pairs of two pulses or as one pair of three pulses.

3. Transition to an Auditory Concept of Rhythms

- When you consider it safe, stop speaking the numbers and just think them. Try playing the rhythmic word on a repeated part of an arpeggio or scale.
- Play pairs of rhythmic words, looping each pair.
- Once you start hearing the rhythm auditorily, alternate your chosen pair of rhythmic words by rhythmic selection (as described above), then with "ba" on the accented notes. Be able to do this as fast or slow as you can speak.
- Try playing the rhythmic word pair on a repeated part of an arpeggio or a scale.

- Use a metronome to sense bars of rhythm and gradually learn to tap your foot on the beat.

4. Diversify the rhythm

Practice phrases in eighth notes, phrases in sixteenth notes and phrases in eighth note triplets. Be aware that the iReal track is in swing sixteenths, so swing the sixteenths and when you play in eighth triplets make their rhythm metronomically very accurate so the listener can hear them against the very different swing sixteenths.

5. Alternate two-bar phrases of the key pentatonic and the key triad arpeggio

6. Phrase start points

Phrase start points are considered in relation to beat one of the first bar in the phrase. They can start before, on or after the first beat of the first bar. It's generally good to use some repetition and to have a change in the last phrase start point, to signify the end of the section.

Practice playing two-bar phrases with patterning of phrase start points, such as before-before-before-on. Be sure to leave a breath at the end of each two-bar phrase. Begin by playing only key triad tones. See [Triads and Pentatonic Scales](#).

7. chord tones of a secondary chord in the key pentatonic

To establish a harmonic relationship with secondary chords, those chords other than the key chord. Learn how versions of the secondary chord can include most or all of the notes of the key triad.

8. use theme and variation for secondary chords

Groups of consecutive chords can be treated as a single chord by considering alternate versions of chords that provide notes common to all of the chords. See [Commonality Chords](#) and [Substitution/Shared Thirds: Secondary Roots](#).

Transpose. Play a theme in the key chord. Think of it by number, such as 1-b3-5-4-5. During other chords, play the same relative numbers generically in the key of the chord root, using the same numbers, but modifying flats or sharps to find the secondary chord. For example, the key chord might be Cm7 in C Dorian with scale tones 1-2-b3-4-5-6-b7. If you create a theme on the key chord and then want to use it on an F7 chord, the chord scale for the F7 would be F Mixolydian with scale tones 1-2-3-4-5-6-b7 in F. So, if a theme on the Cm7 used b3-4-5-b7 of C, use the theme on F7 in the key of F with 3-4-5-b7, with natural three.

Or **modify and adapt as necessary.** Continuing the example above, if you use the theme b3-4-5-b7 of C on the Cm7, you could play it in C for the F chord. Since F9 is 4-6-1-b3 of C, your b3-4-5-b7 theme used for Cm7 could change to b3-4-5-6 for the F7, changing b7 to 6, since "6" is in the F9 chord.

9. summary of phrasing, rhythm theme and variation

- Select from continuous down-up motion, down on the beat, with frequent ups. On the other hand, all ups is monotonous too.
- ✦ Use a theme-and-variation variety of rhythmic words. Use (1) pairs of rhythmic words. See “All 3 & 4-Pulse Rhythmic Word Pairs”. (2) repeat a melodic cell (short theme) with “anti-metric” repetition where each instance starts on a different part of the beat. For example: a three-eighth note group repeated in 4/4 so it starts on the beat, then off, (3) repeat a short melodic cell a few times and add to it each time.
- ✦ Use theme and variation by pitch: (1) repeat a melodic cell or an entire phrase with a change or series of changes to a note or two, (2) duplicate the theme in another part of the scale or in another key by interval shape or number..
- ✦ Play in two-bar phrases with a breath at the end of each phrase.
- ✦ Pattern the phrase start points: start phrases on, before or after the first beat of every two bars with patterns like “before-before-before-on”. Signify the end of the section by playing a different start point on the last phrase.
- ✦ Assign “signature” notes to each chord, like key 5 and b7 on the I7 chord or key 6 and b3 on the IV7 chord. Emphasize root triad of the I7 chord, key 4-6-1-b3-5 (whichever are available) on the IV7 chord, key 5-b7-2-4 on the 5 chord.
- ✦ **SUMMARY**
 - ✦ syncopation
 - ✦ pairs of rhythmic words
 - ✦ use the “chord/beat relationship strategy to put chord tones on the beat (see [Relating Chord Tones to the Beat](#))
 - ✦ anti-metric repetition
 - ✦ additive repetition
 - ✦ repeat a theme with note change
 - ✦ duplicate a theme in other ranges of the scale or other keys
 - ✦ pattern phrase start points
 - ✦ signature notes for each chord.

10. Learn to build ninth arpeggios for all of the chords

See [Building Ninth Arpeggios](#) at the beginning of this section.

Some chords like minor chords with a flat nine, like the Phrygian m7b9 (IIIIm7b9) and

Locrian m7b5b9 (VIIIm7b5b9) are not currently accepted as chords. You won't find them in any of the forty or so fake books in circulation. They can be used melodically, however, as long as the flat nine is not sustained, but used as a neighboring tone or passing tone.

Ain't No Sunshine Improv Study in Am

If you don't already have [iReal Pro](#), buy it for Mac, iOS or Android. Play with Ain't No Sunshine in the [All Favored playlist](#) (for iOS, download ALL FAVORED.html for iReal.)

1. through 4.

Perform steps 1 through 4 in [General Progressive Improv Study](#), above.

5. Alternate two-bar phrases of Am pentatonic and Am arpeggio

Tend to play chord tones of Am on the beat (especially beat 1) in the bars 1-4 and 7-8 of Ain't No Sunshine. When using the Am pentatonic scale, emphasize Am chord tones within it. For strategies of emphasis, see [Establishing a Key](#).

6. Phrase start points

Phrase start points are considered in relation to beat one of the first bar in the phrase. They can start before, on or after the first beat of the first bar. It's generally good to use some repetition and to have a change in the last phrase start point, to signify the end of the section.

Practice playing two-bar phrases with patterning of phrase start points, such as before-before-before-on. Be sure to leave a breath at the end of each two-bar phrase. Begin by playing only Am chord tones in the VII position (D form). See [Triads and Pentatonic Scales](#). For example, for the eight-bar verse of Ain't No Sunshine, use the pattern: before-before-before-on.

7. Emphasize Em7 chord tones of Am pentatonic

On the Em7 chord in bar 5, emphasize 4-5-b7 of Am pent. (b7-1-b3 of Em7). Loop bars 4 & 5. Play Am arpeggio tones on bar 4 and 4-5-b7 of Am pent. during the Em7.

8. The most common second key in songs is V, a chord built on the fifth step of the key

In bar 5, use E minor pentatonic to represent Em7. Loop bars 4-5.

Transpose. Play an Am pentatonic theme in bar 4 and play relatively the same numbered tones in bar 5 on the Em7.

Or **modify and adapt as necessary:** play an Am theme that involves b3, then repeat it on Em7 but change the b3 of A to "2", which changes the scale to Em pentatonic (as in transposing pentatonic scales). If there aren't enough chord tones of Em7 in your variation of Am with b3 changed to 2 for Em, ending on an A note during Em7 for example, add an Em chord tone afterward, such as "5" of A (an E note) or "b7" of A (a G note).

Learn to build Am9, Em9 and Dm9 arpeggios

9. Build Am9

In VII position, play A major scale fingering 2 (see [Reference Major Scale Fingering](#)), adding the sixth string, fifth fret A. Ascend the scale and flat the third and seventh, speaking the numbered tones aloud. Speak pairs of notes in swing eighths with b3 and b7. Ascend from 1 (sixth string fifth fret A) to 9 by labeling 1 and 2 in the higher octave as 8 and 9 (1-2-b3-4-5-6-b7-8-9). Then play the emphasized 1-b3-5-b7-9 alone to build the arpeggio. Do the same in the upper octave, beginning on fourth string seventh fret A. To create the appropriate A Aeolian scale for Ain't No Sunshine, flat the six also (b7,b3,b6). When you use b7, b7-b3, b7-b3-b6, or b7-b3-b6-b2 each result will be another of the seven reference major scale fingerings. See [Mode Cycles](#). Also see [Modal Chord Scales of Four Seven-Tone Scales](#).

10. Build Em9

In VII position, play E major scale fingering 5 (see [Reference Major Scale Fingering](#)). Ascend the scale and flat the third and seventh, speaking the numbered tones aloud. Speak pairs of notes in swing eighths with b3 and b7. Ascend from 1 (fifth string seventh fret E) to 9 by labeling 1 and 2 in the higher octave as 8 and 9 (1-2-b3-4-5-6-b7-8-9). Then play the emphasized 1-b3-5-b7-9 alone to build the arpeggio. Do the same in the upper octave, beginning on third string ninth fret E but adding the E note on first string 12th fret "E" for the "8" and the F# note on the first string fourteenth fret F# for the "9".

11. Build Dm9

In VII position, play D major scale fingering 6 (see [Reference Major Scale Fingering](#)). Ascend the scale and flat the third and seventh, speaking the numbered tones aloud. Speak pairs of notes in swing eighths with b3 and b7. Ascend from 1 (sixth string tenth fret D) to 9 by labeling 1 and 2 in the higher octave as 8 and 9 (1-2-b3-4-5-6-b7-8-9). Then play the emphasized 1-b3-5-b7-9 alone to build the arpeggio. Do the same in the upper octave, beginning on third string seventh fret D but adding the E note on first string 12th fret "E" for the "9".

Billie Jean - Progressive Improv Study in Bm

If you don't already have [iReal Pro](#), buy it for Mac, iOS or Android. Play with Ain't No Sunshine in the [All Favored playlist](#) (for iOS, download ALL FAVORED.html for iReal.)

1. through 4.

Perform steps 1 through 4 in [General Progressive Improv Study](#), above.

5. Alternate two-bar phrases of F#m pentatonic and F#m arpeggio

Notice that the second row of section A in Billie Jean iReal is played twice.

When using the F#m pentatonic scale, emphasize F#m chord tones within it. For strategies of emphasis, see [Establishing a Key](#).

The F#m-G#m-A-G#m is generally F#m7 with the passing G#m triad, so emphasize chord tones of F#m on the beat initially in all of the bars. F#m is the upper tones of Bm9, so it will harmonize in the upper range of pitch. Below, you'll learn how to alternately play during the Bm chord in the key Bm or emphasize tones of F#m pentatonic that are in versions of Bm (such as Bm7 or Bm9).

6. Phrase start points

Phrase start points are considered in relation to beat one of the first bar in the phrase. They can start before, on or after the first beat of the first bar. It's generally good to use some repetition and to have a change in the last phrase start point, to signify the end of the section.

Practice playing two-bar phrases with patterning of phrase start points, such as before-before-before-on. Be sure to leave a breath at the end of each two-bar phrase. Begin by playing only F#m chord tones in the IX position (A form). See [Triads and Pentatonic Scales](#). For example, for the twelve-bar verse of Billie Jean, use the pattern: before-before-before-on.

7. Bm7 chord tones in F#m pentatonic

On the Bm chord in bars 5-6 and 9-10, emphasize 1-b3-4 of F#m pentatonic (5-b7-1 of Bm7). Loop bars 3-6. Play F#m arpeggio tones on bars 3-4 and 4-5-b7 of F#m pentatonic during the Bm in bars 5-6.

8. Bm is IV minor, a common second key in songs

On the Bm chord in bars 5-6 and 9-10, use B minor pentatonic to represent Bm. Loop bars 3-6.

Transpose. Play an F#m pentatonic theme in bars 3-4 and play relatively the same numbered tones in bars 5-6 on the Bm.

Or **modify and adapt as necessary.** By raising the fifth of a minor pentatonic scale, it becomes

the pentatonic scale in a key up a perfect fourth. So, raising the fifth of F#m pentatonic changes the scale to Bm pentatonic.

Play an F#m theme that involves “5” (C#), then repeat the theme on Bm, but change the 5 of F#m (C#) to “b6” (“D”), which changes the scale to Em pentatonic (as in transposing pentatonic scales). If there aren’t enough chord tones of Bm in your variation of F#m with 5 changed to b6 for Bm, ending on an E note during Bm for example, add a Bm chord tone afterward, such as “1” of F# (an F# note).

Learn to build Am9, Em9 and Dm9 arpeggios

9. Build F#m9

In IX position, play F# major scale fingering 5 (see [Reference Major Scale Fingering](#)), ascending from scale tone 1, F# on the fifth string, ninth fret.. Ascend the scale and flat the third and seventh, speaking the numbered tones aloud. Speak pairs of notes in swing eighths with b3 and b7. Ascend from 1 (sixth string fifth fret A) to 9 by labeling 1 and 2 in the higher octave as 8 and 9 (1-2-b3-4-5-6-b7-8-9). Then play the emphasized 1-b3-5-b7-9 alone to build the arpeggio. Do the same in the upper octave, beginning on fourth string seventh fret A. To create the appropriate F# Aeolian scale for Billie Jean, flat the six also (b7,b3,b6). When you use b7, b7-b3, b7-b3-b6, or b7-b3-b6-b2 each result will be another of the seven reference major scale fingerings. See [Mode Cycles](#). Also see [Modal Chord Scales of Four Seven-Tone Scales](#).

Use the F#m9 arpeggio during F#m-G#m-A-F#m.

10. Build Bm9

In IX position, play B major scale fingering 2 (see [Reference Major Scale Fingering](#)). Add a “B” note to be able to hear the scale ascending from the chord root (“B”) by playing “B” on the sixth string seventh fret, followed by C# on the sixth string ninth fret, then continuing with major scale fingering 2 (the circled note on the fourth string should be on “B” at the ninth fret.

Ascend the scale and flat the third and seventh, speaking the numbered tones aloud. Speak pairs of notes in swing eighths with b3 and b7. Ascend from 1 (fifth string seventh fret E) to 9 by labeling 1 and 2 in the higher octave as 8 and 9 (1-2-b3-4-5-6-b7-8-9). Then play the emphasized 1-b3-5-b7-9 alone to build the arpeggio. Do the same in the upper octave, beginning on third string ninth fret E but adding the E note on first string 12th fret “E” for the “8” and the F# note on the first string fourteenth fret F# for the “9”.

Use the Bm9 arpeggio during the Bm chord.

Always Remember Us This Way Improv Study in C

If you don't already have [iReal Pro](#), buy it for Mac, iOS or Android. Play with Ain't No Sunshine in the [All Favored playlist](#) (for iOS, download ALL FAVORED.html for iReal.)

This study regards improv on the verse Am-Fadd9-C-G.

1.1. through 4.

Perform steps 1 through 4 in [General Progressive Improv Study](#), above.

5. Alternate two-bar phrases of the key pentatonic and the key triad arpeggio

Alternate two bar phrases of C major pentatonic and C major arpeggio, but avoid or de-emphasize the "C" note during the G chord.

6. Phrase start points

Phrase start points are considered in relation to beat one of the first bar in the phrase. They can start before, on or after the first beat of the first bar. It's generally good to use some repetition and to have a change in the last phrase start point, to signify the end of the section.

Practice playing one-bar phrases with patterning of phrase start points on the Am-F-C-G chord progression (section A in iReal), such as after-after-after-on. Be sure to leave a breath at the end of each two-bar phrase. Begin by playing only key triad tones. See [Triads and Pentatonic Scales](#).

7. chord tones of a secondary chord in the key pentatonic

To establish a harmonic relationship with secondary chords, those chords other than the key chord. Learn how versions of the secondary chord can include most or all of the notes of the key triad.

Groups of consecutive chords can be treated as a single chord by considering alternate versions of chords that provide notes common to all of the chords. See [Commonality Chords](#) and [Substitution/Shared Thirds: Secondary Roots](#).

Emphasize Am chord tones during Am-F-C, since it is part of Am, Fma7 and C6. Am pentatonic is the same as C major pentatonic. Or emphasize C major chord tones (1-3-5) during Am-F-C, since C major is part of Am7 (6-1-3-5 of C), Fma9 (4-6-1-3-5 of C) and C major (1-3-5 of C).

In the key of C, the G major triad is tones 5-7-2. C major pentatonic is tones 1-2-3-5-6- of C. So, during the G chord, emphasize 5 and 2 (G and D notes).

8. use theme and variation for secondary chords

Transpose. Play an Am theme through the Am-F-C chords, treating the key as Am and

using the commonality discussed above where Am is part of Am-Fma7-C6. Think of it by number, such as b3-5-1 (descending).

During the G chord, play the same relative numbers generically in the key of G: 3-5-1 in G.

Or **modify and adapt as necessary**. The G major chord is 5-7-2 of C. C major is 1-3-5 of C. If you use the theme 3-5-1 of C (ascending) on Am-F-C changing it to 3-5-7 would harmonize with G (G6 is 5-7-2-3 of C).

9. Learn to build ninth arpeggios for all of the chords

See [Building Ninth Arpeggios](#) at the beginning of this section.

Learn to build Am9, Fma9, Cma9 and G9.

Fast Car Progressive Improv Study

If you don't already have [iReal Pro](#), buy it for Mac, iOS or Android. Play with Ain't No Sunshine in the [All Favored playlist](#) (for iOS, download ALL FAVORED.html for iReal.)

This study regards improv on the verse ||:D / A / | F#m / E /:||

1. through 4.

Perform steps 1 through 4 in [General Progressive Improv Study](#), above. **5. Alternate two-bar phrases of the key pentatonic and the key triad arpeggio**

Alternate two bar phrases of A major pentatonic and A major arpeggio, but avoid or de-emphasize the "G#" note during the E chord.

6. Phrase start points

Phrase start points are considered in relation to beat one of the first bar in the phrase. They can start before, on or after the first beat of the first bar. It's generally good to use some repetition and to have a change in the last phrase start point, to signify the end of the section.

Practice playing one-bar phrases with patterning of phrase start points on the D-A-F#m-E chord progression (section A in iReal), such as on-after-after-on. Be sure to leave a breath at the end of each two-bar phrase. Begin by playing only key triad tones. See [Triads and Pentatonic Scales](#).

7. chord tones of a secondary chord in the key pentatonic

To establish a harmonic relationship with secondary chords, those chords other than the key chord, learn how versions of the secondary chord can include most or all of the notes of the key triad. Groups of consecutive chords can be treated as a single chord by considering alternate versions of chords that provide notes common to all of the chords. See [Commonality Chords](#) and [Substitution/Shared Thirds: Secondary Roots](#).

The notable different chord is E. To change A major pentatonic to E pentatonic, descend the tone cent (A) a half step (to G#). OR, you could emphasize tones 2-5 of the A major pentatonic scale (B-E), which are common to the E major chord.

8. use theme and variation for secondary chords

Transpose. play an A major pentatonic theme on D A and F#m chords, then transpose it to use the same numbered tones in E for the E chord (add E chord tones if necessary if the theme does not emphasize E chord tone enough),

Or **modify and adapt as necessary.** Play an A major pentatonic theme on D A and F#m chords, then still play it in A, but modify it to change emphasis of E chord tones. For example, if your theme featured a C# note for A, change the C# to a B note for the E chord.

9. Learn to build ninth arpeggios for all of the chords

See [Building Ninth Arpeggios](#) at the beginning of this section.

Learn to build Dma9, Ama9, F#m9 and E9.

In IX position, play an A major scale. Build a Dma9 by ascending the A major scale from 4 (D), emphasizing every-other note until you have 5 emphasized notes, making a Dma9. Note the highest three of those notes are 1-3-5, an A major triad. This shows that A major pentatonic can be used over the D chord. The chords A and F#m can use A major pentatonic, since A major pentatonic has the same notes as F#m pentatonic.

Suggested Songs for Improv with Pentatonic Scales

Use the All Favored playlist in the iReal app to practice loops or entire sections of songs. Here is a [link to the file: All Favored iReal](#) Ireal search criteria will find songs with long durations of the featured key. Also see the [jgleason6 Spotify profile](#). You may need help finding the bullet character. See the instructions below the mode table.

table of Spotify links and iReal “All Favored’ playlist abbreviations.

mode with Spotify link	iReal abbreviation
major	iMa•
Dorian	iDor•
Phrygian	iPhr•
Lydian	iLyd•
Mixolydian	iMx•
Mixolydian and Dorian	iMD•
Aeolian	iAeo•
Locrian	iLoc•
melodic minor	imm•
harmonic major	ihma•

typing the bullet (•) character

Computers. The bullet (•) character below is option+8 on a computer.

On iOS (iPhone or iPad), tap the 123 key to open the number keypad. Tap the #+= key to go to the second screen of the number keypad and select the bullet point symbol key at the end of the second row. On some versions of iOS, you’ll need this alternate method: type and hold the hyphen key to evoke a palette with the bullet.

Android phones. Tap the ? 123 key on the keyboard.

Tap the =< key to go to the second set of symbols on the keyboard.

Select the bullet symbol (•) on the first row to insert it into the messaging or document app.

Improvise on pentatonic songs as directed below

See [best minor pentatonic songs in iReal](#) and [best major pentatonic songs in iReal](#).

learn the location of chord tones and emphasize them

See [Triads and Pentatonic Scales](#) above for diagrams of chords elaborated to arpeggios. Emphasize the arpeggio tones to establish in the key by playing them more often, louder, on the beat (especially the first beat) and with other devices to draw attention to them discussed in the chapter [Establishing a Key](#). Learn to play more chord tones on beat in the chapter [Relating Chord Tones to the Beat](#).

See the chapter [Introduction to Improvisation](#), especially the section [Prepare for Modal Improv in Five Steps](#).

phrase start points

Play sections of a song in two-bar phrases. In relation to beat one of every two bars, start before, on or after the first beat. Patterning of phrase start points, such as before-before-before-on. Be sure to leave a breath at the end of each two-bar phrase.

best minor pentatonic songs in iReal (All Favored iReal search criteria: imi•)

Ain't No Sunshine in Am (emphasize 4, 5, b7 during Em7)(5 is 2 frets below 1 and 3 frets above 5)
All Along the Watchtower in Cm for Hendrix or Am for Dylan
Bad sections A and C are in Am, section B is in Bm
Bags' Groove Fm
Billie Jean in F#m, except Bm (B-) is in B minor
Bitch in A(not in iReal: play with original or find backing track on Youtube)
Black Dog in A (not in iReal: play with original or find backing track on Youtube)
Black Magic Woman is in Dm
Boom Boom in F
Born Under a Bad Sign in C#m
Californication in Am except section D in F#m for F#mD, Bm for Bm-D, A ma for A, E ma for E
Chitlins Con Carne in C
Could You Be Loved in Bm except A major during A
Cry Me a River (Justin Timberlake) G#m
Desert Rose in Cm except Gm pent. with major 3 during G7
Despacito in Bm, optional Ama. pent. or Am pent. with major 3 during A
Fields of Gold in Bm, optional Am pent with major 3 on A chords.
Fragile in Em, optional Bm pent. with major 3 during B7 and Am during Am
Give Me Love in Bbm (in Am, capo I). Am during Am, F and C. Dm during Dm, F & G. Em on Em.
Grinnin' in Your Face in G (titled 16-Grinnin' in Your Face)
Hot 'Lanta in A
House of the Rising Sun in Am
Hurricane in Am
I Am a Man of Constant Sorrow in E
I'm Your Hootchie Coochie Man in Em (not in iReal: play with original or find backing track on Youtube)
I Like It Like That in Fm
I Put a Spell on You in Em
In a Sentimental Mood (Ella Fitzgerald version) section A in Em, section B with Eb major pent
In Your Eyes in Bm.
It Ain't Me in Am
Jamming in Bm

Jumpin Jack Flash in B
Landslide in Am
Le Freak in Am
Life in the Fast Lane in E
Little Wing in Em except Bm on Bm, Am on Am-C-G-F and Dm pent. with major 3 during D.
Loan Me a Dime in Am
Locked Out of Heaven Dm-C-Bb in Dm, Gm in Gm. Bb in sec. C in Bb, F in F.
Minnie the Moocher in Em, Bm pent. with major 3 during B7
My Funny Valentine in Cm (Bm for Frank Sinatra)
Nobody's Fault but Mine in E
One (U2) in Am
Papa Don't Preach in Fm
Rhiannon in Am
Senorita in Am
Since I Been Loving You in Cm
Slow Dancing in a Burninng Room. Key of C#m. Play in the key of each chord.
Smoke on the Water in Gm except Cm during Cm-Ab and Cm during Cm-F
Sonnymoon for Two in Bb
Soul Sauce in Gm
St. James Infirmary in Em, Bm pent. with major 3 during B7
Summertime in Gm (Miles') except Gm pent b5 on Eb9, Dm with natural 3 during D7-A7-D7
Sunny in Em except Gm with nat. 3 on G7, Bm nat. 3 on F#m7b5 & B7 and Am pent. b5 on F9#11
Sunshine of Your Love in Dm
The Thrill is Gone in Bm, optional F#m with nat. 3 on F#7
Walk This Way in E
Wild World in Am (C major pent. is the relative major of Am)
You Don't Love Me in A (not in iReal: play with original or find backing track on Youtube)

best major pentatonic songs in iReal (All Favored iReal search criteria: ima•)

Air Mail Special in C major
Angel from Montgomery in E
As in B major except Ama7 in A major and section B is in G#m (relative minor of B major).
Banana Pancakes in G major
Beast of Burden in E major
Beautiful Girls (Sean Kingston) A major
Blue Sky in E major
Breezin' in D major
Diamonds on the Soles of Her Shoes in F major
Don't Dream It's Over in Eb major
Don't Worry Be Happy in B major

Everybody Hurts in D major except Em-A in Em

Fast Car in D major

Gravity in G major except Am7-D7 in Am, Bb6-Ebma7 in Gm and D7 in Dm pent with major 3.

Hideaway in E major except E major pent. with b3 during A7.

I Can See Clearly Now in C major except section B in the key of each chord.

I'm Yours in B major

My Girl in Bb major

I Got Rhythm in Bb major

Iko Iko in F major except C major during the C chord

Imagine in C major

Isn't She Lovely in E major

Jambalaya in D major

Jessica in A major

Johnny B. Goode in Bb major except Bb major with b3 during the Eb7 chord

Just A Girl section A in D major, section B in Bm

Just the Way You Are in F major

Late in the Evening - major pentatonic in the key of each chord

Love's Theme in D except Gma7 in G major, Gm and Gm6 in Gm, Em7-G/a-A in Em

Lovely Day in E except Cma9-Dma9-Am-Bm in the key of each chord

Man in the Mirror (Scary Pockets) sect. A in Gma, sect. B in Am,

First sect. C in Gma except Cma on C, Gm pent b5 on C#dim7, Dm pent on D7#9.

Second sect. C in Abma except Dbma on Db, Abm pent b5 on Ddim7, Ebm pent on Eb7#9.

Me and Julio Down by the Schoolyard-intro and sect. C and last five bars of sect. B in Ama.

Otherwise, play in the key of each chord but A-B7 is Ama pent., D//G is Dma. pent.

Mercy, Mercy, Mercy in Bb. - sect. A in the key of each chord. Sect. B first four bars, Bbm pent with natural 3, Cm7-Dm7-Gm in the key of each chord.

My Father's Eyes-A sections in C#m. B sections and C section in the key of each chord.

My Girl in C major, except the last sections A and B in D major

Redemption Song in G major except section C and coda (ending) in Em.

People Get Ready in D

Ramble On in E major, rock sections in Em (not in iReal: play with original or find backing track on Youtube)

Santeria. Key is E major. Play in the key of each chord but treat E-D#m7-C#m7 as C#m.

Seven Come Eleven in Ab major. In section B, play in the key of each chord.

Sitting on the Dock of the Bay. Key of G major. Play in the key of each chord.

Stand By Me-key of G major. Play in the key of each chord.

Stir It Up in A major

Things Ain't What They Used to Be in F major

Third Stone from the Sun in E major (not in iReal: play with original or find backing track on Youtube)

Three Little Birds in the key of A. Play in the key of each chord.

Tiny Dancer-Key of C major. Play in the key of each chord.

Tom Dooley in E major

Under the Bridge. Intro in D major. Sections A and B are in the key of E major-play in the key of each chord. Section C is in Am with a major third during the A chord.

Waiting on the World to Change is in D major except section C is G minor pent. with a major third.

What's Going On-key of E. Play in the key of each chord.

When I Was Your Man-in the key of C major. Play all in the key of each chord, except play Am-C as Am and Am-D7 as Am.

Whiter Shade of Pale - Play C-C/B-C/A-C/G as C major, F-F/E-Dm-Dm/C as F major and G-G/F-Em-Em/D as G major.

Yellow Ledbetter-in the key of E major. Play in the key of each chord.

MAJOR SCALE MODE (MOOD) CYCLES

Expressive Modes in Order of Darkening

In the tables of diagrams below, the modes are shown in a darkening sequence from left to right. See [Modes/The Expressive Use of Modes](#). As you progress through each row from left to right, first the sharp four in Lydian mode is made natural, lowering it chromatically (by a half step). This darkens the mood from the exceedingly bright mood of Lydian to the commonplace bright mood of major (Ionian) mode. Continuing to the right in each row flatted tones are accumulated in the order b7-b3-b6-b2-b5 (a numeric order of fourths), progressively darkening the mood. This succession of darkening modes is a common basis of composition, arranging and improvisation.

table of Spotify links and iReal “All Favored’ playlist abbreviations.

mode with Spotify link	iReal abbreviation	ireal 9th search
major	iMa•	^9!
Dorian	iDor•	m9!!
Phrygian	iPhr•	none
Lydian	iLyd•	^9!
Mixolydian	iMx•	^9!!
Mixolydian and Dorian	iMD•	
Aeolian	iAeo•	m9!! (m9^7 for harmonic minor)
Locrian	iLoc•	m9b5!
melodic minor	imm•	m9^7
harmonic major	ihma•	^9!

typing the bullet (•) character

Computers. The bullet (•) character below is option+8 on a computer.

On iOS (iPhone or iPad), tap the 123 key to open the number keypad. Tap the #+= key to go to the second screen of the number keypad and select the bullet point symbol key at the end of the second row. On some versions of iOS, you’ll need this alternate method: type and hold the hyphen key to evoke a palette with the bullet.

Android phones. Tap the ? 123 key on the keyboard.

Tap the =< key to go to the second set of symbols on the keyboard.

Select the bullet symbol (•) on the first row to insert it into the messaging or document app.

Hypothetical Ninths for Melody Only

The Phrygian m7b9 (IIIIm7b9) and Locrian m7b5b9 (VIIIm7b5b9) are not currently accepted as chords. You won't find them in any of the forty or so fake books in circulation. They can be used melodically, however, as long as the flat nine is not sustained, but used as a neighboring tone or passing tone.

Major Scale Mode Fingering

major basis	#4 Lydian	natural 4 major	b7 Mixolydian	b7, b3 Dorian	b7, b3, b6 Aeolian	b7, b3, b6, b2 Phrygian	b7, b3, b6, b2, b5 Locrian
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

Major Scale-Tone Ninth Arpeggios

major basis	#4 IVma9	natural 4 Ima9	b7 V9	b7, b3 IIIm9	b7, b3, b6 VIIm9	b7, b3, b6, b2 IIIIm7b9	b7, b3, b6, b2, b5 VIIIm7b5b9
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

Major Scale-Tone Triad Plus Two And Six Pentatonic

major basis	#4 IIma+2+6	natural 4 Ima+2+6	b7 Vma+2+6	b7, b3 IIm+2+6	b7, b3, b6 VIIm+2+b6	b7, b3, b6, b2 IIIIm+b2+b6	b7, b3, b6, b2, b5 VIIIdim+b2+b6
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

Major Scale-Tone Triad Plus Four And Seven Pentatonic

major basis	IVma+#+4+7	natural 4 Ima+4+7	b7 Vma+4+b7	b7, b3 IIIm+4+b7	b7, b3, b6 VIIm+4+b7 ¹	b7, b3, b6, b2 IIIm+4+b7	b7, b3, b6, b2, b5 VIIIdim+4+b7
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

Minnie the Moocher improv with three-pulse rhythms and core melody - [click to play](#)

[illegible]

The first system of the musical score for 'The Sound of Silence' by Simon & Garfunkel. It features a treble clef and a key signature of one flat (B-flat). The notation includes a melody line with a 5-measure rest, followed by a series of chords: Em, Em, C7, C13, B7(#5), and Em. The bass line is represented by a TAB (Tuning) staff with fret numbers: 7, 7, 11, 10, 8, and 8.

The second system of the musical score for 'The Sound of Silence' by Simon & Garfunkel. It features a treble clef and a key signature of one flat (B-flat). The melody consists of half notes: E4 (labeled Em), G4 (labeled 16), Bb4 (labeled C7), C5 (labeled C13), Bb4 (labeled B7(#5)), and E4 (labeled Em). The guitar accompaniment is shown in TAB format with fret numbers: 7, 8, 7, 8, 11, 10, 8, and 9.

The image shows a musical score for the song "The Sound of Silence" by Simon & Garfunkel. The score is written for guitar, bass, and drums. The guitar part is in E minor and features a complex melodic line with triplets and a key signature change to C major for the final two measures. The bass and drums provide a steady accompaniment.

The Andalusian Cadence

Aeolian is the traditional minor key, built on the sixth step of it's parent major scale.

the Andalusian Cadence								optional versions	
Aeolian 7-tone key scale	Im Aeolian	bVII Aeolian	bVI Aeolian	V7 harmonic minor	V harmonic minor	bVII7 bIII mel. minor.			
parent scale	VIm of bIII major	V of bIII major	IV of bIII major	III7 of bIII major	III of bIII major #5	IV of melodic minor			
key of Am	Am	V	G	IV	F	V	E7	IV	
numbered tones are Am pent.									
gray-back tones are arpeggios									
chords	Am	V	G	IV	F	V	E	IV	Eaug. V F7 VI

Andalusian Cadence improv with four-pulse rhythms and core melody - [click to play](#)

♩ = 80
Swing Sixteenths

The Minor Authentic Cadence

Thinking in Terms of the Relative Major Parent Scale

IMPROV WITH MAJOR PENTATONIC SCALE IN MAJOR (IONIAN MODE)

IMPROV WITH PENTATONIC SCALES IN MIXOLYDIAN

IMPROV WITH PENTATONIC SCALES IN DORIAN

IMPROV WITH MINOR PENTATONIC SCALE IN A MAJOR KEY (BLUES)

Major Scale Fingering

- **Seven Major Scale Fingerings**
- **In-Position and Three-Note-Per-String Fingerings**
- **Full-Fretboard Major Scale**
- **Open Position Major Scale Fingering**

SEVEN MAJOR SCALE FINGERINGS

Also see “[Full-Fretboard Major Scale Visualization](#)”.

Memorize these fingerings and you’ll be prepared to relate a major scale to any chord, anywhere on the fretboard. Pay close attention to the numbers between the tablature and the music notation for each note. These numbers indicate the steps of the major scale on which each note occurs. In each fingering, notice the half steps between “3” and “4” and between “7” and “1”,

In the numbering system shown at the left of each staff below (fingering 1, fingering 2, etc.), each fingering is numbered after the lowest reachable tone (by pitch) on the sixth string. This is emphasized by the *circled* numbers on the diagrams. Numbers shown in parenthesis on the diagrams are optional fingerings for the same scale tone (by number) on an alternate string.

The text beneath the title of each fingering diagram (“reach with index finger”, “no reaches!”, etc.) describes which (if any) fingers should have to reach out of the range of four consecutive frets. These references do not necessarily include the optional notes on the third string.

fingering 1
reach with index finger

1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3

T 4/4

A 4/4

B 4/4

1 3 5 1 3 5 2 3 5 2 3 5 1 3 5

fingering 2
reach with index finger

2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4

T 4/4

A 4/4

B 4/4

3 5 6 3 5 7 3 5 7 3 5 6 3 5 6

fingering 3
no reaches!

3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5

T 4/4

A 4/4

B 4/4

5 6 8 5 7 8 5 7 8 5 7 6 8 5 6 8

fingering 4
reach with
index finger

fingering 5
reach with
index finger

5 1 4 2 5

6 2 5 1 3 6

7 3 6 (2) 7

5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7

T 4/4

A 4/4

B 4/4

8 10 12 8 10 12 8 10 12 9 10 8 10 11 8 10 12

fingering 6
reach with
little finger

6 2 5 1 3 6
7 3 6 2 7
1 4 5 1
7 (3)

6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1

T 4/4
A 4/4
B 4/4

10 12 13 10 12 13 10 12 14 10 12 10 11 13 10 12 13

fingering 7
no reaches!

The musical score is for a piece titled 'fingering 7 no reaches!'. It is written for a guitar in 4/4 time. The melody is on a treble clef staff, and the bass line is on a bass clef staff. The melody consists of a sequence of eighth notes: G4, A4, B4, C5, D5, E5, F5, G5, A5, B5, C6, D6, E6, F6, G6, A6, B6, C7, D7, E7, F7, G7, A7, B7, C8, D8, E8, F8, G8, A8, B8, C9, D9, E9, F9, G9, A9, B9, C10, D10, E10, F11, G11, A11, B11, C12, D12, E12, F13, G13, A13, B13, C14, D14, E14, F15, G15, A15, B15, C16, D16, E16, F17, G17, A17, B17, C18, D18, E18, F19, G19, A19, B19, C20, D20, E20, F21, G21, A21, B21, C22, D22, E22, F23, G23, A23, B23, C24, D24, E24, F25, G25, A25, B25, C26, D26, E26, F27, G27, A27, B27, C28, D28, E28, F29, G29, A29, B29, C30, D30, E30, F31, G31, A31, B31, C32, D32, E32, F33, G33, A33, B33, C34, D34, E34, F35, G35, A35, B35, C36, D36, E36, F37, G37, A37, B37, C38, D38, E38, F39, G39, A39, B39, C40, D40, E40, F41, G41, A41, B41, C42, D42, E42, F43, G43, A43, B43, C44, D44, E44, F45, G45, A45, B45, C46, D46, E46, F47, G47, A47, B47, C48, D48, E48, F49, G49, A49, B49, C50, D50, E50, F51, G51, A51, B51, C52, D52, E52, F53, G53, A53, B53, C54, D54, E54, F55, G55, A55, B55, C56, D56, E56, F57, G57, A57, B57, C58, D58, E58, F59, G59, A59, B59, C60, D60, E60, F61, G61, A61, B61, C62, D62, E62, F63, G63, A63, B63, C64, D64, E64, F65, G65, A65, B65, C66, D66, E66, F67, G67, A67, B67, C68, D68, E68, F69, G69, A69, B69, C70, D70, E70, F71, G71, A71, B71, C72, D72, E72, F73, G73, A73, B73, C74, D74, E74, F75, G75, A75, B75, C76, D76, E76, F77, G77, A77, B77, C78, D78, E78, F79, G79, A79, B79, C80, D80, E80, F81, G81, A81, B81, C82, D82, E82, F83, G83, A83, B83, C84, D84, E84, F85, G85, A85, B85, C86, D86, E86, F87, G87, A87, B87, C88, D88, E88, F89, G89, A89, B89, C90, D90, E90, F91, G91, A91, B91, C92, D92, E92, F93, G93, A93, B93, C94, D94, E94, F95, G95, A95, B95, C96, D96, E96, F97, G97, A97, B97, C98, D98, E98, F99, G99, A99, B99, C100, D100, E100, F101, G101, A101, B101, C102, D102, E102, F103, G103, A103, B103, C104, D104, E104, F105, G105, A105, B105, C106, D106, E106, F107, G107, A107, B107, C108, D108, E108, F109, G109, A109, B109, C110, D110, E110, F111, G111, A111, B111, C112, D112, E112, F113, G113, A113, B113, C114, D114, E114, F115, G115, A115, B115, C116, D116, E116, F117, G117, A117, B117, C118, D118, E118, F119, G119, A119, B119, C120, D120, E120, F121, G121, A121, B121, C122, D122, E122, F123, G123, A123, B123, C124, D124, E124, F125, G125, A125, B125, C126, D126, E126, F127, G127, A127, B127, C128, D128, E128, F129, G129, A129, B129, C130, D130, E130, F131, G131, A131, B131, C132, D132, E132, F133, G133, A133, B133, C134, D134, E134, F135, G135, A135, B135, C136, D136, E136, F137, G137, A137, B137, C138, D138, E138, F139, G139, A139, B139, C140, D140, E140, F141, G141, A141, B141, C142, D142, E142, F143, G143, A143, B143, C144, D144, E144, F145, G145, A145, B145, C146, D146, E146, F147, G147, A147, B147, C148, D148, E148, F149, G149, A149, B149, C150, D150, E150, F151, G151, A151, B151, C152, D152, E152, F153, G153, A153, B153, C154, D154, E154, F155, G155, A155, B155, C156, D156, E156, F157, G157, A157, B157, C158, D158, E158, F159, G159, A159, B159, C160, D160, E160, F161, G161, A161, B161, C162, D162, E162, F163, G163, A163, B163, C164, D164, E164, F165, G165, A165, B165, C166, D166, E166, F167, G167, A167, B167, C168, D168, E168, F169, G169, A169, B169, C170, D170, E170, F171, G171, A171, B171, C172, D172, E172, F173, G173, A173, B173, C174, D174, E174, F175, G175, A175, B175, C176, D176, E176, F177, G177, A177, B177, C178, D178, E178, F179, G179, A179, B179, C180, D180, E180, F181, G181, A181, B181, C182, D182, E182, F183, G183, A183, B183, C184, D184, E184, F185, G185, A185, B185, C186, D186, E186, F187, G187, A187, B187, C188, D188, E188, F189, G189, A189, B189, C190, D190, E190, F191, G191, A191, B191, C192, D192, E192, F193, G193, A193, B193, C194, D194, E194, F195, G195, A195, B195, C196, D196, E196, F197, G197, A197, B197, C198, D198, E198, F199, G199, A199, B199, C200, D200, E200, F201, G201, A201, B201, C202, D202, E202, F203, G203, A203, B203, C204, D204, E204, F205, G205, A205, B205, C206, D206, E206, F207, G207, A207, B207, C208, D208, E208, F209, G209, A209, B209, C210, D210, E210, F211, G211, A211, B211, C212, D212, E212, F213, G213, A213, B213, C214, D214, E214, F215, G215, A215, B215, C216, D216, E216, F217, G217, A217, B217, C218, D218, E218, F219, G219, A219, B219, C220, D220, E220, F221, G221, A221, B221, C222, D222, E222, F223, G223, A223, B223, C224, D224, E224, F225, G225, A225, B225, C226, D226, E226, F227, G227, A227, B227, C228, D228, E228, F229, G229, A229, B229, C230, D230, E230, F231, G231, A231, B231, C232, D232, E232, F233, G233, A233, B233, C234, D234, E234, F235, G235, A235, B235, C236, D236, E236, F237, G237, A237, B237, C238, D238, E238, F239, G239, A239, B239, C240, D240, E240, F241, G241, A241, B241, C242, D242, E242, F243, G243, A243, B243, C244, D244, E244, F245, G245, A245, B245, C246, D246, E246, F247, G247, A247, B247, C248, D248, E248, F249, G249, A249, B249, C2

In order that you can refer to all seven fingerings on the same page, they are shown in diagram form below:

fingering 1
reach with
index finger

1 4 5 1
7 3 6 2
3 6 2 (5) 7 3

fingering 2
reach with
index finger

2 5 1 4 6 2

3 6 2 5 7 3

4 7 3 6 1 4

fingering 3
no
reaches!

3 6 2 5 7 3

4 7 3 6 1 4

5 1 4 2 5

(7)

fingering 4
reach with
index finger

4 1 4
7 3 6
5 1 4 2 5
6 2 5 (1) 3 6

fingering 5
reach with
index finger

5 1 4 | 2
6 2 5 1 3 4
7 3 6 (2)

fingering 6
reach with
little finger

6 2 5 1 3
7 3 6 2
1 4 5
7 (3)

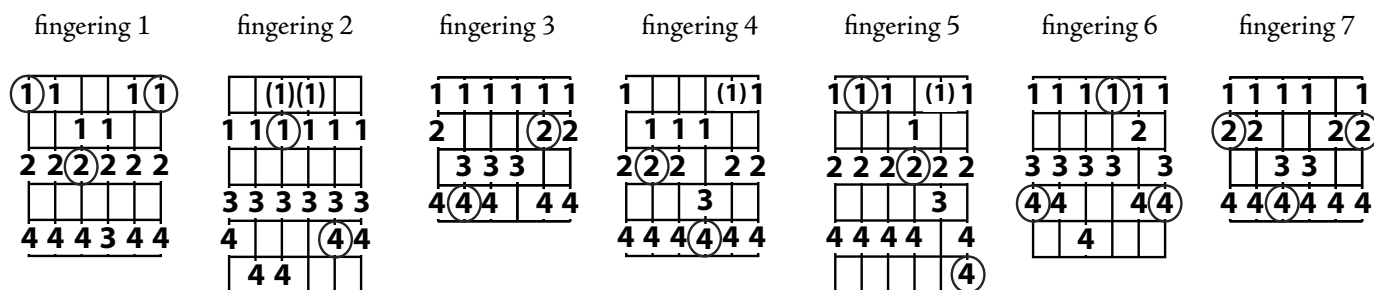
fingering 7
no
reaches!

The diagram shows a 7-string fretboard with the following fret numbers: 7 3 6 2 | 7. Below the fret numbers are five boxes representing fret positions. The first box contains the number 1, the second contains 4, the third is empty, the fourth contains 5, and the fifth contains 1. Below these boxes are two more rows of boxes. The first row contains the numbers 2 5 1 4 6 2. The second row contains five empty boxes.

IN-POSITION AND THREE-NOTE-PER-STRING FINGERINGS

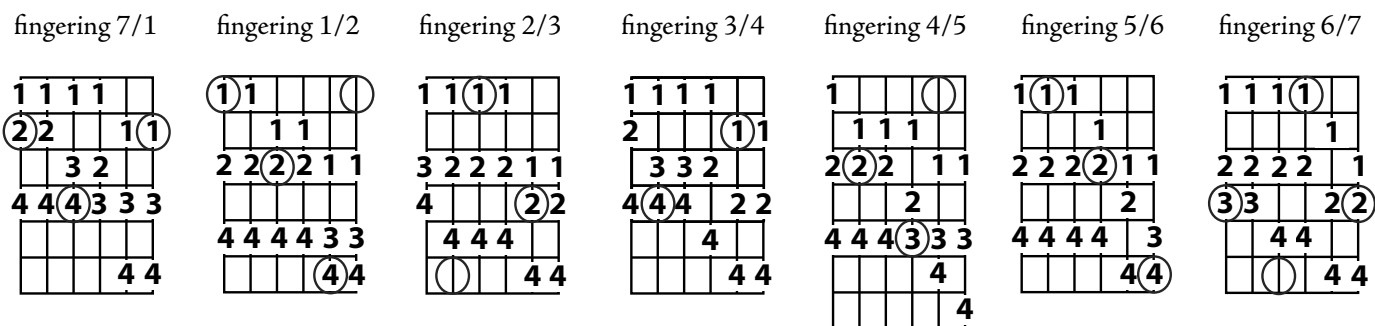
Major scale fingerings are numbered in this course according to the number of lowest note fingered with the index finger on the sixth string. The fingerings below major scale *in-position* fingerings. Other fingerings called *three-note-per-string major scale* fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

In-Position Fingerings, numbered by fingers



The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall. Here are the three-note-per-string major scale fingerings:

Three-Note-Per-String Fingerings, numbered by fingers



Three-note-per-string major scale fingerings shown above combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on.

In-Position Fingerings, numbered by scale tones

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

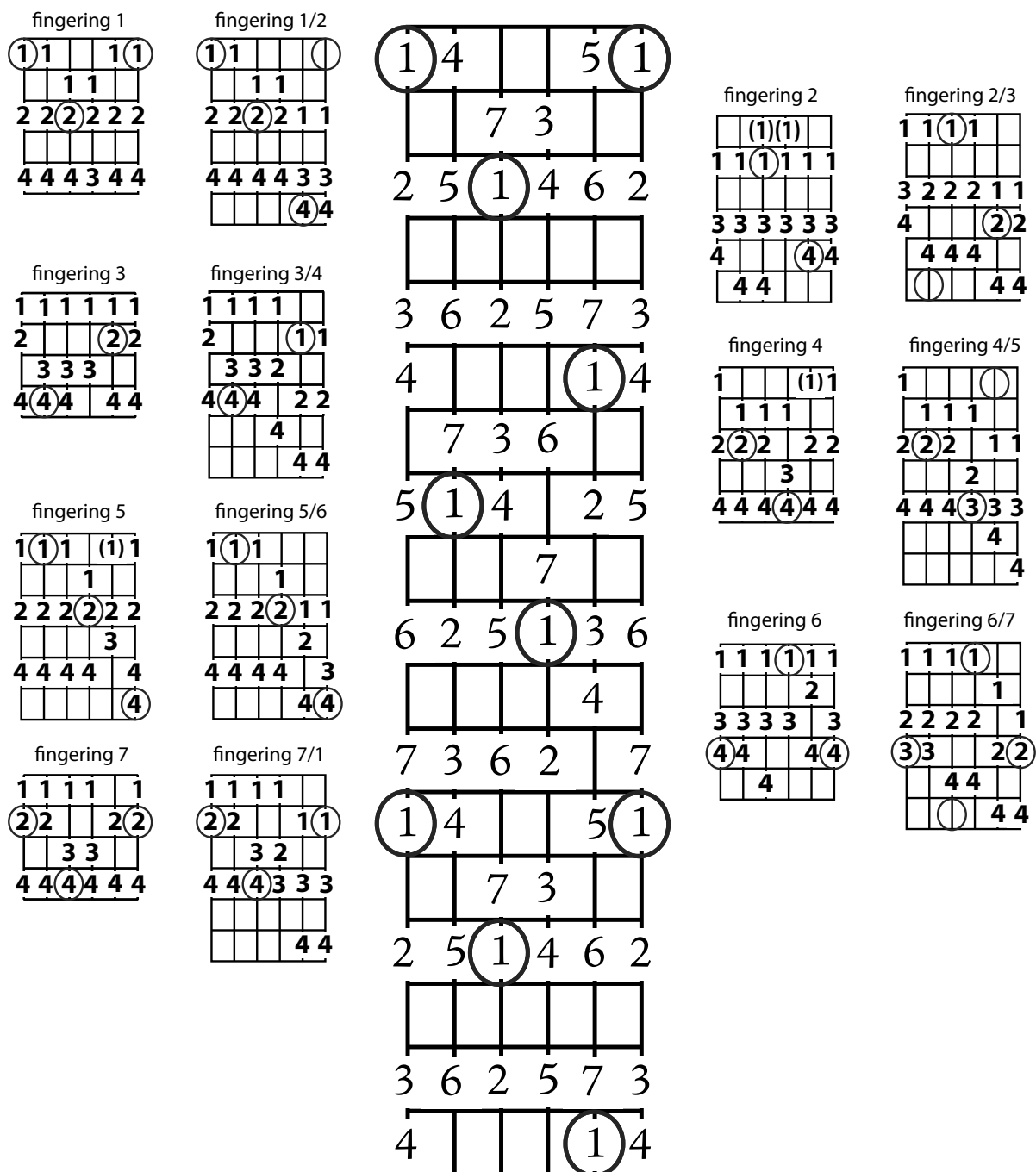
Three-Note-Per-String Fingerings, numbered by scale tones

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

FULL-FRETBOARD MAJOR SCALE

All of these fingerings (including the large, full-fretboard fingering) can be played in any key by locating the circled notes on the desired tone center. It is usually best to use the circled notes on the larger strings to locate the key. For example, a “G” major scale would have the sixth string, third fret circled. The numbers on the diagrams are finger numbers, where “1” is the index finger, “2” is the middle finger, “3” is the ring finger and “4” is the little finger.

Full-Fretboard Major Scale with Fingerings by Finger Number



Full-Fretboard Major Scale with Fingerings by Formula Number

fingering 1

fingering 1/2

fingering 2

fingering 2/3

fingering 3

fingering 3/4

fingering 4

fingering 4/5

fingering 5

fingering 5/6

fingering 6

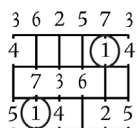
fingering 6/7

fingering 7

fingering 7/1

OPEN POSITION MAJOR SCALE FINGERING

C major scale

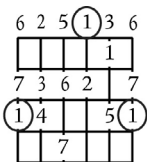


C major chord

fingers 3 0 2 3 0 2 0 1 3 0 1 3
scale tones 1 2 3 4 5 6 7 1 2 3 4 5

T A B 3 0 2 3 0 2 0 1 3 0 1 3

G major scale

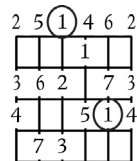


G major chord

fingers 3 0 2 3 0 2 4 0 2 0 1 3 0 2 3
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1

T A B 3 0 2 3 0 2 4 0 2 0 1 3 0 2 3

D major scale

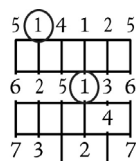


D major chord

fingers 0 1 3 0 1 3 1 2 1 3 0
scale tones 1 2 3 4 5 6 7 1 2 3 4

T A B 0 2 4 0 2 0 2 3 0 2

A major scale

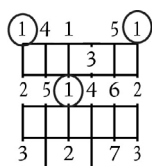


A major chord

fingers 0 1 3 0 1 3 1 2 4 1 2 4 1 3 4
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1

T A B 0 2 4 0 2 4 1 2 0 2 3 0 2 4 5

E major scale



E major chord

fingers 0 2 4 0 2 4 1 2 4 1 2 0 2 4 0
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1

T A B 0 2 4 0 2 4 1 2 4 1 2 0 2 4 0

Chromaticized Pentatonic Scales

- **Introduction to Chromatics**
- **Lower Chromatic Embellishment**
- **Passing Chromatics**
- **Blue Notes and Microtonal Bends**

INTRODUCTION TO CHROMATICS

The Latin root word “chrom” means color. We supplement the tone color of scales and arpeggios by adding coloring tones called *chromatics*.

Targeting Chord and Pentatonic Tones

One or more consecutive chromatics can ascend to a chord tone to target the chord tone. When more than two ascending chromatics are used in this manner, they should be associated with the setup or target chord by putting chord tones on the beat (metric accent) or emphasized by some other means. See [Chromaticized Arpeggios](#). The simplest of these ascending chromatics is a single one, called a *lower chromatic embellishment*.

LCE = lower chromatic embellishment. Root, third, fifth and sixth are chord tones. [click to play](#)

♩ = 135

Swing Eighths

Example of Lower Chromatic Embellishment (LCE) for C13. The notation shows a melodic line in 4/4 time with a swing feel, using eighth notes. The chord tones (root, third, fifth, sixth) are marked above the notes. The LCE is indicated by a bracket under the notes. The fretboard diagram below shows the corresponding fret numbers for the T, A, and B strings.

Chord: C13

Notes: LCE third root LCE fifth third LCE sixth

Fretboard Diagram (T, A, B strings):

String	4	5	5	7	8	5	4	5	8	6	5
T											
A											
B											

Upper chromatic embellishment is rare. It can be used on a diminished seventh arpeggio, in approaching each tone from a half step above, making a half/whole diminished scale

UCE = upper chromatic embellishment. CT are chord tones. [click to play](#)

♩ = 125

Swing Eighths

Example of Upper Chromatic Embellishment (UCE) for E7 and Am. The notation shows a melodic line in 4/4 time with a swing feel, using eighth notes. The UCE is indicated by a bracket under the notes. The fretboard diagram below shows the corresponding fret numbers for the T, A, and B strings.

Chord: E7, Am

Notes: UCE CT UCE CT UCE CT UCE CT UCE CT

Fretboard Diagram (T, A, B strings):

String	7	9	8	6	5	6	5	8	7	5	8	9	8	6	5	8	5	7	5	7	7
T																					
A																					
B																					

One or more passing chromatics can be inserted between one chord tone and another or between one scale tone and another. When a scale tone is also a chord tone, consider it a chord tone, since the chord tone is more important.

country blues chromatics

LC = lower chromatic. PC = passing chromatic. CT = chord tone. [click to play](#)

♩ = 135

Swing Eighths

end verse 1

end verse 1

Chords: G, C, G

Notes: G, A, B, C, B, A, G, F#, E, D, C

Fingering: 3, 3, 0, 1, 2, 3, 1, 2, 3, 3, 3, 3, 3, 3, 2, 1

Chromaticism: LC, LC, CT, LC, LC, CT, PC, PC

bridge

bridge

Chords: Em, G

Notes: E, F#, G, A, B, C, B, A, G, F#, E, D, C

Fingering: 0, 2, 1, 2, 0, 1, 2, 0, 1, 2, 3, 5, 4, 5, 3, 3, 3, 1, 3, 3, 4

Chromaticism: CT, LC, CT, LC, CT, LC, LC, CT, LC, LC, CT

Chords: Em, A7, D7

Notes: E, F#, G, A, B, C, B, A, G, F#, E, D, C

Fingering: 0, 2, 1, 2, 0, 2, 1, 0, 2, 1, 2, 0, 5, 3, 4, 5, 5, 5, 4, 5, 0, 1, 2

Chromaticism: CT, PC, CT, CT, LC, LC

verse 2

verse 2

Chords: G, C

Notes: G, A, B, C, B, A, G, F#, E, D, C

Fingering: 3, 3, 3, 3, 3, 0, 1, 2, 3, 3, 3, 3, 3, 0, 1, 2

Chromaticism: CT, LC, LC, CT, LC, LC

LOWER CHROMATIC EMBELLISHMENT

A lower chromatic embellishment is a tone that precedes a chord tone from a half step below, immediately before the chord tone. From about 1900 to 1920, in early blues and ragtime music, lower chromatic embellishments were played with long duration, typically a half or a third of a beat (an eighth note or an eighth note triplet note in 4/4 time). I'll call that a *ragtime lower chromatic embellishment*. By about 1940, it became fashionable to play the lower chromatic as a grace note (very short duration). I'll call the grace note type a *modern lower chromatic embellishment*.

ragtime versus modern lower chromatic embellishments

LCE = lower chromatic embellishment, CT = vchord tone. [click to play](#)

♩ = 135

A13 A13

LCE CT LCE CT LCE CT LCE CT LCE CT LCE CT LCE CT LCE CT

6 7 5 5 6 7 6 7 6 7 5 5 6 6 7 6 7

rockabilly lower chromatic embellishments

This example includes blue notes and microtonal bends, as described later. Country music uses more ragtime lower chromatic embellishments than modern ones. In the more recent crossover country styles since the 1990's, modern lower chromatic embellishment are also common.

LCE = lower chromatic embellishment, CT = vchord tone. BN = blue note. MT = microtonal bend. [click to play](#)

♩ = 145

Swing Eighths

1 A6

LCE CT BN LCE CT LCE CT MT 1/4 LCE CT LCE CT MT 1/4

1 2 0 0 1 0 3 4 0 2 3 4 2 3 0 0 2 0 3 4 0 2 3 4 2 3 2 2 2

Clapton style mixing ragtime and modern lower chromatic embellishment

During the British blues revival in the mid-sixties, Clapton brought his ragtime lower chromatic embellishments he picked up from ragtime blues, including Robert Johnson and mixed it with the faster modern lower chromatic embellishment.

LCE = lower chromatic embellishment, CT = vchord tone. [click to play](#)

♩ = 100

A⁷

LCE CT LCE CT LCE CT

5 6 5 5 8 5 7 5 5 6 7 6 7

PASSING CHROMATICS

Passing chromatics fill in-between the notes of pentatonic scales. Most commonly between whole steps. The most common whole step passing chromatic is in minor pentatonic between flat seven and one and in major pentatonic between two and three.

country blues passing chromatics

PT = pentatonic scale tone. PC = passing chromatic tone. LCE = lower chromatic embellishment, CT = vchord tone

[click to play](#)

♩ = 135

Swing Eighths

A⁷

PT PC PC PT PT PC PT PT PC PT PC PC PC PC LCE CT

6 7 4 5 4 5 6 7 6 5 5 6 7 7 5 7 6 5 3 4

A major pentatonic A minor pentatonic

For fingerings, see Pentatonic Fingering/[Movable Pentatonic with One Chromatic](#) and Pentatonic Fingering/[Movable Pentatonic with Two Chromatics](#).

BLUE NOTES AND MICROTONAL BENDS

Half Step Release, Down a Whole Step

Releasing (bend) half step followed by a note down a whole step . Grace note or pre-bend a half step and release as an eighth note to a note down a whole step. The third note should be a chord tone. Use on b3-2-1, b5-4-b3 or b7-6-5 of the current chord. The example below is common in country music.

[click to play](#)

♩ = 150
Swing Eighths

G

Chicken Pickin'

At the beginning of the James Burton/Scotty Moore example, there is a gradual release on the third string. “Chicken pickin” is employed on the repetitions of the note on the third string, using thumb next to the pick to mute the downstrokes and the pick on the upstrokes (upstrokes *on* the beat) while picking the pre-bent “A” bent to “B” and gradually releasing the bend. Use the middle fingernail to pick the stationary flat seven on the second string. The slur from flat three to three near the end of the James Burton portion (labeled “b3” and “3”) are a ragtime lower chromatic embellishment.

darkening natural thirds with grace note flat thirds

The James Burton/Scotty Moore example below (below “Chicken Pickin”), ends with a modified version of Scotty’s figure, adding a grace note lower chromatic flat third before the natural third. The grace note flat third that darkens the mood. This is common in blues-related styles, like rockabilly.

microtonal bends example

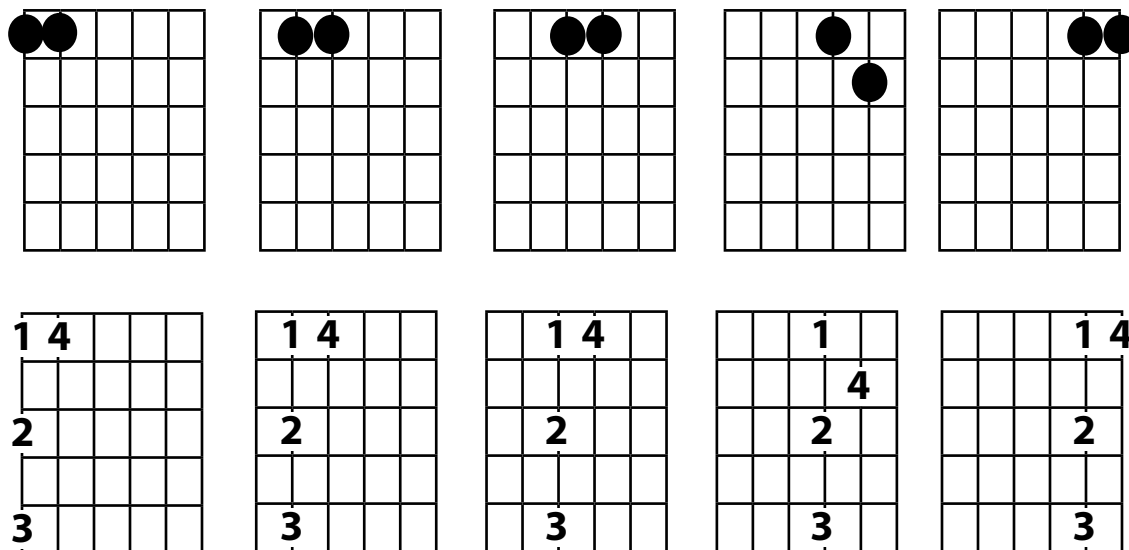
Master Pentatonic and Major Scale Patterns

- **Master Scale Patterns In Fourths**
- **The Master Pentatonic Scale Pattern**
- **Pentatonic Lines**
- **The Master Major Scale Pattern**
- **Major Scale Lines**

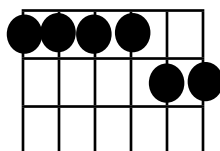
MASTER SCALE PATTERNS IN FOURTHS

Imagine Tuning the Guitar in Fourths

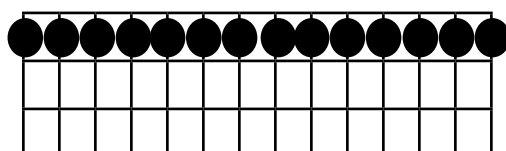
A *perfect fourth* is an interval equal to that between the first and fourth notes of a major scale. The interval looks graphically the same on all adjacent pairs of strings except the second and third string. The lower row of diagrams illustrate perfect fourths spanning major scale steps “1” through “4”.



Stacked perfect fourths are successive perfect fourths. They occur on the fretboard in this shape. The notes on the smallest two strings (on the far right) are one fret toward the guitar body (down on the diagram) because the smallest two strings are tuned a half step flat in relation to the other strings.

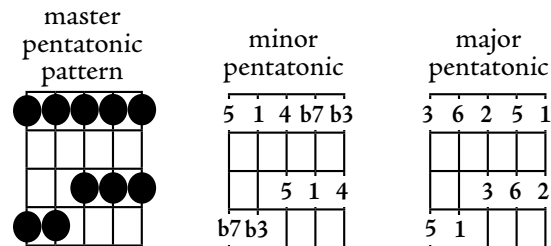



Scale fingering on the guitar would be greatly simplified if it were tuned entirely in perfect fourths. Chords, however, would be difficult to finger. The diagram below is a hypothetical fourteen-string guitar (suggesting it is part of a conceptual guitar with an infinite number of strings), tuned entirely in perfect fourths. The dots indicate stacked fourths.

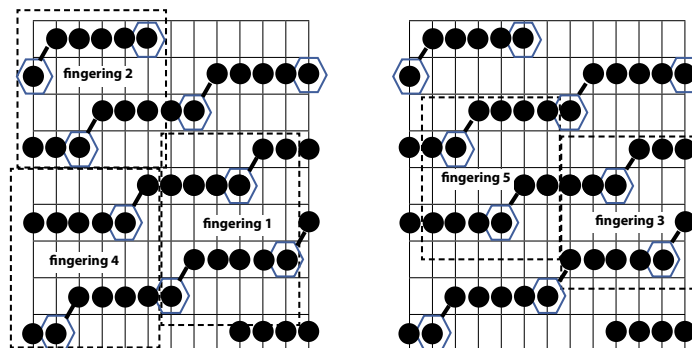


THE MASTER PENTATONIC SCALE PATTERN

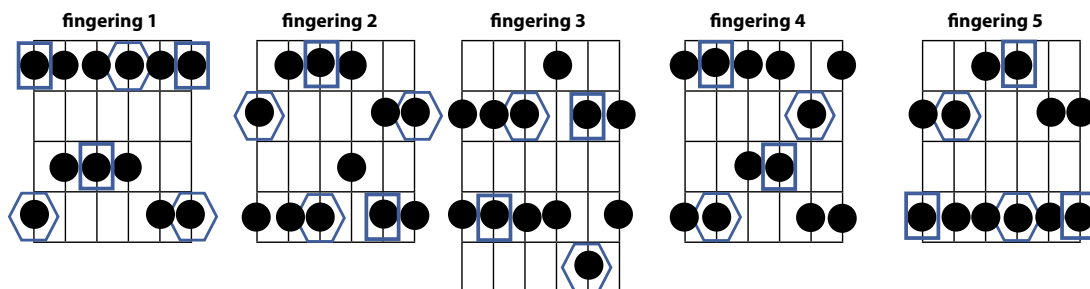
The master pattern for the pentatonic scale occurs on five strings tuned in perfect fourths, where you would tune each string to the next at the fifth fret. The common pentatonic scale is the minor 7/11 and major 6/9 pentatonic scale, depending on which note is assigned as the tone center.



Here is the master pentatonic scale pattern as it would occur on a conceptual “infinite string and infinite fret” fretboard tuned in perfect fourths. The pattern repeats on smaller strings (to the right on each diagram below), it repeats one fret lower. Each hexagon () is the major pentatonic tone center (or the flatted third of the minor pentatonic) The and a diagonal line at the upper right of each hexagon connects it to the beginning of the next pentatonic master pattern.



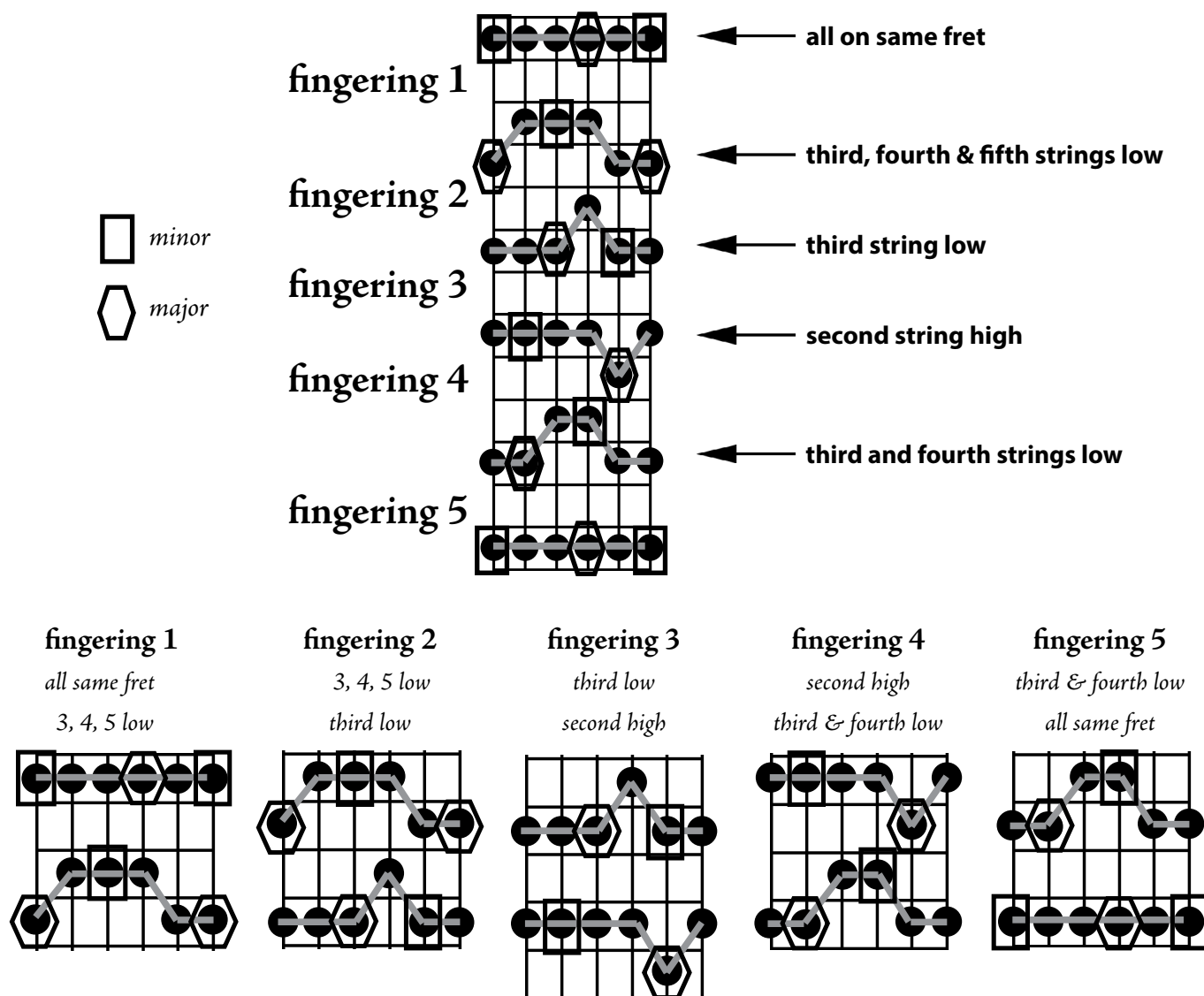
Each of the five common pentatonic scale fingerings below are extracted from the conceptual “infinite string and infinite fret” fretboard. In each fingering, the notes on the two smallest strings (the far right of each diagram below) are moved one fret toward the guitar body, which is down on the diagram. This compensation is caused by the nature of the “flat-tuned” two smallest strings on the guitar. (strings one and two are tuned a half step (one fret) flat in relation to the other strings. The rectangles are minor tone centers and the hexagons are major tone centers. Also, see [Pentatonic Scales and Octave Shapes/ The Pentatonic Master Pattern](#).



PENTATONIC LINES

The common pentatonic scale, used for minor and major pentatonic can be conceived in lines to aid recollection of the five fingerings. The five unique lines are identified in the movable full-fretboard at the right of the diagram below.

The lines are depicted in relation to notes all on the same fret by noting exceptions where some of the notes are one fret low (toward the head of the guitar) or high (toward the guitar body). “Low one five, four, three” indicates the notes on the third, fourth and fifth strings are one fret “low” in relation to the other notes on that line. The rectangles are minor tone centers and the hexagons are major tone centers.

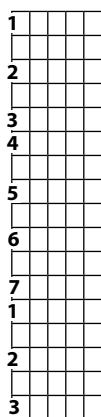
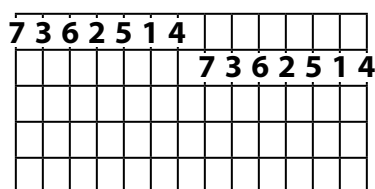


“Major Tone Center Diagonal”. Notice that the major pentatonic tone center is at the left of this diagonal pair, except when it is on the third string.

THE MASTER MAJOR SCALE PATTERN

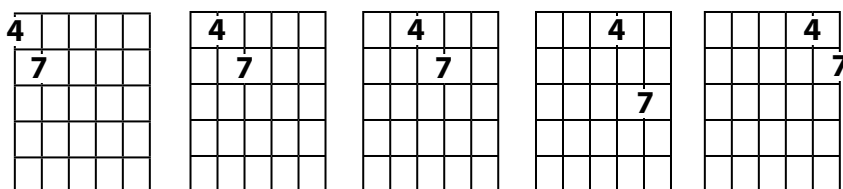
The major scale-tone sequence “7-3-6-2-5-1-4” forms “stacked” perfect fourths, where each note to the next higher pitch is a perfect fourth, equivalent to a five-fret interval on a single string (counting the difference between the two fret numbers, such as from fret one to six).

To suggest a guitar with infinite frets and infinite strings, here is a fourteen-string “perfect fourth” guitar with major scale tones “7-3-6-2-5-1-4” in stacked fourths. Notice the interval shape from major scale-tones “4” to “7”. The 7-3-6-2-5-1-4 number series is all on one fret, then repeats up one fret at the diagonal intersection between major scale tones. On this conceptual guitar, each string would be tuned at its fifth fret to the next smaller string. In contrast, standard guitar tuning tunes each string a the fifth fret to the next saller string, *except* the third string, fourth fret is tuned to the second string open. The third string is the third from the smallest string.



The scale tone which is a fourth above major scale tone “4” is major scale tone “7”. The interval from major scale tone “4” to major scale tone “7” is an augmented fourth. Notice on the diagram at the left that each span of four notes 1 to 4, 2 to 5, 3 to 6, etc. is five frets inclusively, except the span from “4” to “7” is six frets inclusively.

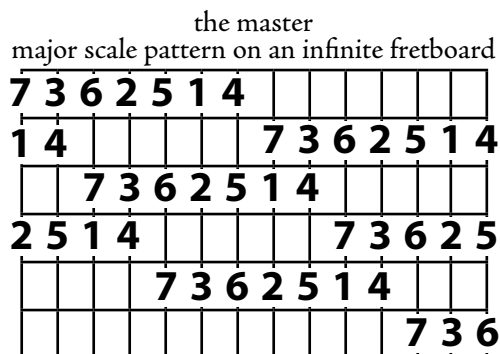
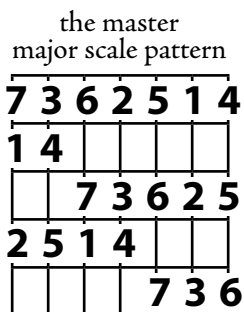
The interval fingerings for scale steps “4” to “7” on each pair of strings on a standard-tuned guitar are shown below. On all adjacent pairs of strings tuned in perfect fourths, except the third and second strings, the interval shapes are the same, with two notes making a diagonal shape on *adjacent* frets. Exceptionally on the second and third strings (which are *not* tuned in perfect fourths), major scale-tone “4” to “7” have one “empty” fret between them.



The Master Major Scale Pattern on the Infinite Fretboard

the infinite fretboard

The master major scale pattern is shown at the left below. Notice the index finger notes “7-3-6-2-5-1-4”. At the right below, the major scale master pattern is shown on a conceptual infinite-stringed and infinite fretted guitar, to show how it repeats.



compensation for the flat-tuned first and second strings

Strings one and two, the two smallest strings on the guitar are tuned a half step (one fret) flat in relation to strings three through six. On strings six, five, four and two, the pitch at the fifth fret is the same as the next smaller string open. On the third string, the fourth fret is the same pitch as the second string open. This tuning causes strings one and two to be tuned relatively a half step (one fret) flat in relation to the other strings.

Therefore, when we fret chords, scales and intervals on the guitar, anything conceived on strings three through six must be modified when moved to involve strings one and two by moving any note on strings one or two a half step toward the guitar body. When applying the major scale master pattern, this compensation must be applied.

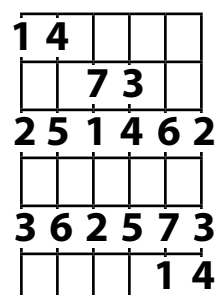
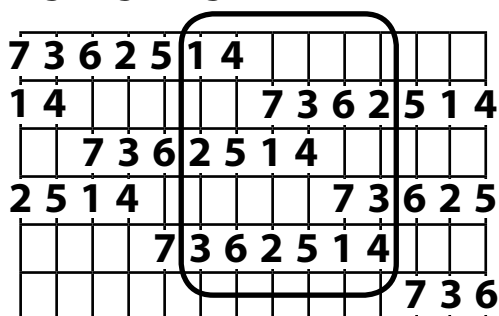
compensation for the augmented fourth between scale tones four and seven

As mentioned earlier, the interval from scale tones four to seven is a half step larger than any other fourth (7 to 3, 3 to 6, 6 to 2, 2 to 5, 5 to 1 or 1 to 4). Since the major scale master pattern starts with scale tone seven (its at the upper left on [the master major scale pattern diagram](#) above), the master pattern must repeat on the fretboard one fret toward the guitar body (down on the diagram), as you can see on [the master major scale pattern on an infinite fretboard diagram](#) above.

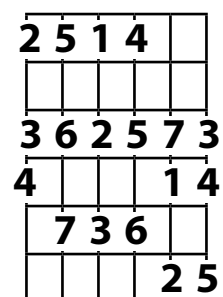
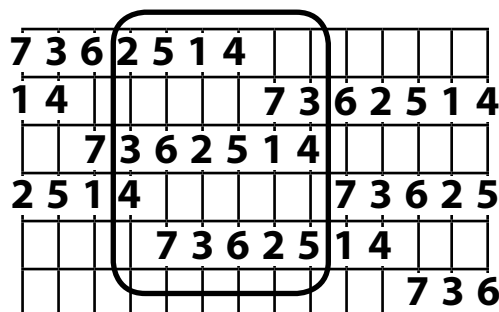
Three-Note-Per-String Major Scale Fingerings from the Master Pattern

By playing groups of six strings, you can make three-note-per-string fingerings. Remember to make the compensation for the flat-tuned strings one and two by moving the notes on the first two strings up a half step (one fret) toward the guitar body (down on the diagram). The fingerings are numbered after the lowest pitch on the sixth string, shown on the upper left of the rectangle. For each fingering below, the diagram at the right is the compensated fingering to be used on a standard guitar.

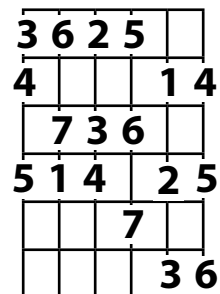
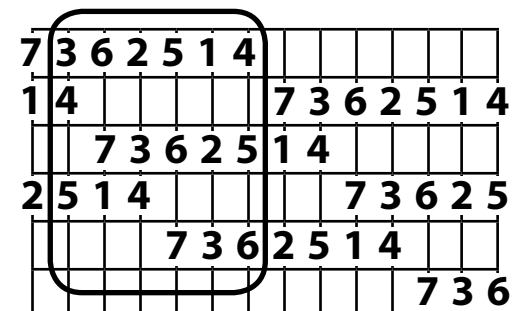
three-note-per-string fingering one



three-note-per-string fingering two



three-note-per-string fingering three



three-note-per-string fingering four

7	3	6	2	5	1	4							
1	4						7	3	6	2	5	1	4
	7	3	6	2	5	1	4						
2	5	1	4					7	3	6	2	5	
		7	3	6	2	5	1	4					
										7	3	6	

4					
	7	3	6		
5	1	4		2	5
		7			
6	2	5	1	3	6
			4		
				7	

three-note-per-string fingering five

7	3	6	2	5	1	4							
1	4						7	3	6	2	5	1	4
		7	3	6	2	5	1	4					
2	5	1	4					7	3	6	2	5	
			7	3	6	2	5	1	4				
										7	3	6	

5	1	4			
		7			
6	2	5	1	3	6
			4		
7	3	6	2		7
				5	1

three-note-per-string fingering six

7	3	6	2	5	1	4							
1	4						7	3	6	2	5	1	4
		7	3	6	2	5	1	4					
2	5	1	4						7	3	6	2	5
			7	3	6	2	5	1	4				

6	2	5	1		
			4		
7	3	6	2		7
1	4			5	1
	7	3			
				6	2

three-note-per-string fingering seven

7	3	6	2	5	1	4							
1	4						7	3	6	2	5	1	4
		7	3	6	2	5	1	4					
2	5	1	4						7	3	6	2	5
			7	3	6	2	5	1	4				
											7	3	6

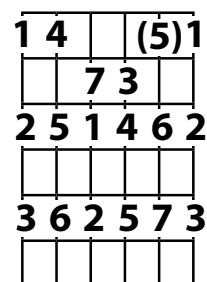
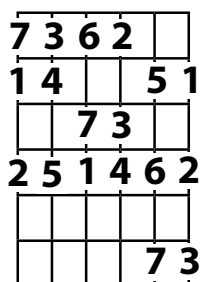
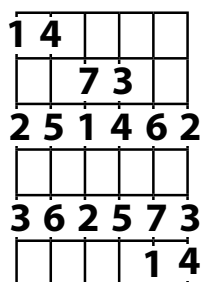
7	3	6	2		
1	4			5	1
	7	3			
2	5	1	4	6	2
				7	3

Converting Three-Note-Per-String Major Scale Fingerings to In-Position Fingerings

For each fingering below, strings six through three of the first diagram are combined with strings two and one of the second diagram to make the in-position finger shown in the third diagram at the right. Notice that in each case, one of the notes in the first diagram on the third string occurs on the second string in the second diagram (with the same numbered scale tone). One of these is removed, usually the duplicate on the third string.

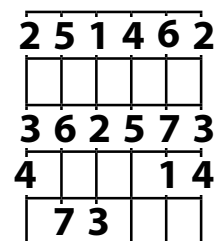
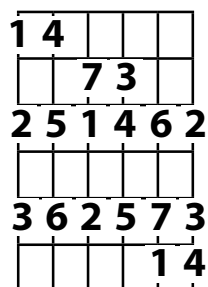
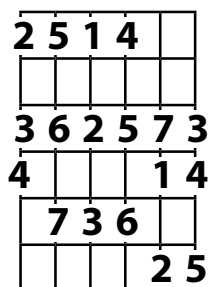
in-position fingering one

In-position fingering one (far right) is made from three-note per string fingerings one and seven at the left and middle. The “5” in parenthesis on the second string in the diagram is a redundant repetition of the “5” on the third string and can be omitted.



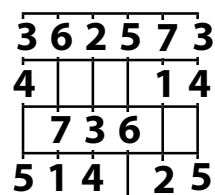
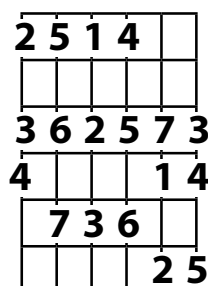
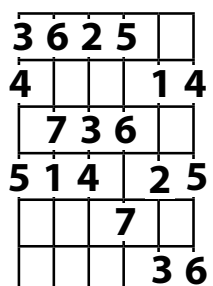
in-position fingering two

IP fingering two (far right) is made from three-note per string fingerings two and one at the left and middle



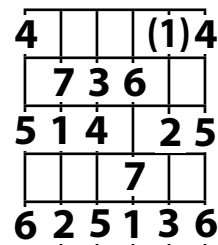
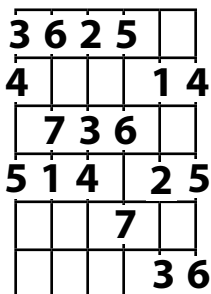
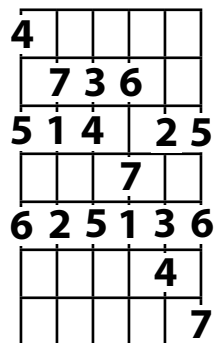
in-position fingering three

IP fingering three (far right) is made from three-note per string fingerings three and two at the left and middle



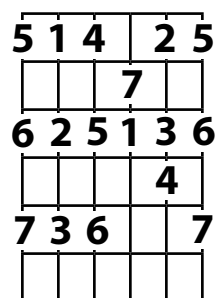
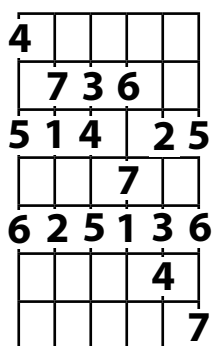
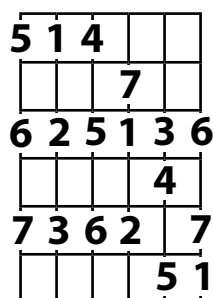
in-position fingering four

In-position fingering four (far right) is made from three-note per string fingerings four and three at the left and middle. The “1” in parenthesis on the second string in the diagram is a redundant repetition of the “5” on the third string and can be omitted.



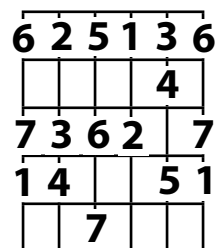
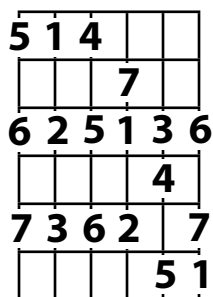
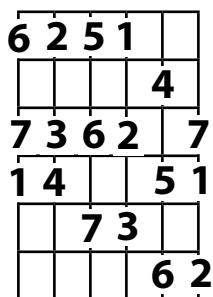
in-position fingering five

In-position fingering five (far right) is made from three-note per string fingerings five and four at the left and middle.



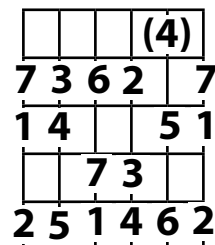
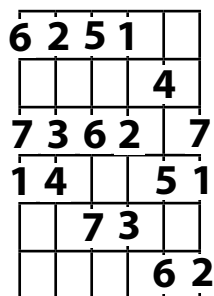
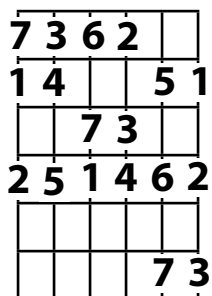
in-position fingering six

In-position fingering six (far right) is made from three-note per string fingerings six and five at the left and middle.



in-position fingering seven

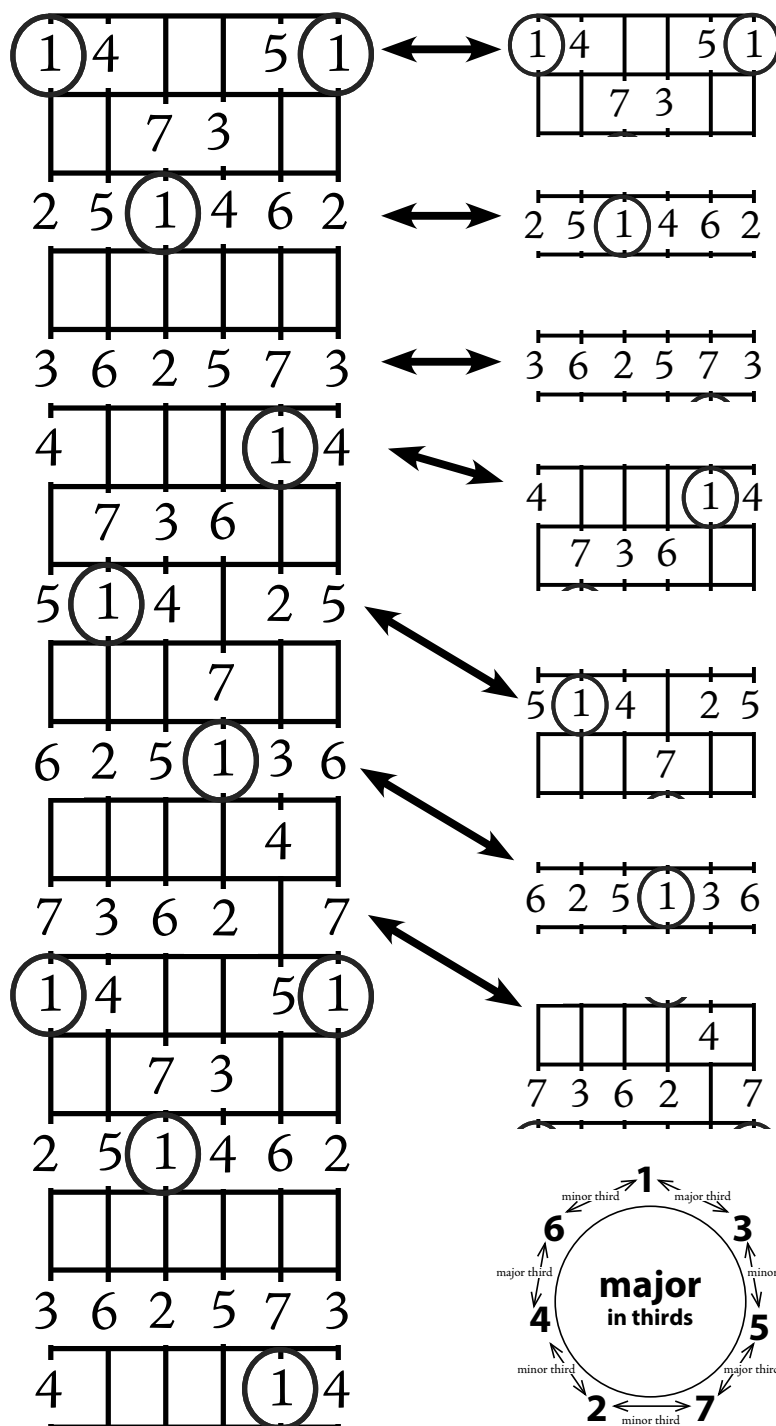
In-position fingering seven (far right) is made from three-note per string fingerings seven and six at the left and middle. The “4” in parenthesis in the diagram on the far right is a redundant repetition of the “4” on the third string and can be omitted.



See also [Full-Fretboard Major Scale Visualization](#).

MAJOR SCALE LINES

The major scale can be visualized in a scanning fashion by looking at the notes going across the strings, parallel to the frets. At scale tones 2, 3 and 6 on the sixth string, the “lines” include notes all on the same fret.



line 1 - “three and four high”

notes on its third and fourth strings are one fret toward the guitar body

line 2 - “a straight line”

(lines 2, 3 and 6 are straight lines)

line 3 - “a straight line”

(lines 2, 3 and 6 are straight lines)

line 4 - “three, four and five high”

notes on its third, fourth and fifth strings are one fret toward the guitar body

line 5 - “three high”

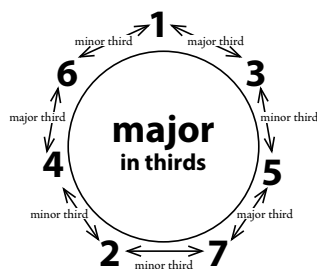
the note on its third string is one fret toward the guitar body

line 6 - “a straight line”

(lines 2, 3 and 6 are straight lines)

line 7 - “two low”

the note on the second string is one fret toward the head of the guitar



See also [Full-Fretboard Major Scale Visualization](#).

Spontaneous Rhythmic Phrases

- **Making Rhythm Spontaneous**
- **Four-Pulse Auditory Memories**
- **Three-Pulse Auditory Memories**
- **Serial Anti-Metric Grouping**
- **Rhythmic Displacement**

MAKING RHYTHM SPONTANEOUS

The goal is to quickly think and hear interesting rhythms.

Lone Pushes - [link to video](#)

♩ = 90

rest push one sustain push one rest push two sustain push two

1 + 2 + 3 + 4 + 1 1 + 2 + 3 + 4 + 1 1 + 2 1 + 2

7

rest push three sustain push three rest push four sustain push four

1 + 2 + 3 1 + 2 + 3 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Pairs of Eighths - [link to video](#)

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

13 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Pairs of Eighths Followed by a Rest - [link to video](#)

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Pickup After a Rest on the Beat - [link to video](#)

1

1 + 2 + 3 + 4 + 1 2 3 4 1 + 2 + 3 + 4 + 1 2 3 4

5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Push After a Rest on the Beat - [link to video](#)

1 sustain pushes

1 + 2 + 3 + 4 + 1 2 3 4 1 + 2 + 3 + 4 + 1 2 3 4

5 rest pushes

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 4

9

1 + 2 + 3 + 4 + 1 2 3 4 1 + 2 + 3 + 4 + 1 2 3 4

Continuing Pushes - [link to video](#)

1 rest pushes

1 + 2 + 3 + 4 + 1 2 3 4 1 + 2 + 3 + 4 + 1 2 3 4

5 sustain pushes

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 4

9

1 + 2 + 3 + 4 + 1 2 3 4 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

13 pushes alternating rest and sustain

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

[link to video](#)

♩ = 90 rest pushes

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 4

[illegible]

7

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

10 sustain pushes

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 4

13

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 2 3 4

16

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

19 pushes alternating rest and sustain

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

22

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

FOUR-PULSE AUDITORY MEMORIES

See [Rhythmic Words and Comping/Four-Pulse Rhythmic Words/All Possible Four Pulse Rhythmic Words](#). Counting four consecutive eighth or sixteenth notes as “1-2-3-4”, the fifteen possibilities of selections from 1-2-3-4 are 1-2-3-4, 1-2-3 (Jingle Bells), 1-3-4 (gallop), 1-2-4 (Creedence), 2-3-4, 1-2, 1-3, 1-4, 2-4, 1, 2, 3, 4.

Four-Pulse Rhythmic Words with Eighth Note Pickups

Common pickups for four pulse words are 4, 3-4, 2-3-4 and 2-4, any of which may be followed by a four-pulse word, such as 2-3-4 1-2-3-4 to make a longer pickup.

last eighth note pickup - [link to video with scalar notes](#)

♩ = 90 last eighth note

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

last two eighth notes pickup - [link to video with scalar notes](#)

♩ = 90 last two eighth notes

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

sustained push "2-4" rhythmic word

last three eighth notes pickup - [link to video with scalar notes](#)

♩ = 90 last three eighth notes

5 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

sustained push "2-4" rhythmic word

last four eighth notes pickup - [link to video with chromaticized arpeggio tones](#)

♩ = 90 last four eighth notes

5 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

sustained push "2-4" rhythmic word

the "1-3-4" pickup - [link to video with chromaticized arpeggio tones](#)

♩ = 90 last four eighth notes

5 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

sustained push "2-4" rhythmic word

the "1-2-4" pickup - [link to video with scalar notes](#)

♩ = 90 "1-2-4" eighth note pickup

5 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

sustained push "2-4" rhythmic word

the "2-4" pickup (second and fourth of the last four eighth notes)

- [link to video with scalar notes](#)

♩ = 90 "2-4" eighth note pickup

5 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

sustained push "2-4" rhythmic word

the "2" pickup (the second of the last four eighths)

- [link to video with arpeggio tones](#)

♩ = 90 "2" eighth note pickup

5 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

Four-Pulse Rhythmic Words with Sixteenth Note Pickups

[link to videotab](#)

♩ = 90

First system of musical notation. Treble staff shows a rhythmic phrase with a sixteenth note pickup, a quarter note, and a half note. The guitar TAB staff shows the corresponding fretting: 5, 7, 5, 7, 9, 8, 7, 8, 5, 8.

Second system of musical notation. Treble staff shows a rhythmic phrase with a sixteenth note pickup, a quarter note, and a half note. The guitar TAB staff shows the corresponding fretting: 4, 5, 5, 5, 8, 7, 4, 5, 7, 8, 5.

Third system of musical notation. Treble staff shows a rhythmic phrase with a sixteenth note pickup, a quarter note, and a half note. The guitar TAB staff shows the corresponding fretting: 5, 8, 7, 4, 5, 7, 5, 4, 7, 5, 7, 4.

Fourth system of musical notation. Treble staff shows a rhythmic phrase with a sixteenth note pickup, a quarter note, and a half note. The guitar TAB staff shows the corresponding fretting: 5, 8, 7, 5, 8, 7, 8, 7, 5.

THREE-PULSE AUDITORY MEMORIES

See [Rhythmic Words and Comping/Three-Pulse Rhythmic Words/All Possible Three-Pulse Rhythmic Words](#). Counting an eighth triplet as “123”, the seven possibilities of *selections of 1-2-3* are 1-2-3, 1-3 (swing), 1-2 (Afro-Cuban), 2-3 (waltz), 1, 2 and 3. Pickups for three pulse words are 3, 2-3 and 1-2-3, either of which may be followed by a three-pulse word, such as 2-3 1-2-3 to make a longer pickup.

Three-Pulse Rhythmic Words with Pickups

Common pickups for three-pulse words are 3, 2-3, 1-2-3 and 2, any of which may be followed by a three-pulse word, such as “2-3, 1-2-3” to make a longer pickup.

last eighth triplet note pickup (3) - [link to video](#)

♩ = 90
Swing Eighths

1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 +

5 8 5 8 7 5 7 7 5 7 5 8 5 5 7 5 7 5 7

last two eighth triplet notes pickup (2-3) [link to video](#)

Swing Eighths

1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 +

7 5 8 5 8 7 5 7 6 7 5 7 5 8 5 5

5

1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 +

TAB: 6 7 5 6 7 8 5 5 8 7 5 8 5 7 5

9

1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 +

TAB: 5 7 5 7 5 7 9 7 5 8 5 7 5 7

triplet pickup (1-2-3) - [link to video](#)

♩ = 90

Swing Eighths

1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 +

TAB: 8 7 5 8 5 8 7 5 7 5 6 7 5 7 5 8 5 5

5

1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 +

TAB: 5 6 7 5 6 7 8 5 5 7 8 7 5 8 5 7 5

9

1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 + 4 trip let 1 trip let 2 trip let 3 + 4 +

TAB: 5 6 7 5 7 5 7 9 8 7 5 8 5 7 5 7

two three-pulse words as a pickup - [link to video](#)

♩ = 90 Swing Eighths

1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 +

7 8 7 5 8 5 8 7 5 7 7 8 5 6 7 5 7 5 5 8 5 5

1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 +

5 6 7 5 6 7 5 6 7 8 5 5 5 8 7 8 7 5 8 5 7 5

1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 +

7 8 5 6 7 5 7 5 7 9 5 7 8 7 5 8 5 7 5 7

1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 +

7 8 7 5 8 5 7 5 7

the quarter note triplet - [link to video](#)

♩ = 90

1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 +

5

1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 +

9

1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 + 1 + 2 + 3 trip let 4 trip let 1 trip let 2 trip let 3 + 4 +

SERIAL ANTI-METRIC GROUPING

What is Serial Anti-Metric Grouping?

Serial refers here to a repeated series of notes. Meter is the regular beat pulse of the rhythm, divided into regular numbers, most commonly bars of four beats. When repeated groups of notes don't occur evenly within four beats, they are *anti-metric*. This would be the case with a repeated figure that is one and a half beats long, such as three eighth notes.

We find it interesting to hear anti-metric groups, especially when they soon resolve by playing a note on the first beat of the next bar. With eighth notes in 4/4 (a half beat each) a grouping of two sets of three followed by a set of two (3-3-2) would finish a bar and could be followed by a note on the first beat of the next bar.

In 4/4 time, there are four beats per bar and typically two parts per beat, called eighth notes. If eighth notes in 4/4 are grouped in some way *other than* two per beat, it sets up a secondary division of the bar. There are eight eighth notes per bar, grouped in pairs as "2-2-2-2". If they are somehow grouped as "3-3-2", it has a different sound and feel.

Dividing the Parts of the Bar Differently

Define groups by making the first note of each group in some way unique, by accenting it or slurring it, making all the other notes a pivot point (repeating the same note), making the first note of the group a pivot point and changing all the other notes or with fragment patterns.

anti-metric fragment patterns

The simplest fragment patterns are consecutive scale tones, expressed as "1-2-3" for three consecutive scale tones ascending or "3-2-1" for three consecutive scale tones descending. "1-2-3-4" would be four scale tones ascending, and "4-3-2-1" would be four scale tones descending.

In their standard expression, the number of notes in the fragment pattern is the same as the number of notes per beat. So, "1-2-3" or "3-2-1" is played as a standard practice in triplets. "1-2-3-4" or "4-3-2-1" is played in standard practice as four sixteenth notes (or four eighth notes).

When fragment patterns are used with a *different* number of notes in the pattern and on the beat, such as "1-2-3-4" in triplets or "1-2-3" in sixteenth notes they don't come out evenly on the beats. It takes more or less than one beat for a fragment to occur. These are *anti-metric fragment patterns*. Examples are shown below.

anti metric fragment patterns - [link to video](#)

Once you memorize each twelve-note sequence below you should find it easy to apply the same grouping and fragment pattern to another scale or arpeggio. You should be able to hear the pattern you're applying apart from the notes on which it is applied.

♩ = 90

3-2-1 fragment in triplet

3-2-1 fragment in sixteenths

3-2-1 fragment in triplets, making a repeating twelve-note sequence

the twelve-note sequence repeating in sixteenths (divided by dotted line)

The image displays three musical examples, each consisting of a treble clef staff and a guitar TAB staff. The first example shows a 3-2-1 fragment in a triplet (quarter notes) and then in sixteenth notes. The second example shows the 3-2-1 fragment in triplets, creating a repeating twelve-note sequence. The third example shows the twelve-note sequence repeating in sixteenth notes, divided by a dotted line. The TAB staff for each example provides fret numbers for the guitar.

four pairs of eighths grouped anti-metrically

Eight eighth notes in a bar of 4/4 constitute four beats with two notes per beat. They can also be grouped as “332” or “233”.

four quads of sixteenths grouped anti-metrically

Sixteen sixteenth notes in a bar of 4/4 constitute four beats with two notes per beat. They can also be grouped as “3-3-3-3-4”, “4-3-3-3-3”, “2-3-3-3-3-2”, “1-3-3-3-3-3”, “3-2-3-2-3-3”, “3-3-4-3-3” (Pick Up The Pieces) or “3-3-3-2-3-2”.

Chuck Berry's Johnny B. Goode intro solo, bars 5-8 is based on 2-3-1-2-3-1-2-2.

four eighth triplets grouped anti-metrically

4-4-4 in 12/8.

sensing the up comping beat one

Whether you are obscuring the beat with an anti-metric group like groups of three eighth notes in 4/4 or playing on consecutive offbeats, you need to sense where to come back in on beat one in the next bar.

RHYTHMIC DISPLACEMENT

What is Rhythmic Displacement?

Rhythmic displacement is a form of rhythmic theme and variation. A rhythmic theme is moved earlier or later in time. When the theme begins with notes of equal value, it can be displaced by thinking which of the notes is on the beat, as described below in “Which Note Is On The Beat?”.

Which Note is on the Beat?

The most straightforward manner of rhythmic displacement is where one of the notes is placed on a beat, most easily on the first beat of the bar. When notes have equal time values such as all eighth notes or all sixteenth notes at the beginning of the rhythmic theme, we can displace by choosing which note is on the beat. When the rhythmic theme is irregular and its first notes are not of equal value, or interrupted by rests, it gets more complicated.

Displacing Rhythmic Themes of Regular Pulses

displacing fragment patterns to create new melodies

The use of fragment patterns are a good way to start practicing rhythmic displacement. As originally conceived, one fragment pattern can occur on each beat, such as 123 ascending or 4321 descending.

With the use of rhythmic displacement, fragment patterns become far more interesting. New melodies of sorts are created when you re-evaluate what happens on each beat.

relating chord tones to the beat

We generally want tones of the current chord on the beat often enough to reinforce the sound of the chord. The chapter [Relating Chord Tones to the Beat](#) shows how to assure that tones on the beat are frequently current chord tones, to emulate the sound of the current chord. If you are playing eighth notes with chord tones on the beat and non-chordal tones on the offbeat, displacing the notes so the non-chordal tones are on the beat will suggest a different chord, usually interpreted as a chord whose root is up or down a scale step from the original chord root, or on the fifth of the original chord root.

Improv Level 2: Key Scale Pentatonic

- **Principles**
- **Seven Pentatonic Scale Types with Examples**
 - Minor Pentatonic (m7/11)
 - Minor Pentatonic with Major Third Option (7/11)
 - Major Pentatonic (ma6/9)
 - Major Pentatonic with Optional Flat Three (m6/9)
 - Minor Pentatonic with Flat Five (m7/11b5)
 - Minor Pentatonic with Six Instead of Flat Seven (m6/11)
 - Diminished Seventh Add Four (m6/11b5)
- **Added Tones**
- **Free Association With Pentatonic Tones**

PRINCIPLES

Each Scale Tone Will Fall into One of These Four Categories:

- an actual chord tone
- a pleasing added chord tone
- a blue note (usually b3, b6 or b7 against natural versions of the same numbers)
- a non-chordal tone (a neighboring scale tone or a passing scale tone)

Think Vocally

You should imagine your melody in a vocal context. Sing or hum your melodic lines as you play. Our brains are wired much more directly to our vocal mechanism than to the fretting and plucking mechanisms.

Think in Key Scale Numbers

Develop an awareness of the numbers representing what you are playing. Thinking in scales named after the key unifies the melody by keeping it in one key and making it easier to follow for the listener. See [Modes](#) and [Key scales](#).

Think primarily in key scale, secondarily in chord scale (a scale named after the current chord). To think in key scale, determine the key (the root of the chord you expect the piece to end on) and relate all notes to a major scale named after the key. To think in chord scale, relate all notes to a major scale named after the root of the current chord.

Many guitarists are particularly guilty of thinking too much in chord scale, which blocks the melody into keys named after each chord and loses the continuity of the overall key.

Most Important Blues Rock Pentatonic Fingering

It's important to know the limited areas of the fretboard that have been found most useful in Blues Rock. These same areas are relevant to most styles, even when not bending notes. Learn these areas in [Pentatonic Fingering/Most Important Blues Rock Pentatonic Fingering](#).

SEVEN PENTATONIC SCALE TYPES

Fingering

See also [Pentatonic Scale Fingering/Seven Pentatonic Scale Types by Octave Shape](#).

links →	minor 7/11	7/11	m7/11b5	m6/11	dim. 7/11	major 6/9	minor 6/9
E form	minor 7/11 	7/11 	m7/11b5 	m6/11 	dim. 7/11 	major 6/9 	minor 6/9
D form	minor 7/11 	7/11 	m7/11b5 	m6/11 	dim. 7/11 	major 6/9 	minor 6/9
C form	minor 7/11 	7/11 	m7/11b5 	m6/11 	dim. 7/11 	major 6/9 	minor 6/9
A form	minor 7/11 	7/11 	m7/11b5 	m6/11 	dim. 7/11 	major 6/9 	minor 6/9
G form	minor 7/11 	7/11 	m7/11b5 	m6/11 	dim. 7/11 	major 6/9 	minor 6/9

Naming Pentatonic Scales

When I began teaching back in the late sixties, there was no agreement the naming of pentatonic scales. “Blues pentatonic” or jazz pentatonic each could mean different things. I wanted a universally know naming system, so I used chord names. Now, I realize that not everyone knows the chord naming system (see [Chord-Naming Conventions](#)), so at first I use a descriptive name (minor pentatonic), along with the chord name version (minor 7/11).

- ✦ minor pentatonic (m7/11, includes 1, b3, 4, 5 and b7)
- ✦ minor pentatonic with optional natural three (7/11, includes 1, 3, 4, 5 and b7)
- ✦ minor pentatonic with flat five (m7/11b5, includes 1, b3, 4, b5 and b7)
- ✦ minor pentatonic with six instead of flat seven (m6/11, includes 1, b3, 4, 5 and 6)
- ✦ minor pentatonic with six and flat five, also called diminished seven add four (°7/11, includes 1, b3, 4, b5 and 6[b7])
- ✦ major pentatonic (ma6/9, includes 1, 2, 3, 5 and 6)
- ✦ major pentatonic with optional flat three (m6/9, includes 1, 2, b3, 5 and 6)

General Tips on Bending

bending to the next scale tone

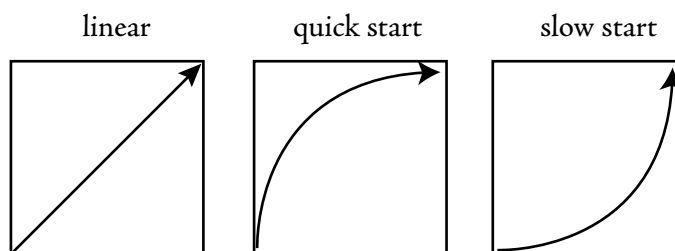
Bends are best on the smallest three strings. To bend the third string, it must be plain, not wrapped. Notes can always be bent up to the next scale tone when it is a whole step (two fret interval). Minor third bends (a three fret interval) are more difficult and should not be performed with the index finger.

Minor thirds can produce crying sounds, since more extreme emotions are usually evoked with a wide range of pitch. The best minor third bends are “1” to “b3” and “5” to “b7”. “3” to “5” is often good. “6” to “1” is a bit more difficult to fit melodically, and was used by Dickie Betts and Duane Allman in the Allman Brothers Band.

microtonal bends

Microtonal bends are performed on b3, b5 and b7 to suggest the major versions of the same tones by bending about halfway there. This means the pitch is in-between that of two consecutive frets (in-between a half step). They should not bend over 75% to the note, since it would then sound like the note is being erroneously played flat. Microtonal bends are played primarily with a linear bend, but can use a “quick start” or “slow start”.

on these diagrams, time is horizontal and pitch is vertical



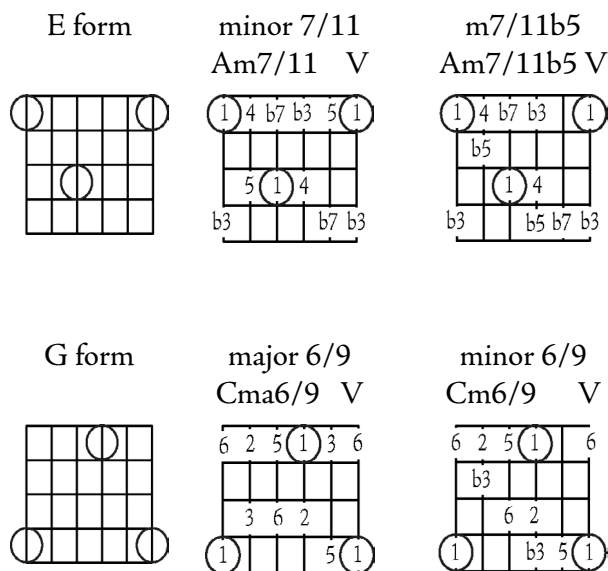
Blue Notes

flatted versions of odd numbers

To darken or “bluesify” a melody, we flat odd-numbered tones. These are called “blue notes”. The same term has been applied to microtonal bends, but for the sake of clarity, I try to reserve the term blue note to chromatically lowered notes, not microtonal bends.

minor pentatonic with flat five

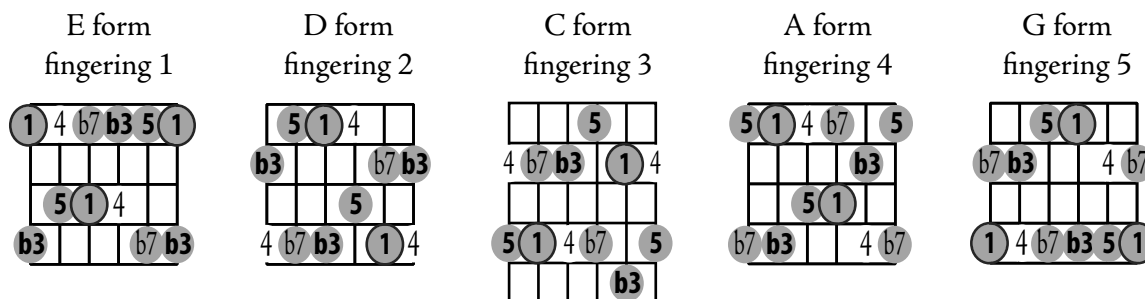
Consistently flattening the fifth in a minor pentatonic scale can create a new scale, minor 7/11 flat five. Similarly, consistently flattening the third in a major pentatonic scale can create minor 6/9 pentatonic scale. These two scales are relative in the same way major and minor pentatonic are relative. Notice the commonality of this use of pentatonic fingering 1, based on the relative C major pentatonic and A minor pentatonic.



Minor Pentatonic Scale (m7/11)

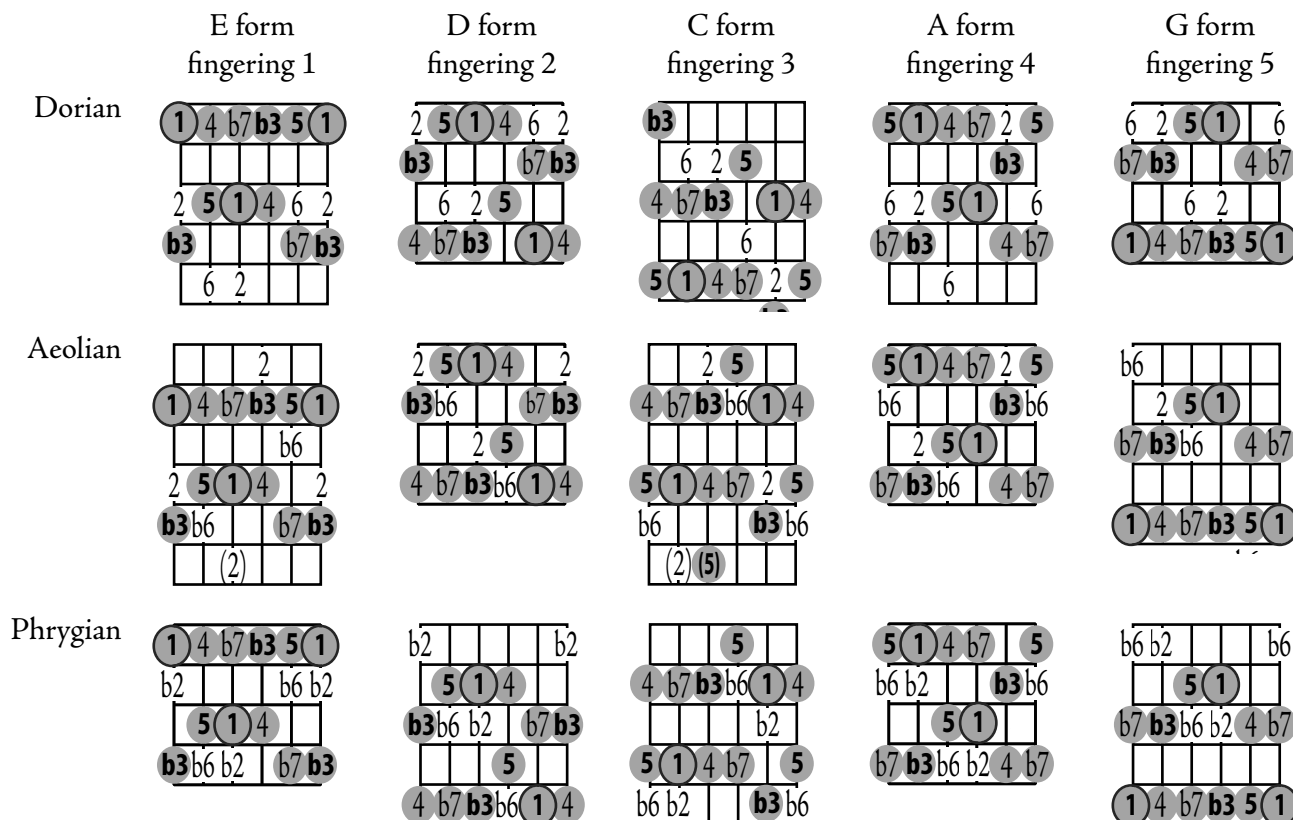
minor 7/11 synonyms and chord sound

I specify minor pentatonic with the chord-style name “minor 7/11 pentatonic scale”. In a major scale named after the key it has tones 1, b3, 4, 5 and b7. Minor 7/11 pentatonic makes a key scale minor seventh chord sound, since contains the notes of a minor seventh chord. The grey-backed notes below are minor seventh chord tones. Adding a fourth (“4”) to a minor seventh arpeggio produces a minor 7/11 pentatonic scale.



minor 7/11 subsets of heptatonic (7 tone) scales

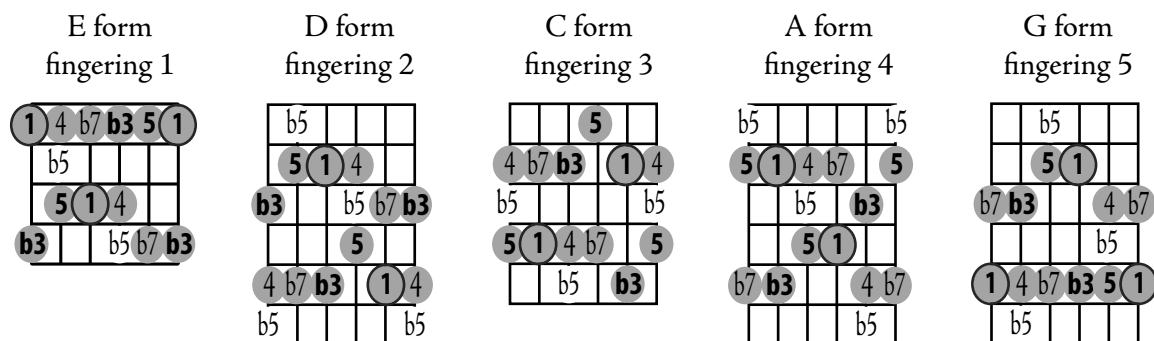
Minor pentatonic is a subset of Dorian mode (major mode II), Phrygian (major mode III), and Aeolian (major mode V). See [Modes of Four Heptatonic Scales](#).



melodic characteristics of individual notes

This is the best pentatonic scale for bending. Each scale tone can be bent up to the next scale tone. Minor third (three-fret) bends should not be performed with the index finger alone. Apply a microtonal bend to the b3 (produce a slight, gradual upward bend). Apply microtonal bend to b7.

Chromatics are best between 4 and 5, also good between b7 and 1. “b7” functions as a lower neighbor to “1”. Chromatics are shown below between four and five.



“b3” functions as a upper neighbor to “1”. Add “2” where it is a chord tone, such as on a Im9 or on a V chord (the V chord is constructed with key scale tones 5, 7 and 2).

Slow Ride style minor 7/11 pentatonic solo example solo rhythm track

Slow Ride style comping

The musical score is divided into four systems, each with a treble clef staff and a tablature staff. The key signature is B minor (two sharps). The solo is in 4/4 time. The first system has 8 bars, the second 8 bars, the third 8 bars, and the fourth 8 bars. The solo is composed of eighth and quarter notes, with some triplets and a 'trip let' marking. The tablature shows fret numbers and fingerings. The solo is in B minor 7/11 pentatonic style, which is a subset of the B Aeolian scale.

scales used:

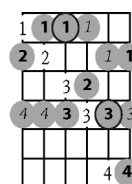
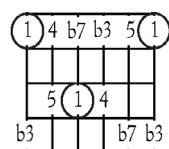
bars

1-9

5-6, 16

scale

Bm7/11 VII

Bm7/11 IX
subset of B Aeolian

The second note "C#" is an added tone from B Aeolian (D major parent scale). It also occurs at the end of bar eight.

House Of The Rising Sun minor 7/11 pentatonic [click to play solo](#)

The solo is written in 12/8 time and consists of six systems of music. Each system includes a treble clef staff with notes and accidentals, and a tablature staff with fret numbers and techniques like bends and slides. Chords (Am, C, D, F, E) are indicated above the staff. The solo features various techniques including triplets, full bends, and slides.

System 1: Am C D F Am E Am E. Tablature includes triplets and bends.

System 2: Am C D F Am C E. Tablature includes triplets and bends.

System 3: Am C D F Am E Am C. Tablature includes triplets and bends.

System 4: D F Am E Am E. Tablature includes triplets and bends.

System 5: Am C D F Am C E. Tablature includes triplets and bends.

System 6: Am C D F Am E Am E. Tablature includes triplets and bends.

Beverly Hills style minor 7/11 pentatonic solo example solo rhythm track

Beverly Hills style comping

scales used: F minor pentatonic, E form (fingering 1).

The musical score is presented in four systems, each containing a treble clef staff, a bass clef staff, and a tablature staff. The key signature is one flat (Bb), and the time signature is 4/4. The solo is in F minor pentatonic, and the comping is in E form (fingering 1).

System 1 (Measures 1-4): Chords: F5, Bb5, F5, Bb5. The solo starts with a 1/4 note on the 9th fret, followed by a triplet of 10, 8, 10, and then a 6th fret note. The rhythm track includes a 1/4 note and a full note.

System 2 (Measures 5-8): Chords: F5, Bb5, C5, E5. The solo continues with a triplet of 10, 8, 10, and then a 6th fret note. The rhythm track includes a 1/4 note and a full note.

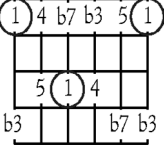
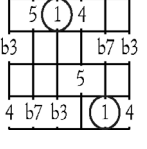
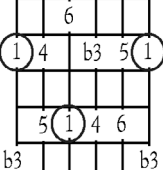
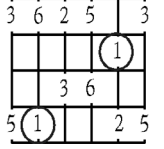
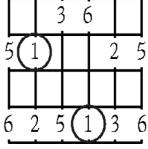
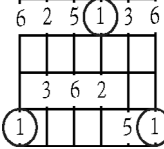
System 3 (Measures 9-12): Chords: F5, Bb5, F5, Bb5. The solo continues with a triplet of 10, 8, 10, and then a 6th fret note. The rhythm track includes a 1/4 note and a full note.

System 4 (Measures 13-16): Chords: F5, Bb5, C5, E5. The solo continues with a triplet of 10, 8, 10, and then a 6th fret note. The rhythm track includes a 1/4 note and a full note.

In Bloom style minor 7/11 pentatonic solo example [solo](#) [rhythm track](#)

[In Bloom style comping](#)

scales used:

bars	1-2, 4, 7-9, 13	5-6, 16	3	10	11, 15	15
scale	Bbm7/11 VI	Bbm7/11 IX	Bbm6/11 IX	Gbma6/9 VI	Ebma6/9 V	Ebma6/9 VIII
						

bar 12 uses F super Locrian scale



The musical score is written in B-flat major (two flats) and consists of 15 measures. It is divided into four systems. Each system has a treble clef staff with notes and accidentals, and a bass staff with fret numbers. Chord changes are indicated above the staff: Bbm (bars 1-2), Gbm (bars 3-4), Ebm (bars 5-6), Bm (bars 7-8), and Am (bars 9-10). The notation includes various musical symbols such as slurs, ties, and dynamic markings like 'full' and '1/2'.

16 Bar Gospel Blues style solo example [solo video](#)

Swing Eighths

16 Bar Gospel Blues style solo example

Swing Eighths

Chords: G⁵, Am, G, D, C

Tablature (TAB) and Fingering (F) are provided for each measure.

Bo Diddley Style Solo solo rhythm track

[illegible][illegible][illegible][illegible][illegible]

[illegible][illegible]

33

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

2 1 1 1 2 2 1 2
1 1 3 3

T 4=6 5 5 5 5 6 4 2 4 6

I 5 5 5 5 6 4 2 4 6

M 5 5 5 5 6 4 2 4 6

R 5 5 5 5 6 4 2 4 6

2	2	2	2	2	X	X	0	2
2	2	2	2	2	X	X	0	2
2	2	2	2	2	X	X	0	2
0	0	0	0	0	X	X	0	0

[illegible]

I IV V Blues De-Emphasize Four Solo Example

[illegible]

Blitzkrieg Bop style solo example **solo** **rhythm track**

1 1 1 1 1 1 1 2 2 1 2 2 1 1 1 1 1 1 1 2 2 3 2 1 1 1 1

5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 6 5 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 6 2 3 0 5 5 5 5

6

1 1 1 2 2 1 2 1 3 1 3 1 1 1 1 2 2 3 1 1 1 1 1 1 1

5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 6 5 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 6 5 3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

full full 1/4

fret with minimal pressure on the second string, simultaneously bending the third string with the tip of the index finger

10

1 1 1 1 1 1 1 2 2 1 1 4 1 3 full 1 1 1 1 1 1 1 2 2 3 1 1/4 0 1 1/4 0 1 1 1 1

5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 6 5 5 8 8 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 6 7 3 0 3 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

14

1 1 1 2 2 1 2 2 1 2 2 1 1 1 2 1/4

5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5

4 6 5 6 11 10 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12

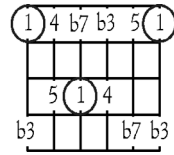
4 6 5 6 11 10 11 13 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12

I IV V Blues 51 Solo Example solo rhythm track

Hideaway Style Comping.

scale used:

Em7/11 XII



Swing Eighths

E7

1 1 1 1 1 3

3 1 1 3 1 1 3 1 3 1 1 1 3 1 3 1 3 2 1 1 3 1 2 1 3

full 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12

14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14

economy picking

5

A7 E7

4 4 3

3 1 4 3 1 3 3 1 3 1 1 1 3 1 3 1 3 2 1 1 3 1 2 3 1

full 12 15 12 15 15 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12

14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14

alternate picking all-down picking economy picking

9

B7 A7 E7 A7 E7 B7

3 4 3 4 3

2 1 1 2 1 2 1 4 2 1 4 1 3 1 3 1 2 3 1 4 1 1 3 3 1 2 3 3 2 1 2

full 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12 12

14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14 14

economy picking rhythmic (alternate) picking

Midnight Rambler style solo example

Swing Eighthths

B

6

10

14

18

T
A
B

Nate's Blues solo example

The musical score is for a guitar solo in 4/4 time, key of E major. It consists of six systems, each with a treble clef staff and a two-part guitar tablature (T and B). Chords E, A, and B7 are indicated above the staff. The solo features various techniques including triplets, bends, and slides, with specific fret numbers and string numbers provided in the tablature.

System 1: Treble clef staff with a key signature of one sharp (F#). Chords E and A are indicated. The solo begins with a quarter rest, followed by a quarter note E4, a quarter note F#4, and a quarter note G4. The tablature shows a sequence of notes: 2/4 2 0, 2, 2 2 2, 2 0 2, 2 2 0 2, 2 4 2 0, 2, 2 2 2, 2 2 0 2, 2 2 0 2, 0 3 0, 2 2 0 2, 0 3 0.

System 2: Treble clef staff. Chords A and E are indicated. The solo continues with a quarter note A4, a quarter note B4, a quarter note C#4, and a quarter note D4. The tablature shows: 2 2 0 2, 2 0, 2 2 0 2, 2 2 2 4 2 0, 2, 2 2 0 2, 0 3 0, 2 2 0 2, 0 3 0.

System 3: Treble clef staff. Chords B7, A, and E are indicated. The solo continues with a quarter note E4, a quarter note F#4, a quarter note G4, and a quarter note A4. The tablature shows: 2 4 4 3 4 5 3 4, 2 0 2 2 4 2 0, 2, 2 2 0 2, 2 2 0 2, 2 2 0 2, 2 2 0 2.

System 4: Treble clef staff. Chords E and A are indicated. The solo continues with a quarter note B4, a quarter note C#4, a quarter note D4, and a quarter note E4. The tablature shows: 3 5 3 5 3 4 0 2, 2 0 2 3 0 2 0, 2, 2 2 0 2, 0 3 0, 0 2 0 2 2 2 4 3 5.

System 5: Treble clef staff. Chords A and E are indicated. The solo continues with a quarter note F#4, a quarter note G4, a quarter note A4, and a quarter note B4. The tablature shows: 5 3 5 5 7 3 5 3 4 3 5, 2 2 4 0 2 0 2 2, 2 2 0 2, 2 2 0 2, 2 2 0 2, 3 0 1 2 0 0.

System 6: Treble clef staff. Chords B7, A, and E are indicated. The solo continues with a quarter note C#4, a quarter note D4, a quarter note E4, and a quarter note F#4. The tablature shows: 2 2 0 2 2 2 4 3 4 2 0 2, 2 0 2 2 4 2 0, 2, 2 2 0 2, 0 3 0, 2 2 0 2.

Minor Pentatonic Setup Tone Blues

Swing Eighths

1 2 3 4 5 6 7 8 9 10 11 12

3

V7#9 tones of the I chord

1/4

1/2

3

chromatic passage to third of I chord

TAB

4 5 6 7 8 9 10 11 12

3

1/2

3

Vm7 of the IV chord

TAB

6 7 8 9 10 11 12

3

V7#9 tones of the I chord

full

1 1/2

3

scalar and chromatic passage to root of V chord

TAB

10 11 12

3

chromatic passage to third of I chord

full

1/2

1/2

1/2

1/4

3

down Gm to D

TAB

Minor Pentatonic 5 b7 and Pedal Tone Blues Solo Example

The image shows a guitar solo in E major, using the minor pentatonic scale (E, G, A, B, D) with a 5th and b7th (B and D). The solo is divided into measures 3, 5, 7, 9, and 11. The notation includes a treble clef staff with notes and a tablature staff with fret numbers. Chords A7, D7, and E7 are indicated above the staff. Fingerings and techniques like triplets, bends, and slides are marked throughout.

Measure 3: A7. Notes: E4, G4, A4, B4, A4, G4, F#4, E4. Fingering: 3, 2, 3, 2, 3, 3, 1, 1, 3. Techniques: triplet (3), 1/4 bend (1/4).

Measure 5: A7. Notes: E4, G4, A4, B4, A4, G4, F#4, E4. Fingering: 3, 1, 3, 1, 1, 3, 1, 3, 1, 3, 1, 3. Techniques: triplet (3), 1/4 bend (1/4), full bend (full), triplet (3 full), full bend (full).

Measure 7: D7. Notes: E4, G4, A4, B4, A4, G4, F#4, E4. Fingering: 3, full, 4, 3, full, 4, 4, 1, 3, 1. Techniques: triplet (3 full), full bend (full), triplet (3 full), full bend (full).

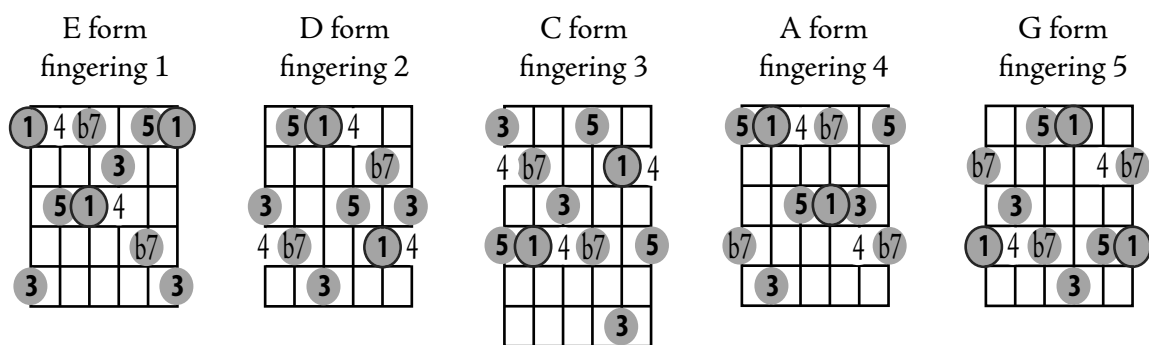
Measure 9: E7. Notes: E4, G4, A4, B4, A4, G4, F#4, E4. Fingering: 2, 1, 3, 1, 2, 1, 3, 1, 2, 1, 3. Techniques: triplet (3), 1/2 bend (1/2), full bend (full).

Measure 11: A7. Notes: E4, G4, A4, B4, A4, G4, F#4, E4. Fingering: 3, 1, 1, 3, 1, 1, 1, 3, full, 1, 2, 3, 2, 1, 1, 2, 1, 1, 3, 1, 2, 2. Techniques: triplet (3), full bend (full), triplet (3 full), full bend (full).

Minor Pentatonic with Major Third Option: Dominant 7/11 Pentatonic Scale

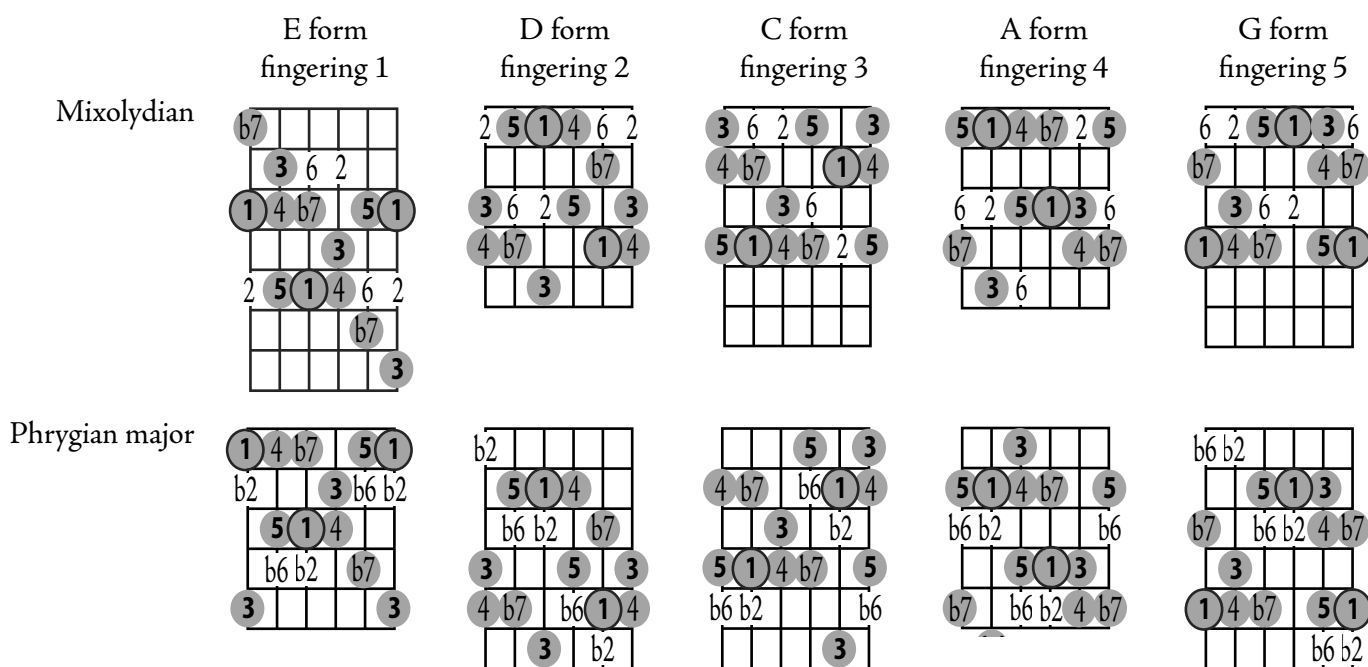
dominant 7/11 synonyms and chord sound

When a minor pentatonic scale is used with a major third (natural three), I give it the chord-style name “dominant 7/11 pentatonic scale”. In a major scale named after the key it has tones 1, 3, 4, 5 and b7. Dominant 7/11 pentatonic makes a key scale dominant seventh chord sound (such as C7), since it contains the notes of a dominant seventh chord. The grey-backed notes below are dominant seventh chord tones. Adding a fourth (“4”) to a minor seventh arpeggio produces a dominant 7/11 pentatonic scale.

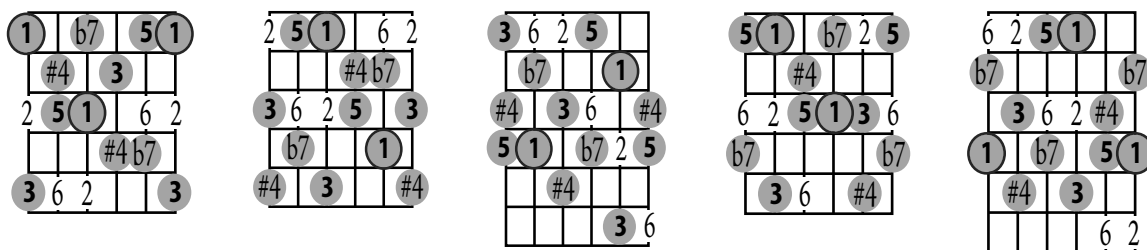


dominant 7/11 subsets of heptatonic (7 tone) scales

When minor pentatonic has a major third (natural three), it is a subset of Mixolydian (major mode V, key scale b7), Phrygian major (major mode III) and Lydian dominant (melodic minor mode IV). See [Modes of Four Heptatonic Scales](#).



Lydian dominant



melodic characteristics of individual notes

Avoid overuse of the “3” without darkening it with “b3” or playing it briefly. Too much use of “3” (the major third) can make the melody too sweet. Slur into the “3” from “#2”. Preceding “3” with a “#2” of short duration sounds more modern than using a “#2” of long duration. Long duration “#2” before “3” sounds like ragtime or old blues. When you play “3” and “b3” repeatedly next to each other, you should usually end on “3”.

Apply a microtonal bend to b7 (produce a very slight, gradual upward bend).

Chromatics are best between 4 and 5, also good between “b7” and “1”.

“b7” is a lower neighbor to “1”, but “3” does not function well as an upper neighbor to “1”. The practical interval limit for upper and lower neighbors is a minor third. Add “2” where it is a chord tone, such as on a Im9 or a V chord (the V chord is constructed with key scale tones 5, 7 and 2).

Notice the dissonant interval sound from “3” to “b7”.

This is a good scale for bending. All notes can be bent up to the next scale tone, but bending “1” to “3” is an extreme four fret bend.

I IV V Blues Minor Pentatonic With Optional Major Third, Example 1 solo

♩ = 130

Swing Eighths

1 3 1 3 1 3 3 1 4 1 3 1 3 3 1 3 1 3 3 1 1 3 1 3 3 1 1 3 3

8 10 8 8 10 12 8 11 8 10 8 10 8 10 8 8 10 8 10 8 8 10 10

5 1 1 2 3 3 1 1 1 3 1 2 3 3 1 1 3 1 2 3 3 3 3 2 3 3 1 2 3 1 3

8 8 9 10 10 8 8 8 10 8 9 10 10 10 10 10 12 11 12 10 8 9 10 8 10

9 1 1 3 3 3 1 1 3 1 3 3 3 1 2 3 3 3 3 2 3 3 1 2 3

8 8 10 10 8 8 10 8 10 10 10 8 9 10 10 10 12 11 12 10 8 9 10

13 3 3 2 3 3 1 3 1 3 3 1 1 3 1 2 3 3 3 3 2 3 3

10 12 11 12 10 8 10 8 10 10 8 8 10 8 9 10 10 10 12 11 12 10

[illegible]

37 G⁷ F⁷ C⁷ G⁷

3 1 3 3 1 3 1 3 3 1 3 1 1 2 3 3 2 3 3 3 1 2 3 1 3

full full full 1/2 1/4

10 8 10 10 10 8 10 10 8 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10

This twelve bar section of the solo study uses major pentatonic with an optional major third, as discussed in the section [Major Pentatonic with Optional Flat Three](#).

41 C⁷

3 1 3 1 3 3 4 3 3 1 3 3 3 1 2 1 3 1 2 2 1 3 3 1 3 1

full full 1/2

3 2:2 3

TAB: 7 5 7 5 7 7 8 7 5 7 7 5 7 9 8 10 8 9 7 5 7 5 (5)

45 F⁷ C⁷

1 3 1 1 3 3 1 3 2 1 3 2 3 1 3 3 1 1 1 3 1 4 1 3 1 2

1/4

3

TAB: 8 10 8 8 8 10 10 7 10 8 (10) 10 7 10 10 10 8 8 8 10 8 11 8 10 8 (8) 9

49 G⁷ F⁷ C⁷ G⁷

2 1 2 1 2 3 3 3 1 2 4 2 3 1 1 1 1 2 1 2 1 1 2 1 3

1/2

3

TAB: 14 13 14 13 14 15 15 15 13 14 16 14 15 13 13 13 13 13 14 13 14 13 12 12/14 13 15

Like the previous twelve bars, this twelve bar section of the solo study uses major pentatonic with an optional major third, as discussed in the section [Major Pentatonic with Optional Flat Three](#).

53 C^7 4 3 2 1 3 1 3 1 2 1 2 2 1 1 3 1 1 1 4 4 4 3 F^7

17 15 14 13 20 15 (15) 13 14 13 14 14 12 10 8 10 12 10 10 8 9 10 9 8 11 full

57 F^7 3 1 2 1 3 1 3 2 1 3 1 2 3 2 1 2 3 2 1 1 2 1 4 1 4 1 3 1 1 1 1 2 3

11 8 10 8 11 8 11 10 8 10 8 10 11 10 8 7 8 7 10 7 10 8 10 7 8 8 9 10

61 G^7 1 2 2 1 1 1 3 1 2 2 1 4 3 1 2 3 2 1 1 4 3 1 4 3 4 3 1 3 1 3 1 1 C^7 C^7/E F^7 $F^{\#o7}$ G^7 C^7

7 8 9 8 8 10 13 12 13 14 13 15 15 (15) 13 15 14 14 8 11 10 8 11 10 11 10 8 10 8 10 8 7 full

I IV V Blues Minor Pentatonic With Optional Major Third, Example 2 solo

Swing Eighths

The musical score is written for guitar and includes a bass line. The key signature has one flat (Bb). The melody is in the treble clef, and the bass line is in the bass clef. The score is divided into three systems. The first system has four measures, the second has four measures, and the third has four measures. Chords are indicated above the staff: C7, F7, and G7. The bass line includes fret numbers and techniques like 'full' and '1/4'.

System 1:

- Measure 1: Treble clef has eighth notes G4, A4, Bb4, C5. Bass line has frets 8, 10, 10. Technique: full.
- Measure 2: Treble clef has eighth notes D5, E5, F5, G5. Bass line has frets 11, 8, 11, 8, 11. Technique: 3.
- Measure 3: Treble clef has eighth notes G5, F5, E5, D5. Bass line has frets 8, 9, 10, 8, 10, 10. Technique: 3.
- Measure 4: Treble clef has eighth notes C5, Bb4, A4, G4. Bass line has frets 8, 11, 8, 11, 8, 8. Technique: 3.

System 2:

- Measure 5: Treble clef has eighth notes F4, G4, A4, Bb4. Bass line has frets 8, 11, 8, 11, 8, 8. Technique: 3.
- Measure 6: Treble clef has eighth notes C5, D5, E5, F5. Bass line has frets 8, 10, 10, 8, 10, 10. Technique: full.
- Measure 7: Treble clef has eighth notes G5, F5, E5, D5. Bass line has frets 10, 8, 10, 8, 10, 10. Technique: 1/4, full.
- Measure 8: Treble clef has eighth notes C5, Bb4, A4, G4. Bass line has frets 8, 11, 8, 8, 11, 8. Technique: 3.

System 3:

- Measure 9: Treble clef has eighth notes F4, G4, A4, Bb4. Bass line has frets 10, 12, 11, 8, 10, 8, 10. Technique: full.
- Measure 10: Treble clef has eighth notes C5, D5, E5, F5. Bass line has frets 10, 8, 10, 10, 10, 10. Technique: full.
- Measure 11: Treble clef has eighth notes G5, F5, E5, D5. Bass line has frets 8, 10, 10, 10, 10, 8. Technique: full.
- Measure 12: Treble clef has eighth notes C5, Bb4, A4, G4. Bass line has frets 10, 10, 10, 10, 10, 10. Technique: 1/4.

Key to the Highway style solos with minor pentatonic and optional major third solo

Swing Eighths

First Solo (Measures 1-4):

Chords: A⁷, E⁷, D⁷

Notes: #2 3 5 #2 3 1 1 | 4 5 4 b3 1 | b3 5 5 | 4 5 b7 1 | 1 5 b3 1 1 | 4 5 4 5 5 | 4 b3 1 1 b3 5 5

Annotations:

- I major triad with lower chromatics to 3
- Darkening with I minor triad with neighbor & passing tone 4. "b3" (C) makes E augmented and is a blue note for the key.
- 5 & b7 suggest I⁷ (A⁷) to IV⁷ (D⁷)
- I minor triad (with neighbor tone 4) is part of the IV⁹ (D⁹) chord

Second Solo (Measures 5-8):

Chords: A⁷, E⁷, A, A⁷, A^{o7}, Bm⁷(b5), A⁷, E⁷

Notes: #2 3 1 b7 5 b7 1 1 | b7 5 4 5 4 b3 4 5 | #2 3 1 4 #2 3 | 1 5 b7 1 | b5 6 1 4 b6 2 | #2 3 1 b7 5 5

Annotations:

- I⁷ (A⁷) chord tones, made colorful with bends
- E⁷ is 5724 of A, so 4 & 5 are part of E⁷. b3 (C) makes E sound augmented and makes the key bluesy.
- Anticipates the I(A) triad. "4" is an upper neighbor to "3"
- Each triplet is tones of the current chord.
- I⁷ (A⁷) chord tones, leading down to "5" with microtonal b7. Common to Albert King style, usually an octave lower.

Third Solo (Measures 9-12):

Chords: A⁷, E⁷, D⁷

Notes: #2 3 4 #2 3 1 1 | b7 5 4 b3 1 | 5 4 b3 5 5 | 4 5 b7 5 | b3 1 1 4 b3 1 b7

Annotations:

- I minor triad with neighbor tone 4
- D⁷ is 5724 of A, so 4 & 5 are part of D⁷. b3 (C) makes E sound augmented and makes the key bluesy, especially with the b3 microtonal bend.
- 5 & b7 suggest I⁷ (A⁷) to IV⁷ (D⁷)
- I minor triad (with neighbor tone 4) is part of the IV⁹ (D⁹) chord

Tablature (T, A, B strings):

First Solo: 5 6 5 6 7 | 7 (7) 5 7 | 5 7 | 7 9 8 | 10 10 9 | 10 10 | 10 10 | 10 10 | 10 10 | 10 10 | 8 5 5

Second Solo: 8 5 | 8 5 | 8 5 | 8 5 | 7 (7) 5 7 | 5 6 7 5 6 | 7 9 8 | 8 7 5 | 7 6 7 | 7 9 5 | 8 5 | 8 5

Third Solo: 8 9 10 8 9 | 10 8 | 5 7 5 | 5 7 5 | 7 9 8 | 8 10 | 10 10 | 10 8 | 10 8

12

4 5 b3 1 b7 1 1 1 #2 3 4 #2 3 1 b7 5 1 1 b7 b7 5 4 b3 4 5 b3 1 b7 1

I minor triad (with neighbor non-chordal tone b7) is part of the IV9 (D9) chord. "4" at the end is an upper neighbor to the "3" of the A7 that follows.

I7 (A7) chord tones

E7 is 5724 of A, so 4 & 5 are part of E7. b3 (C) makes E sound augmented and makes the key bluesy, especially with the b3 microtonal bend.

I7 (A7) chord tones, anticipating the I7 chord.

1 3 1 3 1 3 3 1 2 3 1 2 3 1 2 3 1 1 2 2 1 3 1 1 3 1 3

10 12 8 10 8 10 10 8 9 10 8 9 10 8 9 10 8 8 9 7 5 7 5 5 7 5 7

15

1 1 1 1 1 1 1 1 b7 7 5 2 4

chord tones of each chord

E7 chord tones

3 4 4 4 4 4 4 4 0 1 0 0 3

3 3 2 2 1 1 1 0 0 0 3

7 5 5 4 4 3 3 2 0 1 0 3

I IV V Jazz Blues solo example

Diagram illustrating a Jazz Blues solo example, showing musical notation, fretboard diagrams, and tablature across four systems.

System 1:

- Chords: C⁷, Dm⁷, D[♯]o⁷, C/E
- Notes: 1 2 trip let 3 + 4 + 1 +2+ 3 + 4 + 1 + 2 trip let 3 trip let 4 +
- Tab: 8 11 8 11 8 8 | 9 8 10 10 11 10 12 10 | 11 8 11 8 10 8 10 8 10

System 2:

- Chords: C⁷, C⁷, D^o, C
- Notes: 1 +2+ 3 + 4 + 1e+a 2 e+a 3 e+a 4 e+a
- Tab: 8 9 8 | 7 8 7 6 5 5 | 11 13 11 12 11 10

System 3:

- Chords: F⁷, Gm⁷, G[♯]o⁷, F/A
- Notes: 1 e+a 1 3 3 2 3 3 1 3 1
- Tab: 8 10 2 3 4 5 | 10 12 11 12 10 8 10 8

System 4:

- Chords: C⁷, Dm⁷, D[♯]o⁷, C
- Notes: 3 3 3 3 3 3 2 2 2
- Tab: 10 9 8 10 11 10 12 10 | 8 10 10 10 12 12 11 13 13

10 *G7#9*

1 1 1 4 3 1 3 1 3 1 3 3

T 10 11 10 11 9 8 11 10 8 10 8 10 10

A 10 10 9 8 7 8 8 10 8 10 8 10 10

B 10 10 9 8 7 8 8 10 8 10 8 10 10

E^b7 *D7* *D^b7* *C7*

1 2 3 1 2 3 1 2 3 1 2 3

1 *b*7 3 1 *b*7 3 1 *b*7 3 1 *b*7 3

Gm *F* *F* *C7*

3(4) 2 1(1) 1 1(1) 1 1 2 3

5 1 *b*3 5 1 3 3 5 1 5 *b*7 3

12

1 4 1 4 1 4 1 8 11 8 11 11 8 11 12 10 10 10 9 8 12 10

T 12 11 10 9 8 8 11 8 11 11 8 11 12 10 10 10 9 8 12 10

A 11 10 9 8 8 11 8 11 11 8 11 12 10 10 10 9 8 12 10

B 11 10 9 8 8 11 8 11 11 8 11 12 10 10 10 9 8 12 10

Gm *F* *D^b7* *C7*

1(1) 2 1(1) 1 1 2 3 1 2 3

*b*3 5 1 3 5 1 5 *b*7 3 5 *b*7 3

15

4 3 1 3 1 2 1 4 1 4 1 14 13 11 13 11 12 10 13 10 13 10 12 10 10 9 8 11 8 11 8 11 8

T 14 13 11 13 11 12 10 13 10 13 10 12 10 10 9 8 11 8 11 8 11 8

A 14 13 11 13 11 12 10 13 10 13 10 12 10 10 9 8 11 8 11 8 11 8

B 14 13 11 13 11 12 10 13 10 13 10 12 10 10 9 8 11 8 11 8 11 8

Cm *B^b* *F7*

3(4) 2 1(1) 1 1 2 3

5 1 *b*3 5 1 3 *b*7 3 5

Gm *F* *F* *C7*

3(4) 2 1(1) 1 1(1) 1 1 2 3

5 1 *b*3 5 1 3 3 5 1 5 *b*7 3

18 *F7*

3 1 1 S 4 1 4 3 3 3 1 3 7 8 11 8 11 10 11 10 8 11 12 10 10 10 9 8 12 10

T 10 8 4 3 1 7 8 11 8 11 10 11 10 8 11 12 10 10 10 9 8 12 10

A 10 8 4 3 1 7 8 11 8 11 10 11 10 8 11 12 10 10 10 9 8 12 10

B 10 8 4 3 1 7 8 11 8 11 10 11 10 8 11 12 10 10 10 9 8 12 10

21

Chords: $G7(\sharp 9)$, $F7$, $F9$

Fingering: 1 3, 1 3, 3 3, 4 3, 3

Bass line: 8 10 10 12 11 12 11 10 8 11 11 10 8 10 8

24

Chords: C^9 , F^9 , $F^\sharp o7$, C^7

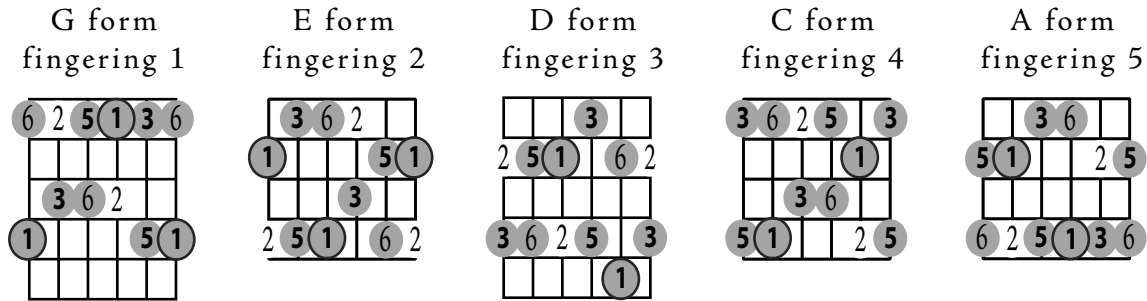
Fingering: 1 2, 1 2, 1 2, 1 2, 3 b7 2 5, 1 3 b7 2, 1 b5 6 b3, 1 1 1 1, 3 b7 2 5

Bass line: 10 10 8 7 8 7 10 8 9 8 9 10

Major Pentatonic (Ma6/9) Scale

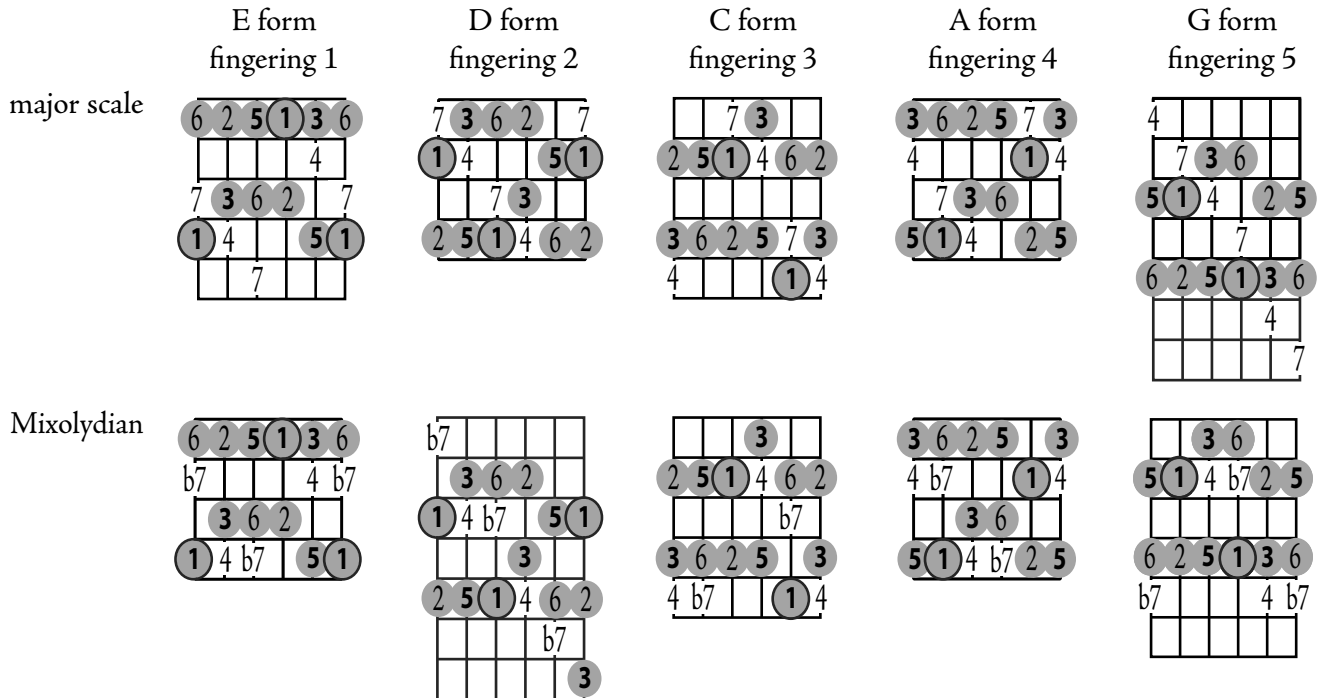
major 6/9 synonyms and chord sound

I specify major pentatonic with the chord-style name “major 6/9 pentatonic scale”. In a major scale named after the key it has tones 1, 2, 3, 5 and 6. Major 6/9 pentatonic scale makes a key scale major sixth chord sound, since contains the notes of a major sixth chord (such as C6). The grey-backed notes below are major sixth chord tones. Adding a second (“2”) to a major sixth arpeggio produces a major 6/9 pentatonic scale.

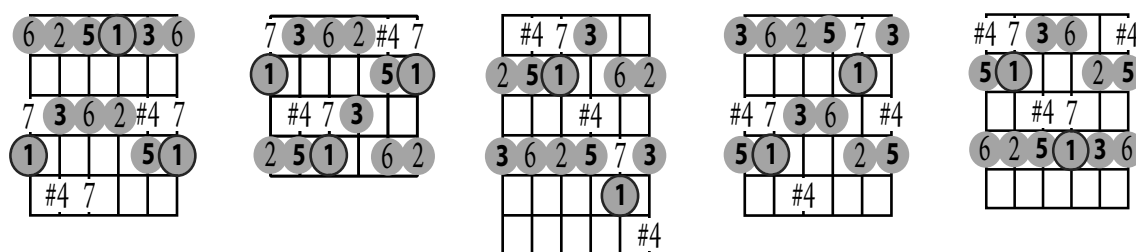


major 6/9 subsets of heptatonic (7 tone) scales

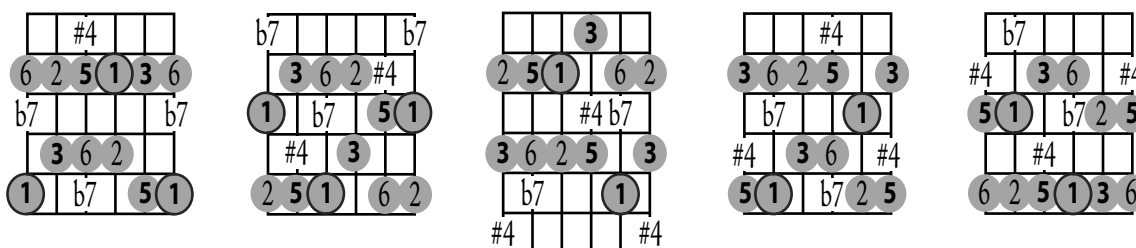
Major 6/9 is a subset of major (Ionian or major mode I), Lydian (major mode IV), Mixolydian (major mode V) and Lydian dominant (melodic minor mode IV). See [Modes of Four Heptatonic Scales](#).



Lydian



Lydian dominant



melodic characteristics of individual notes

Bending is a little limited with this scale. It is not typical to bend in traditional Swing music. The most common bend in major pentatonic is “2” to “3”. Bending “5” to “6” is good where “6” is a chord tone (or implied chord tone). If “6” is not a chord tone, release to “5” after bending to “6”. By using the commonly added scale tone “4”, “4” can be bend to “5”. Bending “1” to “2” is good where “2” is a chord

tone. Bending “6” up to “1” or “3” up to “5” are rare.

“6” is a lower neighbor to “1”. Add “4” as a neighboring and passing tone. Avoid overuse of the 3 without darkening it with “b3” or playing it briefly. Slur into the “3” from “#2”. Preceding “3” with a #2 of short duration sounds more modern than using a #2 of long duration.

In early blues and ragtime music from about 1900 to 1920, sharp two was commonly played before three with equal duration. By about 1940, it became unfashionable to play a long duration of sharp two before three. Sharp two is now commonly played with a short duration before three, often just a grace note.

When you play “3” and “b3” (#2) repeatedly next to each other in a phrase, the melodic convention is to end on natural three, the “happy note”. There are exceptions, such as Paul McCartney’s outro solo on “Ticket To Ride”.

End phrases on “2” or “6” when they are pleasing chord tones.

Key to the Highway style solos with major pentatonic and optional flatted third solo

♩ = 95

Swing Eighths

System 1 (Measures 1-4):

- Measure 1: $I(A)6$ chord tones (5 6 1 1 6)
- Measure 2: $I(A)m6/9$ (A maj. pent. with $b3$). Darkening $A6$ with $b3$. (2 $b3$ 2 1 6 1 6)
- Measure 3: $V6/9$ is 56723. This adds bright colors to 5 with its "2" (6 of key) and its "6" (3 of key). (5 3 6 3 5 5)
- Measure 4: $I(A)m6/11$ has all five tones of $D9$ and is 1 $b3$ 4 5 6 of the key. (5 6 1 1 6 1 5 6 1 5)

System 2 (Measures 5-8):

- Measure 5: $I(A)m6/11$ has all five tones of $D9$ and is 1 $b3$ 4 5 6 of the key. (4 $b3$ 1 6 1 2)
- Measure 6: $I(A)$ chord tones (2 3 5)
- Measure 7: $I(A)m6/9$ (A maj. pent. with $b3$), especially emphasizing $b3$, 1 and 6. $b3$ makes it bluesy. "6" is the classic swing tone, making it sound jazzy. (2 $b3$ 2 1 6 1 6 1 5 6 5)
- Measure 8: $I(A)$ chord tones (2 2 1 3 $1/2$ 1 3 1 3 1 1 3 1)

System 3 (Measures 9-12):

- Measure 9: $V6$ is 5723. This adds the bright colors "6" (3 of key) and its "6" (3 of key). (5 2 3 5 2)
- Measure 10: $I(A)$ chord tones. Anticipates the I chord. (1 2 3 1)
- Measure 11: $I(A)6$ chord tones (1 2 3 5 6)
- Measure 12: $I(A)^{\circ}7$ chord tones (1 6 1 2)
- Measure 13: $I(A)m6/9$ (A maj. pent. with $b3$) anticipates the $A7$ ($b3$ 2 1 6 1 2)
- Measure 14: $I(A)$ chord tones (3 5)

System 1:

Chords: A7, E7, D7

Section 1: V(E)m7/11 with chromatic

Section 2: I(A)m6/9(A maj. pent. with b3)

System 2:

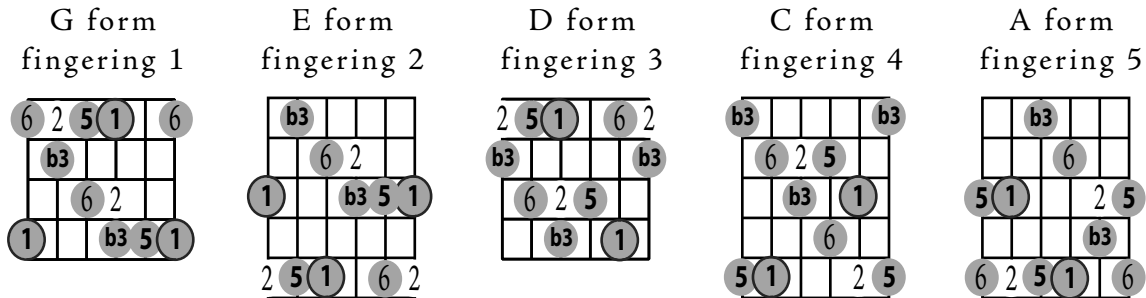
Chords: A7, E7, A, A7, A7, Bm7(b5), A7, E7

Section 1: I(A)m7/11 (A minor pent.)

Major Pentatonic with Optional Flat Three (Minor Six Nine)

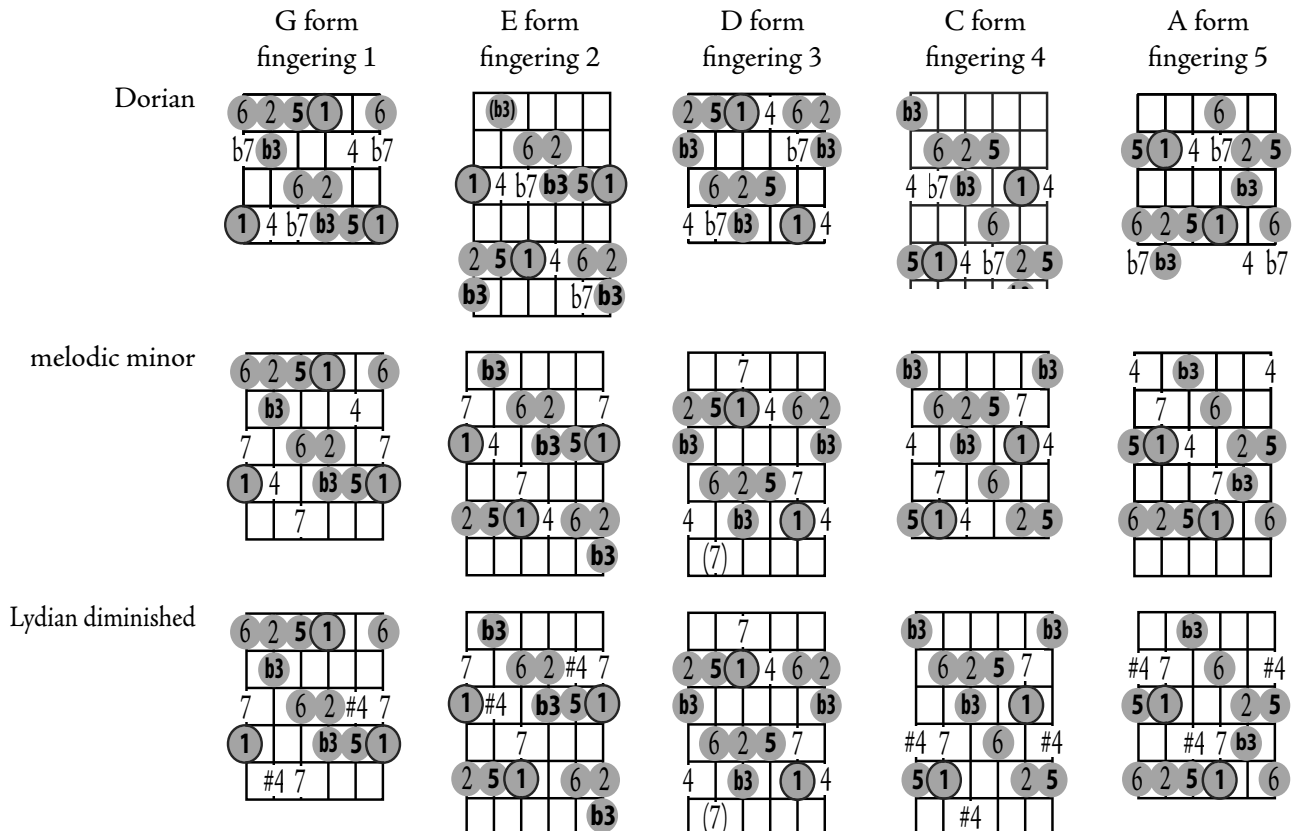
minor 6/9 synonyms and chord sound

When major pentatonic has a flatted third (b3), I use the chord-style name “minor 6/9 pentatonic scale”. In a major scale named after the key it has tones 1, 2, b3, 5 and 6. Minor 6/9 pentatonic scale makes a key scale minor sixth chord sound, since contains the notes of a major sixth chord (such as Cm6). The grey-backed notes below are minor sixth chord tones. Adding a second (“2”) to a minor sixth arpeggio produces a minor 6/9 pentatonic scale.



minor 6/9 subsets of heptatonic (7 tone) scales

Minor 6/9 is a subset of Dorian (major mode II), melodic minor (major flat three) and Lydian diminished (Lydian flat three or major flat six mode IV). See [Modes of Four Heptatonic Scales](#).



melodic characteristics of individual notes

Optionally apply a microtonal bend to the b3 (produce a slight, gradual upward bend). Bending is a little limited with this scale. It is not typical to bend in traditional Swing music. The best bends are “2” to “b3” and “4” to “5” (“4” is an added tone). Bending “1” to “b3” is good for a “crying” sound. Bending “1” to “2” is good where “2” is a chord tone. Bending “5” to “6” is good where “6” is a chord tone. Remember to not bend three or four-fret bends with the index finger.

Use “6” as a lower neighbor to “1”.

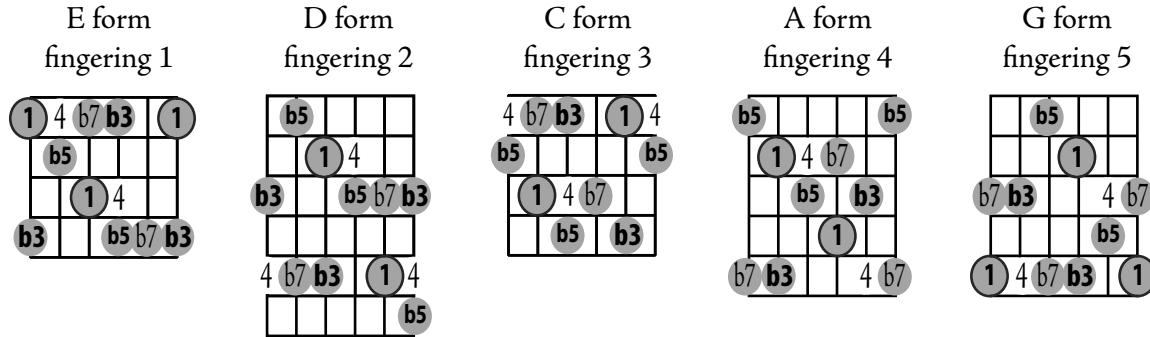
Use minor 6/9 pentatonic for chords that have the “b3”, or where the chord has “3”, but you are using “b3” as a blue note. Practice playing phrases that combine sub phrases with “3” and sub phrases with “b3”.

Add “4” as a neighboring and passing tone. End phrases on “2” or “6” when they are pleasing chord tones.

Minor Pentatonic with Flat Five (m7/11b5)

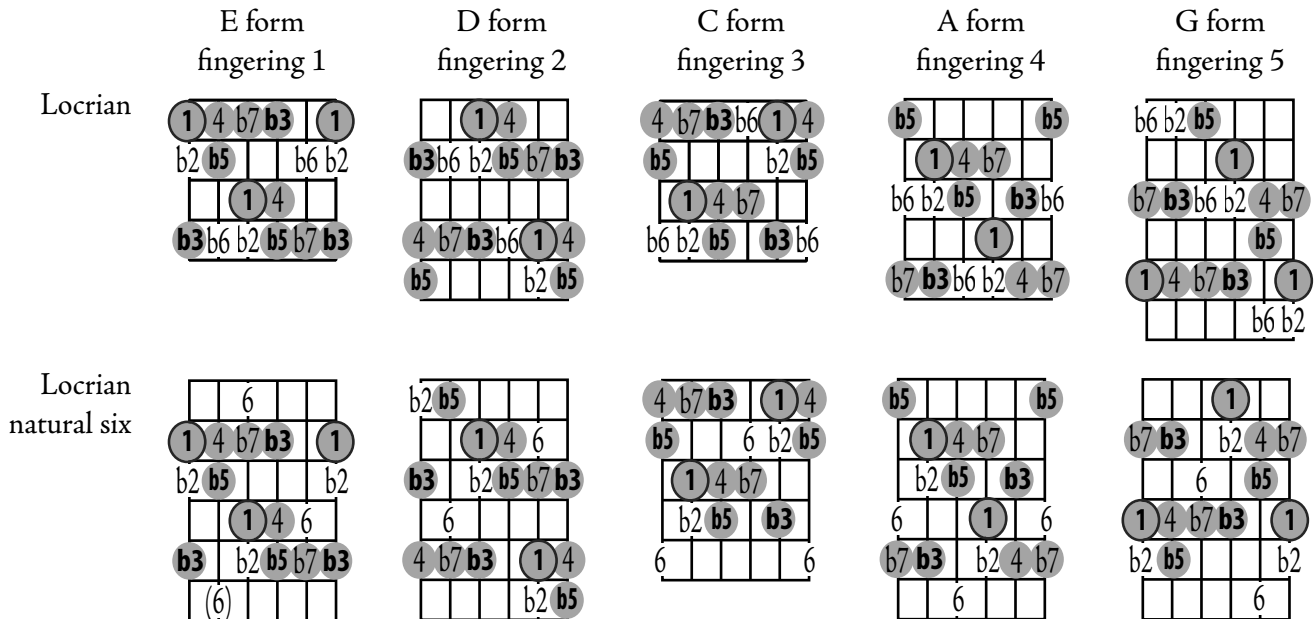
minor 7/11b5 synonyms and chord sound

I specify minor pentatonic with the chord-style name “minor 7/11b5 pentatonic scale”. In a major scale named after the key it has tones 1, b3, 4, b5 and b7. Minor 7/11b5 pentatonic makes a key scale minor seventh flat five chord sound, since contains the notes of a minor seventh flat five chord (also called “half-diminished”). The grey-backed notes below are minor seventh flat five chord tones. Adding a fourth (“4”) to a minor seventh arpeggio produces a minor 7/11b5 pentatonic scale.

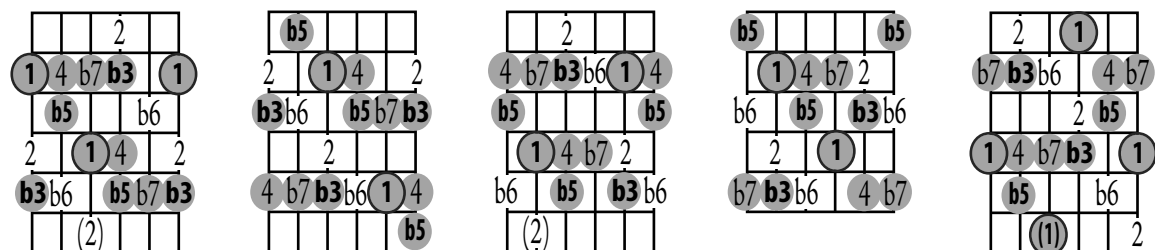


minor 7/11b5 subsets of heptatonic (7 tone) scales

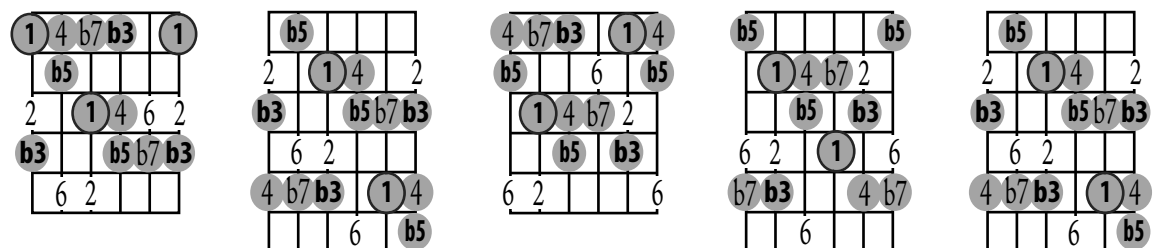
Minor 7/11b5 is a subset of Locrian (major mode VII), Dorian flat five (major flat six mode II) and Aeolian flat five (melodic minor mode VI). See [Modes of Four Heptatonic Scales](#).



Aeolian flat five



Dorian flat five



melodic characteristics of individual notes

This is a good scale for bending. All notes can be bent up to the next scale tone, but bending “b5” to “b7” is an extreme four fret bend. Apply a microtonal bend to b3 (produce a slight, gradual upward bend). Slight blue notes b5 or b7. Remember to not bend three or four-fret bends with the index finger.

Chromatics are good between b7 and 1.

“b5” works great during the later part of the IV7 chord, suggesting IV7b9 or #IVdim7. It also works well during the I7 chord, if you want the darkest mood. “b7” functions as a lower neighbor to “1”. “b3” functions as an upper neighbor to “1”. Add “2” where it is a chord tone, such as on a Im9 or on a V chord (the V chord is constructed with key scale tones 5, 7 and 2).

Surfing with the Alien style minor 7/11 b5 example solo

The musical score is written for guitar in 4/4 time, featuring a key signature of one sharp (F#) and a key signature change to one flat (Bb) at measure 5. The score is divided into four systems, each with a guitar staff and a tablature staff.

System 1 (Measures 1-4): The guitar staff shows chords G, C, C, and G. The tablature includes fingerings such as 10-12, 11, 10, 9, 8, 6, 8, 8, 6, 6, 5, 3, 5, 5, 6, 5, 3, 5, 5, 8, 6.

System 2 (Measures 5-8): The guitar staff shows chords G, C, C, and G. The tablature includes fingerings such as 9, 6, 8, 6, 6, 8, 7, 6, 6, 6, 5, 8, 5, 5, 6, 5, 0, 3, 5, 3, 0, 5, 6, 3, 6, (6), 5, (5), 3, 4, 3, 6, 3.

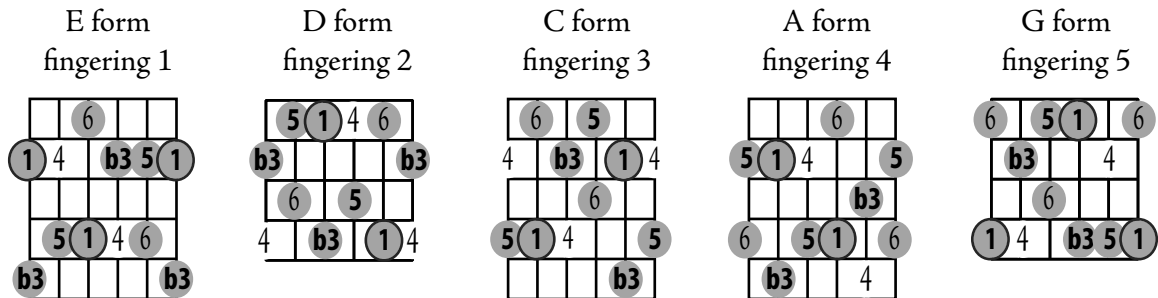
System 3 (Measures 9-12): The guitar staff shows chords Em7 and C7. The tablature includes fingerings such as 15, 12, 12, 15, 17, 15, 17, 17, (17), 19, 18, 17, 18, 17, 15, 17, 15, 14, 17, 15.

System 4 (Measures 13-16): The guitar staff shows chords G and D. The tablature includes fingerings such as 13, 15, 15, 13, 12, 11, 13, 13, 13, 11, 13, 15, 13, 15, 13, 15.

Minor Pentatonic with Six Instead of Flat Seven (m6/11)

minor 6/11 synonyms and chord sound

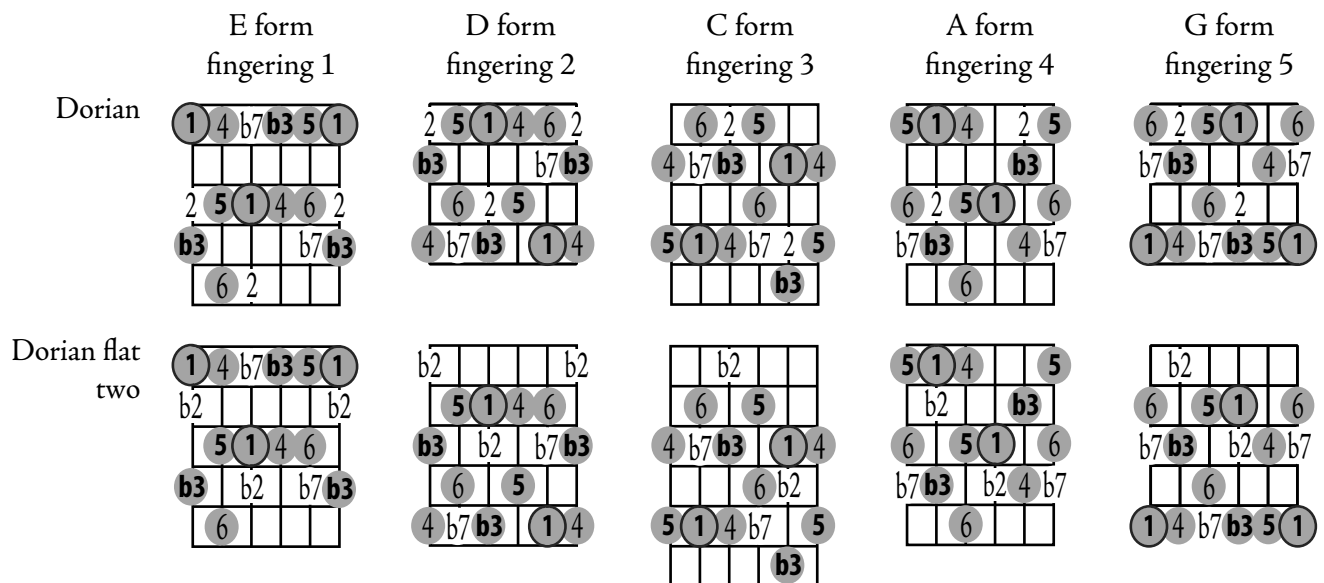
When a minor pentatonic scale is used with six instead of flat seven, I give it the chord-style name “minor 6/11 pentatonic scale”. In a major scale named after the key it has tones 1, 2, b3, 5 and 6. Minor 6/11 pentatonic makes a key scale minor sixth chord sound (such as Cm6), since it contains the notes of a minor sixth chord. The grey-backed notes below are minor sixth chord tones. Adding a fourth (“4”) to a minor seventh arpeggio produces a minor 6/11 pentatonic scale.



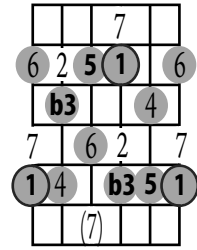
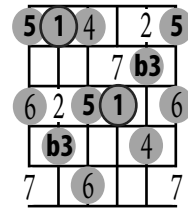
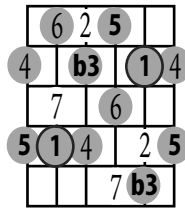
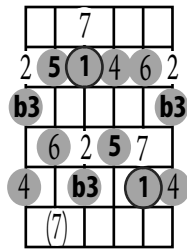
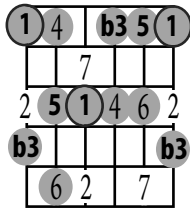
Im6/11 = IV9. Playing a key scale Im6/11, like Gm6/11 in the key of G produces the same notes as a IV9 chord, which is C9 in the key of G.

minor 6/11 subsets of heptatonic (7 tone) scales

Minor 6/11 is a subset of Dorian (major mode II), Dorian flat two (melodic minor mode II) and melodic minor (major flat three). See [Modes of Four Heptatonic Scales](#).



melodic minor



melodic characteristics of individual notes

Apply a microtonal bend to the b3 (produce a slight, gradual upward bend). Apply a microtonal bend to the b7. This is a good scale for bending. All notes can be bent up to the next scale tone, but bending “6” to “1” is rare. Remember to not bend three or four-fret bends with the index finger.

Chromatics are best between 4 and 5, also good between b7 and 1.

“b7” functions as a lower neighbor to “1”. “b3” functions as an upper neighbor to “1”. Add “2” where it is a chord tone, such as on a Im9 or on a V chord (the V chord is constructed with key scale tones 5, 7 and 2). Tend to descend to the “6”, rather than all the way down to the “4”. Notice the dissonant interval from “b3” to “6” (typical of fifties swing-rock or rockabilly).

Rockin' Billy minor 6/11 Solo Example solo

Swing Eighth

Chord progression: C⁷ F⁹ C⁷

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

1 1 3 1 2 2 1 1 1 4 1 3 1 4 4 4 1 2 4

1 1 3 1 3 3 1 1 2 3 1 3 1 1 3 1 1 4 3

T 8 8 8 11 11 10 8 8 11 8 8 8 10 10 10 8 11

A 8 10 8 12 12 10 8 9 10 10 8 10 8 8 8 10

B 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10

Chord progression: F⁹ F^{#o7} C⁷

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

4 1 3 1 4 4 4 1 3 1 1 3 1 1 2 1 2 4 1 2 1 2 4 3

3 3 3 3 3 1 1 3 1 3 1 3 3 3 3 3 3 3 3 3 3 3

T 10 8 8 10 11 10 8 8 8 8 8 11 10 11 13 11 10 11 13 12 10 12 12 12

A 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10

B 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10

Chord progression: G⁹ F⁹ C⁷

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

1 1 4 4 3 4 4 4 1 3 1 1 3 1 4 3 4 4 1 2

3 3 1 1 3 1 1 1 1 1 3

T 10 10 13 13 11 10 10 8 8 8 8 10 8 10 10 10 8 9 10

A 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10

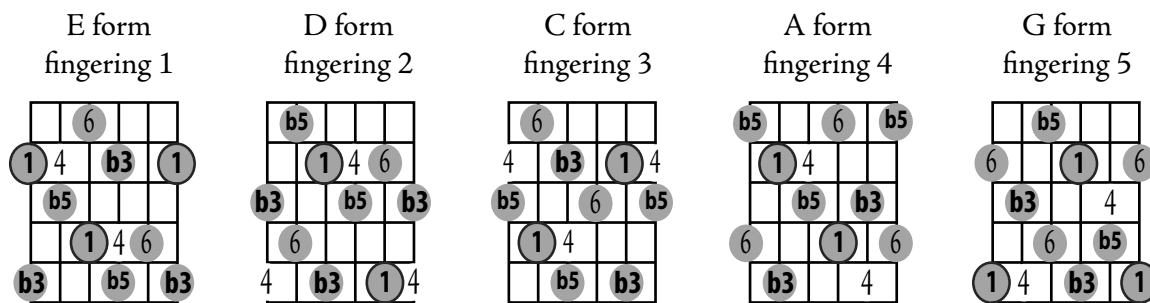
B 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10

Diminished Seven Add Four Pentatonic (Diminished 7/11)

diminished 7/11 synonyms and chord sound

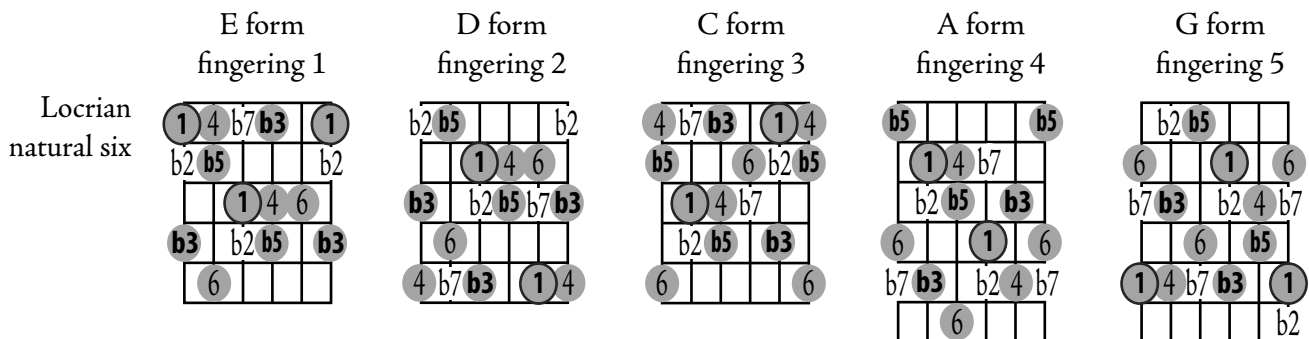
It is unfortunate that the naming convention for diminished seventh has not been updated. It would be more understandable as minor sixth flat five. The chord name “diminished seventh” was coined previous to the use of sixth chords, and was an attempt to name a four note chord in the traditional manner as a seventh. In doing so, the sixth has been called a “double-flat” seventh. So, the formula for a diminished seventh is 1-b3-5-bb7 (double-flat seven = 6).

When a minor pentatonic scale is used with six instead of flat seven and with a flat five, I give it the chord-style name “minor 6/11b5 pentatonic scale”. In a major scale named after the key it has tones 1, 2, b3, b5 and 6. Minor 6/11 pentatonic makes a key scale diminished seventh chord sound (such as C diminished seventh or C°7), since it contains the notes of a diminished seventh chord. The grey-backed notes below are diminished seventh chord tones. Adding a fourth (“4”) to a diminished seventh arpeggio produces a diminished 7/11 pentatonic scale.

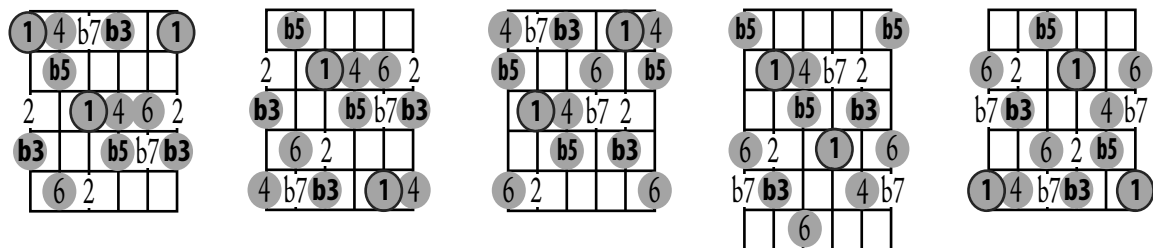


diminished 7/11 subsets of heptatonic (7 tone) scales

Diminished Seven Eleven is a subset of Locrian natural six (major sharp five mode VII) and Dorian flat five (major flat six mode II). See [Modes of Four Heptatonic Scales](#).



Dorian flat five



melodic characteristics of individual notes

Apply a microtonal bend to the b3 (produce a slight, gradual upward bend). Apply a microtonal bend to the b5 and b7. This is a good scale for bending. All notes can be bent up to the next scale tone. Remember to not bend three or four-fret bends with the index finger.

“6” functions as a lower neighbor to “1”. “b3” functions as an upper neighbor to “1”. Tend to descend to the “6”, rather than all the way down to the “4”. Notice the dissonant interval from “b3” to “6” (typical of fifties swing-rock or rockabilly).

Descending Diminished Blues solo example solo rhythm track

Swing Eighths

First system of musical notation. Treble clef, E major key signature (three sharps), 12/8 time signature. Chords: E, E^{°7}. A bracket labeled '4' indicates a four-measure phrase. Below the staff is a guitar TAB with fret numbers: 12, 13, 14, 14, 14, 12, 14, 15, 14, 12, 14, 15, 15. Arrows labeled 'full' point to the 14th and 15th frets.

Second system of musical notation. Chords: E, E^{°7}, F[#]m⁷(b⁵), B⁷, E. The melody includes a descending scale marked 'Em⁷/11b⁵ scale'. Annotations include 'slide down to a random point with progressive muting' and 'slide up and down to a random point with progressive muting'. The guitar TAB shows fret numbers: 12, 15, 12, 14, 15, 14, 12, 15, 19, 12, 11.

Third system of musical notation. Chords: E, E^{°7}. The melody includes a descending scale marked 'Em⁷/11b⁵ scale' with a bracket labeled '5'. The guitar TAB shows fret numbers: 12, 10, 12, 12, 12, 10, 12, 10, 12, 12, 2, 11, 9, 11, 9, 11, 12, 9, 11, 10, 11, 10, 9, 10, 12, 9.

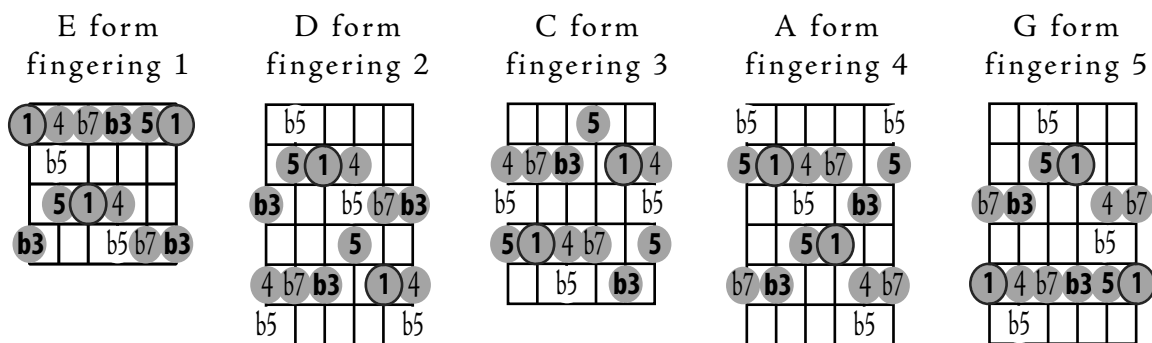
Fourth system of musical notation. Chords: E, E^{°7}, F[#]m⁷(b⁵), B⁷, E. The melody includes a descending scale marked 'Em⁷/11b⁵ scale'. Annotations include 'full' and '1/4' with arrows pointing to specific frets. The guitar TAB shows fret numbers: 17, 17, (17), 16, 18, 18, 17, 15, 15, 17.

ADDED TONES

Chromatics

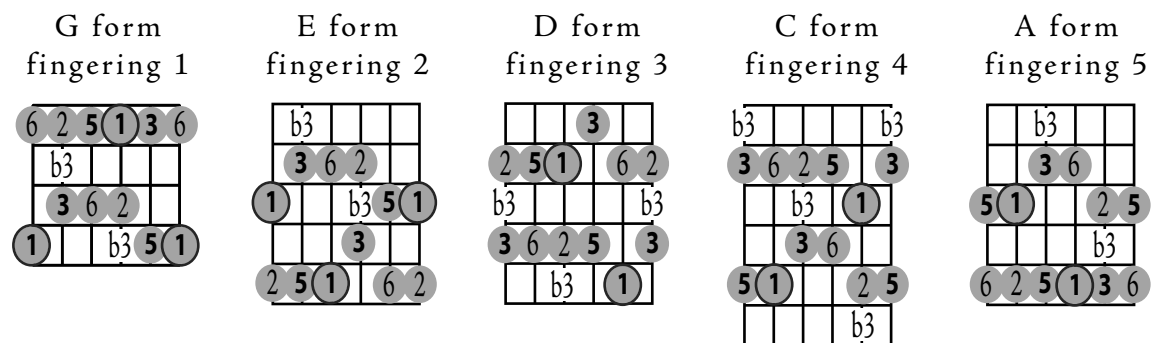
chromatics between 4 and 5 of minor pentatonic

Ascending, this tone would be called sharp four (“#4”). Descending, it would be flat five (“b5”). It is labeled “b5” on the diagrams below. Where “b5” occurs on two adjacent strings, the one on the smaller string should be used in ascending and on the larger string for descending.



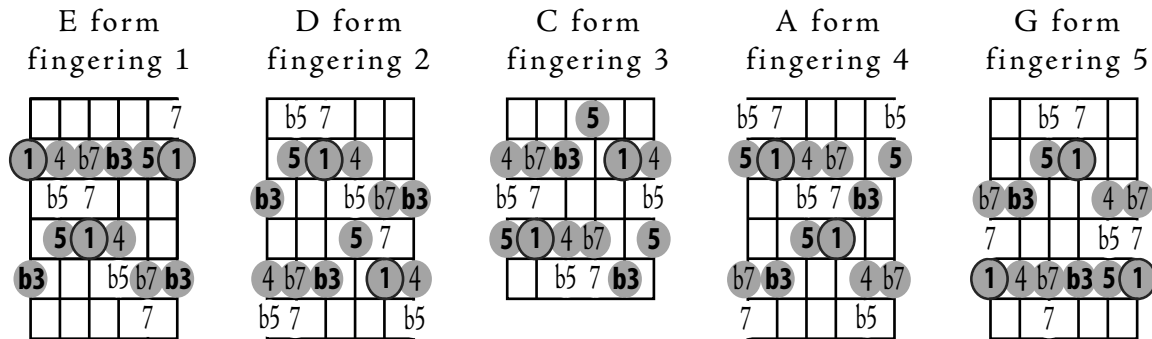
chromatics between 2 and 3 of major pentatonic

Ascending, this tone would be called sharp two (“#2”). Descending, it would be flat three (“b3”). It is labeled “b3” on the diagrams below.



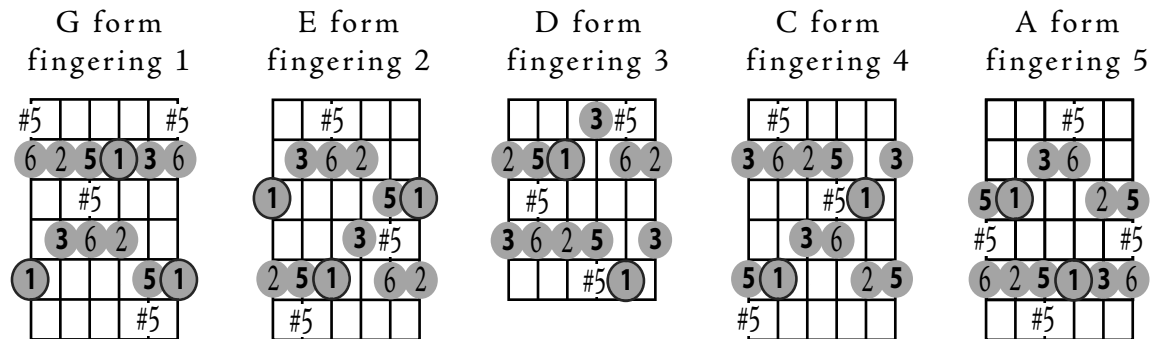
chromatics between both 4 and 5 and between b7 and 1 of minor pentatonic

Where “b5” or “7” occur on two adjacent strings, the one on the smaller string should be used in ascending and on the larger string for descending.



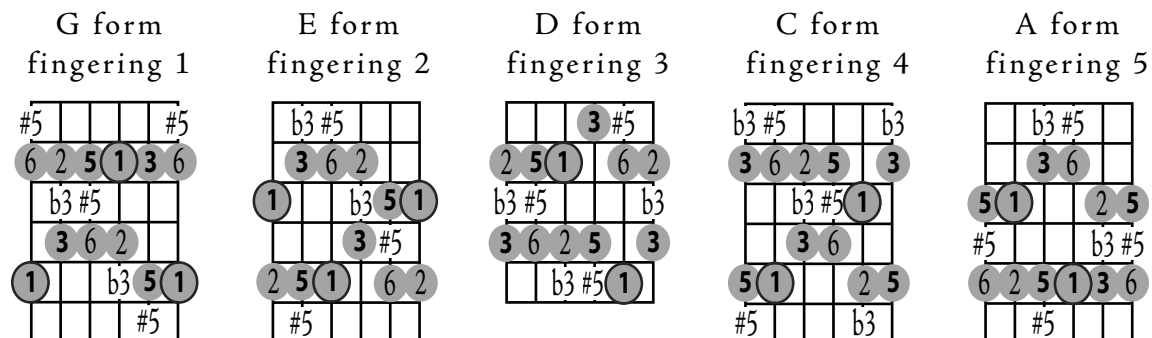
chromatics between 5 and 6 of major pentatonic

Ascending, this tone would be called sharp five (“#5”). Descending, it would be flat six (“b6”). It is labeled “#5” on the diagrams below. Where “#5” occurs on two adjacent strings, the one on the smaller string should be used in ascending and on the larger string for descending.



chromatics between 2 and 3 and between 5 and 6 of major pentatonic

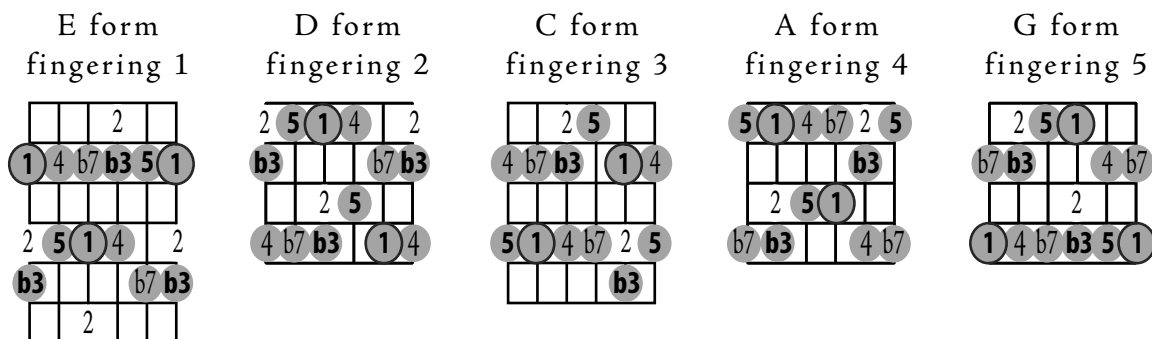
These are labeled “b3” and “#5” on the diagrams below. Where “b3” or “#5” occurs on two adjacent strings, the one on the smaller string should be used in ascending and on the larger string for descending.



Neighboring and Coloring Tones

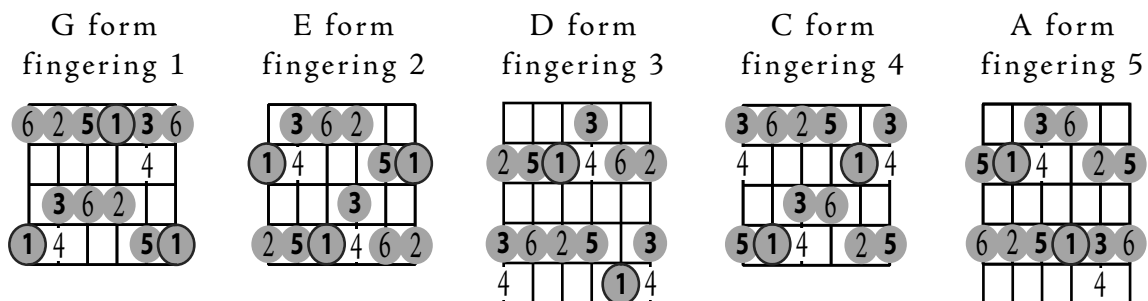
minor pentatonic adding a ninth (2)

Where “2” occurs on two adjacent strings, the one on the smaller string should be used in ascending and on the larger string for descending. Tend to use “2” in the high octave to suggest a ninth chord, or in any octave as a neighboring tone to “1” (the tone center) or “b3”.



major pentatonic adding a fourth

Tend to use “4” as a neighboring tone, rather than ascending or descending the scale with it.



FREE ASSOCIATION WITH PENTATONIC TONES

Once you have become familiar with the stylistic and emotive effects of each note in all seven of the pentatonic scales covered in this chapter, you can start thinking in terms of each individual note, rather than in scales. See [Emotive Qualities of Chords and Scales](#) for more in-depth study.

Use of 1 and 5

“1” and “5” are common to I7, IV9, so it may be emphasized during either of those chords.

Use of “b3” and “n3” (natural 3: not flatted)

During the I7 chord, “b3” is a blue note, or expressively lowered chord tone. Following b3 with natural 3 or bending b3 to natural 3 produces a commonly blues effect. During the IV7 or IV9 chord, b3 is a chord tone, but n3 clashes. natural 3 can be used during the end of the duration of the IV7 or IV9 chord to anticipate a return to the I7 chord.

Use of 4

During the I7 chord, “4” is a non-chordal tone, so it should be de-emphasized. During the IV7 or IV9 chords, “4” is a chordal tone (the root, in fact), so it should be emphasized. “4” is often added to the major 6/9 pentatonic as a neighboring or passing tone.

Use of b7

During the IV7 or IV9 chords, “b7” is a non-chordal tone, so it should be de-emphasized. During the I7 chord, “b7” is a chordal tone, so it should be emphasized.

Use of b5

During the I7 chord, b5 is a very dark blue note and usually works best with short durations. During the IV7 chord, the b5 suggests a IV7b9 chord or #IVdim7 and is traditionally used toward the end of the duration of the IV7 chord.

Use of 2

During the I7 chord, “2” can be an added ninth chord tone when the accompaniment clearly states a I7 chord. Otherwise, it is a non-chordal neighboring or passing tone. During the IV7 or IV9 chord, “2” can be used in the mid to high range as an added thirteenth.

Occasionally, the “2” is used with the I7 chord to emulate the ninth of the chord. When this is done, the “b7” should be used before or after the “2” to help establish the ordered structure of the ninth chord: 1-3-5-b7-9 (=2).

Use of 6

During the I7 chord, “6” can be used in the mid to high range as an added thirteenth. The key “6” is the third of the IV chord.

I IV V Swing Blues 531 solo example solo rhythm track

Rockabilly Shuffle comping

Swing Eighths

Swing Eighths

G⁷

1 2 3 4 1 4 3 1 2 3 1 4 6 6 1 2 3 4 1 4 3 1 2 1 4 3 1 3 1 1 4

3 4 5 6 3 6 5 3 4 5 2 5 3 2 5 3 4 5 6 3 6 5 3 4 6 5 3 5 3 2 5

C⁹

1 2 3 4 1 4 3 1 1 3 3 1 3 1 3 1 2 3 4 1 1 3 1 1 3 4 3 1 1 1 4 1

3 4 5 6 3 6 5 2 3 5 5 2 5 2 5 3 4 5 6 3 3 5 3 3 5 6 5 3 3 2 5 2

G⁷

1 3 1 2 3 1 3 4 3 1 3 1 2 3 4 1 3 3 3 4 3 1 3 3

2 4 5 #5 6 1 6 b3 2 1 6 b3 3 4 #4 5 1 1 1 6 1 5 5 5

D⁷

2 5 3 4 5 3 5 5 5 3 4 5 6 3 5 5 5 5 3 5 5

C⁹

3 4 5 6 3 6 5 2 3 5 5 2 5 2 5 3 4 5 6 3 3 5 3 3 5 6 5 3 3 2 5 2

G⁷

3 4 5 6 3 6 5 2 3 5 5 2 5 2 5 3 4 5 6 3 3 5 3 3 5 6 5 3 3 2 5 2

D⁷

3 4 5 6 3 6 5 2 3 5 5 2 5 2 5 3 4 5 6 3 3 5 3 3 5 6 5 3 3 2 5 2

Hound Dog solo example

Swing Eighths

$\text{♩} = 170$

solo 1

[illegible]

Eight Bar Blues 5613 solo example

The musical score is written for guitar and bass. The key signature is D major (two sharps). The time signature is 12/8. The score consists of four systems, each with a guitar staff and a bass staff. Chords are indicated above the guitar staff: D, D7, G7, G#07, B7, Em7, and A7. Fret numbers are written below the bass staff. The score includes various musical notations such as slurs, ties, and triplets.

System 1: Guitar staff starts with a D chord. Bass staff has fret numbers 10, 12, 10, 10, 13, 14, 10, 12, 13, 12, 10, 12, 10, 12. A triplet of 10, 12, 10 is marked.

System 2: Guitar staff starts with a G7 chord. Bass staff has fret numbers 10, 10, 12, 13, 12, 10, 12, 13, 12, 10, 10, 10, 12, 10, 11, 10, 12, 12. A triplet of 10, 12, 10 is marked.

System 3: Guitar staff starts with a D7 chord. Bass staff has fret numbers 10, 10, 10, 12, 12, 10, 10, 9, 12, 12, 11, 10, 12, 14, 15, 14, 15, 17, 15, 14, 15. A 1/4 note is marked.

System 4: Guitar staff starts with a D7 chord. Bass staff has fret numbers 13, 10, 10, 10, 13, 12, 13, 12, (12), 10, 12, 10, 13, 10, 12. A full bar is marked.

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GO BY SOUND AND FEELING FIRST

Begin any improvisation with a sense of the mood, genre, and the nature of the rhythm. Learn to choose the scales, chords, melodic figures and rhythms you use as means of expression. If you are thinking and feeling those elements as you learn to use them in the context of what they express, you'll build the ability to choose the appropriate elements for a song. Listen and feel. Develop your aural intuition.

Chords and scales express different emotions. Major chords and scales are happy, minor are sad, diminished are depressed. Suspended chords are heavenly. Augmented chords are tormented. Rhythms can be excited or calm, smooth or punchy.

Determine the feeling of the piece you are going to improvise on. Learn to use major and minor pentatonic scales to express happy and sad moods. Learn to play regular rhythm for calm and offbeat rhythm for provocative/on edge feeling.

rhythmic unity

We must feel the rhythm of other players and sense the regular pulse of the music along with the other musicians and with the listeners. Everybody must be on the "same page" with the beat.

harmonic unity

In general, all the musicians play in the same key at any one time. The chord sounds generally match, though some of the instruments may play darker or brighter colors, such as a soloist playing flatted notes to darkened and bluesify the mood.

Musicians in an ensemble may depict the chord progression differently in progression from one main chord to another, but there is periodic agreement.

choose the scale

For melodic improv, first learn a scale fingering and improvise with it by ear. Learn the location of the chord tones for each chord you are improvising on in simple terms first, such as chord fingerings.

Determine the key. It is named after the major or minor chord that the section you are improvising on should end with, to sound complete. Usually the bass part is a good indicator. Find the note on the sixth or fifth string that sounds like the bass note the piece should end on. That note is the tone center.

Then play major and minor pentatonic with that note on the tone center to determine whether the section is basically minor or major. See [Relative Major and Minor Pentatonic Scale](#), where the tone center is a circled note, a "squared" note or a note shown on the fretboard in a black circle. Make sure you understand that the fingerings are movable and are located by the circle, square or black.

be inventive rhythmically

Strum rhythms made with [four-pulse rhythmic words](#), summarized below. Combine any two of the four-pulse words. Then shorten the strumming stroke progressively, as described below.

Start by moving your hand in the air, in evenly-timed sets of down-up-down-up. The hand should move very regularly like a metronome or pendulum. Speak the selections you intend to make of each set of four. Start by speaking “down-up-down-up”, and “1-2-3-4” alternately. Gradually touch the strings and strum a single chord.

Now repeat the procedure for gallop. Speak the selections you intend to make of each set of four. Start by speaking “down-(miss)-down-up”, and “1-um-3-4” alternately. Gradually touch the strings and strum a single chord. You should be missing the strings on the first “up”, which is “2”.

First strum the rhythm on all six muted strings, or holding a chord, as described above. Next, narrow the strumming stroke length to three strings, then one string for single-note themes.

After picking a single note theme on one string with the same down up directions as when strumming, apply play it to each note of a scale. So, you’re playing each note multiple times, playing the entire rhythmic idea (like two four-pulse rhythmic words) on a single note, then the entire rhythmic idea on the next higher or next lower note in the scale.

Next, play part of the rhythm on one note of the scale, the rest of the rhythm on the next higher or lower note in the scale. Using two four-pulse rhythmic words, you could play one four-pulse word on one note of the scale and the second four-pulse word on the next note in the scale.

Next, play the rhythmic idea (two four-pulse rhythmic words) up and down the scale, with one instance of each note in the scale. Randomize the starting point in the scale. Practice starting by going down and starting by going up the scale.

Start with these sample pairs of four-pulse rhythmic words, then make up your own combinations from “all possible four-pulse rhythmic words” that follow below.

sample pairs of four-pulse rhythmic words

all four/2-3-4

all four

1-2-3-4

2-3-4



↓ ↑ ↓ ↑
1 2 3 4

↑ ↓ ↑
2 3 4

gallop/2-3-4

gallop

1-3-4

2-3-4



↓ ↓ ↑
1 3 4

↑ ↓ ↑
2 3 4

jingle bells/2-4

jingle bells

1-2-3

2-4



↓ ↑ ↓
1 2 3

↑ ↑
2 4

Creedence/gallop

Creedence

gallop

1-2-4

1-3-4



↓ ↑ ↑
1 2 4

↓ ↓ ↑
1 3 4

Creedence/24

Creedence

1-2-4

2-4



↓ ↑ ↑
1 2 4

↑ ↑
2 4

234/Creedence

2-3-4

Creedence

2-3-4

1-2-4



↑ ↓ ↑
2 3 4

↓ ↑ ↑
1 2 4

all possible four-pulse rhythmic words

nickname →

all four

jingle bells

gallop

Creedence

3 or 4 selections →

1-2-3-4

1-2-3

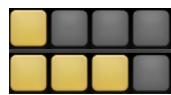
1-3-4

1-2-4

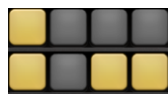
2-3-4



↓ ↑ ↓ ↑
1 2 3 4



↓ ↑ ↓
1 2 3



↓ ↓ ↑
1 3 4



↓ ↑ ↑
1 2 4



↑ ↓ ↑
2 3 4

two selections

1-2

1-3

1-4

2-3

2-4

3-4



↓ ↑
1 2



↓ ↓
1 3



↓ ↑
1 4



↑ ↓
2 3



↑ ↑
2 4



↓ ↑
3 4

one selection →

1

2

3

4



↓
1



↑
2



↓
3



↑
4

SING PHRASES IN YOUR MIND BEFORE PLAYING

Aural Orientation, Not Mechanical

Singers and horn players (mouthpiece instruments and reed instruments) think in terms of sound, not the mechanical process. Guitar players and keyboard players typically think in terms of graphic patterns on their instruments, which does not make a good connection with the listener.

You should develop a collective imagination between you and your listeners, playing to a large extent what they expect to hear. This must be done aurally, not mechanically. Play phrases that have a relationship to what people know. Make new variations within the range of what the listener will accept.

Train Your Hands to Follow Your Mind's Ear

sing an octave of a scale as you play it

Train your voice to sing each note in tune. It's okay to sing the scale an octave lower if that's more comfortable for you. If you have any doubt that you are singing the notes correctly, sing into a tuner that has a microphone to confirm. If you think you are tone deaf, you probably aren't. You just need training.

One student thought he was tone deaf. I asked to sing any note and retain it. Then I asked him to find that note on the fourth string. He was able to do that. Then I asked him to slide up to the note both with his voice and on the guitar, matching the sound. He was able to do that. Then I had him slide up to a note one fret lower in pitch (toward the head of the guitar), which he did. After a bit of that, he was able to play a pentatonic scale and sing each note. It was a little rough, but he did it. After repeating the process a few times during a week, he was able to sing and play a pentatonic scale.

It is common that someone isn't aware of the octave they are singing in. I suggest to them that they could sing what they play in a low, middle or high octave. They can confirm with a tuner that has a microphone and octave indications that their sung note is in the same octave as the one they are playing on the guitar. A good tuner shows the octave with a number after the letter to indicate the octave. Middle C is the middle note on a piano and is called "C4". Ascending from "C4" up to "B", each letter is followed with "4". Above "C4", the next higher octave in pitch is "C5" through "B5". Likewise, the next lower octave in pitch below "C4" is "C3" through "B3".

predict the notes by gradually muting them on the guitar

Continue to sing up and down the scale, as described above, but gradually stop sounding the notes on the guitar, muting them, then only gesturing them by touching the fretted locations and not actually picking the string.

learn to free associate a small group of notes

Beginning with only three or four consecutive notes in a pentatonic scale, sing each note as you play it. Develop the ability to think the notes in any order before you play them. For example, playing in A minor pentatonic in the fifth position, fingering 1 (see *Locating Pentatonic Scales*), sing and play various orders of “1, b3, 4), which are the notes “A, C and D”. *Be inventive rhythmically*. Repeat a note consecutively. Bounce back and fourth between two notes.

That’s free-associating. Now, expand it gradually to four notes, then five. Progressively grow the ability to free associate the entire position.

QUICKLY RECALLABLE RULES

You’re only going to have a second or two to recall many things you will use in improvising. So you have to already know the subject and be able to express it. You may understand the element, but have you practiced it in many instances, so you can “pull it out of the hat” in a performance?

Use your aural intuition first. Learn concepts about scales, chords and rhythms that you can summarize into a simple rule. So simple that you can play intuitively and recall the rule. This can broaden the possibilities of what you play and introduce more sophisticated elements in your music. To do so, you must know the rule or simple set of rules well enough to it without a lot of conscious thought, giving you the freedom to be expressive.

Rules may be regarding choice of scale, chord progression, rhythm or any element of music. They may state what particular thing to focus on or something to avoid, so it may tell you what to include or what to exclude (or both). It needs to be simple and easy to recall. Some examples follow (“listen for chord tones”, “use a rhythmic theme”).

listen for chord tones

When a note seems to harmonize with the current chord, sustain it, repeat it, end the phrase with it. Emphasize it in some manner. Using pentatonic scales, one of the two notes on each string will usually harmonize with the current chord. It may be a note in the chord or a pleasing added harmony. You will increase this ability when you learn graphically where the chord tones are and which of them are in the scale, but you can sense that by ear now. You should always use your ear (your aural sense) first, then elaborate it with your intellect.

change the rhythmic level, leave “breaths”

Especially leave “breaths” at the end of your phrases with a sustained note or silence (rest), to separate the phrase from the next. This can also be done with a device like ending your phrase with something

that sounds like a different instrumental part, with muted notes, notes in a higher or lower octave, or notes at a different rhythmic level (see below).

More often, you should vary the rhythmic level, playing some parts of phrases (or some phrases) with fast notes, some with long notes. For example, base your melody on eighth notes, two notes per beat. End your phrases with sixteenth notes (four per beat) or half notes (one note every two beats) to add diversity.

make patterns with phrase start points

Phrases are typically two bars long. They end with a period of sustain, silence, or some kind of de-emphasis. Phrases can start on the first beat, before the first beat (on the “and” of “4” in 4/4 on “4”, or earlier in the bar before the first beat), or after the first beat (on the “and” of “1”, on “2”, etc.).

Usually you should not start all your phrases in the same part of the bar. It is more interesting when there are patterns to the phrase start points. For example, an eight-bar section, containing four two-bar phrases could be patterned “before, on, before, on” in regard to phrasing.

Before The Chord Begins. Cadences or stepwise superimposed chords can suggest a succession of chords which predict the next chord. The next chord can also be previewed by playing its arpeggio and supporting scale immediately before the chord actually occurs.

At The Beginning Of The Chord. Phrases starting at the beginning of the chord are very obvious and can be boring. Be careful not to overuse them.

After The Beginning Of The Chord. Similar to using all phrases starting at the beginning of the chord, using all phrases starting after the beginning of the chord can be boring. Variety and patterning is preferred, such as a four-phrase section with the first three phrases each starting on the first beat and the last one of the section starting after the first beat to signify the end of the section. Phrases starting after the first beat allow you hear the chord being established by the accompaniment, followed by a melodic response to it.

Overlapping Phrases. Often what seem initially to be a long phrase turns out to be two phrases with connecting material. The sub phrase of a few notes that rhythmically and harmonically resolves the first phrase also serves as the beginning of the next phrase.

vary rhythms in your melody

In creating comping rhythms, you can use five elements to [vary rhythms](#) to create a seemingly infinite library of rhythms: push, pickup, add a note on an empty beat, replace a quarter with a pair of eighths and consecutive syncopations. With the standard downstroke on the beat, consecutive syncopations are consecutive upstrokes. Those same elements can be applied to single-note improvisation.

flat the third in a major key for blues

In a major key blues, like a I IV V (C F G) blues in C, you can take the option of flattening the third (change “E” to “Eb” in the key of C) at any time. It’s almost mandatory that you flat the third if the chord has a flattened third, though there are exceptions.

In his uncanny manner, Charlie Parker, bebop alto saxophonist would often play a major melody with a natural three (“E” in the key of C) when the accompaniment was playing a flat three. Then, the effect is that the *accompaniment* is playing darkened tones, with the flat three. Similarly, Charlie would play harmonic minor with a natural seven when the chord had a flat seven.

flat the third on a IV chord in blues

In blues improv, you should generally flat the third of the key when making melody on a IV7 chord, since it is constructed with 4-6-1-b3 of the key. So, in the key of C, you should flat the third (change “E” to “Eb”) during the IV chord, which is “F”. The IV chord (F in the key of C) may only be major in the accompaniment, but you can suggest it is a IV7 chord (F7 in the key of C).

INTEGRATING PITCH AND TIME

Integral Improv

Integral improv is intended to isolate and master each of the elements of pitch and rhythm, so they can be used intuitively and not interrupt our expression.

Pitch Elements

note sets

Collections of two to twelve different notes are *note sets*. Pairs of different notes are called *intervals*. Groups of three or more different notes played at once are called *chords*. Chords tend to use notes of intervals of a minor third (three semi-tones, half steps or frets) or larger. Most note sets encompass an interval of an octave or less, but larger intervals and larger chords span more than an octave.

Examples of combinations of pentatonic scales, arpeggios and seven-tone (heptatonic) scales are shown in [Level 2 Improv: Pentatonics and Modes](#).

musical structures and design

Note sets are conceived in simple repeating patterns. When note sets have irregular and abstract patterns, they fall into the design category.

The consecutive order of note sets of primarily half and whole steps makeup scales. Consecutive order of note sets primarily in thirds makeup arpeggios. Major thirds are equivalent to the interval from the first to third step of a major scale, which is two whole steps, four frets or two whole tones (all equivalent). Minor thirds are a half step smaller, which is one and a half steps, three frets or one and a half tones (all equivalent).

Cells are the smallest units of melody, of three to seven notes, rarely more. A single cell is a structure, but when you combine cells or repeat a cell on different notes, you are making a design.

map the fretboard

- ✦ Strum the chord changes (the chord progression) with chord fingerings and with appropriate comping rhythms playing through with one comping example, then another.
- ✦ Begin your work on the smaller four strings, since solos are more typically performed on them.
- ✦ Attempt to retain the range as you change chords by starting the next arpeggio or scale on

the nearest chord tone, not necessarily starting on the root of the next chord. In retaining the range, orient the next arpeggio either to the first or last note you played on the previous arpeggio. Orienting to the first note is usually more straightforward. Use common tones to start each chord where possible, otherwise the nearest chord tone.

- ✦ It is preferred that you begin a chord on its root, third or fifth, not the seventh. Chord tones are preferred on all rhythmically important beats, such as the third beat in 4/4 time.
- ✦ Where the last note you would play on one chord would redundantly be the same note as the first note of the next chord, change the last note on the previous chord to an upper or lower neighbor of the first tone in the next chord. The upper or lower neighbor may be a pentatonic scale interval up to a minor third (three frets).

core melodic tones

The primary melodic tones are those in both the current key scale and in the current chord. See [Core Melody](#).

harmonic theme and variation

Establish a theme. [See Minimalist Themes](#)

decoration with slurs

Slide, hammer, pull-off, bend, release bend, tremolo pre-drop and return, tremolo flick (Greg Gillis of Night Ranger). Usually these use non-chordal tones. The non-chordal tones would usually be of shorter duration.

ornamentation with non-chordal tones

Grace notes are short decorative notes that lead into main melody notes or quickly move adjacent to main melody notes. Ornamentation includes grace notes, multiple grace notes, and the use of an arpeggio as multiple grace notes. Classical ornamentation includes the turn and mordent. In the turn, a main melody note is played, followed by a note above it, below it, then returning to the main melody note. With a mordent, the main melody note alternates rapidly with the note above it (upper mordent) or below it (lower mordent).

Bebop ornamentation is similar to baroque ornamentation, but often uses flatted versions of notes in a quick flurry, darkening the mode briefly.

Lower chromatic embellishment precedes each note with one a half step below it, especially as in jazz. These are commonly slurred and more frequently applied to chord tones.

Time Elements

choose the rhythmic elements

Using a repeating rhythm from [Melodic Rhythms](#) (especially four through seven note rhythms) for every two beats of 4/4 or for every three beats of 3/4 to play up and down one octave from each tone of each scale or arpeggio. Play up and down from any chord tone for an octave.

Tend to play chord tones on the beat, or on rhythmically emphasized parts of the beat. Whatever parts of the bar are primary accents played by the accompaniment, such as one and the and of two (the beginning beat one and the last half of beat two), you should tend to play as chord tones.

Apply rhythmic words in this straightforward manner:

- ✦ six-note rhythms for triad arpeggios
- ✦ four-note rhythms for quadrad (usually seventh chord) arpeggios
- ✦ five-note rhythms for pentatonic scales
- ✦ seven-note rhythms for major scales

pattern your phrase start points

Phrases are typically two bars long. They can start before, on or after the first beat. It is best to make patterns of your phrase start points. For example, play four two-bar phrases with the pattern on, before, on, before.

use an interesting rhythmic theme

You could strum rhythms from Four-Pulse Rhythmic Words or Six-Pulse Rhythmic Words for ideas on muted strings, followed by playing same rhythm on a scale or melodic cell. Practice strumming a melodic rhythm on muted strings, then employing it into a melodic line.

pickups and pushes

Pickups and pushes are a simple way to make your phrases more interesting. See [Push and Pickup](#).

create a story with the emotive curve

Imagine a graph of the emotive intensity in a song, showing time from left to right and intensity from bottom to top. A time-based artistic expression like a film, a song, or a play usually has peaks and ebbs

of intensity with a climax of intensity near the end. Consider different contexts of such an emotive curve: rhythmic, dynamic, textural, tonal, etc. Design the curve with its peaks and ebbs.

make your phrases breathe

Combine long and short durations or legato versus staccato. Combine calm long notes and exciting flurries of fast notes.

other chapters

See also [Rhythmic Themes and Layers](#), [Relating Chord Tones to the Beat](#) and [Core Melody Built With Duality Tones](#).

USING SCALES AND CHORDS IN IMPROV

Key Scales, Parent Scales and Chord Scales

key scales

A *parent scale* is a reference scale from which a scale or mode was derived. Most commonly, a major scale is used as a parent scale. Any of the modes of the major scale would refer to that major scale (which was their source) as their parent scale. Other parent scales are *major #5*, *major b3* and *major b6*, each of which have seven modes like the major scale and are simple modifications of the major scale.

C major scale uses the notes C, D, E, F, G, A, B and C. Modes are constructed on each of the tones of the C major scale. [The Discovering the Modes of the C major Scale](#) section of the [Modes](#) chapter demonstrates modes of the C major scale. Those modes all have the C major scale as their parent scale.

parent scales

Parent scales are the common major scale or simple modification of a major scale, such as melodic minor (major scale flat three) on which a mode is based. Parent scales are used as a reference and do not imply the key on the note that names the parent scale, although it can be.

A Aeolian, for example, uses a C major parent scale. An example of A Aeolian would play the C major scale from scale tone six to six, from A to A. You could be playing on a Dm chord with an A Aeolian scale using a C major scale with the tone center on A.

chord scales

Chord scales are named after the current chord and are usually used to consider the elaboration of the current chord, not to establish a permanent key on that chord.

key scales, parent scales and chord scales in practice, an example

Consider this situation: you are in the key of C (sounding as if the music should end on a C chord) and the melody is made up with C Mixolydian (a C major scale with a flat seven) while you are currently on an “Bb” chord (you’re focusing on a bar with a Bb chord). The key is C. Since C Mixolydian is a C major scale with a flattened seventh and has the same notes as F major scale, The parent scale would be F major. Since the current chord is Bb, naming the notes in use with a Bb tone center is Bb Lydian. All three scales (C Mixolydian, F major and Bb Lydian) have the same notes: C-D-E-F-G-A-Bb-C. It’s just a matter of naming them with the relevant note in the context you are considering.

prefer key scales to chord scales

In expecting what they will hear next, the listener tends to predict the next part of the melody at any point, along with the improviser. The improviser has a clearer idea of what will be played next, but the listener that has a similar background in listening to music will predict much the same thing as the improviser. Listeners are usually more oriented to vocal melody which is more related to key scales than to chord scales. Key scales are more direct for the listener, who is typically not well-trained at thinking different scales for each chord as someone might be on a mechanical instrument such as the guitar or piano where the scale relationships have a more tangible graphic and visual relationship.

emphasize chord tones within key scales

In addition to preferring key scales, emphasize notes of the current chord that are common to a key scale. I call these *core melodic tones*. See Tonal Themes And Schemes.

chord families

Chord qualities can vary within the same family. Within each chord family, the triad part of the chord is consistent and the chords in the family share a common mood. The common families are:

<u>chord family</u>	<i>variants</i>
major	major, ma7, ma9, ma9/6, ma7/6, 6, add 9, 6/9
dominant 7	major, 7, 9, 13 no 11 = 9/6, 7/6, 6, add 9, 6/9
altered dominant	augmented, major b5, 7 (with any or all: b5-#5-b9-#9); 9b5, 9#5
minor	minor, minor 7, minor 9, minor 11, minor 13, m6, m add 9, m6/9
diminished	diminished, dim.7, m7b5, m9b5

elaboration and abbreviation of chord progression

Chord progressions that change within the range of a beat to two bars can be abbreviated. Common abbreviations are playing a II V change as if it were II or as if it were V. Of course, this should be done discretely. For example, in playing IIm over II and V, IIm7 works well for the II and IIm6 for the V, since IIm6 = V9 no root. Or, the IIm7 sound may work over both chords. Each situation is unique and must be auditioned in the mind and preferably by testing the sounds in playing.

pentatonic scales

Use Im pentatonic (five tone) scale during any of the chords, but especially during the Im chord. Whatever chord it is used on, you should generally emphasize the note of the current chord

optionally with the chromatic note between 4 and 5. This note has three uses:

- As a *lower chromatic embellishment*, where it is used before scale tone 5. In this case, it would be called “#4”.
- As a *passing chromatic tone* between 4 and 5, where it would be called #4 in ascending and b5 in descending.
- As a changed scale tone, changing the common minor pentatonic scale (m7/11) to minor 7/11b5.

blue notes

Flatted three, five and seven in a scale can be used expressively against a chord that has the natural version of the same number. This is a mood-darkening expression, common to blues-related styles. They are commonly called *blue notes*.

major scale and Aeolian mode as key scales

Major scale includes the notes of a major chord (1, 3, 5) on its tone center (the note after which it is named). Aeolian mode (1, 2, b3, 4, 5, b6, b7 of a major scale) is a minor scale, since it includes the notes of a minor chord (1, b3, 5 of a major scale) on its tone center.

In music originated in Europe and Africa, the major scale has been the reference scale for all other scales beginning with the common practice period of classical music in Europe in 1600. For as many years, the major scale and a mode on its sixth step have been the primary scales in [the relative major and minor system](#). If a song is in a major key where it is expected to end on a major chord, it has been presumed that it is based on the major scale. If in a minor key, a song has been presumed to be based on the Aeolian mode.

Mixolydian, Dorian and other modes as key scales

Other modes based on a major chord include Mixolydian which has a b7 and has a darker mood and Lydian mode which has a #4 with a more exotic mood. Dorian is a minor scale with a natural 6 with a brighter mood while Phrygian is a minor scale with a middle-eastern sound (1-2-b3-4-5-b6-b7 of major).

Mixolydian mode can be thought of as a major scale from five to five, with the key on five (C major scale from five to five is G-A-B-C-D-E-F-G). Or, it can be a different major scale with a flatted seventh (G major scale with flat seven is G-A-B-C-D-E-F-G).

Dorian mode is used in blues-related styles as darkened version of Mixolydian. Mixolydian has a flat seven (G major scale with flat seven is G Mixolydian, G-A-B-C-D-E-F-G). Dorian has a flatted third as well, which darkens the mood further. In modal jazz, Latin rock or similar styles, Dorian can be used as a mode in its own right. Dorian examples are Afro Blue, Evil Ways, Oye Como Va, Milestones, Put It Where You Want It, Take Five, Chameleon, Soul Sauce, This Masquerade (Benson solo section), In Memory of Elizabeth Reed (Allman Brothers), I Wish.

USING ARPEGGIOS IN IMPROV

An Arpeggio for Each Chord

Arpeggios can be used to represent each chord in a chord progression. For chords that have a long duration, this works well. Duration is time-based, not beat-based. If you are playing at a very fast tempo, it may be difficult to play and hear an arpeggio for chords with a duration of two to four beats. At a slow tempo, it is easier to play and hear an arpeggio for each chord. When the duration of chords are short, consider abbreviating the chord progression and using one arpeggio over a few chords. See “[A Single Arpeggio Used to Represent a Few Chords](#),” below.

The arpeggio for a particular chord can be named after the chord, or may be substitute. You can learn about substitute chords (arpeggios are chords played one note at a time) in the chapter [Substitution](#).

A Single Arpeggio Used to Represent a Few Chords

When chords are changing quickly and it is difficult to play and hear an arpeggio for each chord, abbreviate the chord progression. Determine the temporary key sound for a few chords and play an arpeggio to represent that key. Here are some common examples.

common abbreviated chord progression

duration of all chords (one second is two beats at 120 BPM)	original chord progression		abbreviated progression	
	in letters	in numbers	in letters	in numbers
unlimited	Cma7-Fma7	Ima7-IVma7	Cma7	Ima7
unlimited	Cma7-Am7 (or C-Am)	Ima7-VIm7 (or I-VIm)	Cma7 (or C)	Ima7 (or I)
unlimited	Am7-Fma7 (or Am-F)	Im7		
two seconds or less	Cma7-Am7-Dm7-G7	Ima7-VIm7-IIIm7-V7	Cma7	Ima7
2 to 4 seconds	Cma7-Am7-Dm7-G7	Ima7-VIm7-IIIm7-V7	Cma7-Dm7	Ima7-IIIm7
two seconds or less	Am7-Am7-Bm7b5-E7	Im7-Im7-IIIm7b5-E7	Am7	Im7
2 to 4 seconds	Am7-Am7-Bm7b5-E7	Im7-Im7-IIIm7b5-E7	Am7-E7	Im7-V7
two seconds or less	Am7-G6 (or Am-G)	Im7-bVII6 (or Im-bVII)	Am7 (or Am)	Im7 (or Im)

Memorize Seventh Arpeggios Thoroughly

a challenge with ninth and larger arpeggios

When you ascend or descend to the tone center using a scale in improv, you can usually continue to ascend or descend, without any accomodation. When you ascend or descend a ninth or larger arpeggio to its tones that are the ninth or higher, you would need to come back to the octave to continue ascending or descending.

root b3 5 b7 9 root b3 5 b7 9 9 b7 5 b3 root 9 b7 5 b3 root

5 8 7 5 9 7 5 5 8 7 7 8 5 5 7 9 5 7 8 5

seventh arpeggios can continue past the root, like scales

When you ascend or descend to the chord root using seventh arpeggio in improv, you can continue to ascend or descend, without any accommodation. This makes it easier to play a fast passage. Although the ninth and larger arpeggios are more colorful, you should use seventh arpeggios when speed is the issue, since they are so much easier to recall and play. To take advantage of this, you should thoroughly memorize [Quadrant Arpeggios](#) (in the [Prime Scales, Chords and Arpeggios](#) chapter).

MINIMALIST THEMES

Two notes alone don't make an interesting theme. They need repetition and something to make the repetitions different from one another. It's also challenging to make a theme interesting with three or four notes. But it can be done. In fact, the secret to great improvisation and composition is focusing on very few notes and use theme and variation and interesting connective material between the thematic content.

Choosing the Notes

notes of the tonic chord work best

To build a tonic chord, are built on the tone center (tone 1) of the key, most commonly with every other note, such as 1-3-5-7. The most common tonic chords are triads (three notes, 1-3-5) or quadrads (four notes, 1-3-5 7). A quadrad may also be a sixth chord with 1-3-5-6.. The best tones to emphasize are one and five (tones one and five of a major scale named after the key), 1-3 or 1-b3, 5-b7 (not so much 5-7), 3-5 or b3-5 (less common), 6-1.

Making the Repetitions Different

To vary the repetitions of the theme, use interesting rhythm, slurs, ornamentation with non-chordal tones (see [Tonal Themes and Schemes](#)), harmony (commonly [thirds and sixths](#)), [double stops](#), top-[voice leading](#), timbre. All of these are components of [Theme and Variation](#).

THE POWER OF THE FIFTH

Of all the intervals to use in improvising, the fifth is strongest. Seconds are just stepwise movement. Thirds are what build arpeggios. Both of those are well-worn in our music repertoire. Fourths have been exploited in use of pentatonic scales, since the common pentatonic builds fourths with every other note for four of its five tones. Melody works best with intervals of a fifth or smaller.

The fifth is such a strong, primal interval. Arpeggios and chords are built in standard practice with every other tone of a seven tone scale (like the major scale). Every other arpeggio tone is a fifth.

fifths within ninth arpeggios

System 1: Cmaj9 and C9

Measure 1 (Cmaj9): Treble staff shows eighth-note arpeggio (C4, E4, G4, Bb4, D5, F5). TAB: 8 7 10 8 7. Measure 2 (C9): Treble staff shows eighth-note arpeggio (C4, E4, G4, Bb4, D5, F5). TAB: 8 9 11 8 10 8 11. Measure 3 (C9): Treble staff shows eighth-note arpeggio (C4, E4, G4, Bb4, D5, F5). TAB: 9 8 10. Measure 4 (C9): Treble staff shows eighth-note arpeggio (C4, E4, G4, Bb4, D5, F5). TAB: 10 9 11 8 10 8 11.

System 2: Cm9 and Cm9(b5)

Measure 5 (Cm9): Treble staff shows eighth-note arpeggio (C4, Eb4, G4, Bb4, D5, F5). TAB: 8 11 8 10 8 11. Measure 6 (Cm9): Treble staff shows eighth-note arpeggio (C4, Eb4, G4, Bb4, D5, F5). TAB: 8 8 10. Measure 7 (Cm9(b5)): Treble staff shows eighth-note arpeggio (C4, Eb4, G4, Bb4, D5, F5). TAB: 10 11 8 11 11 11. Measure 8 (Cm9(b5)): Treble staff shows eighth-note arpeggio (C4, Eb4, G4, Bb4, D5, F5). TAB: 8 11 10.

System 3: C7(b9) and C7(b5)

Measure 9 (C7(b9)): Treble staff shows eighth-note arpeggio (C4, Eb4, G4, Bb4, D5, F5). TAB: 8 9 11 8 9 8 11. Measure 10 (C7(b9)): Treble staff shows eighth-note arpeggio (C4, Eb4, G4, Bb4, D5, F5). TAB: 9 8 10. Measure 11 (C7(b5)): Treble staff shows eighth-note arpeggio (C4, Eb4, G4, Bb4, D5, F5). TAB: 10 11 9 11 11 11. Measure 12 (C7(b5)): Treble staff shows eighth-note arpeggio (C4, Eb4, G4, Bb4, D5, F5). TAB: 9 11 10.

THE MELODIC LINE

The most basic components of melody are pitch and rhythm.

Each musical note has its own pitch, or speed of vibration. Pitch needs to relate to the community of other instruments in the performance in regard to chords, which are multiple notes played simultaneously. Rhythm should relate to the other instruments regarding rhythmic themes based on a regular pulse.

The *melodic curve* or *melodic line* conceptually represents rhythmic horizontally and pitch vertically on a timeline.

ORDER OF MELODIC IMPORTANCE

Tones have an order of melodic importance in relation to both the key and the current chord. The tones of the key are more important than those of the current chord, since the listener thinks primarily in terms of the key.

Consider the order of melodic importance for the tonic chord (the chord that names the key) first. Secondly, consider the order for the current chord. Tones that are common to a key scale and the current chord are the core melodic tones and are highly preferred in melody.

The order of melodic importance for the tonic chord are the root, the fifth, then the coloring tones of the chord. Coloring tones are the third, the seventh, and any other tone implied by the chord name. The weight of importance can be established by the genre or style of the song and performer. Next in the order of melodic importance are the non-chordal scale tones, notes in the scale but not the chord.

Last in the order of melodic importance are the chromatic tones, which are all the notes that are left. Last place goes to notes that are particularly out of character, such as a major third (scale tone 3 of a major scale on the chord root) on a minor chord or a major seventh on an chord that has a minor seventh.

SETUP AND TARGET TONES

Target tones are chord tones of the next chord. Setup tones are those that melodically lead to tones of the next chord. Upper and lower neighboring tones are the most common setup tones. When the first tone of the target chord will be its root, its fifth can be used immediately before it as a setup tone.

Target Tone Sequences

The core of a melody is its target tones, the notes common to the scale and arpeggio you are depicting at any moment.

The best way to progressively build your improvising ability is:

- ✦ practice the scales and arpeggios you intend on using
- ✦ determine the target tones that are common to each chord (arpeggio) and scale
- ✦ using your intuitive right brain, thinking vocally, create a sequence of target tones in long durations, roughly equal four to six fast notes
- ✦ create many melodic designs on each target tone sequence, so you become expert at connecting target tones
- ✦ become so good at creating target tone sequences that you can do it while improvising

CLEARLY ESTABLISHING THE CHORDS

The two clearest ways to establish a chord are to melodically imply a succession of chords that leads to the chord or to preview the chord by playing its arpeggio tones or scale that contains its chord tones immediately before the chord occurs.

Logical Structure Of The Melody Versus The Actual Chord Progression

It can become less important to establish a chord when the melodic content is highly structured and logical, so that it stands on its own. The melody may temporarily take on a life of its own, causing a second harmonic structure. In such a case, the melody and accompaniment each suggest their own chord progression, most often agreeing on the same one, but sometimes differing. When they differ, the melody is referred to as *outside*. Its sort of like the public speaking tact of speaking on the subject you want to be addressed, regardless of the topic.

To make outside playing more acceptable, phrases may have little to do with the current chord, but are convincing as part of a serial structure (repeated structures).

Masking The Harmonic Remoteness Of The Chords

When chords in a progression are particularly disrelated harmonically, weigh heavier on the logical structure. Grab the attention with another aspect, such as successions of notes in thirds, a fragment pattern (repeating numeric sequence of scale or arpeggio tones), wailing on the tremolo bar, a blurring fast scale or whatever. In any case, be sure to “nail” a chord tone at the beginning of the chord.

Perfect Fourth and Chromatic Cadences

Melody commonly implies cadences (short well-known chord progressions) with root movement up in perfect fourths (equal to down in perfect fifths). Dominant chords moving down chromatically to a target chord's root are [flat five substitutes](#). See [Flat Five Substitute Chord Progression](#).

Neighbor Tone Chords

Implied chords built on the next higher or lower chord tone from the root of the target chord can be used immediately before the target chord. The tones of the neighbor chord include many of the tones *not* in the target chord, so they create to create a soft tension and resolve to the target chord.

PHRASING AND DRIVE

Phrases Start on, Before or After the First Beat

Music is so much more interesting to experience if there is some creative pattern to sequences of phrases in regard to their starting point in relation to the first beat. Phrases are typically two or four bars in length.

Try improvising a number of phrases, say four phrases, with every one starting in the same part of the bar, on the first beat for example. Now, instead play four phrases with a varied pattern, such as “before, before, before, on”. You will probably find the varied phrases start points more interesting.

That isn't to say that sets of phrases can't have the same start point. If the other elements of melodic and harmonic design are highly creative and interesting, varied start points might not be essential. But, varied start points in phrasing is an element not to miss.

Creating Drive and Movement

Plays were performed in ancient Greece with one of the players tapping their foot with a regular beat with bells on their ankle. It was used as rhythmic reference point for the cast. The bells were not audible to the audience, nor was their beat necessarily duplicated in the lines spoken by the cast members. Unfortunately, the prominence of this kind of beat developed into a strict and limiting sense of bar units in European music. Very predictable.

Fortunately, American music has counter-acted this tendency in the last hundred years or so, particularly with the colorful abstract influence of African Americans. By playing up to the first beat, but not *on* it and by generally playing a lot on the “offbeats”, music creates more tension and a greater feeling of music. It is better when the beat is less predictable.

Play sets of two or four phrases, ending *just before* the first beat on each phrase until *on the beat* in the last phrase.

Pickups are short groups of notes (or even a single note) played immediately before the first beat of a bar. They “lead into” and rhythmically anticipate the bar. It is particularly interesting to play pickups *without* playing on the first beat they predict.

Try playing consecutive pickups, *not* rhythmically resolving to the beat. The melody to Miles Davis' song *Four* does this.

Consecutive offbeats (playing on the “and” but not on the numbered beat) is an effective device to build tension. This is common to funk music such as James Brown or Tower Of Power. Practice phrases with consecutive offbeats. Funky.

PREPARE FOR MODAL IMPROV IN FIVE STEPS

Concise Outline

1. Arpeggios and Scales

Memorize five major and minor pentatonic scale fingerings. See [Compensated Fingering for Standard Guitar Tuning/Pentatonic Scales](#).

Memorize [reference major scale fingerings](#).

Study Strict Vertical Position in the chapter [Playing in Position](#).

Learn the five [octave shapes](#).

Learn how to construct arpeggios and chords in the chapter [Constructing Chords in the Key of the Chord Root](#).

Learn how to use [Chord-Beat Relationship](#) with [Six Tone Scales](#) for triads and [Octatonic Scales](#) for quadrads (4-note chords).

See the chapter [Modes](#)/Modal Key-Scale-Cycle Diagrams. Study [Agreement & Disagreement In Spelling Chords](#).

See the [Youtube playlist on arpeggio studies](#).

Spotify lists of good improv songs (Spotify profile [jgleason6](#)): [major key](#), [minor key](#), [blues styles with Mixolydian & Dorian](#), [harmonic major](#), [melodic minor](#).

2. Phrasing. Use the [work song/field hollar](#) resource to sing blues-based phrases or other vocally-oriented core melody.

3. Ornamentation. Play up and down an arpeggio with mordents or turns on the chord tones. Upper mordents move from a note up a scale tone, then back. Lower mordents move down a scale tone from a note, then back. Upper turns move up-back-down-back. Lower turns move down-back-up-back.

4. Rhythmic and Harmonic Theme and Variation

5. Melodic Devices. See the chapter [Melodic Cells](#)/Melodic Cell Types. Key Scale or Chord Scale (see the chapter [Modes](#)/Modes of I-IV-V Blues).

See Youtube studies in the categories above: [Paint It Black](#), [Angel from Montgomery](#), [Fragile](#), [Blue Bossa](#).

What Is A Mode?

tone center

A tone center is the root of the chord you would expect a piece to end on. You would expect a chord progression to end on a chord which gives a feeling of resolution. That chord would be the tonic chord, or main chord in the progression. If the tonic chord is Cm7, the tone center is “C.” If the tonic chord is “Ebm”, the tone center is “Eb.”

key

A song is said to be in a key named after the tone center. If the tone center is “A”, the song is said to be in the key of “A”. The key may be further qualified by the scale or mode type, such as “A” major, “A” minor or “A” Mixolydian.

The term “minor” is commonly used loosely in key names where the song may be in any mode which has a minor chord built on the tone center (e.g., Dorian Aeolian or harmonic minor). Likewise, the term major is sometimes used in reference to any mode which has a major chord built on the tone center (e.g., Ionian, Mixolydian, Lydian or Phrygian major).

mode

A mode is a seven tone scale with the tone center on a particular note, which establishes a key on that note. Any note of a scale could be designated as the key. Each of the different scale tones of a scale will produce a different mood when it is used as the tone center. So, using each of the different scale tones as a tone center and key produce a different mode.

The four common modes are major (Ionian mode), Dorian mode, Mixolydian mode and Aeolian mode, respectively built on steps one, two, five and six of major scales. Of the remaining modes, Lydian on step four and Phrygian on step three are rare. Locrian the mode on step seven of the major scale is very rarely used as a key.

Custom Choice of Fingering

Some modal situations require special choices of fingering. Play in major modes with major (Ionian) or Mixolydian. Play in [minor mode with Aeolian and harmonic minor](#). Playing blues with of Mixolydian and Dorian. Play [jazz with bVI melodic minor](#), with the I chord in major, Mixolydian, Dorian or Aeolian and melodic minor on flat six of the key to produce super-altered V-type chords or the bII13#11 flat five substitute.

In each case, the set of preferred fingerings are shown along with a table to show the numbered tones you would choose for scale tone chords or arpeggios.

1. Modal Improv with Arpeggios and Scales

Start with simple progressions. Two-chord progressions like I-IV (C-F, G-C or F-Bb), Im-V (Am-E, Dm-A or Em-B), or I7-IV7 are good (C7-F7, G7-C7 or F7-Bb7). Use arpeggios, pentatonic scales and seven tone scales. Use elements of [field hollars](#), [work songs](#) ([more](#)) and African indigenous chants.

agreement & disagreement in spelling of adjacent chords

Be able to site the parent scale thirds in letters and numbers for scale-tone triads, seventh and ninth chords. Learn [Key Signatures](#). Study [Voice Leading](#)/Perfect Four Cadences/[Descend Five and Seven](#). See [Commonality Chords](#).

Look for agreement and disagreement with letters in chord spelling. Considering scales for two or more consecutive chords, look for a single scale that includes all of their notes by spelling the chords to see if there are more than one version of each letter (C and C#), in which case you would multiple scales. You can use mismatched scales with the chords such as A harmonic minor (with G#) over Am7 (with G natural) where the A harmonic would be a familiar middle eastern or flamenco sound (avoiding long durations of G# in the melody with G natural in the chords).

example: Black Orpheus in Am

Consider enharmonic spellings (such as G# and Ab) and choose the version appropriate to compare to another chord (a scale with Db has the same note as C# for an A7 chord with C#). Playing Dm11 G7 (or G7b9 or G7#5) Cma9 (using G7b9 as if C was going to be Cm) could use (1) Dm7b5 (bluesy) G7b9 Cma7 as part of C harmonic major or (2) Dm7 (vanilla) as part of C major, except C harmonic minor during G7b9. G7b9 no root is B°7=D°7=F°7=G#°7 (memorize [dim7 & scale fingerings 1, 2 & 3](#)).

G augmented is the basis of G7#5 (G whole tone in C major is b7-1-2-3-b5-b6 of G, where b7-1-2-3 is part of C major scale). Learn [augmented arpeggio fingerings](#). V whole tone scale is more appropriate for the key of I major than I minor, since I minor typically has a V7b9. You Are the Sunshine of My Life intro has F# aug/F# whole tone scale ascending in major thirds. Playing Bm7b5 E7b9 Am7 E7b9 no root is B°7=D°7=F°7=Ab°7.

see the seven-octave pentatonic forward and back slash system

combine scales and arpeggios

Combine, pentatonic licks, arpeggios (see [Prime Chords, Scales and Arpeggios/Triad Chords & Arpeggios](#)), seven tone scales, [Fragment Patterns](#) (with anti-metric grouping and rhythmic displacement).

chord-beat relationship

See “[Relating Chord Tones to the Beat](#)”/Six-Tone Scales with Triad Tones on the Beat. Tend to put chord tones on the beat, or before beat with a “push” where you play immediately before the beat, then sustain onto the beat or leave a silence on the beat. Appoggiaturas are non-chordal tones played on the beat, then resolved to a chord tone (usually by a small interval of a scale step). The melody to Yesterday uses an appoggiatura on the key major chord, then on the relative minor.

2. Phrasing

play in phrases with pauses

Phrases are usually from one to four bars long, most commonly two bars. Most of your improvisation should be phrased like speaking with breaths. End phrases with a rest (silence) or sustain. This gives the listener opportunity to contemplate your melodic statements and it gives you the chance to create theme and variation and to make sections with your phrases. In eight bars, you may play four two-bar phrases, varying as to their start points (see below), in relation to the first beat of every two bars, before-before-before-on. Your first and third phrases could each be a statement and your second and fourth phrases responses.

create patterns with phrase start points

Phrases can start on, before or after the first beat of the bar. Phrases are most commonly two bars long, but can be one or four (rarely three bars). Be patterned and diverse. For example, play three phrases that start before the first beat followed by a fourth phrase starting on the first beat to signify the end of a section.

The verse to *A Whiter Shade of Pale* has sets of three two-bar phrases to create an imbalance and suggest a nauseous feeling of someone that's had too much to drink.

linear heptatonic pickups and pushes

Segue into phrases that start before the first beat of the chord creating a cadence with a tones of a setup chord (often dissonant) before the first beat of the target chord, creating tension and release. Or anticipate the target chord by using a pickup with an arpeggio or scale that represents the target chord.

Use three-note linear heptatonic pickups with eighth notes in 4/4 starting on the and of three and starting a third above or below the third note to create chord tone push. Not easy? Okay, practice the 1-3 fragment pattern (thirds).

Four-note linear heptatonic pickups with eighth notes in 4/4 starting on three and starting a fourth above or below the fourth note to create chord tone push. Not easy? Okay, practice the 1-4 fragment pattern (fourths). Remember the major scale can be all perfect fourths, except 4 up to 7 or 7 down to

4 is an augmented fourth. Also, remember the skewing of the fretboard pattern between the third and second string because of the change of tuning.

Pickups with the target on the beat with linear heptatonic scales use an interval one number larger than the number of notes in the pickup. A four note pickup including the target on the beat would use an interval of a fifth.

Pickups can use scale non-linearly with a melodic theme.

mix slow and fast elements in phrases

Base a phrase on lyrical vocal-oriented melody. Sing phrases as you play them on guitar. Segue in or out of the phrases with bursts of fast notes.

3. Ornamentation

use ornamentation like mordents and turns

Upper mordents move from a note up a scale tone, then back. Lower mordents move down a scale tone from a note, then back. Upper turns move up-back-down-back. Lower turns move down-back-up-back.

chromatic embellishment, chromaticized arpeggios, chromaticized scales

Chromaticism started showing up in the late nineteenth century composition of eastern European and Russian composers like Chopin, Tchaikovsky and Stravinsky, the reflected by ragtime composers including Scott Joplin and Jelly Roll Morton. It influenced blues and most American pop. By the time bebop started in the early 1940's, it became very sophisticated with chromatic encircling, chromatic enclosure and other designs. See the chapters [Chromaticized Arpeggios](#) and [Chromaticized Scales on Arpeggios](#).

Lower chromatic embellishment is common in jazz, where any chord tone can be preceded by a note a half step (one fret) below. This is least often done with the root, perhaps because it is too obvious. The lower chromatic embellishment is a well-established convention, but its hypothetical counterpart an "upper chromatic embellishment" is generally not used, since it hasn't been established common repertoire. Approaching a chord note from a half step below doesn't require that the lower chromatic note is in the scale being used, while approaching a chord note from a half step above doesn't sound right unless it is in the scale.

mix staccato and legato (tenuto)

Use a mixture of short notes (staccato) and long notes (legato phrases with long *tenuto* notes). The theme to Europa is a good example of a combination of staccato and tenuto.

4. Theme and Variation

use harmonic and rhythmic theme and variation (either or both)

Restate themes with the pitches changed to represent a different chord or scale. Or restate themes by using the same notes but changing the rhythm by displacing the theme earlier or later in time or by repeating it in such a manner that each instance starts on a different part of the bar. For example, a three note theme in half beats, first starting on the beat, then starting on the offbeat.

change rhythmic level

In 4/4 or 3/4, combine half notes (2 beats), quarter notes (1 beat), eighth notes (1/2 beat), eighth triplets (1/3 beat, three on a beat), sixteenths (1/4 beat, 4 on a beat), sixteenth sextuplets (1/6 beat, 6 on a beat).

learn all the four-pulse and three-pulse rhythmic words to create melodic rhythm

See the chapter “Rhythmic Words and Comping”.

offbeat rhythm

For a jazzy, funky or salsa rhythm, play many offbeats in your phrases, sometimes consecutive offbeats. See [Offbeat Family of Rhythms](#). Salsa piano uses consecutive offbeats

use straight versus swing eighths or swing sixteenths

Regular swing divides the beat into three parts where you play on the first and third part. In that situation, the first note is 2/3 of a beat and the second note 1/3 of a beat. There is also *degrees of swing*, where the first note may be anywhere from 50% to 75% of the beat and second note the remainder of 100%.

free online metronome

There is a great free metronome that has degrees of swing at this link <https://www.onlinemetronome.app>. Here are instructions for online metronome:

tempo

Set the tempo with the long slider near the top. Slow blues is 50-75 BPM. Ballads or slow rock are 50-80 BPM, funk is 85-120 BPM, rock is 115-180 BPM, up-tempo jazz is 180-300 BPM.

beat divisions and swing: click on advanced. In the circle to the right of the word “advanced” click on the musical note (initially a quarter note) and change it to the pair of eighth notes (two notes with a thick horizontal beam) for two parts per beat or to and four sixteenths (four notes with two thick

horizontal lines) for four notes per beat. Slow blues is Click on “swing” immediately below the musical note circle. Use the button to turn swing on or off. Set the swing percentage with the slider.

accent: vertically in the middle of the screen, make sure “accent” is on. To the right of accent, use the plus or minus buttons to set the beats per bar to “4” or “3”. For most of your songs, you would want “4”.

5. Design with Melodic Cells

See [Melodic Cells/Melodic Cell Types](#). Study these categories:

- ✦ Linear Scales and Arpeggios as Cells
- ✦ Melodic Rhythm Cells
- ✦ Chromaticized Arpeggio Cells
- ✦ Harmonic Type Melodic Cells
- ✦ Decoration Cells
- ✦ Theme and Variation Cells
- ✦ Styles as Cells

MAJOR MODE IMPROV

major scale (Ionian mode), favored fingerings

the top row is finger numbers, the second row is scale tones

fingering 7/1	fingering 7/1	fingering 2	fingering 3	fingering 4/5	fingering 6	fingering 7

major scale-tone triads, seventh and ninth chords (Ionian mode)

example in Am C or Cma7 Dm or Dm7 Em or Em7 E or E7 F or Fma7 G or G7 Am or Am7 Bm7b5

example in Em G or Gma7 Am or Am7 Bm or Bm7 B or B7 C or Cma7 D or D7 Em or Em7 F#m7b5

parent major

triad name	I maj.	IIm	IIm	IIIIm	III maj.	IV	III maj.	IV
triad numbers	1-3-5	2-4-6	2-4-6	3-5-7	3-#5-7	4-6-1	3-#5-7	4-6-1
seventh name	Ima7	IIm7	IIm7	IIIIm7	III7	IVma7	III7	IVma7
seventh numbers	1-3-5-7	2-4-6-1	2-4-6-1	3-5-7-2	3-#5-7-2	4-6-1-3	3-#5-7-2	4-6-1-3
ninth name	Ima7	IIm7	IIm7	IIIIm7	III7	IVma7	III7	IVma7
ninth numbers	1-3-5-7	2-4-6-1	2-4-6-1	3-5-7-2	3-#5-7-2	4-6-1-3	3-#5-7-2	4-6-1-3

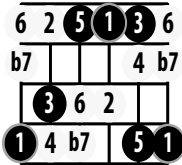
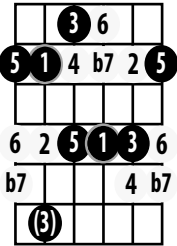
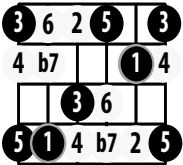
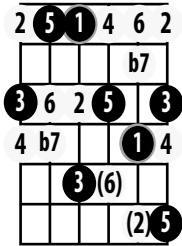
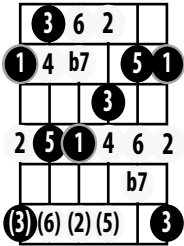
C major sharp five

triad name	I	IIdim	bIII maj	IVm	IVm	Vm	V maj.	bVI maj.
triad numbers	1-b3-5	2-4-b6	b3-5-b7	4-b6-1	4-b6-1	5-b7-2	5-7-2	b6-1-b3
seventh name	Im7	IIm7b5	bIIIIma7	IVm7	IVm7	Vm7	V7	bVI maj.
seventh numbers	1-b3-5-b7	2-4-b6-b7	b3-5-b7-2	4-b6-1-b3	4-b6-1-b3	5-b7-2-4	5-7-2-4	b6-1-b3-5

Mixolydian, five favored fingerings

black tones are the Mixolydian I major triad

E form-fingering 4/5 D form-fingering 6/7 C form-fingering 7 A form-fingering 1/2 G form-fingering 3



example in C	C or C7	Dm or Dm7	Em7b5	F or Fma7	Gm or Gm7	Am or Am7	Bb or Bbma7
example in G	G or G7	Am or Am7	Bm7b5	C or Cma7	Dm or Dm7	Em or Em7	F or Fma7
key Mixolydian							
triad name	I maj.	IIIm	III dim.	IV maj.	Vm	VIIm	bVII maj.
triad numbers	1-3-5	2-4-6	3-5-b7	4-6-1	5-b7-2	6-1-3	b7-2-4
seventh name	I7	IIIm7	IIIIm7b5	IVma7	Vm7	VIIm7	bVIIIma7
seventh numbers	1-3-5-b7	2-4-6-1	3-5-b7-2	4-6-1-3	5-b7-2-4	6-1-3-5	b7-2-4-6
ninth name	I9	IIIm9	not acceptable	IVma9	Vm9	not acceptable	bVIIIma9
ninth numbers	1-3-5-b7-2	2-4-6-1-3		4-6-1-3-5	5-b7-2-4-6		b7-2-4-6-3

Angel from Montgomery in E

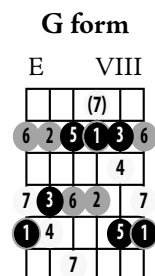
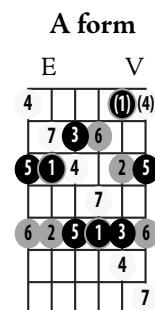
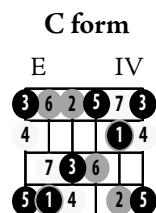
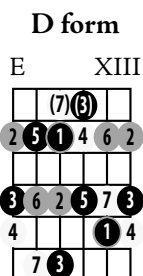
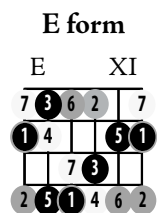
verse progression: E-A-E-A E-A-B-E with E major scale (Ionian)

chorus progression: 3x (E-D-A-E), then E-D-B-E with E Mixolydian except B-E are E major

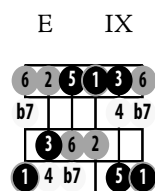
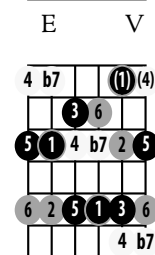
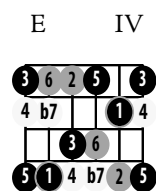
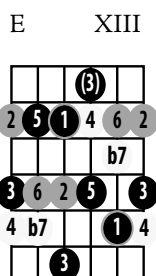
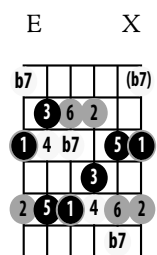
The black tones are triad tones. The black and gray tones combined make a pentatonic scale. All of the tones combined (including those with no colored background make a seven tone (heptatonic) scale. The position is the top fret on the diagram. Start with key form C.

KEY FORM →

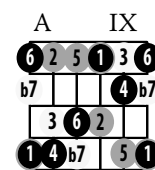
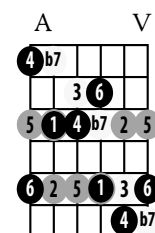
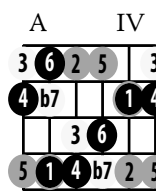
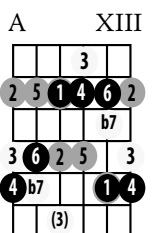
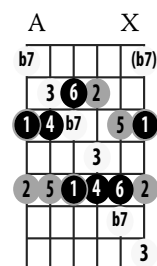
E
E major triad,
E major pentatonic
and E major scale



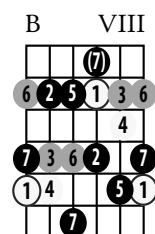
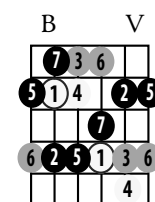
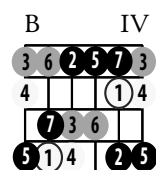
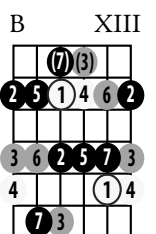
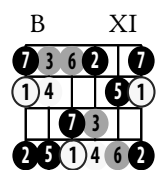
E major triad (1-3-5),
E major pentatonic
(1-2-3-5-6)
and E Mixolydian
(1-2-3-4-5-6-b7)



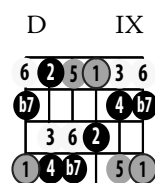
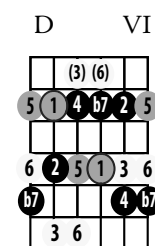
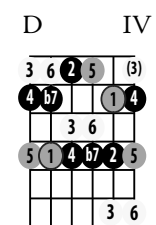
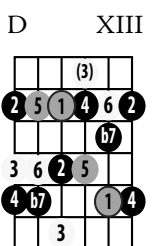
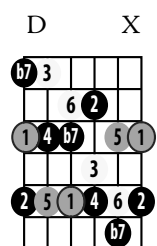
A
A maj. triad (4-6-1),
A ma pent. (4-5-6-1-2)
and
E Mixolydian
(1-2-3-4-5-6-b7)



B
B major triad (5-7-2),
B major pentatonic
(5-6-7-2-3)
and E major scale
(1-2-3-4-5-6-7)



D
D major triad (b7-2-4),
D major pentatonic
(b7-1-2-4-5)
and E Mixolydian
(1-2-3-4-5-6-b7)



Beast of Burden verse in E

verse progression: $||: E / B / | C\#m / A / :||$

The black tones are triad tones. The black and gray tones combined make a pentatonic scale. All of the tones combined (including those with no colored background make a seven tone (heptatonic) scale. Start with key form G.

C#-A-E can be played as a C#m summary chord, since C#m is part of E6 and Ama7. See the chapter [“Commonality Chords”/What Are Summary Chords?](#).

KEY FORM →	E form	D form	C form	A form	G form
E E major triad (1-3-5), E major pentatonic (1-2-3-5-6) and E major scale (1-2-3-4-5-6-7)	E XI 	E XIII 	E IV 	E V 	E VIII
E E major triad (1-3-5), E major pentatonic (1-2-3-5-6) and E Mixolydian (1-2-3-4-5-6-b7)	E X 	E XIII 	E IV 	E V 	E IX
B B major triad (5-7-2), B major pentatonic (5-6-7-2-3) and E major scale (1-2-3-4-5-6-7)	B XI 	B XIII 	B IV 	B V 	B VIII
C#m C#m triad (6-1-3), C#m pent. (6-1-2-3-5) and E major scale	C#m XI 	C#m XIII 	C#m IV 	C#m VI 	C#m IX
A A maj. triad (4-6-1), A ma pent. (4-5-6-1-2) and E Mixolydian (1-2-3-4-5-6-b7)	A X 	A XIII 	A IV 	A V 	A IX

Don't Dream It's Over in Eb

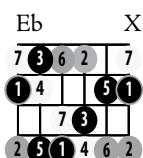
||: Ebadd9 | Csus2 | Ab | G / Gsus4 / :|| 3X ||: Ab / Bb / | Ebma7 / Cm / :|| Ab | Ab / Bb / |

Black tones are triad tones. Black and gray combined make a pentatonic scale. All the tones combined make a seven tone (heptatonic) scale. Start with the left column. Emphasizing "6" ("C") instead of "#5" ("B") will make the G chord Gsus4. Eb-Ab-Cm and Ebma7-Cm-Ab can be played as a Cm summary chord, since Cm is part of Eb6 and Abma7. See the chapter "[Commonality Chords](#)" / [What Are Summary Chords?](#).

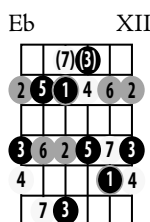
KEY of G FORM →

Ebadd9
D major triad (1-3-5),
D major pentatonic
(1-2-3-5-6)
and D major scale

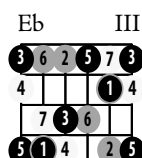
E form



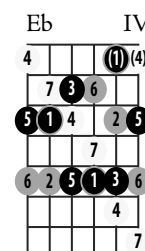
D form



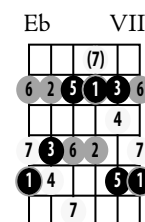
C form



A form



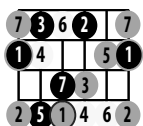
G form



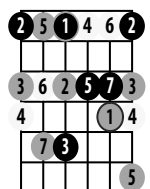
Ebma9

Ebma9 (1-3-5-7-2),
and Eb major scale

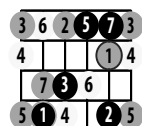
Ebma9 X



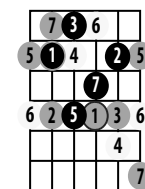
Ebma9 XIII



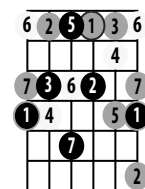
Ebma9 III



Ebma9 V



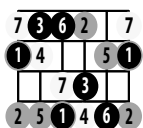
Ebma9 VIII



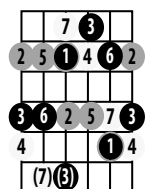
Csus2

Cm triad (6-1-3),
Cm pent. (6-1-2-3-5)
and Eb major scale

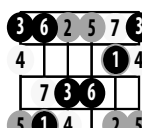
Cm X



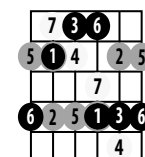
Cm XII



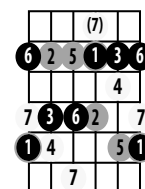
Cm III



Cm V



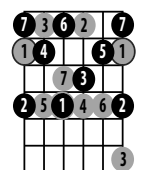
Cm VII



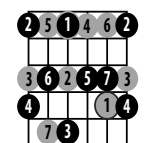
Ab(ma13#11)

Ab13#11 arepeggio
(4-6-1-3-5-7-2-4-6)
in full-tertian,
and
Eb Major scale

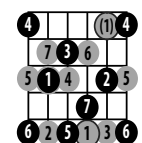
Abma13#11 X



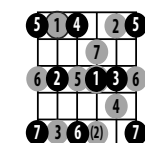
Abma13#11 XIII



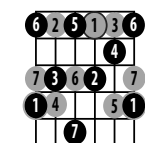
Abma13#11 IV



Abma13#11 VI



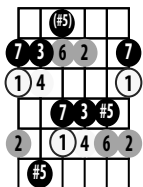
Abma13#11 VIII



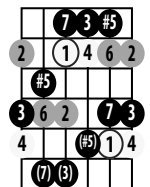
G

G major triad (3-#5-7),
G7/11 pent. (3-#5-6-7-2)
and
Eb major sharp five scale
(1-2-3-4-#5-6-7)

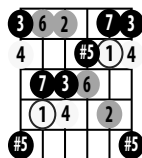
G7/11 IX



G7/11 XII



G7/11 III



G7/11 IV



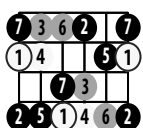
G7/11 VII



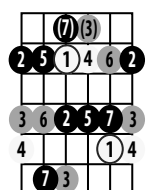
Bb

Bb major triad (5-7-2),
Bb major pentatonic
(5-6-7-2-3)
and Eb major scale
(1-2-3-4-5-6-7)

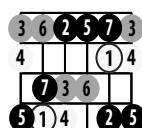
Bb X



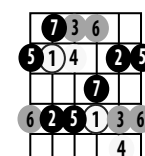
Bb XII



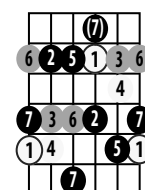
Bb III



Bb V



Bb VII



Everybody Hurts in D

4X ||: D | G :||; 3X ||: Em | A :||: D | G :||; 3X ||: F# | Bm :|| C | G | C | Am |

Black tones are triad tones. Black and gray combined make a pentatonic scale. All the tones combined make a seven tone (heptatonic) scale. Start with the left column. This continues onto the next page.

KEY of G FORM →

D	E form	D form	C form	A form	G form
D D major triad (1-3-5), D major pentatonic (1-2-3-5-6) and D major scale	D IX 	D XI 	D II 	D III 	D VI
G G major triad (4-6-1), G ma pent. (4-5-6-1-2) and D Major scale	G IX 	G XI 	G II 	G III 	G VII
Em Em triad (2-4-6), Em pentatonic (2-4-5-6-1) and D major scale (1-2-3-4-5-6-7)	Em IX 	Em XI 	Em II 	Em IV 	Em VI
A A major triad (5-7-2), A major pentatonic (5-6-7-2-3) and D major scale (1-2-3-4-5-6-7)	A IX 	A XI 	A II 	A IV 	A VI
F# F# major triad (3-#5-7), F#7/11 pent. (3-#5-6-7-2) and D major sharp five scale (1-2-3-4-#5-6-7)	F# VIII 	F# XI 	F# II 	F# III 	F# VI
Bm Bm triad (6-1-3), Bm pent. (6-1-2-3-5) and D major scale	Bm IX 	Bm XI 	Bm II 	Bm IV 	Bm VII

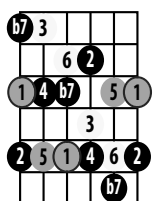
KEY FORM →

C

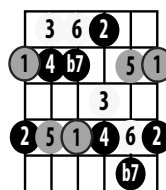
C major triad (b7-2-4),
C major pentatonic
(b7-1-2-4-5)
and D Mixolydian
(1-2-3-4-5-6-b7)

E form

C VIII

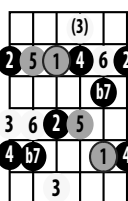


Am VIII

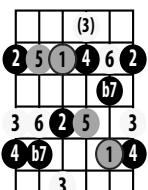


D form

C XI

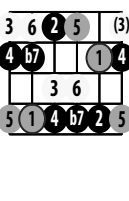


Am XI

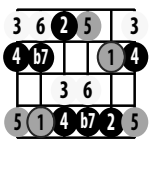


C form

C II

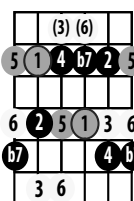


Am II

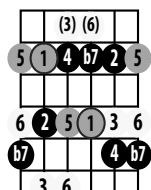


A form

C IV

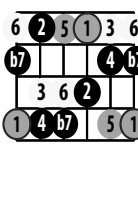


Am IV

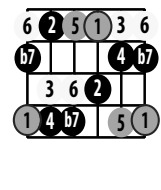


G form

C VII



Am VII



Gravity in G

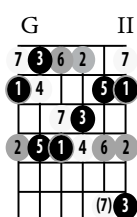
section A: | G | C | G | C | section B: | Am7 | D7 | Bbma7/ Ebma7/ | D7 |

For pentatonic scales, black tones are triad tones combined with gray to make a pentatonic scale. With ninth arpeggios, black tones are a complete ninth, gray is ninth in another octave. All the tones combined make a seven tone (heptatonic) scale. Start with the left column.

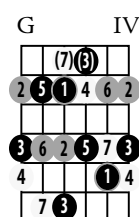
KEY of G FORM →

G
G major triad (1-3-5),
G major pentatonic
(1-2-3-5-6)
and G major scale

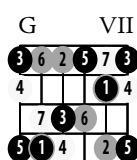
E form



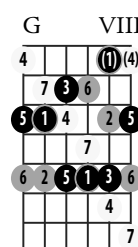
D form



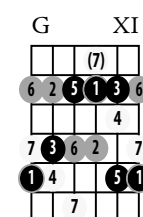
C form



A form



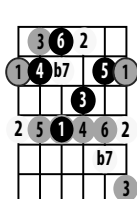
G form



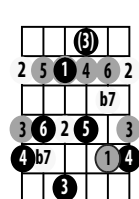
C

C maj. triad (4-6-1),
C maj9 arpeggio
(4-5-6-1-3-5)
and
G Mixolydian
(1-2-3-4-5-6-b7)

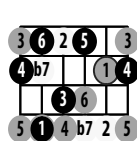
C II



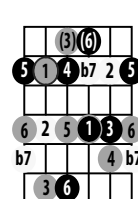
C IV



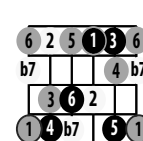
C VII



C IX



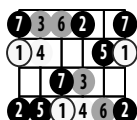
C XII



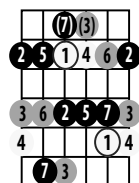
D

D major triad (5-7-2),
D major pentatonic
(5-6-7-2-3)
and G major scale
(1-2-3-4-5-6-7)

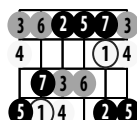
D II



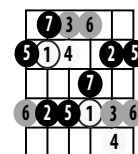
D IV



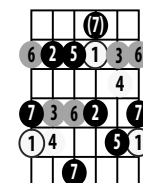
D VII



D IX



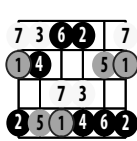
D XI



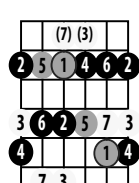
Am

Am triad (2-4-6),
Am pentatonic
(2-4-5-6-1)
and G major scale
(1-2-3-4-5-6-7)

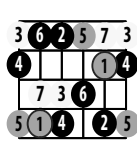
Am II



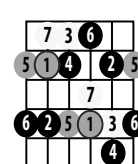
Am IV



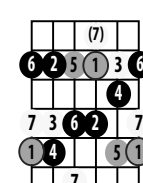
Am VII



Am IX



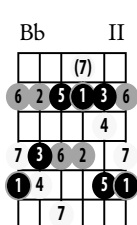
Am XI



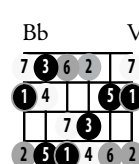
KEY of Bb FORM →

Bb6
Bb major triad (1-3-5),
Bb major pentatonic
(1-2-3-5-6)
and Bb major scale
(1-2-3-4-5-6-7)

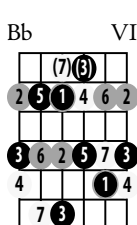
G form



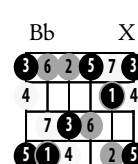
E form



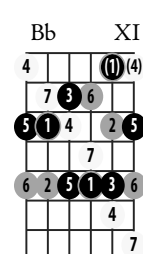
D form



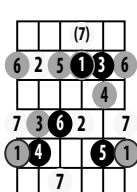
C form



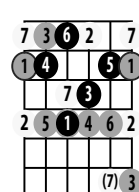
A form



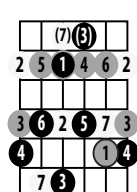
Eb II



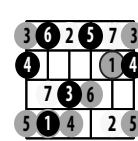
Eb V



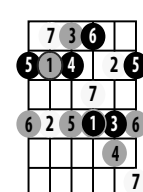
Eb VII



Eb X



Eb XI



Ebma9 (4-6-1-3-5)
and
Bb major scale
(1-2-3-4-5-6-7)

Isn't She Lovely in E

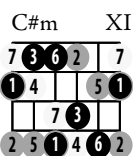
||: C#m7 | F#7 | B7 | Ema7 :|| Ama7 | G#7 | C#m7 | F#7 | B7 | B7 | Ema7 | Ema7 |

Black tones are triad tones. Black and gray combined make a pentatonic scale. All the tones combined make a seven tone (heptatonic) scale. Start with the left column.

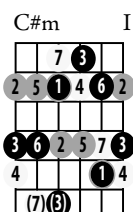
KEY of G FORM →

C#m
C#m triad (6-1-3),
C#m pent. (6-1-2-3-5)
and E major scale

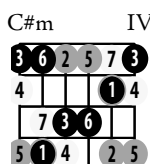
E form



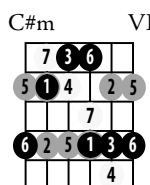
D form



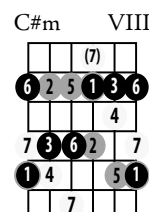
C form



A form



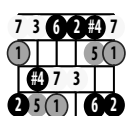
G form



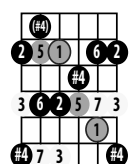
F#

F# triad (2-#4-6),
F#7/11 pentatonic
(2-#4-5-6-1)
and
E Lydian
(1-2-3-#4-5-6-7)

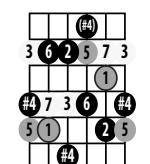
F# XI



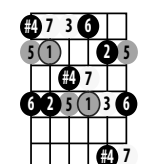
F# I



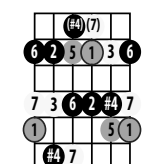
F# III



F# VI



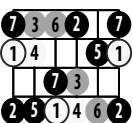
F# VIII



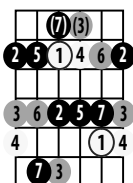
B

B major triad (5-7-2),
B major pentatonic
(5-6-7-2-3)
and E major scale
(1-2-3-4-5-6-7)

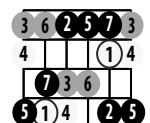
B XI



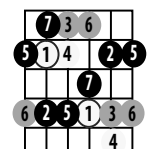
B I



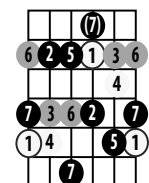
B IV



B V



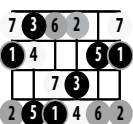
B VIII



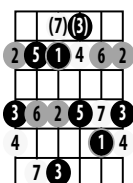
E

E major triad (1-3-5),
E major pentatonic
(1-2-3-5-6)
and E major scale
(1-2-3-4-5-6-7)

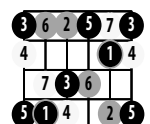
E XI



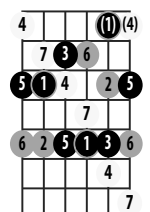
E I



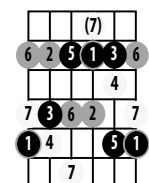
E IV



E V



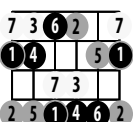
E VIII



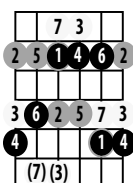
A

A maj. triad (4-6-1),
A ma pent. (4-5-6-1-2)
and
E Major scale

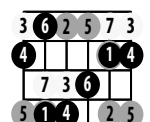
A XI



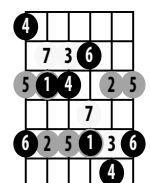
A XIII



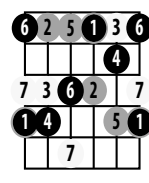
A IV



A V



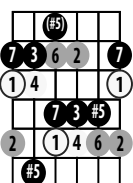
A IX



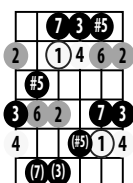
G#

F# major triad (3-#5-7),
F#7/11 pent. (3-#5-6-7-2)
and
D major sharp five scale
(1-2-3-4-#5-6-7)

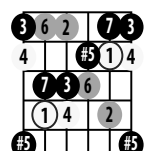
G# X



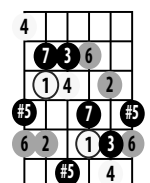
G# I



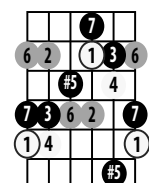
G# IV



G# V



G# IX



Jessica in A

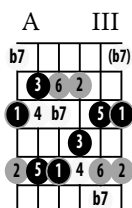
section A progression: A-D

The black tones are triad tones. The black and gray tones combined make a pentatonic scale or ninth arpeggio. To ascend the IVma9 arpeggio, play the tones in the order 4-6-1-3-5. All of the tones combined (including those with no colored background make a seven tone (heptatonic) scale. The position is the top fret on the diagram. Start with A form in position IX (the fourth column below).

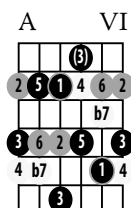
KEY FORM →

A
A major triad (1-3-5),
A major pentatonic
(1-2-3-5-6)
and A Mixolydian
(1-2-3-4-5-6-b7)

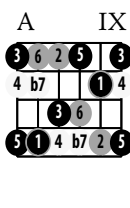
E form



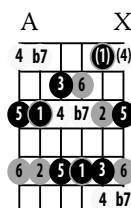
D form



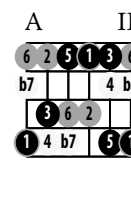
C form



A form

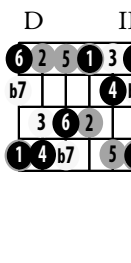
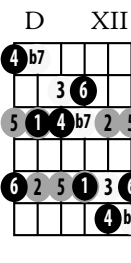
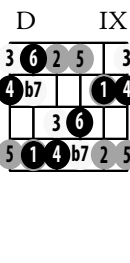
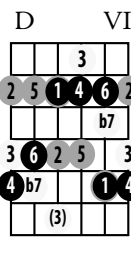
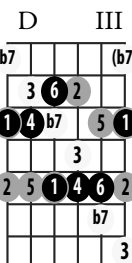


G form



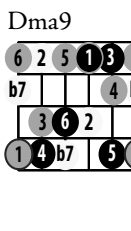
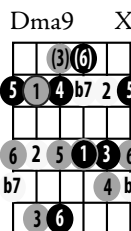
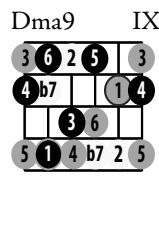
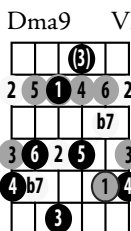
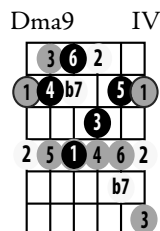
D

D major triad (4-6-1),
D major pentatonic
(4-5-6-1-2)
and A Mixolydian
(1-2-3-4-5-6-b7)



D

D major triad,
Dma9 arpeggio
(4-6-1-3-5)
and A Mixolydian
(1-2-3-4-5-6-b7)



Waiting on the World to Change in D

3X ||: D / Bm / | G / D / | A / Bm / | G / D / :||; | D / Em / | Bm / Em / | A / Bm / | G / D / |

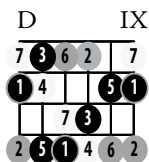
Black tones are triad tones. Black and gray combined make a pentatonic scale. All the tones combined make a seven tone (heptatonic) scale. Start with the left column.

Start with key C form. D-Bm-G can be played as a Bm summary chord, since Bm is part of E6 and Gma7. See the chapter "[Commonality Chords](#)"/[What Are Summary Chords?](#).

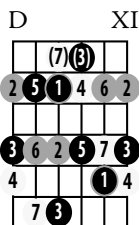
KEY of G FORM →

D
D major triad (1-3-5),
D major pentatonic
(1-2-3-5-6)
and D major scale

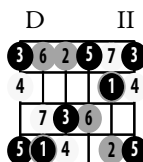
E form



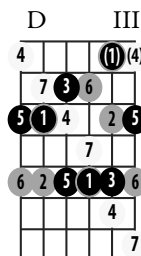
D form



C form



A form



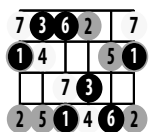
G form



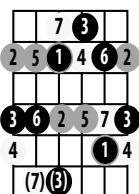
Bm

Bm triad (6-1-3),
Bm pent. (6-1-2-3-5)
and D major scale

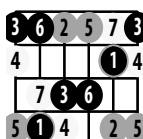
Bm IX



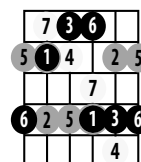
Bm XI



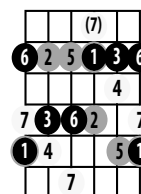
Bm II



Bm IV



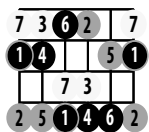
Bm VII



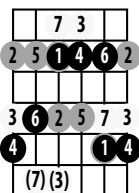
G

G major triad (4-6-1),
G ma pent. (4-5-6-1-2)
and
D Major scale

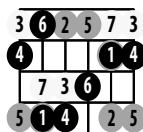
G IX



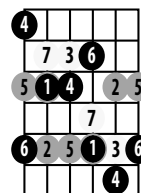
G XI



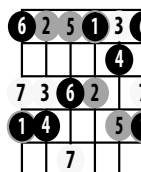
G II



G III



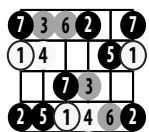
G VII



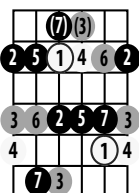
A

A major triad (5-7-2),
A major pentatonic
(5-6-7-2-3)
and D major scale
(1-2-3-4-5-6-7)

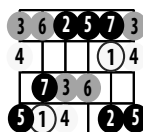
A IX



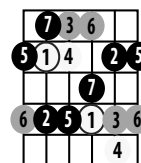
A XI



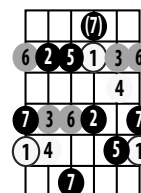
A II



A IV



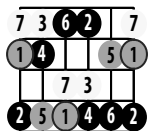
A VI



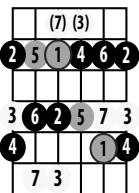
Em

Em triad (2-4-6),
Em pentatonic
(2-4-5-6-1)
and D major scale
(1-2-3-4-5-6-7)

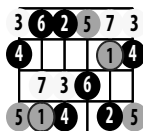
Em IX



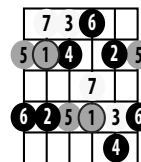
Em XI



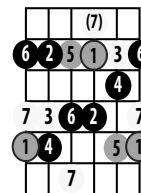
Em II



Em IV



Em VI



MINOR MODE IMPROV WITH AEOLIAN AND HARMONIC MINOR

major scale, five favored fingerings (Aeolian tone center on "6")

fingerings for the major scale with Aeolian tone center on "6":

- fingerings 7/1, 3, 4/5, 6, and 7 are shown as sequences of numbers on a 6-string fretboard diagram.
- fingerings 7/1 and 7 are shown with two diagrams each, illustrating different starting positions.

major scale sharp five, five favored fingerings (harmonic minor tone center on "6")

fingerings for the major scale with sharp five (harmonic minor tone center on "6"):

- fingerings 1, 3, 4/5, 6, and 7 are shown as sequences of numbers on a 6-string fretboard diagram.
- fingerings 1 and 7 are shown with two diagrams each, illustrating different starting positions.

common minor mode triads and seventh chords

example in Am	Am	Bm7b5	C or Cma7	Dm or Dm7	Em or Em7	E or E7	F or Fma7	G or G7	G#dim7
example in Em	Em	F#m7b5	G or Gma7	Am or Am7	Bm or Bm7	B or B7	C or Cma7	D or D7	D#dim7
parent major or maj. #5	major	both	major	both	major	maj. #5	both	major	maj. #5
triad name	VIIm	VII dim.	I maj.	IIIm	IIIIm	III maj.	IV	V major	#Vdim
triad numbers	6-1-3	7-2-4	1-3-5	2-4-6	3-5-7	3-#5-7	4-6-1	5-7-2	#5-7-2
seventh name	VIIm7	VIIIm7b5	Ima7	IIIm7	IIIIm7	III7	IVma7	V7	#Vdim7
seventh numbers	6-1-3-5	7-2-4-6	1-3-5-7	2-4-6-1	3-5-7-2	3-#5-7-2	4-6-1-3	5-7-2-4	#5-7-2-4
Aeolian or har. min.	Aeolian	both	Aeolian	both	Aeolian	har. min.	both	Aeolian	har. min.
triad name	I	IIdim	bIII maj	IVm	Vm	V maj.	bVI maj.	bVII maj.	VIIIdim
triad numbers	1-b3-5	2-4-b6	b3-5-b7	4-b6-1	5-b7-2	5-7-2	b6-1-b3	b7-2-4	7-2-4
seventh name	Im7	IIIm7b5	bIIIIma7	IVIm7	Vm7	V7	bVI maj.	bVII maj.	VIIIdim
seventh numbers	1-b3-5-b7	2-4-b6-b7	b3-5-b7-2	4-b6-1-b3	5-b7-2-4	5-7-2-4	b6-1-b3-5	b7-2-4-b6	7-2-4-b 6

Aeolian mode, five favored fingerings (Aeolian tone center on "1")

fingering 7/1

1

1

(1)

1

2

2

1

1

2

2

4

4

4

3

3

(3)

4

4

fingering 3

1

(1)

1

1

1

1

2

2

2

3

3

(3)

4

4

4

4

4

fingering 4/5

1

1

1

(1)

2

2

2

1

1

2

(4)

4

4

3

3

(3)

4

4

fingering 6

(1)

(1)

1

1

1

1

(1)

2

3

3

(3)

3

3

4

4

4

4

4

fingering 7

1

1

(1)

1

1

1

2

2

2

2

3

3

4

4

4

4

(4)

4

2

5

(1)

4

b3

b6

b7

b3

2

5

4

b7

b3

b6

(1)

4

2

5

5

(1)

4

b7

2

5

b6

b3

b6

2

5

(1)

b7

b3

b6

4

b7

b6

2

5

(1)

b7

b3

b6

4

b7

(1)

4

b7

b3

5

(1)

b6

2

(2)

(1)

4

b7

b3

5

(1)

b6

2

5

(1)

4

2

b3

b6

b7

b3

2

(1)

2

5

(1)

4

2

b3

b6

b7

b3

2

5

4

b7

b3

b6

(1)

4

harmonic minor scale, five favored fingerings (harmonic minor tone center on "1")

fingering 1&2

1

1

1

1

1

2

2

2

(1)

1

3

4

(4)

4

3

3

4

4

fingering 3

(1)

1

(1)

1

1

1

1

2

2

2

2

3

3

(3)

4

4

4

4

4

fingering 4/5

1

1

1

(1)

2

2

1

3

2

2

(4)

4

3

3

(3)

4

4

4

fingering 6

1

1

1

1

(1)

1

2

2

(2)

2

3

3

3

(3)

4

4

4

4

4

fingering 7

1

1

1

(1)

1

1

1

2

2

2

3

3

3

4

4

4

(4)

4

b3

b6

2

5

7

4

b3

b6

(1)

4

7

5

(1)

4

3

5

4

b6

(7)

5

(1)

4

2

5

b6

7

b3

b6

2

5

(1)

b3

b6

4

7

7

b6

2

5

(1)

b3

b6

4

7

2

7

(1)

4

b3

b6

5

(1)

7

b6

2

7

2

7

(1)

4

b3

b6

5

(1)

7

b6

2

5

(1)

4

2

b3

b6

b3

7

2

5

(1)

4

2

b3

b6

b7

b3

2

5

7

4

b3

b6

(1)

4

common minor mode triads and seventh chords

letters in Am	A	B	C	D	E	F	G	G#
letters in Em	E	F#	G	A	B	C	D	D#d
Aeolian								
triad name	Im	IIdim	bIIImaj	IVm	Vm	bVI maj.	V major	
triad numbers	1-b3-5	7-2-4	1-3-5	2-4-6	3-5-b7	4-6-1	5-7-2	
seventh name	Im7	VIIIm7b5	Ima7	IIm7	IIIm7	IVma7	V7	
seventh numbers	1-b3-5-b7	2-4-b6-1	b3-5-b7-2	4-b6-1-b3	5-b7-2-4	b6-1-b3-5	b7-2-4-b6	
harmonic minor								
triad name	Im	IIdim	bIII aug.	IVm	V maj.	bVI maj.		VIIIdim
triad numbers	1-b3-5	2-4-b6	b3-5-7	4-b6-1	5-7-2	b6-1-b3		7-2-4
seventh name	Im(ma7)	IIm7b5	bIIIma7#5	IVm7	V7	bVI maj.		VIIIdim
seventh numbers	1-b3-5-7	2-4-b6-1	b3-5-7-2	4-b6-1-b3	5-7-2-4	b6-1-b3-5		7-2-4-b 6

Fragile verse in Em

verse progression: Em-Em-Am-Am-B7-B7-Em-Em (simplified)

For pentatonic scales, black tones are triad tones combined with gray to make a pentatonic scale. For ninth arpeggios, black tones are a complete ninth, gray are parts of a ninth in another octave. All the tones combined make a seven tone (heptatonic) scale. Start with A form for the key, the fourth column.

KEY FORM →

Em
Em triad arpeggio,
E minor pentatonic
(1-b3-4-5-b7) and
E Aeolian
(1-2-b3-4-5-b6-b7)

Em9
Em9 arpeggio
(1-b3-5-b7-2)
and
E Aeolian
(1-2-b3-4-5-b6-b7)

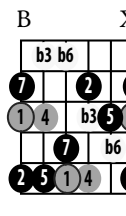
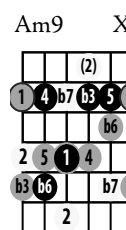
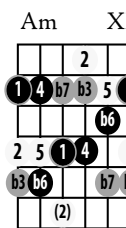
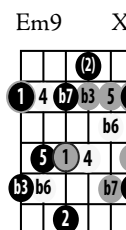
Am
Am triad arpeggio,
Am pentatonic
(4-b6-b7-1-b3) and
E Aeolian
(1-2-b3-4-5-b6-b7)

Am9
Am9 arpeggio,
(4-b6-b7-2-4)
and
E Aeolian
(1-2-b3-4-5-b6-b7)

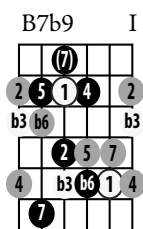
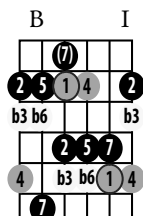
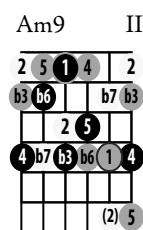
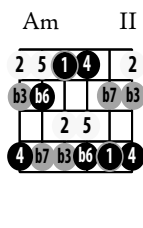
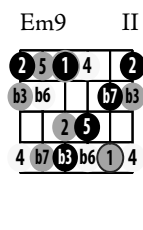
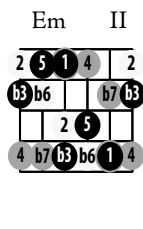
B
B major triad (5-7-2),
B7/11 pentatonic
(5-7-1-2-4)
and
E harmonic minor
(1-2-b3-4-5-b6-7)

B7b9
B7b9 arpeggio
(5-7-2-4-b6)
and
E harmonic minor
(1-2-b3-4-5-b6-7)

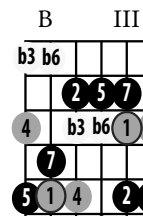
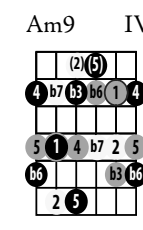
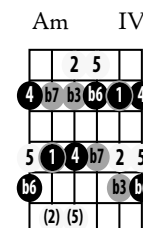
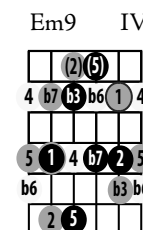
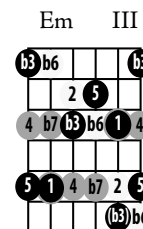
E form



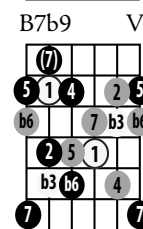
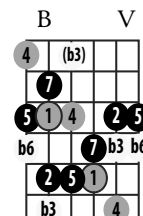
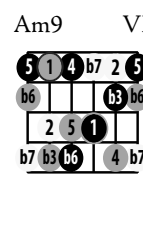
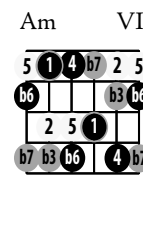
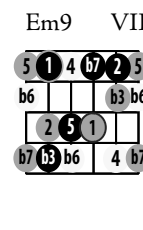
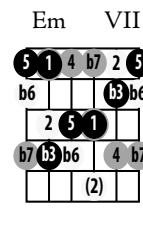
D form



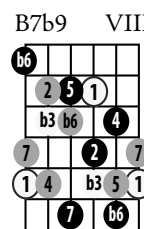
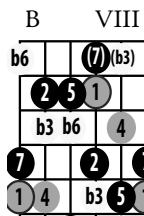
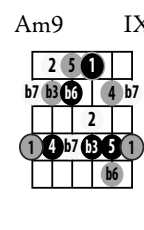
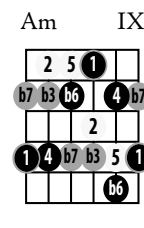
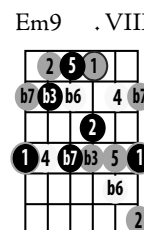
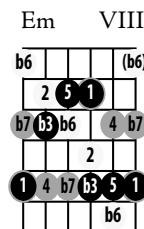
C form



A form



G form



I Put a Spell On You (Creedence version) in Em

Em	Em	Am	Em	Am	Am	B7	B7
Am	Em	Am	C7	Em	B7	Em-Am	B7

The black tones are triad tones. The black and gray tones combined make a pentatonic scale. All of the tones combined (including those with no colored background make a seven tone (heptatonic) scale. The position is the top fret on the diagram.

Start with A form (the fourth column) in position VII). Em7b5 has the same notes as C9 no root, so it works well on C7, making C7 sound like C9.

KEY FORM →

	E form	D form	C form	A form	G form
Em	Em XII	Em II	Em III	Em VII	Em VIII
Em triad arpeggio, E minor pentatonic (1-b3-4-5-b7) and E Aeolian (1-2-b3-4-5-b6-b7)					
Am	Am XI	Am II	Am III	Am VII	Am IX
Am triad arpeggio, Am pentatonic (4-b6-b7-1-b3) and E Aeolian (1-2-b3-4-5-b6-b7)					
B	B X	B XII	B III	B V	B VIII
B major triad (5-7-2), B7/11 pentatonic (5-7-1-2-4) and E harmonic minor (1-2-b3-4-5-b6-7)					
Em7b5 on C7 chord E diminished (1-b3-b5), Em7/11b5 pentatonic (2-b3-4-b5-b7) and E Aeolian flat five (1-2-b3-4-b5-b6-7)	Em7b5 on C7 XI	Em7b5 on C7 XI	Em7b5 on C7 III	Em7b5 on C7 VI	Em7b5 on C7 VIII

Losing My Religion verse in Am

verse progression: three times: (Am-Am-Em-Em), then Dm-Dm-G-G

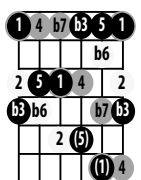
The black tones are triad tones. Black and gray tones combined make a pentatonic scale. All the tones combined (including those with no colored background) make a seven tone (heptatonic) scale. Start with key scale in A form, (fourth column) using the first and third rows.

KEY FORM →

Am
Am triad arpeggio
(1-b3,5),
A minor pentatonic
(1-b3-4-5-b7),
A Aeolian
(1-2-b3-4-5-b6-b7)

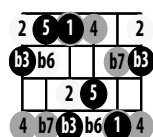
E form

Am V



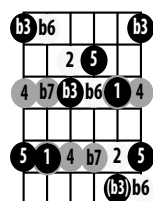
D form

Am VII



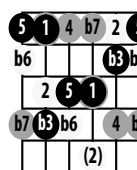
C form

Am VIII



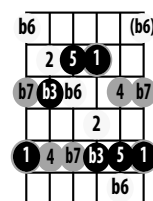
A form

Am XII



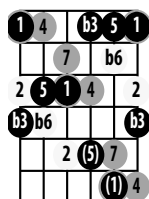
G form

Am I

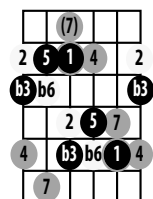


Am triad arpeggio
(1-b3,5),
Am(ma7)/4 pentatonic
(1-b3-4-5-7),
A harmonic minor
(1-2-b3-4-5-b6-7)

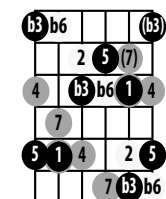
A har. min. V



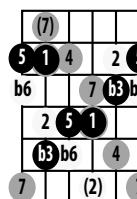
A har. min. VI



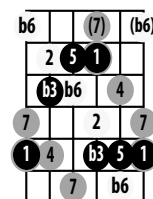
A har. min. VIII



A har. min. XI



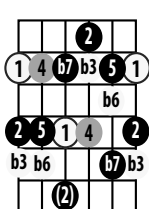
A har. min. I



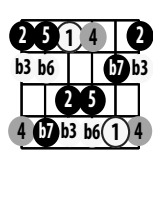
Em

E minor triad (5-b7-2),
E minor pentatonic
(5-b7-1-2-4)
and
A Aeolian
(1-2-b3-4-5-b6-b7)

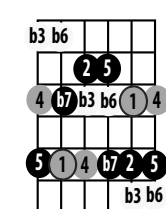
Em IV



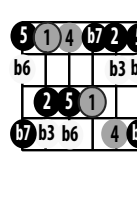
Em VII



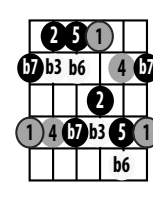
Em VIII



Em XII

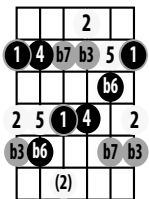


Em I

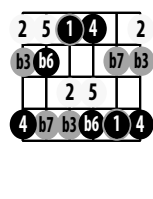


Dm
Dm triad (4-b6-1),
Dm pentatonic
(4-5-b6-1-b3)
and
A Aeolian
(1-2-b3-4-5-b6-b7)

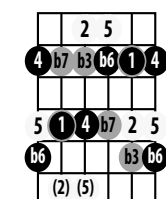
Dm IV



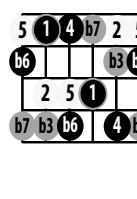
Dm VII



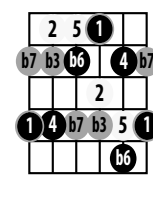
Dm IX



Dm XII

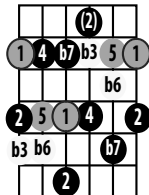


Dm II

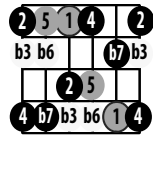


G
G triad (b7-2-4),
G major pentatonic
(b7-1-2-4-5)
and
A Aeolian
(1-2-b3-4-5-b6-b7)

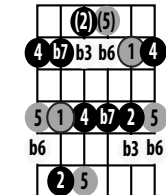
G IV



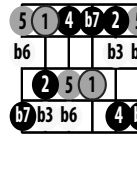
G VII



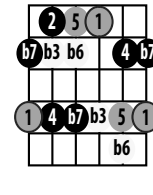
G IX



G XII



G II



Off the Wall

tom + of 3, bass + of 4 in pickup bar **V**
 $\frac{4}{4}$: $D^{\#}$ | $D^{\#}$: $D^{\#}E$ N.C. $\frac{5}{4}$ | N.C. $\frac{4}{4}$: $D^{\#}_{-9}$ | $D^{\#}_{-9}$:

A E on and of **B**
 $D^{\#}_{-9}$ | $D^{\#}_{-9}$ | $D^{\#}_{-9}$ | $D^{\#}_{-9}$: $G^{\#}_{-7}$ | $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7}$ |
 3x **V**
 $G^{\#}_{-7}$ | $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7} F^{\#}_{\Delta 7} E_{\Delta 7} D^{\#}_{-7} C^{\#}_{-7}$: $D^{\#}_{-9}$ | $D^{\#}_{-9}$:
 F#, E, C# are pushed

A $D^{\#}_{-9}$ | $D^{\#}_{-9}$ | $D^{\#}_{-9}$ | $D^{\#}_{-9}$: **B** $G^{\#}_{-7}$ | $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7}$ |
 3x **V**
 $G^{\#}_{-7}$ | $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7} F^{\#}_{\Delta 7} E_{\Delta 7} D^{\#}_{-7} C^{\#}_{-7}$: $D^{\#}_{-9}$ | $D^{\#}_{-9}$:
 F#, E, C# are pushed

C $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7}$ | $C^{\#}_{9sus}$ ||

|| $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7}$ | $B_{\Delta 7} A^{\#}_{9sus}$ / / ||

A $D^{\#}_{-9}$ | $D^{\#}_{-9}$ | $D^{\#}_{-9}$ | $D^{\#}_{-9}$: **B** $G^{\#}_{-7}$ | $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7}$ |
 3x
 $G^{\#}_{-7}$ | $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7} F^{\#}_{\Delta 7} E_{\Delta 7} D^{\#}_{-7} C^{\#}_{-7}$ ||
 F#, E, C# are pushed

V push every chord in these four bars
 $D^{\#}_{-7}$ | $G^{\#}_{-7}$ $G^{\#}_{-6}$ | $D^{\#}_{-7}$ | $G^{\#}_{-7}$ $D^{\#}_{-11}$ |
B $G^{\#}_{-7} B_{\Delta 7} A^{\#}_{-7} G^{\#}_{-7} G^{\#}_{-7}$ | $B_{\Delta 7}$ | $A^{\#}_{-7}$ | $G^{\#}_{-7} F^{\#}_{\Delta 7} E_{\Delta 7} D^{\#}_{-7} C^{\#}_{-7}$:
 repeat and fade these 9 bars F#, E, C# are pushed

For pentatonic scales, black tones are triad tones combined with gray to make a pentatonic scale. For ninth arpeggios, black tones are a complete ninth, gray are parts of a ninth in another octave. All the tones combined make a seven tone (heptatonic) scale. Start with the fourth column. Use D#m9 during D#m11.

KEY of D# FORM →

D#m
D#m triad arpeggio
(1-b3,5),
D# minor pentatonic
(1-b3-4-5-b7),
D# Aeolian
(1-2-b3-4-5-b6-b7)

D#m9
D#m9 arpeggio
(1-b3-5-b7-2)
and
D# Aeolian
(1-2-b3-4-5-b6-b7)

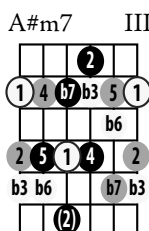
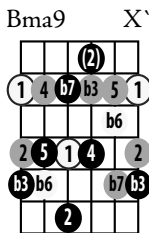
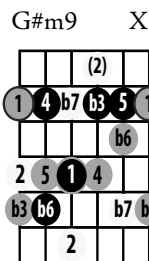
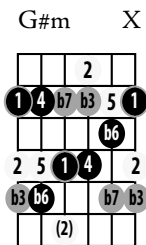
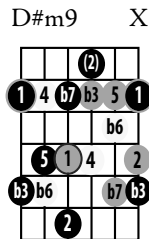
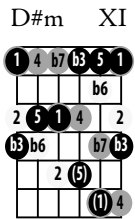
G#m7
G#m triad arpeggio,
G#m pentatonic (4-b6-b7-
1-b3) and
D# Aeolian
(1-2-b3-4-5-b6-b7)

G#m9
G#m9 arpeggio,
(4-b6-b7-2-4)
and
D# Aeolian
(1-2-b3-4-5-b6-b7)

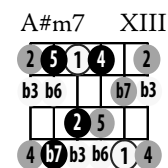
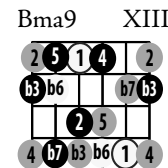
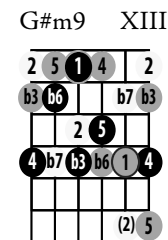
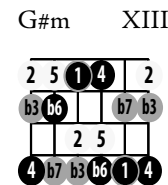
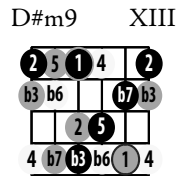
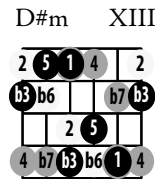
Bma9
Bma9 arpeggio
(b3-5-b7-2-4),
D# Aeolian
(1-2-b3-4-5-b6-b7)

A#m7
A#m7 arpeggio
(2-4-b6-1),
D# Aeolian
(1-2-b3-4-5-b6-b7)

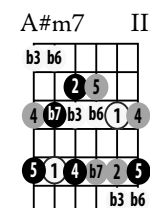
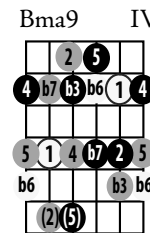
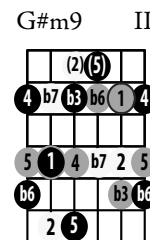
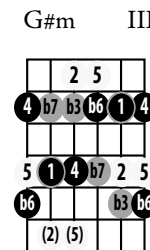
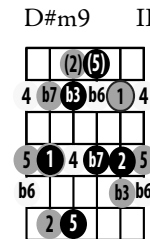
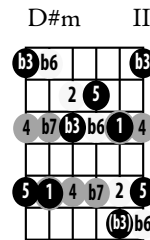
E form



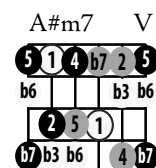
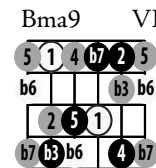
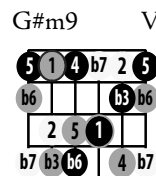
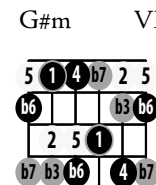
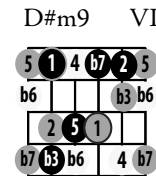
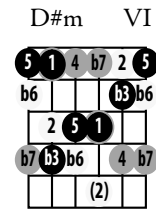
D form



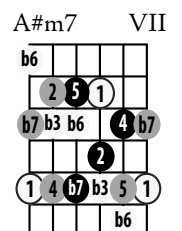
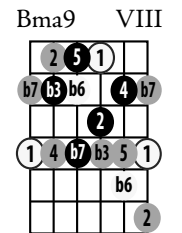
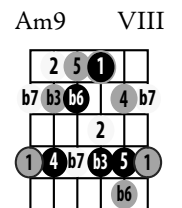
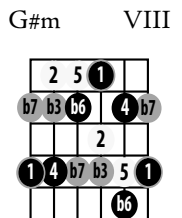
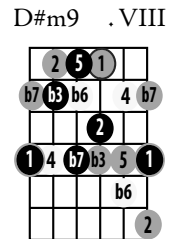
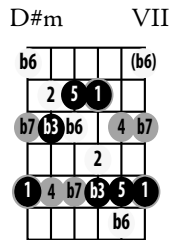
C form



A form



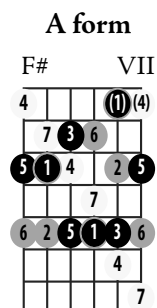
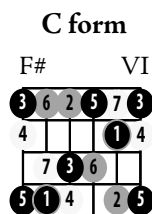
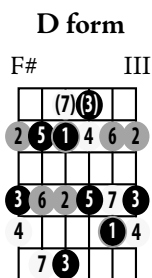
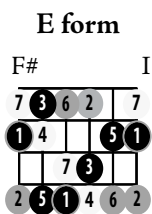
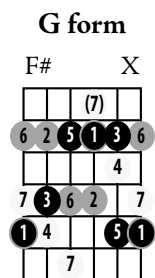
G form



Fma7 and Ema7 are too brief (one beat each) to play more than arpeggio tones. Use A#m7 during A#9sus4.

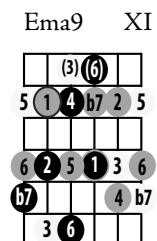
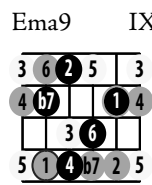
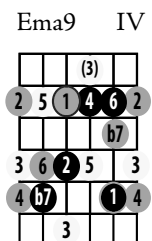
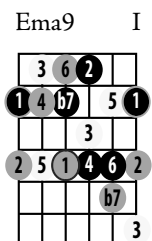
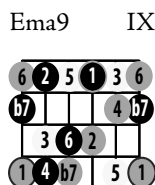
KEY of F# FORM →

F#ma7
F#ma9 arpeggio
(1-3-5-7-2)
and
F# major scale
(1-2-3-4-5-6-7)



Ema7

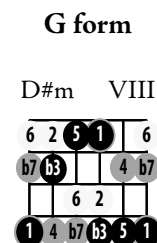
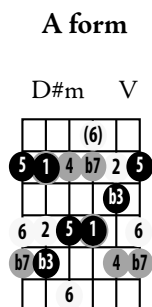
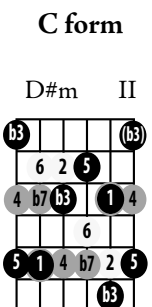
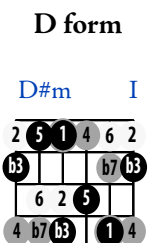
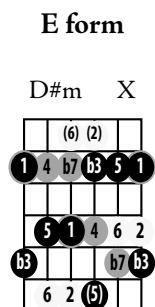
Ema9 arpeggio
(b7-2-4-6-1),
and
F# Mixolydian
(1-2-3-4-5-6-b7)



the last section V

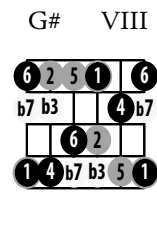
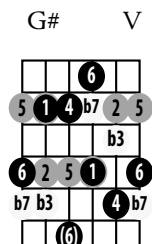
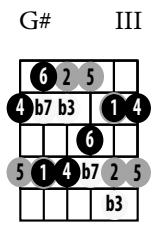
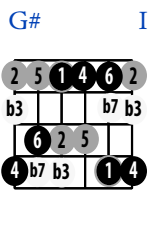
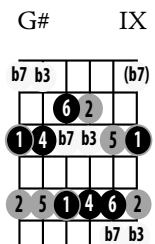
KEY of D# FORM →

D#m7
D#m arpeggio (1-b3-5),
D#m pentatonic,
(1-b3-4-5-b7) and
D# Dorian
(1-2-b3-4-5-6-b7)



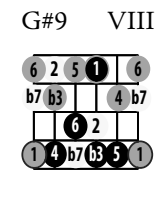
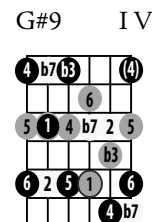
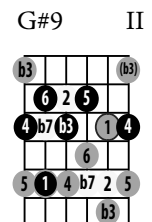
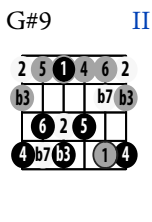
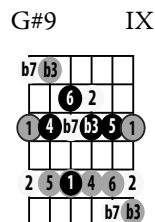
G#

G# maj. arpeggio (4-6-1),
G# major pentatonic,
(4-5-6-1-2) and
D# Dorian
(1-2-b3-4-5-6-b7)



G#9

G#9 arpeggio
(4-6-1-b3-5),
and
D# Dorian
(1-2-b3-4-5-6-b7)



Paint It Black verse in Em

verse progression: Em-Em-B7-B7

The black tones are triad tones. The black and gray tones combined make a pentatonic scale. All of the tones combined (including those with no colored background make a seven tone (heptatonic) scale. The position is the top fret on the diagram.

Start with A form (the fourth column) in position VII with the Em triad arpeggio, E minor pentatonic and E Aeolian in first row and with B major triad, B7/11 pentatonic and E harmonic minor (same as B Phrygian dominant) in the third row.

KEY FORM →

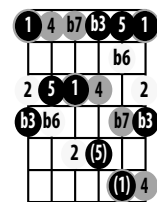
Em
Em triad arpeggio,
E minor pentatonic
(1-b3-4-5-b7) and
E Aeolian
(1-2-b3-4-5-b6-b7)

Em
Em triad arpeggio,
Em(ma7)/11 pentatonic
(1-b3-4-5-7) and
E Aeolian
(1-2-b3-4-5-b6-b7)

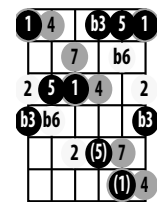
B
B major triad (5-7-2),
B7/11 pentatonic
(5-7-1-2-4)
and
E harmonic minor
(1-2-b3-4-5-b6-7)

E form

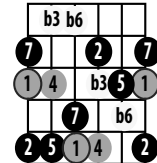
Em XII



E har. min. XII

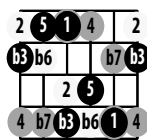


B X

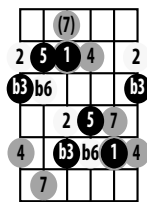


D form

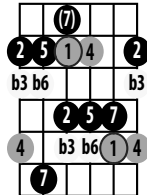
Em II



E har. min. I

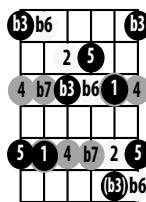


B XII

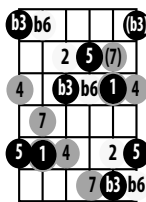


C form

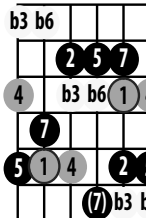
Em III



E har. min. III

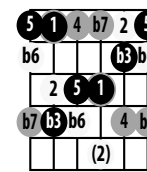


B III



A form

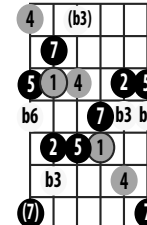
Em VII



E har. min. VI

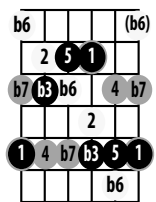


B V

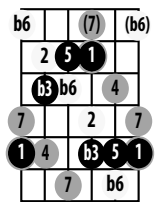


G form

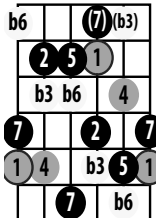
Em VIII



E har. min. VIII



B VIII



Shady Grove in Dm (Garcia-Grissman version)

| Dm | C | Dm | Dm | Dm | C | C | Dm |

The black tones are triad tones. The black and gray tones combined make a pentatonic scale. All of the tones combined (including those with no colored background make a seven tone (heptatonic) scale. The position is the top fret on the diagram.

Start with A form (the fourth column) in position V. Use Aeolian for a traditional feel with a darker mood. Use Dorian for a modern feel with a brighter mood.

D Aeolian

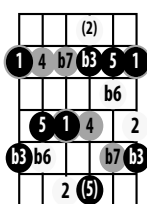
KEY FORM →

Dm

Dm triad arpeggio,
D minor pentatonic
(1-b3-4-5-b7) and
D Aeolian
(1-2-b3-4-5-b6-b7)

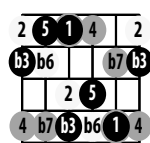
E form

Dm IX



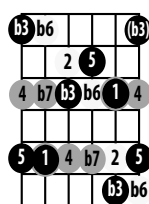
D form

Dm XII



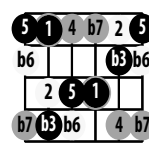
C form

Dm I



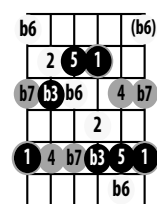
A form

Dm V



G form

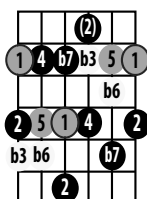
Dm VIII



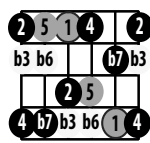
C

C triad (b7-2-4),
C major pentatonic
(b7-1-2-4-5)
and
D Aeolian
(1-2-b3-4-5-b6-b7)

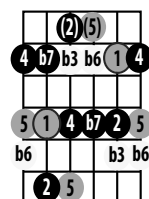
C IX



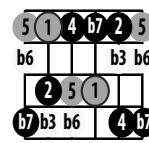
C XII



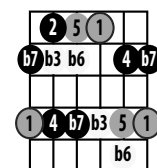
C II



C V



C VII



D Dorian

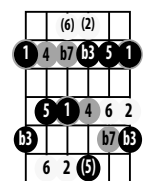
KEY FORM →

Dm

Dm triad arpeggio,
D minor pentatonic
(1-b3-4-5-b7) and
D Dorian
(1-2-b3-4-5-6-b7)

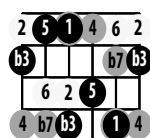
E form

Dm IX



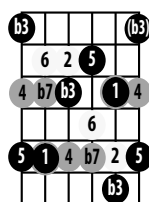
D form

Dm XII



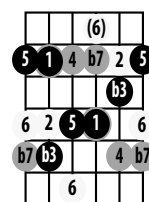
C form

Dm I



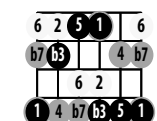
A form

Dm IV



G form

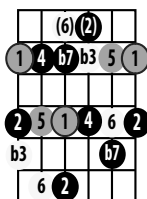
Dm VIII



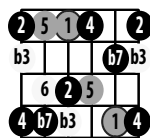
G

C triad (b7-2-4),
C major pentatonic
(b7-1-2-4-5)
and
D Dorian
(1-2-b3-4-5-6-b7)

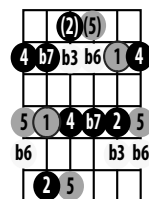
C IX



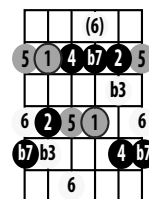
C XII



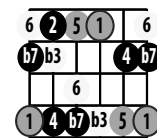
C II



C IV



C VII



Smoke on the Water

In bpm 114

4/4 $\{ G_5 \ B_5^b \ C_5 \ / \ G_5 \ B_5^b \ C_5^{\text{D}_5^b} \ / \ G_5 \ B_5^b \ C_5 \ / \ B_5^b \ G_5 \ / \ / \}^{4x}$

(bs+dr in)

$\{ G_5 \ B_5^b \ C_5 \ / \ G_5 \ B_5^b \ C_5^{\text{D}_5^b} \ / \ G_5 \ B_5^b \ C_5 \ / \ B_5^b \ G_5 \ / \ / \}$

A $\{ G_- \ / \ / \ F \ | \ G_- \}^{4x}$

B $\{ C \ | \ A^b \ | \ G_5 \ | \ / \}^{4x}$

$\{ G_5 \ B_5^b \ C_5 \ / \ G_5 \ B_5^b \ C_5^{\text{D}_5^b} \ / \ G_5 \ B_5^b \ C_5 \ / \ B_5^b \ G_5 \ / \ / \}^{4x}$

D.S. al Fine

solo

$\{ G_- \ / \ / \ C_- \ F \ | \ G_- \}^{4x}$

$\{ C_- \ / \ / \ F \ | \ / \}^{4x}$

A $\{ G_5 \ B_5^b \ C_5 \ / \ G_5 \ B_5^b \ C_5^{\text{D}_5^b} \ / \ G_5 \ B_5^b \ C_5 \ / \ B_5^b \ G_5 \ / \ / \}^{4x}$

B $\{ C \ | \ A^b \ | \ G_5 \ | \ / \}^{4x}$

$\{ G_5 \ B_5^b \ C_5 \ / \ G_5 \ B_5^b \ C_5^{\text{D}_5^b} \ / \ G_5 \ B_5^b \ C_5 \ / \ B_5^b \ G_5 \ / \ / \}^{4x}$

outro

$\{ G_- \ / \ / \ / \}^{4x}$

vamp out

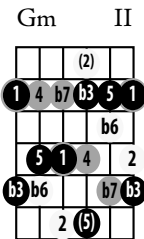
G Aeolian (also Dorian and Phrygian)

Treat the initial “hook” as all G minor and G Aeolian. The black tones are triad tones. The black and gray tones combined make a pentatonic scale. All of the tones combined (including those with no colored background make a seven tone (heptatonic) scale. The position is the top fret on the diagram. Start with A form (the fourth column). In improvising over the chorus, during C and Ab, use primarily chord tones, since the durationa are short.

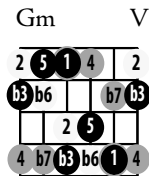
KEY of Gm FORM →

Gm
Dm triad arpeggio,
G minor pentatonic
(1-b3-4-5-b7) and
G Aeolian
(1-2-b3-4-5-b6-b7)

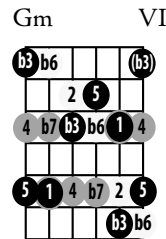
E form



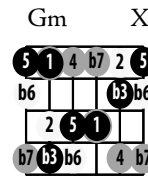
D form



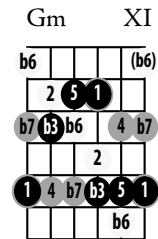
C form



A form

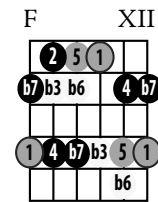
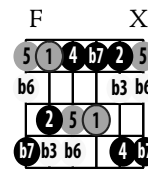
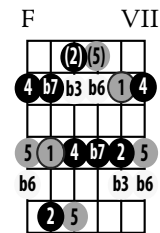
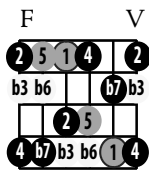
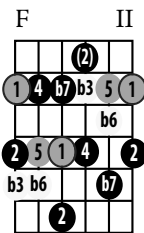


G form



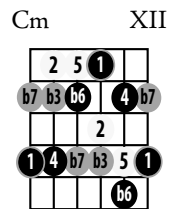
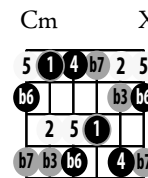
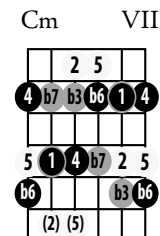
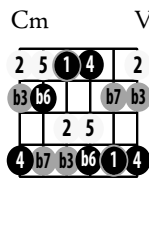
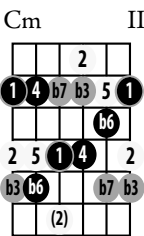
F

F triad (b7-2-4),
F major pentatonic
(b7-1-2-4-5)
and
G Aeolian
(1-2-b3-4-5-b6-b7)



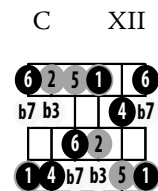
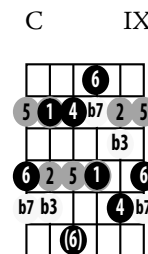
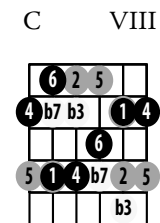
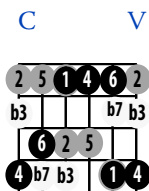
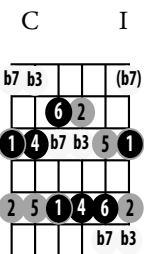
Cm

Cm triad arpeggio,
Cm pentatonic
(4-b6-b7-1-b3) and
G Aeolian
(1-2-b3-4-5-b6-b7)



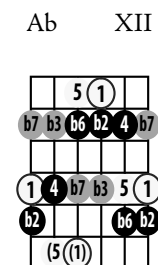
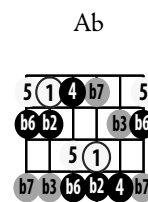
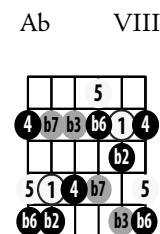
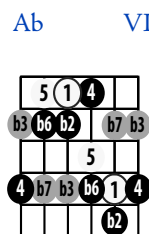
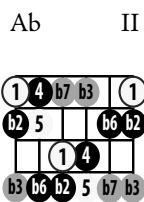
C

C maj. arpeggio
(4-6-1),
C major pentatonic,
(4-5-6-1-2) and
G Dorian
(1-2-b3-4-5-b6-b7)



Ab

Ab maj. arpeggio
(4-6-1),
Ab major pentatonic,
(4-5-6-1-2) and
G Phrygian
(1-b2-b3-4-5-b6-b7)



Sultans of Swing

verse ||: Dm | C / Bb / | A | A :||

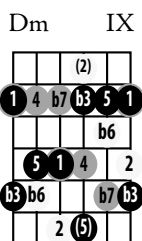
For pentatonic scales, black tones are triad tones combined with gray make a pentatonic scale. For ninth arpeggios, black tones are a complete ninth, gray are parts of a ninth in other octaves. All the tones combined make a seven tone (heptatonic) scale. Start with A form for the key of D minor.

D Aeolian and D harmonic minor

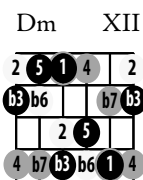
KEY of Dm FORM →

Dm
Dm triad arpeggio,
D minor pentatonic
(1-b3-4-5-b7) and
D Aeolian
(1-2-b3-4-5-b6-b7)

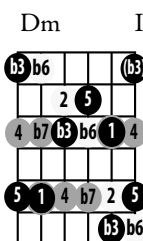
E form



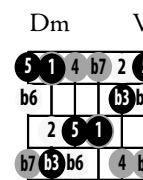
D form



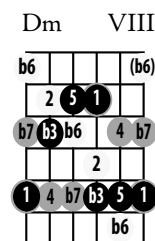
C form



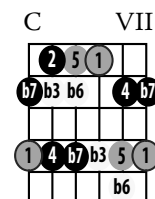
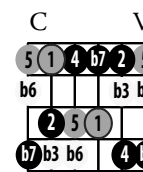
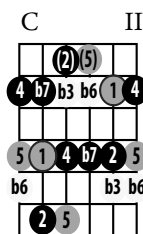
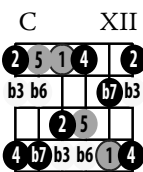
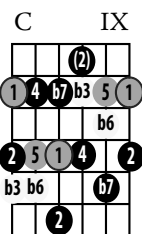
A form



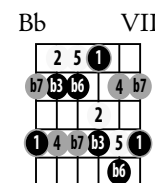
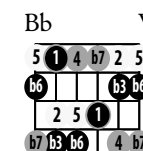
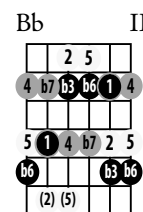
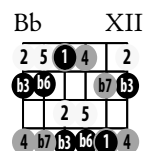
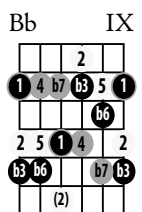
G form



C
C triad (b7-2-4),
C major pentatonic
(b7-1-2-4-5)
and
D Aeolian
(1-2-b3-4-5-b6-b7)

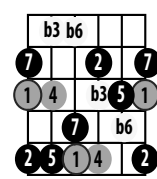


Bb
Bb triad (b6-1-b3),
Bb major pentatonic
(b6-b7-1-b3-4)
and
D Aeolian
(1-2-b3-4-5-b6-b7)

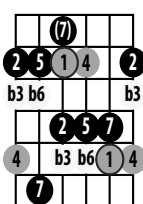


A
A major triad (5-7-2),
A7/11 pentatonic
(5-7-1-2-4)
and
D harmonic minor
(1-2-b3-4-5-b6-7)

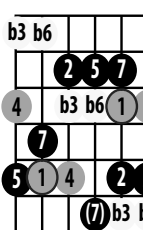
A VIII



A XI



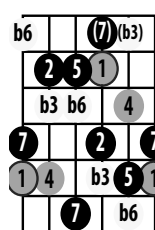
A I



A III

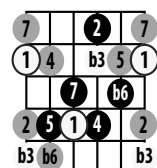


A VI

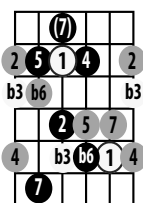


A7b9

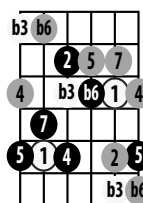
A7b9 VIII



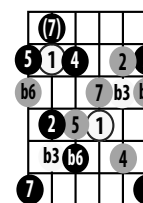
A7b9 XI



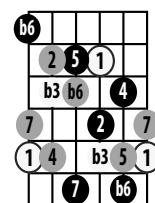
A7b9 I



A7b9 IV



A7b9 VI



A7b9 arpeggio
(5-7-2-4-b6)

and
D harmonic minor
(1-2-b3-4-5-b6-7)

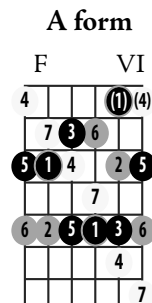
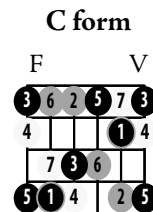
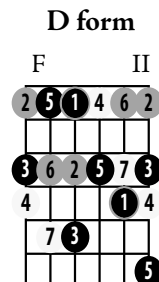
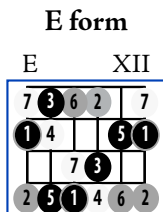
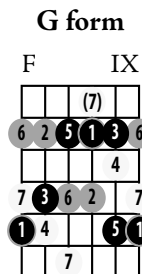
Sultans of Swing chorus | F | F | C | C | Bb | Bb | Dm | Dm / Bb / | C | C / Bb / | C | C |
 ||: Dm // C | Bb | C | C :||

For pentatonic scales, black tones are triad tones combined with gray make a pentatonic scale. All the tones combined make a seven tone (heptatonic) scale. Start with C form for F major, the fourth column.

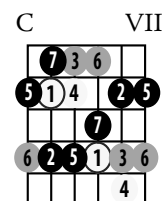
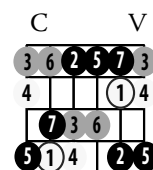
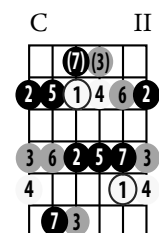
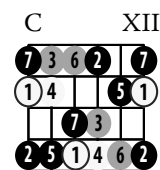
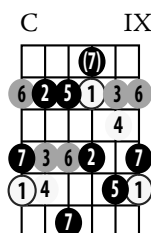
F major - only think in F major for F-F-C-C, then think in D Aeolian & D harmonic minor.

KEY of F FORM →

F
 F major triad (1-3-5),
 F major pentatonic
 (1-2-3-5-6)
 and F major scale



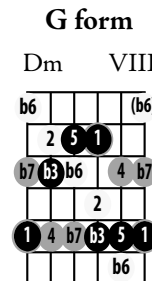
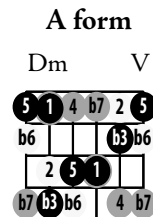
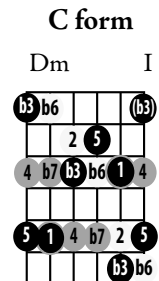
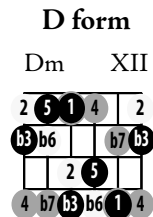
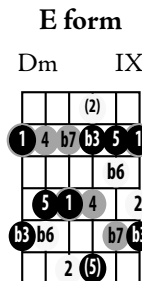
C
 C major triad (5-7-2),
 C major pentatonic
 (5-6-7-2-3)
 and F major scale
 (1-2-3-4-5-6-7)



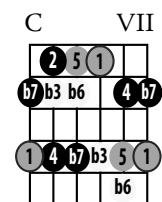
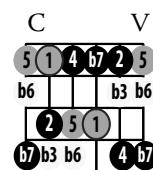
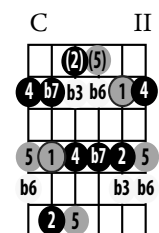
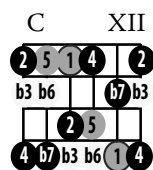
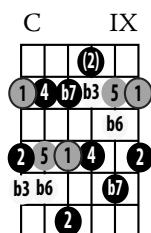
D Aeolian and D harmonic minor

KEY of Dm FORM →

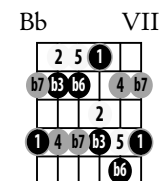
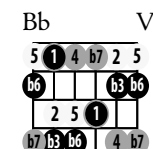
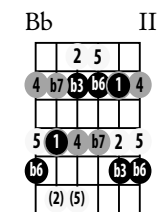
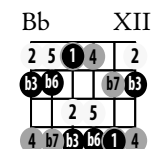
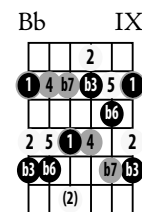
Dm
 Dm triad arpeggio,
 D minor pentatonic
 (1-b3-4-5-b7) and
 D Aeolian
 (1-2-b3-4-5-b6-b7)



C
 C triad (b7-2-4),
 C major pentatonic
 (b7-1-2-4-5)
 and
 D Aeolian
 (1-2-b3-4-5-b6-b7)



Bb
 Bb triad (b6-1-b3),
 Bb major pentatonic
 (b6-b7-1-b3-4)
 and
 D Aeolian
 (1-2-b3-4-5-b6-b7)



Summertime (Miles Davis version)

chord progression

4/4

G-6 D₉/A | G-7 D₉/B^b | G-6 D₉/A | G-7 D₉/B^b |

C-7 | E^b₉ | D₇ A₇ | D₇ |

G-6 D₉/A | G-7 D₉/B^b | G-6 D₉/A | G-7 C₉ |

B^b_{Δ7} G-7 | C-7 D₇^{#9} | G-6 D₉/A | G-7 D₉/B^b ||

comping

♩ = 85
Swing Eighths

6 Gm⁶ D⁹/A Gm⁷ D⁹/A Gm⁶ D⁹/A Gm⁷ D⁹/A

6 Cm⁷ E^b₉ D₇ A₇(^{#5}) D₉ D₇(b5)

10 Gm D⁹/A Gm⁷ D⁹/A Gm D⁹/A Gm⁷ C₇

14 B^bmaj₇ Gm⁷ Cm⁷ D₇(b9) Gm D⁹/A Gm⁷ D⁹/A Gm⁷

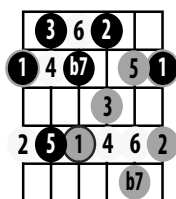
For pentatonic scales, black tones are triad tones, combined with gray to make a pentatonic scale. For ninths, black are a complete ninth, gray are ninth parts in another octave. Combine all tones to make a seven tone scale. Use Gm9 for Bbma7. Start with A form for the key, the fourth column.

Gm key FORM →	E form	D form	C form	A form	G form
Gm(7) Gm triad arpeggio, G minor pentatonic (1-b3-4-5-b7-2) and G Aeolian (1-2-b3-4-5-b6-b7)	Gm III 	Gm V 	Gm VI 	Gm X 	Gm XI
Gm9 (Gm7) Gm9 arpeggio (1-b3-5-b7-2) and G Aeolian (1-2-b3-4-5-b6-b7)	Gm9 II 	Gm9 V 	Gm9 VII 	Gm9 X 	Gm9 XII
D(7) D major triad (5-7-2), D7/11 pentatonic (5-7-1-2-4) and G harmonic minor (1-2-b3-4-5-b6-7)	D I 	D IV 	D VI 	D VIII 	D XI
D7b9 D7b9 arpeggio (5-7-2-4-b6) and G harmonic minor (1-2-b3-4-5-b6-7)	D7b9 II 	D7b9 IV 	D7b9 VI 	D7b9 IX 	D7b9 XI
Cm9 Gm9 arpeggio, (4-b6-1-b3-5) and G Aeolian (1-2-b3-4-5-b6-b7)	Cm9 II 	Cm9 V 	Cm9 VII 	Cm9 X 	Cm9 XII
Eb9 Eb9 arpeggio, (b6-1-b3-b5-b7) and G Aeolian flat five (1-2-b3-4-5-b6-b7)	Eb9 II 	Eb9 IV 	Eb9 VII 	Eb9 IX 	Eb9 VIII
D key FORM →	C form	A form	G form	E form	D form
A7 A7b9 arpeggio, (5-7-2-4-b6) and D harmonic minor (1-2-b3-4-5-b6-7)	A7b9 I 	A7b9 IV 	A7b9 VI 	A7b9 IX 	A7b9 XI

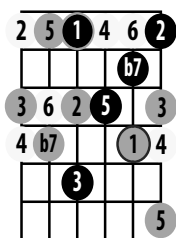
BLUES IMPROV MODES

Mixolydian key I9 (black tones are I9 one octave, gray in another octave)

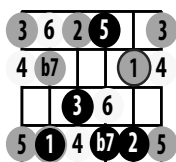
E form-fingering 4/5



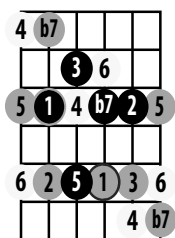
D form-fingering 6



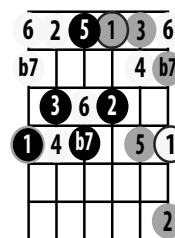
C form-fingering 7



A form-fingering 1/2

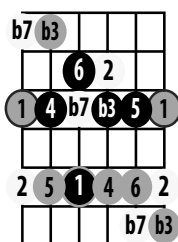


G form-fingering 3

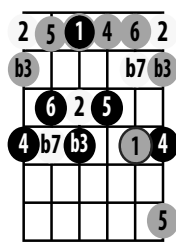


Dorian key IV9 (black tones are IV9 one octave, gray in another octave)

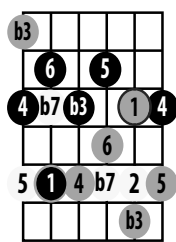
A form-fingering 1/2



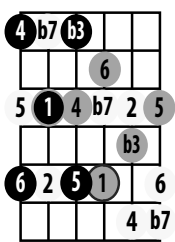
G form-fingering 3



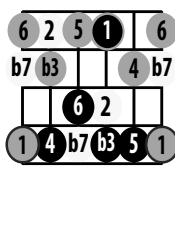
E form-fingering 4/5



E/D form-fingering 5/6

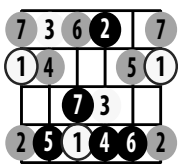


C form-fingering 7

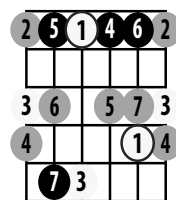


Major key V9, (black tones are V9 one octave, gray in another octave)

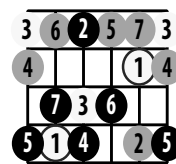
C form-fingering 7/1



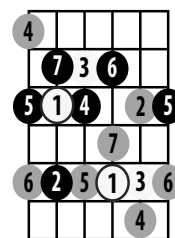
A form-fingering 2



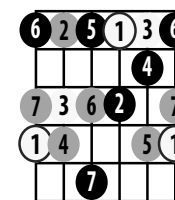
G form-fingering 3



E form-fingering 4/5



D form-fingering 6



common blues chords

example in C	C(7)	Dm(7)	Em7b5	F(ma7)	F(7)	Gm(7)	G(7)	Am(7)	Bb(ma7)
example in G	G(7)	Am(7)	Bm7b5	C(ma7)	C(7)	Dm(7)	D(7)	Em(7)	F(ma7)
key scale	Mixo.	Mixo.	Mixo.	Mixo.	Dorian	Mixo.	major	Mixolydian	Mixolydian
chord scale	Mixo.	Aeolian	Locrian	major	Mixolydian	Dorian	Mixo.	Phrygian	Lydian
triad name	I maj.	IIIm	III dim.	IV maj.	IV maj.	Vm	V	VIIm	bVII maj.
triad numbers	1-3-5	2-4-6	3-5-b7	4-6-1	4-6-1	5-b7-2	5-7-2	6-1-3	b7-2-4
seventh name	I7	IIIm7	IIIIm7b5	IVma7	IV7	Vm7	V7	VIIm7	bVIIIma7
seventh numbers	1-3-5-b7	2-4-6-1	3-5-b7-2	4-6-1-3	4-6-1-b3	5-b7-2-4	5-7-2-4	6-1-3-5	b7-2-4-6
ninth name	I9	IIIm9	not acceptable	IVma9	IV9	Vm9	V9	not acceptable	bVIIIma9
ninth numbers	1-3-5-b7-2	2-4-6-1-3		4-6-1-3-5	4-6-1-b3-5	5-b7-2-4-6	5-7-2-4-6		b7-2-4-6-3

IMPROV WITH MELODIC MINOR MODES

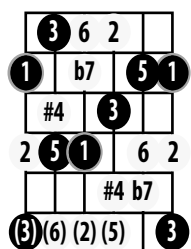
These use bVI melodic minor of the target key.

target I chord in major, Mixolydian, Dorian or Aeolian/harmonic minor

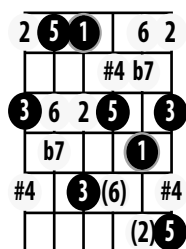
Fingerings for those targets are shown on the previous two pages. In a melodic minor scale on bVI of the target chord, Lydian dominant is on IV of the bVI melodic minor and super Locrian is on VII of the bVI melodic minor.

Lydian dominant mode for bII of the target

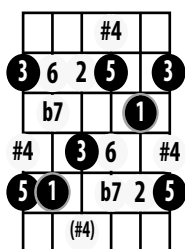
E form-fingering 3/4



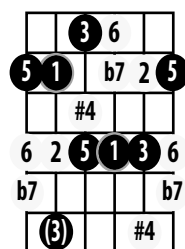
D form-fingering 5/6



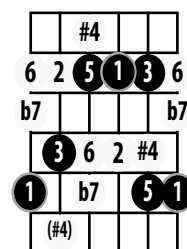
C form-fingering 6



A form--fingering 7/1



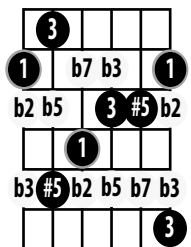
G form-fingering 2



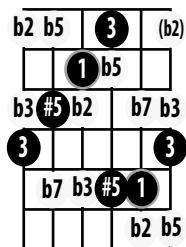
super Locrian scale for a super-altered V of the target

This uses flat four as three and flat six as sharp five and features an augmented triad. It provides optional sharp five, flat five, sharp nine and flat nine.

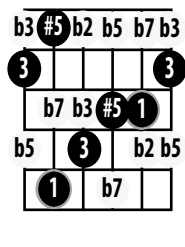
E form-fingering 7/1



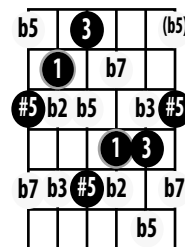
D form-fingering 1/2



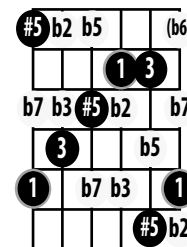
C form-fingering 2



A form-fingering 3/4



G form-fingering 5/6



One Note Samba

chord fingerings for chord melody

easy chords

Dm7 **V** Db7 **IV** Cm7/11 **III** B7b5 **VI** Fm7 **III** E9b5n3 **VI** EbΔ9n3 **VI** Ab13 **IV**

twice

Dm7 **V** Db7 **IV** Cm7/11 **III** B7b5 **VI** Bb **VI**

better voicing

Dm7 **I** Db7 **I** Cm11 **I** B7b5 **I** Fm11 **VIII** E7#11 **VII** EbΔ9n3 **VI** Ab13 **IV**

twice

Dm7 **I** Db7 **I** Cm11 **VI** B7b5 **VI** Bb **VI**

2 beats 2 beats

bridge

Ebm7 **XI** Ab7 **IX** DbΔ7 **IX** Db6 **VIII** DbΔ7 **IX** Db6 **VIII**

2 beats 2 beats 2 beats 2 beats

C#m7 **IX** F#7 **VII** BΔ7 **VII** B6 **VI** Cm7b5 **VII** B7b5 **VI**

2 beats 2 beats 2 beats 2 beats

Dm7 **I** Db7 **I** Cm11 **I** B7b5 **I** Fm11 **VIII** E7#11 **VII** EbΔ9n3 **VI** Bb13 **IV**

twice

Db6 **IX** C7 **VIII** BΔ7 **VII** Bb **VI** Db6 **IX** C7 **VIII** BΔ7 **VII** Bb6/9 **VI**

twice

One Note Samba-iReal chords

A B ^b _{Δ9} no root			
4|| D ⁻⁷	D ^b ₇	C ⁻⁷	B _{7#11} F# mel min
B ^b _{Δ9} no root			
D ⁻⁷	D ^b ₇	C ⁻⁷	B _{7#11} F# mel min
F ⁻¹¹	B ^b ₇	E ^b _{Δ7}	A ^b ₇
B ^b _{Δ9} no root			
D ⁻⁷	D ^b ₇	C ⁻⁷ B _{7#11}	B ^b ₆ ||
B			
E ^b ₋₇	A ^b ₇	D ^b _{Δ7}	⌘
C [#] ₋₇	F [#] ₇	B _{Δ7}	C _{ø7} F ₇ ||
A B ^b _{Δ9} no root			
D ⁻⁷	D ^b ₇	C ⁻⁷	B _{7#11} F# mel min
B ^b _{Δ9} no root			
D ⁻⁷	D ^b ₇	C ⁻⁷	B _{7#11} F# mel min
F ⁻¹¹	B ^b ₇	E ^b _{Δ7}	A ^b ₇
D ^b ₆	C ₇	B _{Δ7}	B ^b ₆ ||

Treat Dm7 as if it were Bbma9 no root. For pentatonic scales, black tones are triad tones combined with gray make a pentatonic scale and all the tones make a seven-tone scale. For ninth chords, black are a complete ninth, gray are ninth parts in another octave. Combine all tones to make a seven tone scale. Treat B7#11 as Cb7. Start with the first column. Use the versions with the checkmark (✓) first.

Read the bottom
of the previous
page

Bb key FORM →

✓ Bbma9 nr (Dm7)
Bb major triad (1-3-5,
Bb major pentatonic
(1-2-3-5-6) and
Bb major
(1-2-3-4-5-6-7)

Bbma9 nr (Dm7)

Bbma9 arpeggio,
(1-3-5-7-2)
and
Bb major
(1-2-3-4-5-6-7)

✓ Db7

Bbm (1-b3-5),
Bbm pentatonic
(1-b3-4-5-b7)
and
Bb Dorian b2
(1-b2-b3-4-5-6-b7)

Db7
Db9
(b3-5-b7-b2-4)
and
Bb Dorian b2
(1-b2-b3-4-5-6-b7)

Db7
Db7b9
(b3-5-b7-b2-3)
and
Bb half/whole
diminished scale
(1-b2-b3-3-#4-5-6-b7)

✓ Cm7

Cm9
(2-4-6-1-3)
and
Bb major
(1-2-3-4-5-6-7)

F key FORM →

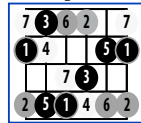
✓ F7#5b5#9b9

on bV: Cb9 arpeggio,
(b5-b7-b2-b4-b6)
and

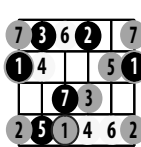
F super Locrian
(1-b2-b3-b4-b5-b6-b7)
(mode of Gb melodic min.)

E form

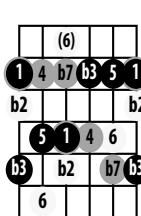
Bbma pent. V



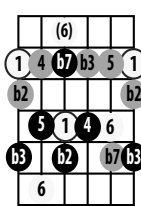
Bbma9 V



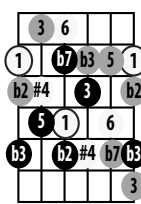
Db9 V



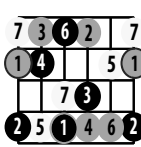
Db9 VI



Db7b9 V

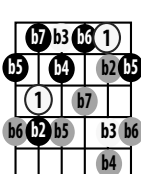


Cm9 V



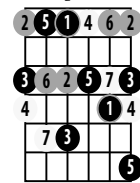
C form

Cb9 VI

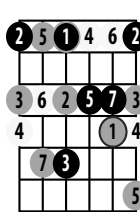


D form

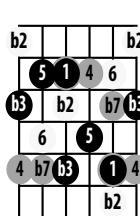
Bbma pent. VIII



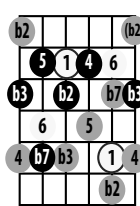
Bbma9 VIII



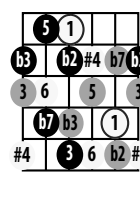
Db9 VII



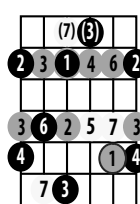
Db9 VII



Db7b9 V

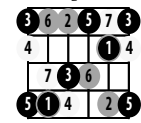


Cm9 VII

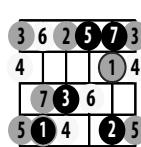


C form

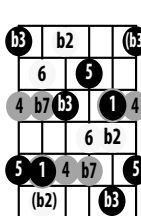
Bbma pent. X



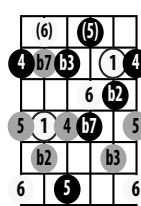
Bbma9 X



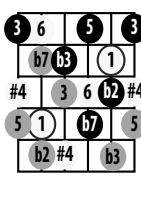
Db9 IX



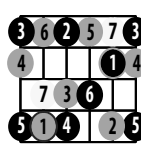
Db9 X



Db7b9 X

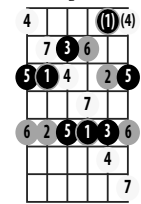


Cm9 X

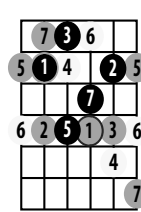


A form

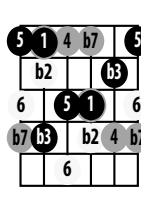
Bbma pent. XI



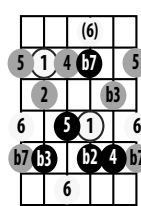
Bbma9 XII



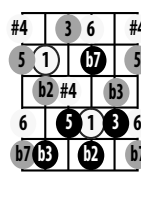
Db9 XIII



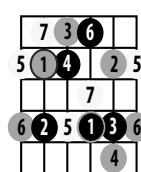
Db9 XIII



Db7b9 XII

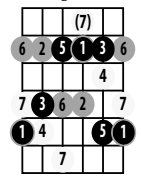


Cm9 XII

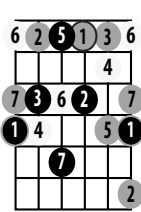


G form

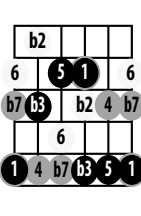
Bbma pent. II



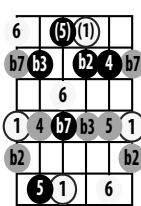
Bbma9 III



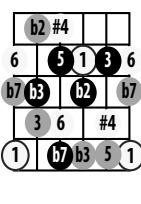
Db9 II



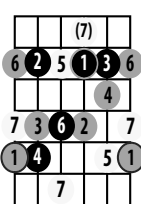
Db9 II



Db7b9 II



Cm9 II



Fm7-Bb7-Ebma7-Ab7 (temporary key of Eb)

treat Fm9 as Bb7sus4

Eb key FORM →

	A form	G form	E form	D form	C form
Fm7	Fm9 V	Fm9 VII	Fm9 X	Fm9 XII	Fm9 III
Fm9 (2-4-6-1-3) and Eb major (1-2-3-4-5-6-7)					
Bb7	Bb7 IV	Bb7 VIII	Bb7 X	Bb7 VIII	Bb7 III
Bb9 (2-4-6-1-3) and Eb major (1-2-3-4-5-6-7)					
Ebma7	Ebma pent. IV	Ebma pent. VII	Ebma pent. X	Ebma pent. XII	Ebma pent. III
Eb major triad (1-3-5), Eb major pentatonic (1-2-3-5-6) and Eb major (1-2-3-4-5-6-7)					
Ebma7	Ebma9 V	Ebma9 VIII	Ebma9 X	Ebma9 XIII	Ebma9 III
Ebma9 arpeggio, (1-3-5-7-2) and Eb major (1-2-3-4-5-6-7)					
Ab7	Ab9 IV	Ab9 VIII	Ab9 IX	Ab9 XIII	Ab9 II
Ab9 arpeggio, (4-6-1-b3-5) and Eb Dorian (1-2-b3-4-5-6-7)					

Ebm7-Ab7-Dbma7-Ab7 (temporary key of Db) treat Ebm9 as Ab7sus4

Db key FORM →

Ebm7
Ebm9 (2-4-6-1-3)
and
Db major
(1-2-3-4-5-6-7)

Ab7
Ab9 (2-4-6-1-3)
and
Db major
(1-2-3-4-5-6-7)

Dbma7
Dbma9 arpeggio,
(1-3-5-7-2)
and
Db major
(1-2-3-4-5-6-7)

G form	E form	D form	C form	A form
Ebm9 V	Ebm9 VIII	Ebm9 X	Ebm9 XIII	Ebm9 III
Ab9 VI	Ab9 VIII	Ab9 XI	Ab9 XIII	Ab9 II
Dbma9 VI	Dbma9 VIII	Dbma9 XI	Dbma9 XIII	Dbma9 III

C#m7-F#7-Bma7 (temporary key of B)

Db key FORM →

Ebm7
Ebm9 (2-4-6-1-3)
and
Db major
(1-2-3-4-5-6-7)

Ab7
Ab9 (2-4-6-1-3)
and
Db major
(1-2-3-4-5-6-7)

Dbma7
Dbma9 arpeggio,
(1-3-5-7-2)
and
Db major
(1-2-3-4-5-6-7)

G form	E form	D form	C form	A form
Ebm9 V	Ebm9 VIII	Ebm9 X	Ebm9 XIII	Ebm9 III
Ab9 VI	Ab9 VIII	Ab9 XI	Ab9 XIII	Ab9 II
Dbma9 VI	Dbma9 VIII	Dbma9 XI	Dbma9 XIII	Dbma9 III

Cm7b5-F7b9-Bbma9 no root (Dm7) - minor IIIm7b5-V9b9 cadence back to Bb

Treat Dm7 as if it were Bbma9 no root. For pentatonic scales, black tones are triad tones combined with gray make a pentatonic scale. For ninth chords, black are a complete ninth, gray are ninth parts in another octave. Combine all tones to make a seven tone scale. Start with the first column.

Bb key FORM →

	E form	D form	C form	A form	G form
Cm7b5	Cm7b5 V	Cm7b5 VIII	Cm7b5 X	Cm7b5 XIII	Cm7b5 III
Cm7b5 (2-4-b6-1) and Bb Aeolian (1-2-b3-4-5-b6-b7)					
F7b9	F7b9 V	F7b9 VII	F7b9 IX	F7b9 XII	F7b9 II
F7b9 arpeggio (5-7-2-4-b6) and Bb harmonic minor (1-2-b3-4-5-b6-7)					
Bbma9	Bbma9 V	Bbma9 VIII	Bbma9 X	Bbma9 XII	Bbma9 III
Bbma9 arpeggio, (1-3-5-7-2) and Bb major (1-2-3-4-5-6-7)					

ending chords Db6-Cm7-Bma7-Bb6

Start with the first column.

Bb key FORM →

Db9
(b3-5-b7-b2-4)
and
Bb Dorian b2
(1-b2-b3-4-5-6-b7)

Cm7

Cm9
(2-4-6-1-3)
and
Bb major
(1-2-3-4-5-6-7)

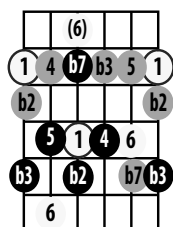
F key FORM →

Cb key FORM →
F7#5b5#9b9
on bV: Cb9 arpeggio,
(b5-b7-b2-b4-b6)
and
F super Locrian
(1-b2-b3-b4-b5-b6-b7)
(mode of Gb melodic min.)

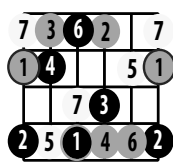
Bbma9 nr (Dm7)

Bb major triad (1-3-5,
Bbm ajor pentatonic
(1-2-3-5-6) and
Bb Mixolydian
(1-2-3-4-5-6-b7)

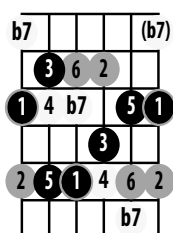
E form



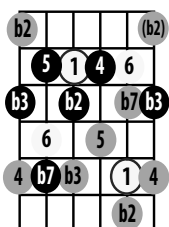
Cm9 V



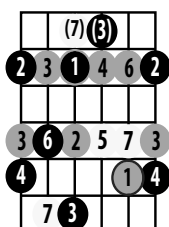
Bbma pent. IV



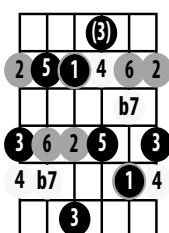
D form



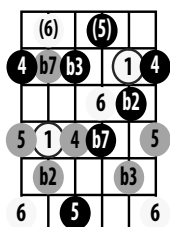
Cm9 VII



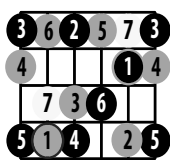
Bbma pent. VII



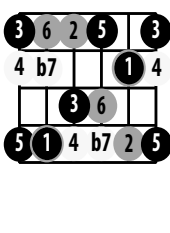
C form



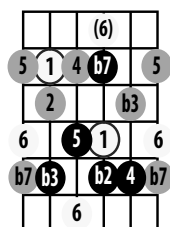
Cm9 X



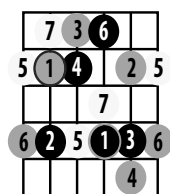
Bbma pent. X



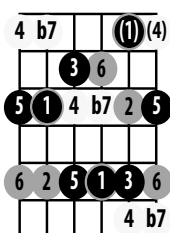
A form



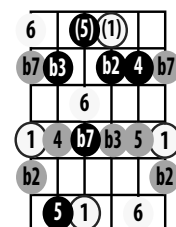
Cm9 XII



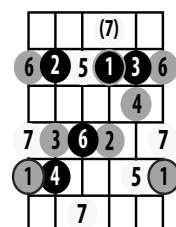
Bbma pent. XI



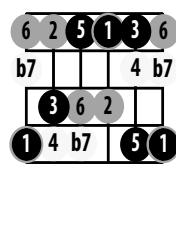
G form



Cm9 II



Bbma pent. III



Only So Much Oil In the Ground

Only So Much Oil-iReal chords

A 4/4 G-7	| E ^b _{9#11} | G-7 | E ^b _{9#11} |
	Bb mel min Bb mel min
| G-7 | C ₉ | E ^b _{9#11} D _{7#9} | G-7 D _{7#9} |	| : |
	Bb mel.m
B C ₉	| G-7 | C ₉ | G-7 |
| C ₉ | G-7 B ^b ₀₇ | E ^b _{9#11} D _{7#9} | G-7 D _{7#9} |	
A G-7	| E ^b _{9#11} | G-7 | E ^b _{9#11} |
	Bb mel min
| G-7 | C ₉ | E ^b _{9#11} D _{7#9} | G-7 D _{7#9} |	| : |
	Bb mel.m
| G-7 N.C. ||	

For pentatonic scales, black tones are triad tones combined with gray make a pentatonic scale and all the tones make a seven-tone scale. For ninth arpeggios, black are a complete ninth, gray are ninth parts in another octave. Combine all tones to make a seven tone scale. Start with the first column. Use the versions with the checkmark (✓) first.

Read the bottom
of the previous
page

Gm key FORM →

✓ Gm7
Gm triad (1-b3-5),
Gm pentatonic
(1b-3-4-5-b7) and
G Aeolian
(1-2-b3-4-5-b6-b7)

Gm7

Gm9 arpeggio
(1-b3-5-b7-2),
and
G Aeolian
(1-2-b3-4-5-6-b7)

✓ Eb9nr = Gm7b5

Gm7b5 (1-b3-b5),
Gm7/11b5 pentatonic
(1-b3-4-b5-b7)
and
G Aeolian b5
(1-2-b3-4-5-6-b7)

Eb9#11

Eb13#11
(b6-1-b3-b5-b7-2-4)
and
G Aeolian b5
(1-2-b3-4-5-b6-b7)

✓ C9

C9
(4-6-1-b3-5)
and
G Dorian
(1-2-b3-3-4-5-6-b7)

✓ D7#9

D7b9
(5-7-2-4-b6)
and
G harmonic minor
(1-2-b3-4-5-b6-7)

✓ Gm7

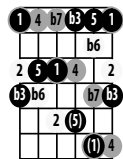
Gm triad (1-b3-5),
Gm pentatonic
(1b-3-4-5-b7) and
G Dorian
(1-2-3-4-5-b6-b7)

✓ Bbdim7 = Gdim7

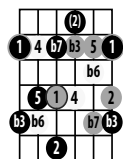
Gdim7 (1-b3-5-6),
and
G whole/half
diminished scale
(1-2-b3-4-b5-#5-6-7)

E form

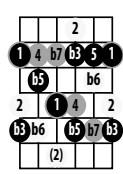
Gm pent. III



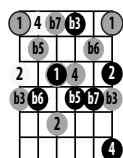
Gm9 II



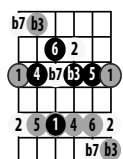
Gm7b5 II



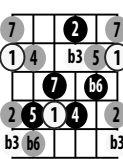
Eb13#11 III



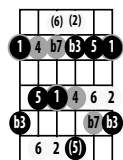
C9 I



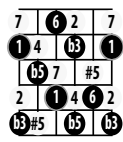
D7b9 II



Gm pent. II

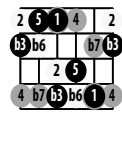


Gdim7 II

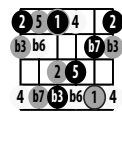


D form

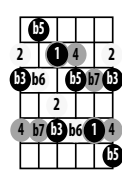
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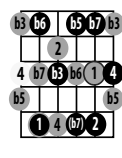
Gm9 V



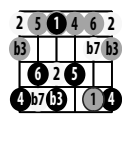
Gm7b5 IV



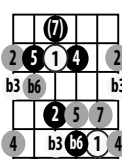
Eb13#11 VI



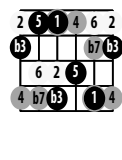
C9 V



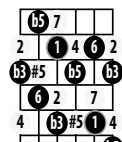
D7b9 IV



Gm pent. V

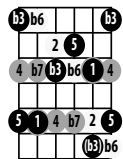


Gdim7 IV

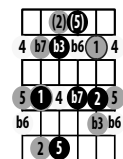


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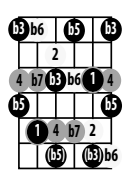
Gm pent. VI



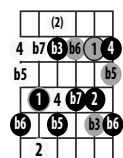
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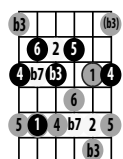
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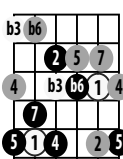
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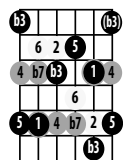
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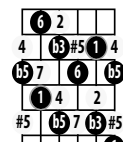
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Gm pent. VI

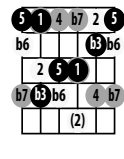


Gdim7 VII

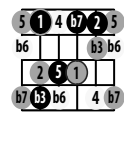


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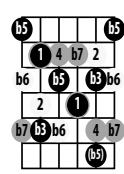
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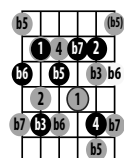
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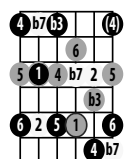
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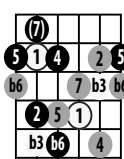
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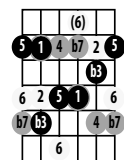
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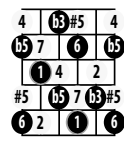
D7b9 IX



Gm pent. IX

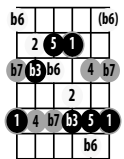


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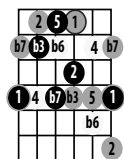


G form

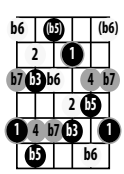
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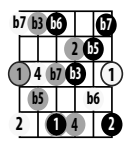
Gm9 XII



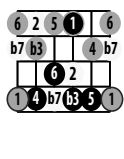
Gm7b5 XI



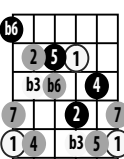
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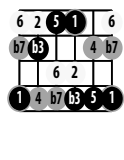
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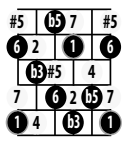
D7b9 XI



Gm pent. XII



Gdim7 XI



IMPROV WITH HARMONIC MAJOR MODES

Harmonic major scale is a major scale with a flat six (1-2-3-4-5-b6-7) or harmonic minor (1-2-b3-4-5-b6-7) with a major third (1-2-3-4-5-b6-7)

Prime Scales, Chords and Arpeggios

- **The Objective**
- **Introduction**
- **Chords**
- **Chromatic Scale Fingering**
- **Triad Chords and Arpeggios**
- **Pentatonic Scales**
- **Major Scale Fingering**
- **Modal Scale Fingering**
- **Seven-Tone Scales in Seven Areas with Tertian Arpeggios in Black and Gray**
- **Playing over Progressions with Pentatonic and Major Scales**
- **Quadrant Arpeggios (includes sevenths)**
- **Ninth Arpeggios**
- **Eleventh and Thirteenth Arpeggios**
- **Arpeggios and Their Scales**
 - maj9, maj13#11, 9, 13#11, 7b9, 7#9, 7#5b9, 7#5#9, m9, m7b5, m9b5, m11b5b9, m9(ma7)
 - Diminished Seventh Arpeggio And Scale, Diminished Half/Whole Scale in Perfect Fourths
 - Augmented Arpeggio, Augmented Scale, Whole Tone Scale
- **Harmonic Minor Scale Fingerings**
- **Playing over Progressions with Harmonic Minor**
- **Melodic Minor Scale Fingerings**
- **Playing over Progressions with Melodic Minor**
- **Harmonic Major Scale Fingerings**
- **Playing over Progressions with Harmonic Major**
- **Altered V Chord Tones in Common**

THE OBJECTIVE

This system has a simple basis and a broad scope. In abstract harmonic music like jazz we need to be able to rapidly incorporate arpeggios and scales derived from many keys and mold them into melodies that the listener can understand and retain.

Primary Chords

Memorize these primary chords and the related rules of substitution so you can play a basic version of most chord progressions you read or are otherwise called upon to play.

Heptatonic Scales and Subset Arpeggios

We're going to use six major scale fingerings as a basis for four heptatonic scale types, fifteen modes, seven pentatonic scales and over twenty arpeggio types, all multiplied by five octave shapes. After learning each element in five octave shapes we'll use it on song progressions in a small area of the fretboard, learning to quickly identify the octave shape for each arpeggio or scale.

How can all of this be retained and applied to spontaneous composition? With a simple basis, smart organization of modes and harmonic families and with performance-oriented practice. The great jazz improvisers are proof that this can be done.

I number major scale fingerings according to the major scale number of their lowest tone. We're going to use major scale fingerings that avoid wide double-whole step reaches in fingering. We're going to learn each mode, arpeggio cadence, pentatonic subset and melodic cell one at a time but in five octave shapes. We're going to use the three steps of performance-oriented practice to retain them:

1. work out a small family of instances, like a melodic cell applied to the root, third and fifth of a chord
2. start improvising and work them into your existing style, spending twice or more as much time as in step 1.
3. be sure to use the new elements in some kind of performance in the next few days

Pentatonic Scales

We'll use five pentatonic scale fingerings as a basis. We'll start by using each one with two possible tone centers, major and minor. Each one can be modified to produce six other types. Major pentatonic can be played with a flatted third, or with a flatted third and flatted fifth. Minor pentatonic can be played with a major third, a flatted fifth, or with sixth instead of a flatted seventh.

Scale-tone Seventh Chords

In each octave shape, we'll learn chords built on each of the seven steps of the major scale. We'll also learn the altered versions II7, III7, IV7, V7 and VI7 for secondary dominants. See [Modal II-V-I Cadences and Turnarounds/Secondary Dominant](#) and [Melodically Superimposed Cadences/Secondary Dominants](#).

INTRODUCTION

Heptatonic Major Scale Fingerings 7, 2, 3, 4 and 6

(see [Major Scale Video Links](#))

Definitions

MA is major scale, HM is harmonic minor, MM melodic minor and MAb6 is major flat six.

On 4 means on the fourth string. On 321 means on strings 321.

Hyphenated pairs of numbers (5-2) indicate a strict-vertical-position fingering, where the first number is the string on which the lowest tone center occurs in the bass and the second number is the fretting hand finger number.

A sidestep is a temporary change of position.

A head reach is the index finger reaching one fret out of position toward the head of the guitar.

Body reach is the little finger reaching one fret out of position toward the body of the guitar.

Heptatonic Scale Reaches and Sidesteps

See [Scale Tone Arpeggios and Pentatonics/Major Scale-Tone Full-Tertian Arpeggios](#) (five separate videos, each heptatonic with full-tertians for major).

MA fingering 7 (6-2): full tertian low 1 is 6-1 on 321. HM is 6-3 on 65. MM has a head reach on 5. MAb6 has a head reach on 4.

MA fingering 2 (4-1): both full-tertians in-position, two reaches. HM sidesteps to 6-1 on 432. MM omits a reach with “b3”.

MA fingering 3 (5-4): both full-tertians in-position, no reaches. HM uses 4-2 on 65. MM head reach on 1 and 6. MAb6 head reach on 5.

MA fingering 4 has both full-tertians move to fingering 5-1 on 321. MM uses 5-2 on sixth, 5-1 on strings 5-1. MAb6 uses 5-1 on 4321.

MA fingering 6 has both full-tertians in position & one reach. HM head sidestep on 321. MAb6 head reach on 1 and 6.

Only two of ten major full-tertians change position, both with a third-finger body reach on the third string.

In harmonic minor, fingering 2 has a head sidestep on 432, fingering six on 321, both from parent “2” to “2”.

Learn These Each Octave Shape:

- The seven qualities of seventh chords with root or fifth in the bass.
- I major scale, VI harmonic minor scale.
- 7th or ninth chords for 7362514 of major.
- arpeggios: VIIIm11b5b9, IIIIm7, VIm9, IIm9, V9, Ima9, IVma9
- harmonic minor VIIIm711b5b9 and III11b9b13 (b13 resolves to “5”). b9-11-b13 is a triad a half step above Phrygian major.
- melodic minor is built on flat six of the key of your target. Thinking in melodic minor, its hypothetical “3” is the target tone (up a major third). Melodic minor Im9(ma7) to IV13#11 arpeggio cadence. Im69 (= VIm711b5 and Aeolian b5). Im9ma7 is on fifth of IV13#11.
- major flat six cadence IIm13b9 V11b13 Ima9 and super Phrygian to Aeolian “6” target, which is not in the scale.
- preview Mixolydian, Phrygian and Lydian cadence families.
- 7362514 triads and pentatonics (add I711, IIm69, III711, IV7, V711).
- fifths on root, third and fifth of VIIIm11b5b9, III7b9, VIm9, IIm9, V9, Ima9, IVma9.
- 1235 on root, third and fifth of VIIIm11b5b9, III7b9, VIm9, IIm9, V9, Ima9, IVma9.
- 1345 on root, third and fifth of VIIIm11b5b9, III7b9, VIm9, IIm9, V9, Ima9, IVma9.
- an ever-expanding collection of melodic cells as shown in Expression With Melodic Cells/ Melodic Cell Types.

CHORDS

See also [Fingering Common Chords](#).

Substitution with Simpler Chords

Without a very thorough knowledge of chord fingerings, much sheet music may show chord names that you cannot yet represent with chord fingerings. Initially, that problem can be solved by substituting simpler chords.

Usually “9” or “13” in a chord name can be substituted with “7”. So “Cm9” or “Cm13” can be “Cm7”. “6” can usually be ma7. “b9” or “#9” in a chord name can be omitted. So G7b9 or G7#9 can be G7. b5 and #5 usually need to be represented. Additionally, chord names with slash bass notes (F7/Gb) can omit the bass notes. So, F7/Gb can be F7. For suspended fourth and suspended second chords with “sus4” and “sus2” in their name, “sus4” will usually work for both. “C13sus4” or “C7sus2” become “C7sus.4”. “7#5” will usually work for augmented (“aug”).

Sets of the common chords are shown below that will get you by in most of these situations. Name each chord according to its root, using the circled note on a larger string (on the left side of a diagram).

	major 7	7 (dominant)	minor 7	minor 7b5	diminished 7	7#5	7b5
root	(1)	(1)	(2)	(2)	(2)	(1)	(2)
in							
bass	(1)	(1)		(1)	(1)	(1)	(1)
107350	1 7 3 5	1 b7 3 5	1 b7 b3 5	1 b7 b3 b5	1 6 b3 b5	1 b7 3 #5	1 b7 3 b5
	major 7	7 (dominant)	minor 7	minor 7b5	diminished 7	7#5	7b5
root	(1)	(1)	(1)	(1)	(2)	(1)	(1)
in							
bass	(1)	(1)	(1)	(1)	(1)	(1)	(1)
015730	1 5 7 3	1 5 b7 3	1 5 b7 b3	1 b5 b7 b3	1 b5 6 b3	1 #5 b7 3	1 b5 b7 3
	6	6	minor 6	minor 6			
root	(2)	(2)	(2)	(2)			
in							
bass	(1)	(1)	(1)	(1)			
	1 6 3 5	1 5 6 3	1 6 b3 5	1 5 6 b3			
	7sus4	7sus4	m(ma7)	m(ma7)			
root	(1)	(1)	(1)	(1)			
in							
bass	(1)	(1)	(1)	(1)			
	1 5 b7 4 5 1	1 5 b7 4	1 5 7 b3 5	1 5 7 b3 5			

CHROMATIC SCALE FINGERING

Chromatic scale is an enhancement for scales and arpeggios. See [Pentatonic Fingering/Movable Pentatonic with One Chromatic](#), [Pentatonic Fingering/Movable Pentatonic with Two Chromatics](#) and [Chromaticized Arpeggios](#).

More often, you should use the primary chromatic scale fingering shown here. It uses head reaches with the index finger in ascending and body reaches with the little finger when descending. A head reach is a reach out of position toward the head of the guitar with the index finger. A body reach is a reach out of position toward the body of the guitar with the little finger. When performing the head reach using the index finger twice consecutively while ascending, the little finger used just previous hovers to keep your place in position. Likewise, when performing the body reach using the little finger twice consecutively while descending, the index finger used just previous hovers to keep your place in position. See [Playing In Position/Strict Vertical Position](#).

In more complex melodic design, like the diminished scale, you may use index finger head reaches in descending and ascending both. See Half-Whole-Half Cells and Diminished Scale/[Fingering Diminished Seventh Arpeggios and the Diminished Scale](#).

In-Position Chromatic Scale Fingering (groups of three)

ascend

1	1	1	1	1	1
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4

descend

1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
4	4	4	4	4	4

[illegible]

In-Position Chromatic Scale Fingering (groups of four)

1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 1 2 3 4 1 2 3 4 1 1 2 3 4 4 3 2 1

8 9 10 11 7 8 9 10 11 7 8 9 10 11 7 8 9 10 11 12 11 10 9

1 4 4 3 2 1 4 3 2 1 4 4 3 2 1 4 4 3 2 1

8 12 11 10 9 8 11 10 9 8 12 11 10 9 8 12 11 10 9 8

Wide Range Chromatic Scale Fingering (Four-Notes-Per-String)

This wide range fingering can be played faster than the in-position fingering, but may not give you access to other notes you want to play in the same position. It uses the same fingering ascending and descending.

ascending version

(down one fret from
the descending version)

				1
			1	1 2
		1	2 2	3
	1	2 3	3	4
1	2 3	4	4	
2	3 4			
3	4			
4				

descending version

(up one fret from
the descending version)

				1
			1	1 2
		1	2 2	3
	1	2 3	3	4
1	2 3	4	4	
2	3 4			
3	4			
4				

1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 4 3 2 1 4 3 2 1

8 9 10 11 7 8 9 10 6 7 8 9 5 6 7 8 5 6 7 8 4 5 6 7 8 7 6 5 9 8 7 6

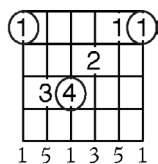
4 3 2 1 4 3 2 1 4 3 2 1 4 3 2 1 1

9 8 7 6 10 9 8 7 11 10 9 8 12 11 10 9 8

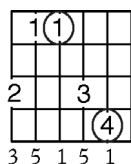
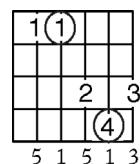
TRIAD CHORDS AND ARPEGGIOS

Major Triad Chords

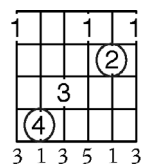
E form



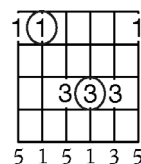
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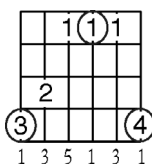
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A form

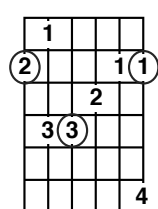


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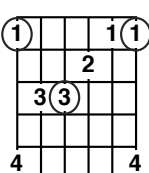


Major Triad Arpeggios

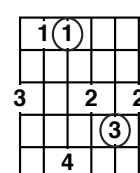
G/E form



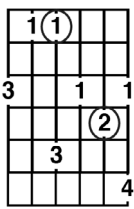
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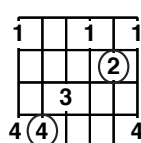
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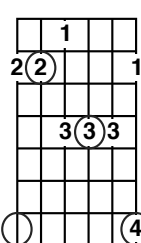
D/C form



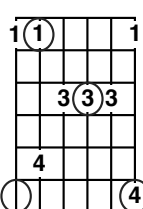
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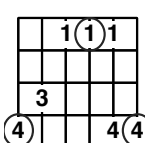
C/A form



A form

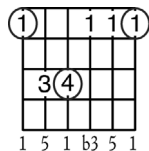


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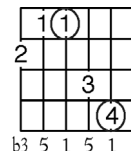
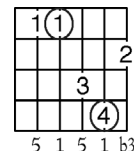


Minor Triad Chords

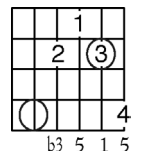
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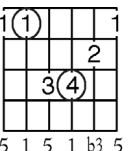
D form



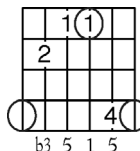
C form



A form

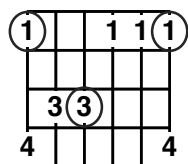


G form

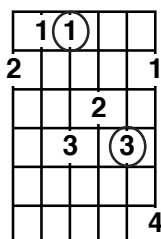


Minor Triad Arpeggios

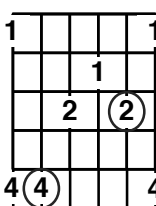
E form



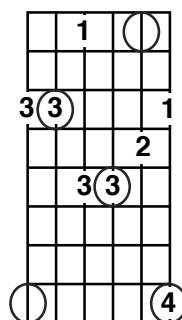
D form



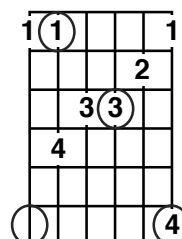
D/C form



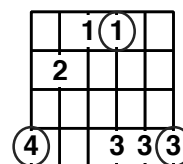
C/A form



A form

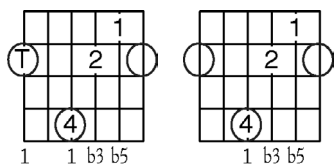


G form

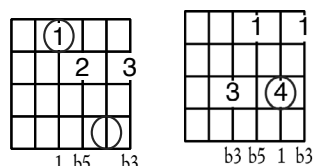


Diminished Triad Chords

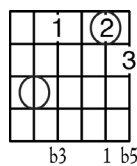
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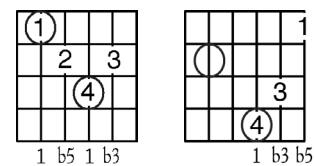
D form



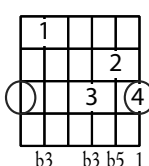
C form



A form

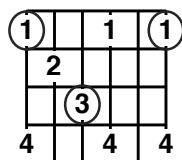


G form

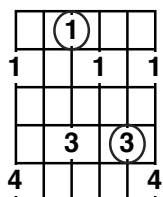


Diminished (triad) Arpeggios

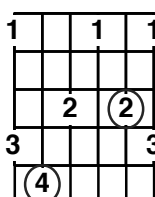
E form



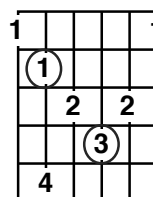
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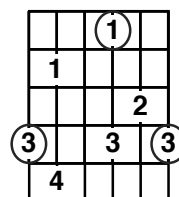
D/C form



A form

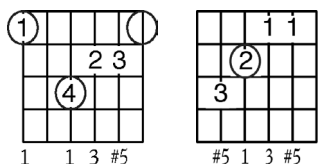


G form

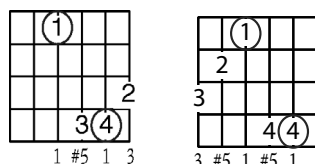


Augmented Triad Chords

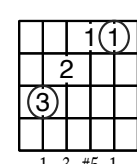
E form



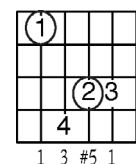
D form



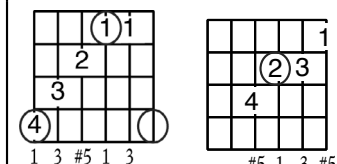
C form



A form

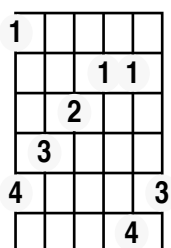


G form

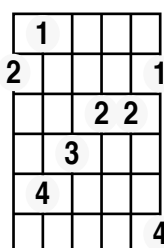


Augmented Triad Arpeggios

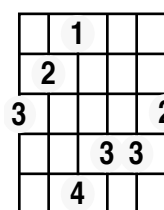
fingering 1



fingering 2

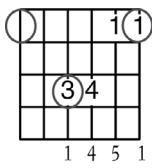
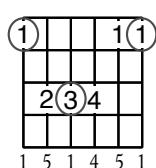


fingering 3

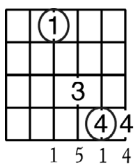


Suspended Fourth (Sus4) Triad Chords

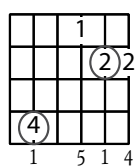
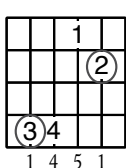
E form



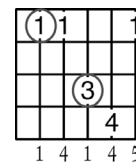
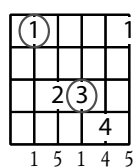
D form



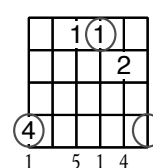
C form



A form

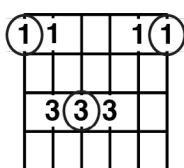


G form

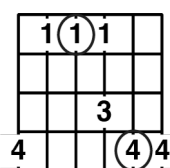


Suspended Fourth (Sus4) Triad Arpeggios

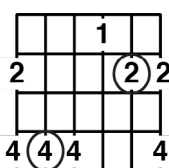
E form



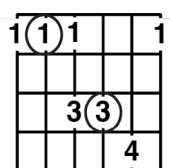
D form



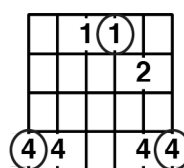
C form



A form

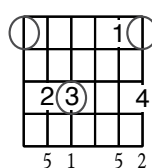
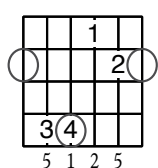


G form

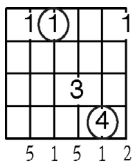


Suspended Second (Sus2) Triad Chords

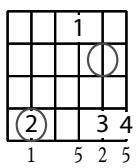
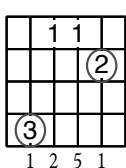
E form



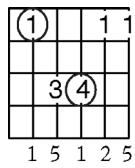
D form



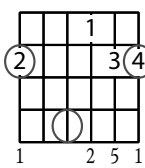
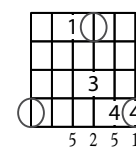
C form



A form

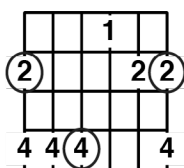


G form

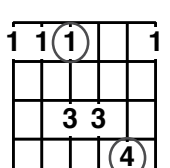


Suspended Second (Sus2) Triad Arpeggios

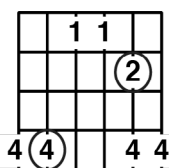
E form



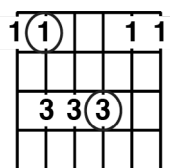
D form



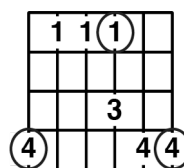
C form



A form

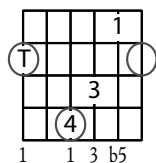


G form

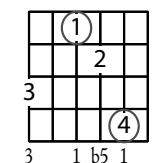


Major Flat Five Triad Chords

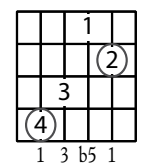
E form



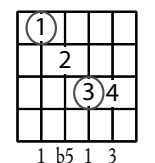
D form



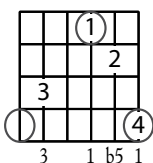
C form



A form

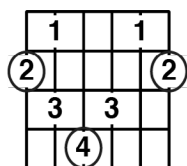


G form

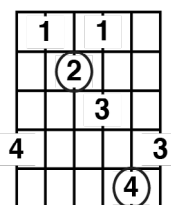


Major Flat Five Triad Arpeggios

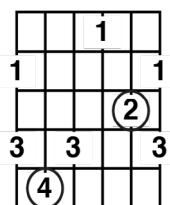
E form



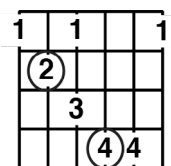
D form



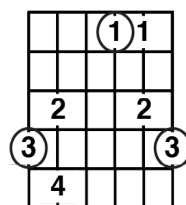
C form



A form



G form



PENTATONIC SCALES

Common Pentatonic Scales By Finger Number

Place the circled note that names the key on the letter on the fretboard that names the desired scale. Use the circled note as a locator on the largest string available in the fingering. C minor pentatonic fingering 1 would be placed where the circled note on the sixth string is on the sixth string, eighth fret.

Notice that the fingerings for minor pentatonic and major pentatonic are the same, but with different tone centers. m7/11b5 and for m6/9 also finger the same with different tone centers. q

fingering 1

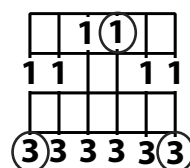
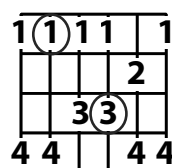
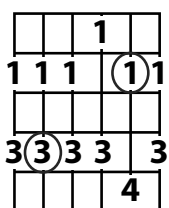
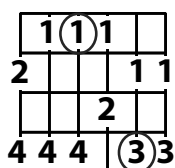
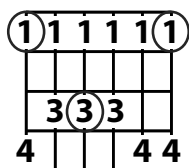
fingering 2

fingering 3

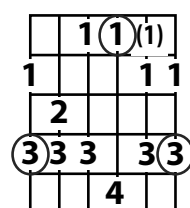
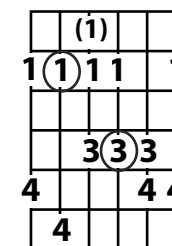
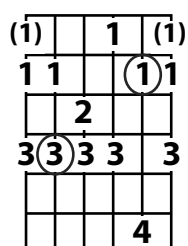
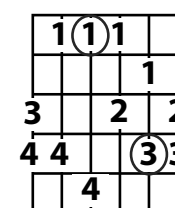
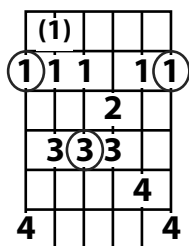
fingering 4

fingering 5

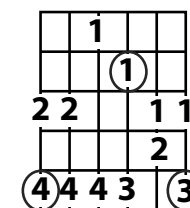
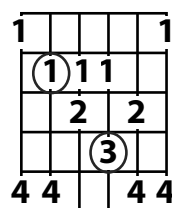
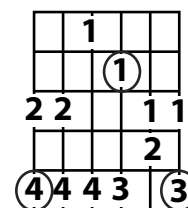
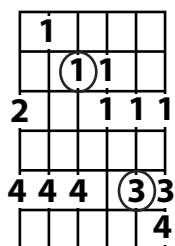
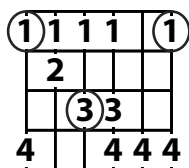
minor pentatonic
(m7/11)



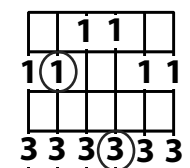
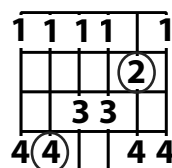
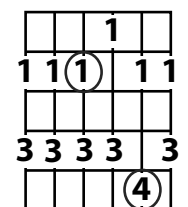
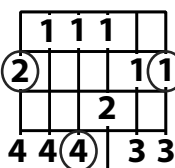
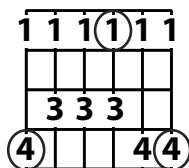
7/11
(dominant seven
eleven pentatonic)



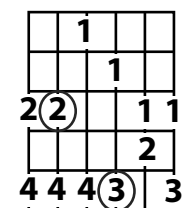
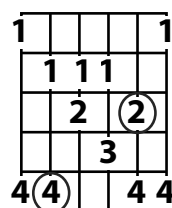
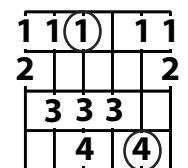
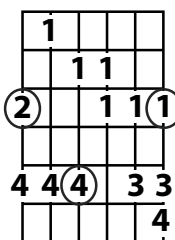
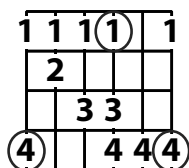
m7/11b5
(minor pentatonic
flat five)



major pentatonic
(ma6/9)



m6/9
(major pentatonic
flat three)



Five Common Types of Pentatonic Scales by Numbered Tone

Memorize all five types in each octave shape. Use the circled note as a locator on the largest string available in the fingering. C minor pentatonic fingering 1 would be placed where the circled note on the sixth string is on the sixth string, eighth fret.

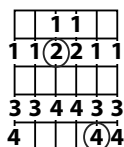
	E form	D form	C form	A form	G form
minor pentatonic (m7/11)					
7/11 (dominant seven eleven pentatonic)					
m7/11b5 (minor pentatonic flat five)					
major pentatonic (ma6/9)					
m6/9 (major pentatonic flat three)					

MAJOR SCALE FINGERING

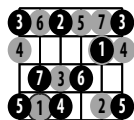
Also see the chapters [Major Scale Fingering](#), [Master Pentatonic and Major Scale Patterns](#) and [Major Scale Summary](#)/Fingerings.

Inspect the tall, full-fretboard, movable major scale diagram below to see that all of the fingerings at its right are subsets of it. The full-fretboard diagram is located by the circled “1” notes, which are all the same note. The “1” can be placed on any note. **To locate a major scale fingering suited for scales** in a particular key, play the circled note on one of the bass strings (on the left of the diagram) on the desired note. For example to locate major scale fingering 2 in G major, play it it fourth position, so the circled note on the fourth string is on the note “G”. **To locate a major scale fingering suited to build arpeggios** in a particular key, place the note numbered “1” on one of the bass strings on the desired note. For example to locate major scale fingering 3 in G major, play it it seventh position, so the circled note on the fifth string is on the note “G”.

G major scale IV

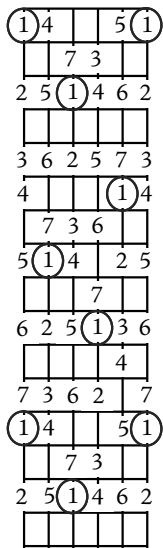


G major scale VII

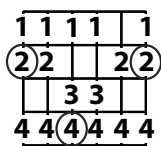


versions suited to play scales

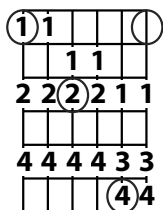
full-fretboard



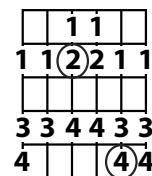
fingering 7



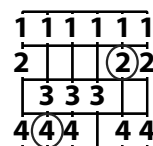
fingering 1/2



fingering 2



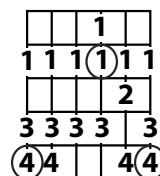
fingering 3



fingering 4/5

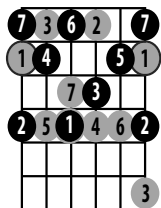


fingering 6

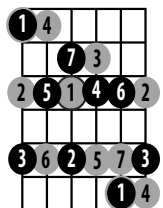


versions suited to build arpeggios

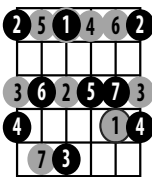
fingering 7



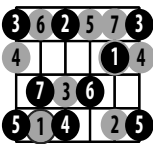
fingering 1/2



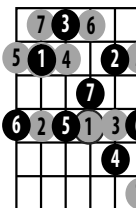
fingering 2



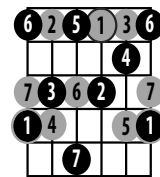
fingering 3



fingering 4/5



fingering 6



Major scale fingerings are numbered in this course according to the number of lowest note fingered with the index finger on the sixth string. The fingering you have just made, is called major scale in-position fingering 6. Other fingerings called three-note-per-string major scale fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

In-Position Fingerings, numbered by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall. Here are the three-note-per-string major scale fingerings:

Three-Note-Per-String Fingerings, numbered by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

Three-note-per-string major scale fingerings shown above combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on.

In-Position Fingerings, numbered by scale tones

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

Three-Note-Per-String Fingerings, numbered by scale tones

fingering 7/1 fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7

Full-Fretboard Major Scale with Fingerings by Finger Number

fingering 1 fingering 1/2 fingering 2 fingering 2/3

fingering 3 fingering 3/4 fingering 4 fingering 4/5

fingering 5 fingering 5/6 fingering 6 fingering 6/7

fingering 7 fingering 7/1

Major Scale Video Links

<http://www.guitarencyclopedia.com/zzDefaultHeptaGmajorF7+Varp.mov>
<http://www.guitarencyclopedia.com/zzDefaultHeptaGmajorF2+Varp.mov>
<http://www.guitarencyclopedia.com/zzDefaultHeptaGmajorF3+Varp.mov>
<http://www.guitarencyclopedia.com/zzDefaultHeptaGmajorF4+Varp.mov>
<http://www.guitarencyclopedia.com/zzDefaultHeptaGmajorF6+Varp.mov>
<http://www.guitarencyclopedia.com/zzDefaultHeptatonicFingeringIntro.mov>
<http://www.guitarencyclopedia.com/zzDefaultHepta5Major.mov>
http://www.guitarencyclopedia.com/zzDefaultHeptatonicInG_F7.mov
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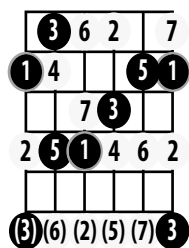
MODAL SCALE FINGERING

Each scale is shown with its tonic triad in black. The tonic triad is the combination of the first, third and fifth step of the scale. The triads may be major, minor, diminished or augmented. These fingerings are essential to fluently build melody and arpeggios. They are particularly useful when adding one note to the tonic triad for triads with neighbors. See Fragment Patterns/Free-Form Triads with Neighbors Using Quadrads.

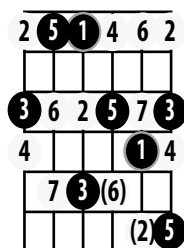
Scales Based on a Major Triad

major scale (Ionian mode)

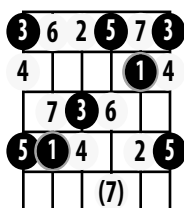
E form



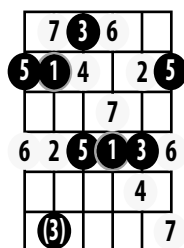
D form



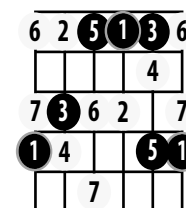
C form



A form

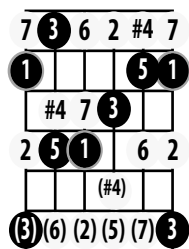


G form

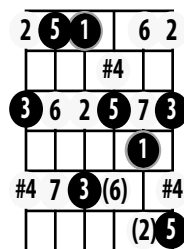


Lydian mode

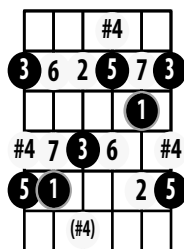
E form



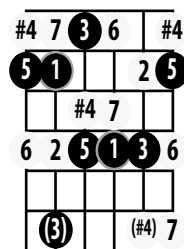
D form



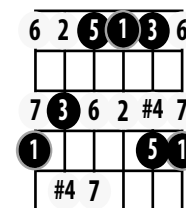
C form



A form

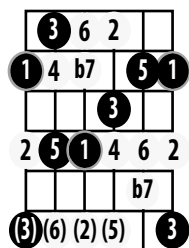


G form

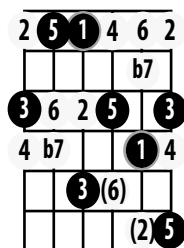


Mixolydian mode

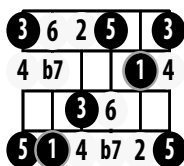
E form



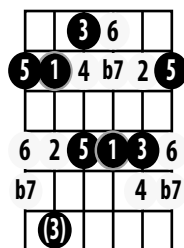
D form



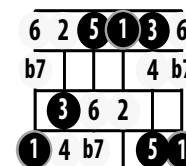
C form



A form

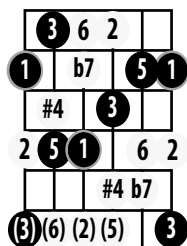


G form

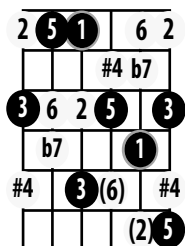


Lydian dominant mode

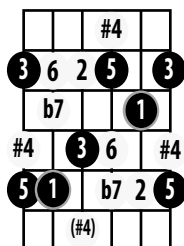
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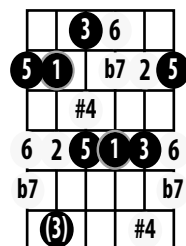
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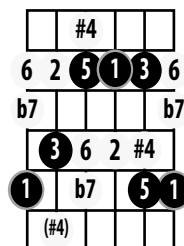
C form



A form

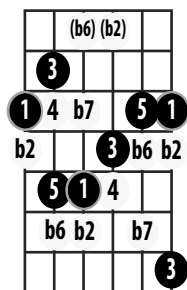


G form

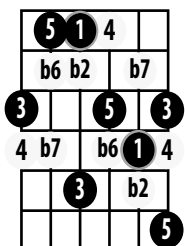


Phrygian dominant mode (Phrygian major)

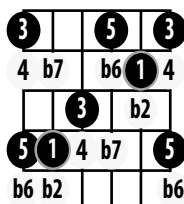
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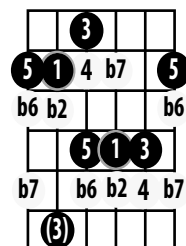
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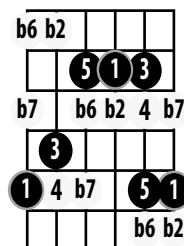
C form



A form



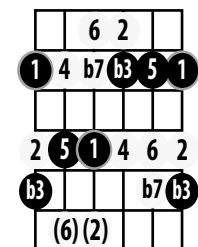
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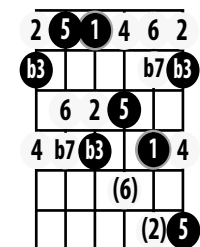
Scales Based on a Minor Triad

Dorian mode

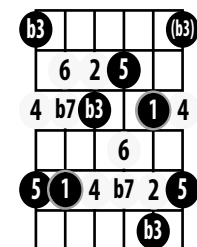
E form



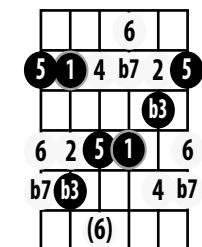
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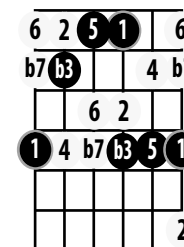
C form



A form

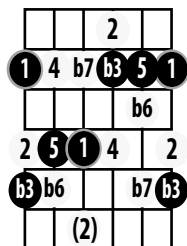


G form

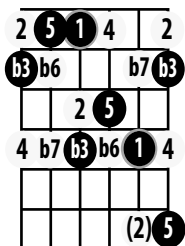


Aeolian mode

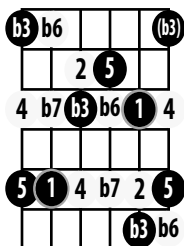
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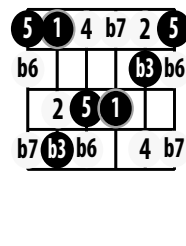
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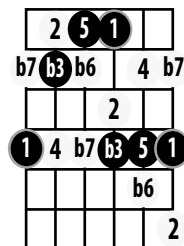
C form



A form

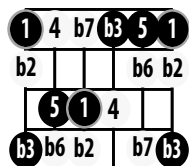


G form

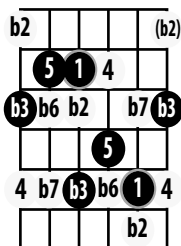


Phrygian mode

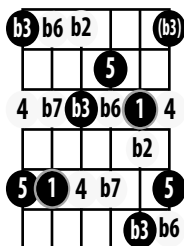
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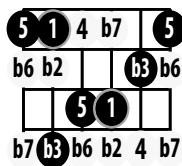
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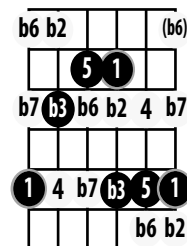
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A form

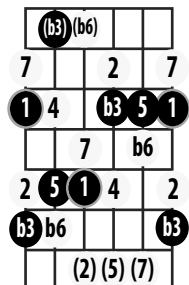


G form

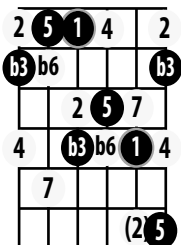


harmonic minor scale

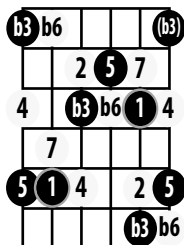
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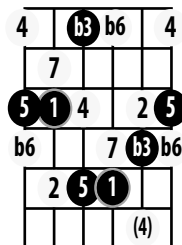
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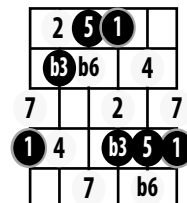
C form



A form

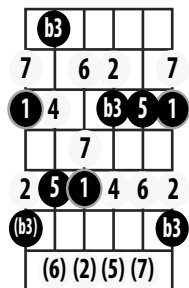


G form

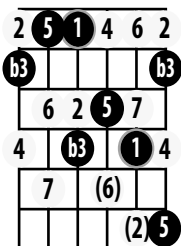


melodic minor scale

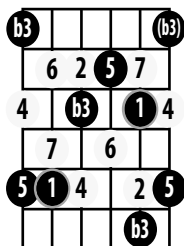
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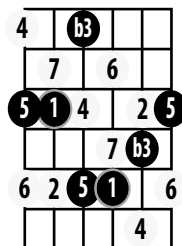
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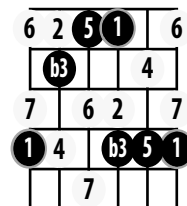
C form



A form



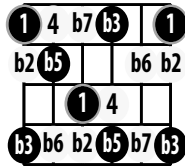
G form



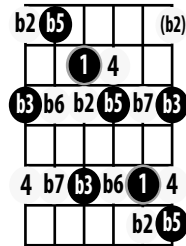
Scales Based on a Diminished Triad

Locrian mode

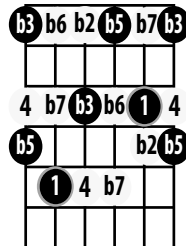
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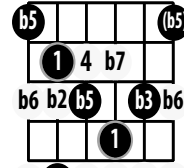
D form



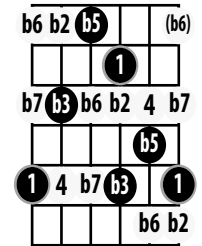
C form



A form

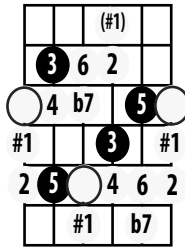


G form

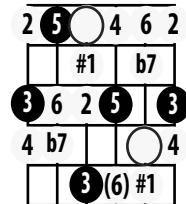


Mixolydian sharp one scale

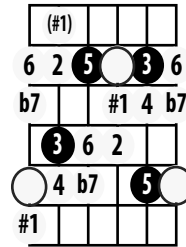
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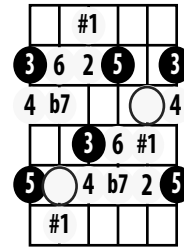
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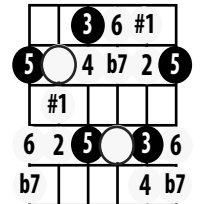
C form



A form



G form



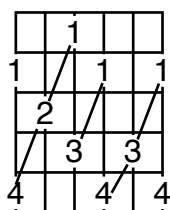
diminished arpeggios and the half/whole diminished scale

The numbers on the diagrams below are finger numbers. For half/whole diminished scale below, the black diminished seventh works on V7b9 no root (G7b9 no root in the key of C). V7b9 no root (G7b9 no root) has four names: VII^{dim}7, I^{dim}7, IV^{dim}7 or bVI^{dim}7 (B^{dim}7, D^{dim}7, F^{dim}7 or A^{dim}7).

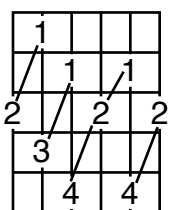
For half/whole diminished scale below, the gray diminished seventh works on I13b9#9#11 (C7I13b9#9#11 in the key of C) by featuring the root, flatted third (#9), flatted fifth and sixth in a dark swing context.

diminished seventh arpeggio

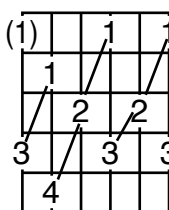
fingering 1



fingering 2

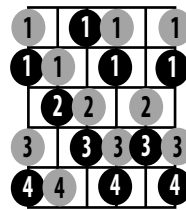


fingering 3

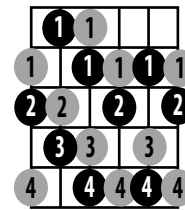


half/whole diminished scale

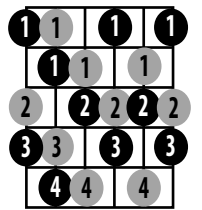
fingerings 1 & 3



fingerings 1 & 2



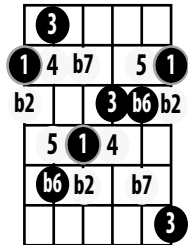
fingerings 2 & 3



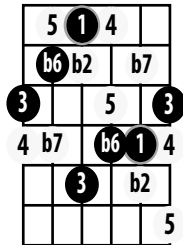
Scales Based on an Augmented Triad

Phrygian dominant mode, using flat six as sharp five

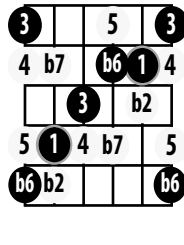
E form



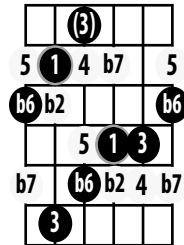
D form



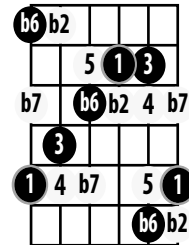
C form



A form

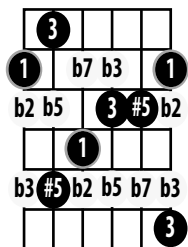


G form

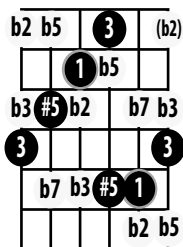


super Locrian scale, using flat four as three and flat six as sharp five

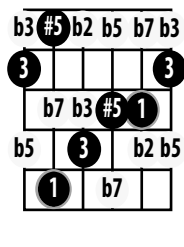
E form



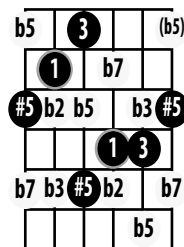
D form



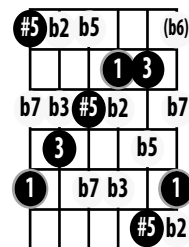
C form



A form



G form



SEVEN-TONE SCALES IN SEVEN AREAS WITH TERTIAN FINGERINGS IN BLACK AND GRAY

Categories of Fingerings

in-position fingerings

In-position fingerings use a strict vertical position fingering, where four consecutive frets are each assigned a finger. The index has an option of reaching an additional note one fret toward the head of the guitar. The little finger has an option of reaching an additional note toward the body of the guitar. See [Playing In Position/Strict Vertical Position](#).

three-note-per string fingerings

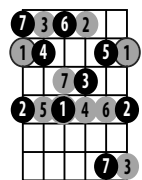
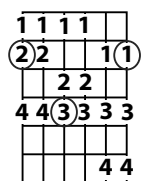
Each three-note-per string fingering combines fingering on the four bass strings (six through three, the four largest strings) of one in-position fingering with the fingering on the two treble strings (one and two, the smallest) of the next in-position fingering toward the body of the guitar.

Full-Tertian Fingerings

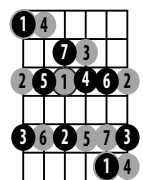
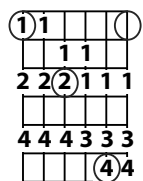
In [Prime Scales, Chords and Arpeggios/Seven-Tone Scales in Seven Areas with Tertian Fingerings in Black and Gray](#), the rows of fingerings with black and gray circled backgrounds show full tertian fingerings. The numbered tones in black are every other scale tone. The numbered tones in gray are the second set of every other scale tone. The ascending series of numbered tones for each color are 1-3-5-7-2-4-6 (repeat). The full tertian fingerings for major scale are below in both in-position and three-note-per-string versions. There are other sets for major scale sharp five (harmonic minor), melodic minor and harmonic major in [Prime Scales, Chords and Arpeggios/Seven-Tone Scales in Seven Areas with Tertian Fingerings in Black and Gray](#).

Major Scale, Favored Fingerings

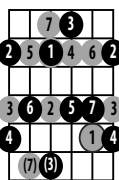
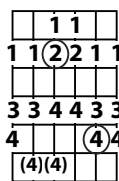
fingering 7/1



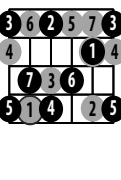
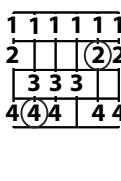
fingering 1/2



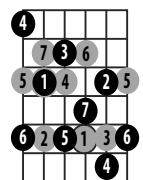
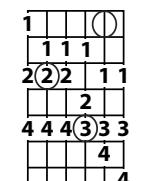
fingering 2



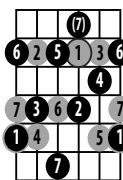
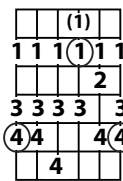
fingering 3



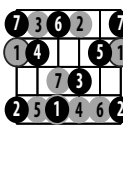
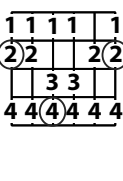
fingering 4/5



fingering 6

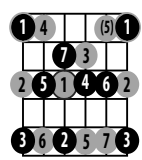
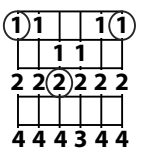


fingering 7

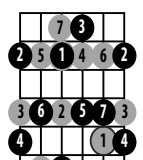
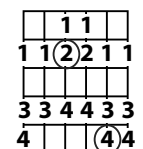


Major Scale, In-Position Fingerings

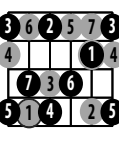
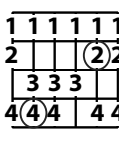
fingering 1



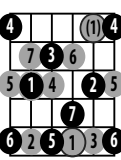
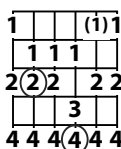
fingering 2



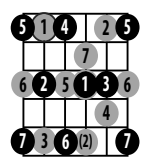
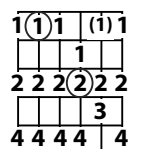
fingering 3



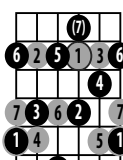
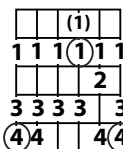
fingering 4



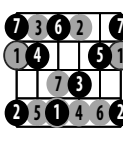
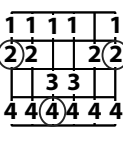
fingering 5



fingering 6

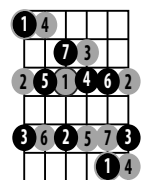
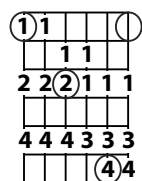


fingering 7

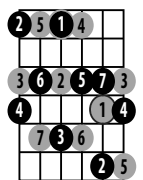
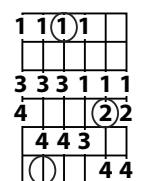


Major Scale, Three-Note-Per-String Fingerings

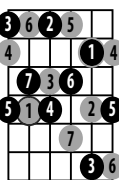
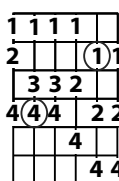
fingering 1/2



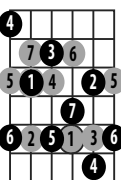
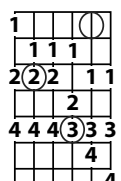
fingering 2/3



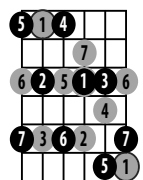
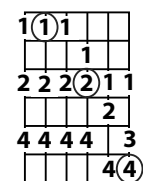
fingering 3/4



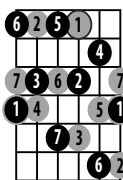
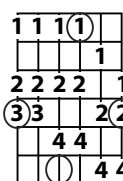
fingering 4/5



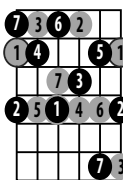
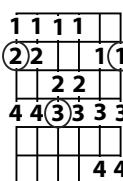
fingering 5/6



fingering 6/7



fingering 7/1



Major Sharp Five (harmonic minor on 6), Favored Fingerings

fingering 1 fingering 2/3 fingering 3 fingering 4/5 fingering 5 fingering 6 fingering 7

Major Sharp Five (harmonic minor on 6), In-Position Fingerings

fingering 1 fingering 2 fingering 3 fingering 4 fingering 5 fingering 6 fingering 7

Major Sharp Five (harmonic minor on 6), Three-Note-Per-String

fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7 fingering 7/1

Harmonic Minor (major flat three, flat six), Favored Fingerings

fingering 1 fingering 2/3 fingering 3 fingering 4/5 fingering 5 fingering 6 fingering 7

The diagrams show the following fingerings for ascending and descending runs:

- fingering 1:** Ascending: 1 1 1 1 2 2 2 (2) 2 3 4 (4) 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 2/3:** Ascending: 1 1 1 (1) 1 1 1 1 2 (2) 2 1 1 3 3 2 2 4 4 (4) 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 3:** Ascending: 1 (1) 1 1 1 1 2 2 2 2 3 3 (3) 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 4/5:** Ascending: 1 1 1 (1) 1 2 2 1 3 2 1 4 4 3 2 (2) 4 4 3 4. Descending: 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 5:** Ascending: 1 1 1 1 2 (2) 2 2 2 (2) 3 3 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 6:** Ascending: 1 1 1 1 2 2 2 (2) 3 3 3 (3) 4 4 4 4 7. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 7:** Ascending: 1 (1) 1 1 1 1 2 2 2 3 3 3 4 4 4 4 (4) 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.

Harmonic Minor (major flat three, flat six), In-Position Fingerings

fingering 1 fingering 2 fingering 3 fingering 4 fingering 5 fingering 6 fingering 7

The diagrams show the following fingerings for ascending and descending runs:

- fingering 1:** Ascending: 1 1 1 1 2 2 2 (2) 2 3 4 (4) 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 2:** Ascending: 1 1 1 (1) 1 1 1 1 2 (2) 2 2 2 3 3 3 3 4 4 (1) 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (1) 4.
- fingering 3:** Ascending: 1 (1) 1 1 1 1 2 2 2 2 3 3 (3) 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 4:** Ascending: 1 1 1 (1) 1 2 2 1 3 3 2 4 4 3 3 (3) 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 5:** Ascending: 1 1 1 1 2 (2) 2 2 2 (2) 3 3 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 6:** Ascending: 1 1 1 1 2 2 2 (2) 3 3 3 (3) 4 4 4 4 7. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 7:** Ascending: 1 (1) 1 1 1 1 2 2 2 3 3 3 4 4 4 4 (4) 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.

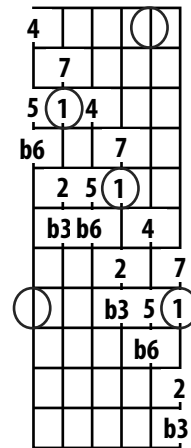
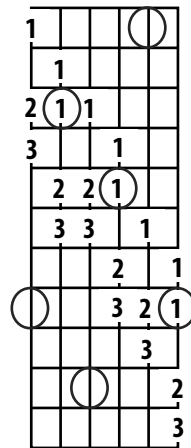
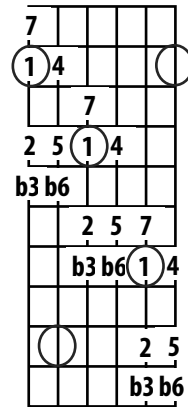
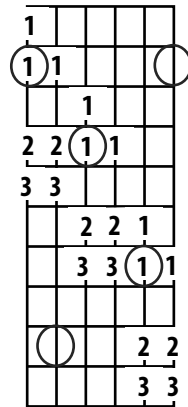
Harmonic Minor (major flat three, flat six), Three-Note-Per-String

fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7 fingering 7/1

The diagrams show the following fingerings for ascending and descending runs:

- fingering 1/2:** Ascending: 1 1 1 1 2 2 2 (1) 1 3 4 (4) 4 3 3 4 4. Descending: 4 4 3 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 2/3:** Ascending: 1 1 1 (1) 1 1 1 1 2 (2) 2 1 1 3 3 2 2 4 4 (4) 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 3/4:** Ascending: 1 (1) 1 1 1 1 2 2 2 2 3 3 (3) 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 4/5:** Ascending: 1 1 1 (1) 1 2 2 1 3 3 2 4 4 3 2 (2) 4 4 3 4. Descending: 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 5/6:** Ascending: 1 1 1 1 2 (2) 2 2 1 (1) 3 3 2 4 5 (4) 4 2 3 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 6/7:** Ascending: 1 1 1 1 2 2 2 (1) 1 1 3 3 3 4 4 4 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.
- fingering 7/1:** Ascending: 1 (1) 1 1 1 1 2 2 2 3 3 3 4 4 4 4 (4) 4. Descending: 4 4 4 4 3 2 1 1 2 2 2 3 4 4 (4) 4.

wide range harmonic minor



Melodic Minor (major flat three), Favored Fingerings

fingering 7/1	fingering 1/2	fingering 2	fingering 3	fingering 4/5	fingering 6	fingering 7

Melodic Minor (major flat three), In-Position Fingerings

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

Melodic Minor (major flat three), Three-Note-Per-String

fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7	fingering 7/1

Harmonic Major (major flat six), Favored Fingerings

fingering 7/1 fingering 1/2 fingering 2 fingering 3 fingering 4/5 fingering 6 fingering 7

1-3 fragment: fingers 1-4 on fourth string

Harmonic Major (major flat six), In-Position Fingerings

fingering 1 fingering 2 fingering 3 fingering 4 fingering 5 fingering 6 fingering 7

Harmonic Major (major flat six), Three-Note-Per-String

fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7 fingering 7/1

1-3 fragment: fingers 1-4 on fourth string

PLAYING OVER PROGRESSIONS WITH PENTATONIC AND MAJOR SCALES

Twelve Bar Blues - E Form in the Key of A

7/11 pentatonic to learn each seventh arpeggio (E form key)

This choice of scales is not conducive to playing in key throughout. It is intended to show the seventh arpeggios that are part of each 7/11 pentatonic scale.

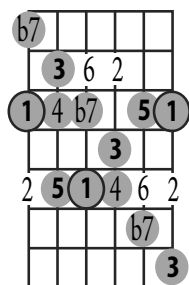
bars 1-4: A7

7/11 E form

pentatonic fingering 1

A7/11 III

major fingering 4/5



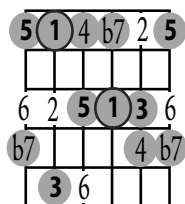
bars 5-6: D7

7/11 A form

pentatonic fingering 4

D7/11 V

major fingering 2



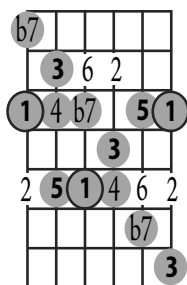
bars 7-8: A7

7/11 E form

pentatonic fingering 1

A7/11 III

major fingering 4/5



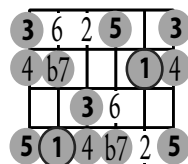
bar 9-10: E7

7/11 C form

pentatonic fingering 3

E7/11 IV

major fingering 7



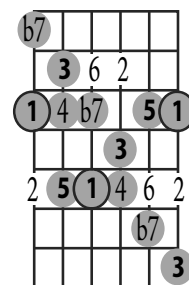
bars 11-12: A7

7/11 E form

pentatonic fingering 1

A7/11 III

major fingering 4/5



key 7/11 pentatonic scales (E form key)

This choice of scales is conducive to playing in key throughout. This is the approach you should use in choosing scales for improv. The exception is using V minor pentatonic on the V chord for a temporary change of key. V and II are the most common temporary keys.

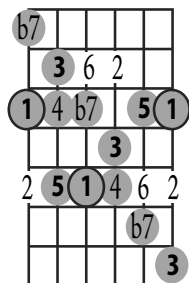
bars 1-4: A7

7/11 E form

pentatonic fingering 1

A7/11 III

major fingering 4/5



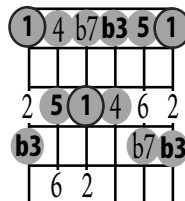
bars 5-6: D7

m7/11 E form

pentatonic fingering 1

Am7/11 V

major fingering 2



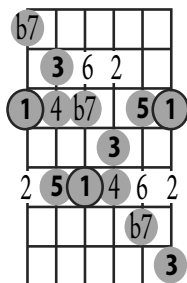
bars 7-8: A7

7/11 E form

pentatonic fingering 1

A7/11 III

major fingering 4/5



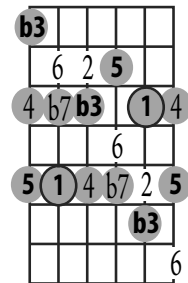
bar 9-10: E7

m7/11 C form

pentatonic fingering 3

Em7/11 III

major fingering 4/5



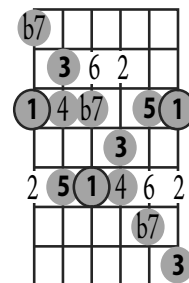
bars 11-12: A7

7/11 E form

pentatonic fingering 1

A7/11 III

major fingering 4/5

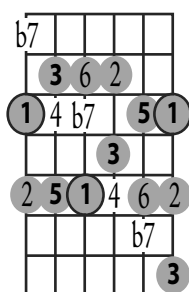


6/9 pentatonic to learn each sixth arpeggio (E form blues in key of A)

This choice of scales is not conducive to playing in key throughout. It is intended to show the sixth arpeggios that are part of each 6/9 pentatonic scale. Major sixth is 1-3-5-6 and minor sixth is 1-b3-5-6

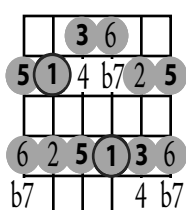
bars 1-4: A7

6/9 E form
pentatonic fingering 2
A6/9 III
major fingering 4/5



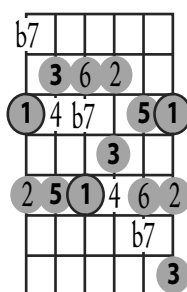
bars 5-6: D7

6/9 A form
pentatonic fingering 5
D6/9 IV
major fingering 2
(sidestep on 3 & 4)



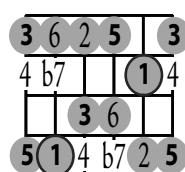
bars 7-8: A7

6/9 E form
pentatonic fingering 2
A6/9 III
major fingering 4/5



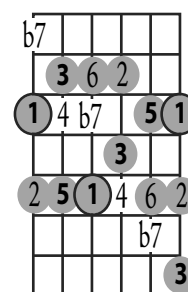
bar 9-10: E7

6/9 C form
pentatonic fingering 4
E6/9 IV
major fingering 7



bars 11-12: A7

6/9 E form
pentatonic fingering 2
A6/9 III
major fingering 4/5

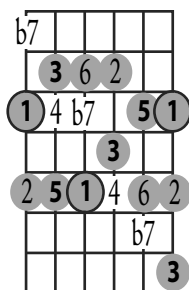


key 6/9 pentatonic scales (E form blues in the key of A)

This choice of scales is conducive to playing in key throughout. This is the approach you should use in choosing scales for improv. The exception is using V minor pentatonic on the V chord for a temporary change of key. V and II are the most common temporary keys. Vm6/9 below uses a blue note flatted third of the V chord.

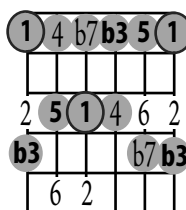
bars 1-4: A7

6/9 E form
pentatonic fingering 2
Am6/9 III
major fingering 4/5



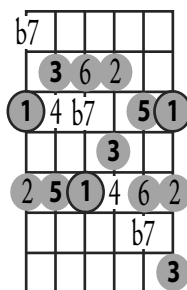
bars 5-6: D7

m7/11 E form
pentatonic fingering 1
Am6/9 V
major fingering 2



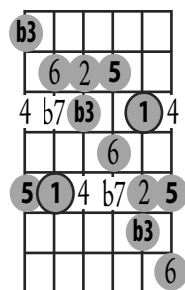
bars 7-8: A7

6/9 E form
pentatonic fingering 2
A6/9 III
major fingering 4/5



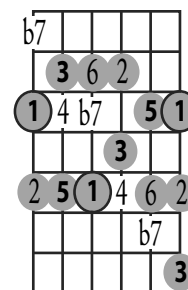
bar 9-10: E7

m6/9 C form
pentatonic fingering 4
Em6/9 III
major fingering 4/5



bars 11-12: A7

6/9 E form
pentatonic fingering 2
A6/9 III
major fingering 4/5



Twelve Bar Blues - A form in the Key of D

7/11 pentatonic to learn each seventh arpeggio (A form blues in D)

This choice of scales is not conducive to playing in key throughout. It is intended to show the seventh arpeggios that are part of each 7/11 pentatonic scale.

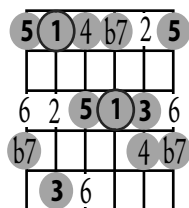
bars 1-4: D7

7/11 A form

pentatonic fingering 4

D7/11 V

major fingering 2



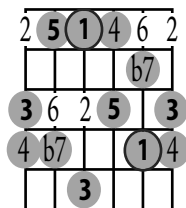
bars 5-6: G7

7/11 D form

pentatonic fingering 2

G7/11 V

major fingering 6



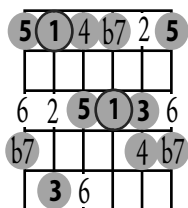
bars 7-8: D7

7/11 A form

pentatonic fingering 4

D7/11 V

major fingering 2



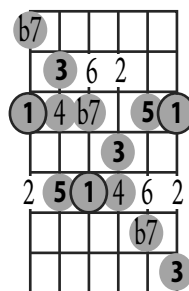
bar 9-10: A7

7/11 E form

pentatonic fingering 1

A7/11 III

major fingering 4/5



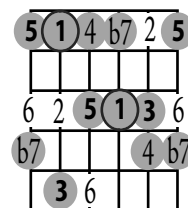
bars 11-12: D7

7/11 A form

pentatonic fingering 4

D7/11 V

major fingering 2



key 7/11 pentatonic scales (A form blues in D)

This choice of scales *is* conducive to playing in key throughout. This is the approach you should use in choosing scales for improv. The exception is using V minor pentatonic on the V chord for a temporary change of key. V and II are the most common temporary keys.

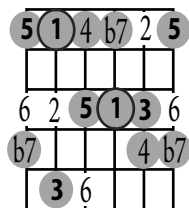
bars 1-4: D7

7/11 A form

pentatonic fingering 4

D7/11 V

major fingering 6



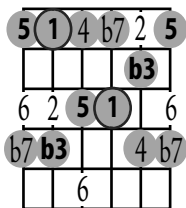
bars 5-6: G7

m7/11 A form

pentatonic fingering 4

Dm7/11 V

major fingering 6



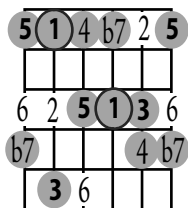
bars 7-8: D7

7/11 A form

pentatonic fingering 4

D7/11 V

major fingering 6



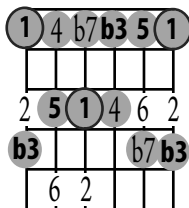
bar 9-10: A7

m7/11 E form

pentatonic fingering 1

Am7/11 V

major fingering 2



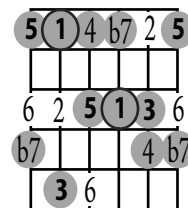
bars 11-12: D7

7/11 A form

pentatonic fingering 4

D7/11 V

major fingering 6

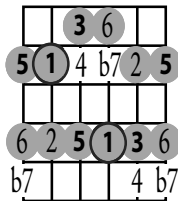


6/9 pentatonic to learn each sixth arpeggio (A form blues in D)

This choice of scales is not conducive to playing in key throughout. It is intended to show the sixth arpeggios that are part of each 6/9 pentatonic scale. Major sixth is 1-3-5-6 and minor sixth is 1-b3-5-6.

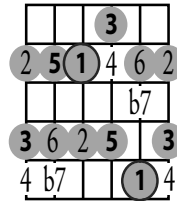
bars 1-4: D7

6/9 A form
pentatonic fingering 5
D6/9 IV
major fingering 2
(sidestep on 3 & 4)



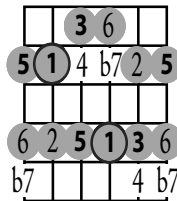
bars 5-6: G7

6/9 D form
pentatonic fingering 3
G6/9 IV
major fingering 6
(headreach on 3)



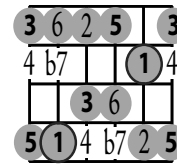
bars 7-8: D7

6/9 A form
pentatonic fingering 5
D6/9 IV
major fingering 2
(sidestep on 3 & 4)



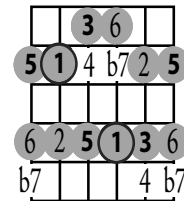
bar 9-10: A7

6/9 C form
pentatonic fingering 4
E6/9 IV
major fingering 7



bars 11-12: D7

6/9 A form
pentatonic fingering 5
D6/9 IV
major fingering 2
(sidestep on 3 & 4)

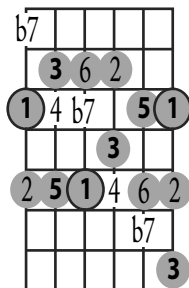


key 6/9 pentatonic scales (A form blues in D)

This choice of scales is conducive to playing in key throughout. This is the approach you should use in choosing scales for improv. The exception is using V minor pentatonic on the V chord for a temporary change of key. V and II are the most common temporary keys. Vm6/9 below uses a blue note flatted third of the V chord.

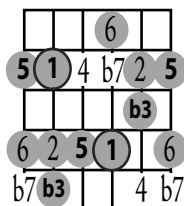
bars 1-4: D7

6/9 A form
pentatonic fingering 5
D6/9 IV
major fingering 2
(sidestep on 3 & 4)



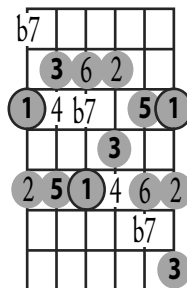
bars 5-6: G7

m6/9 A form
pentatonic fingering 5
Dm6/9 IV
major fingering 6
(headreach on 3)



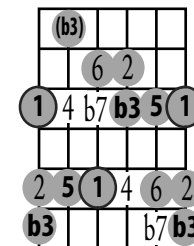
bars 7-8: D7

6/9 A form
pentatonic fingering 5
D6/9 IV
major fingering 2
(sidestep on 3 & 4)



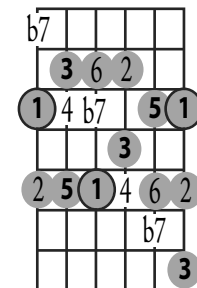
bar 9-10: A7

m6/9 E form
pentatonic fingering 2
Am6/9 III
major fingering 2
(sidestep on 3 & 4)



bars 11-12: D7

6/9 A form
pentatonic fingering 5
D6/9 IV
major fingering 2
(sidestep on 3 & 4)



QUADRAD ARPEGGIOS (includes sevenths)

These fingerings show the lowest complete octave of each arpeggio in black. The remaining notes shown in grey may be above, below or both above and below. Practicing the fingerings in rows or columns allows you to more quickly memorize the fingerings. As you move to the right in each row on this page, a sequence of flatted tones will occur: flat the seventh, flat the third, flat the fifth, double flat the seventh ("bb7" is the same tone as "6"). Any note of diminished seventh can be the root. This same sequence is shown with chord fingerings in Chord Archetypes/[Fingering Families of Seven Seventh Chord Types](#).

	major 7	7	m7	m7b5	dim7 uses only three in-position fingerings 1-b3-b5-6 (bb7)
formula	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-5-b7	1-b3-b5-6 (bb7)
E form					fingering 1 E, G, A or D form
D form					fingering 2 D, C, A or E form
C form					fingering 2 C, A, E or D form
A form					fingering 3 A, G, C or E form
G form					fingering 3 G, E, C or A form

	6	m6	add9	m add9	m(ma7)	dim(ma7)	m7#5
formula	1-3-5-6	1-b3-5-6	1-2-b3-5	1-2-b3-5	1-b3-5-7	1-b3-b5-7	1-b3-#5-b7
E form							
D form							
C form							
A form							
G form							

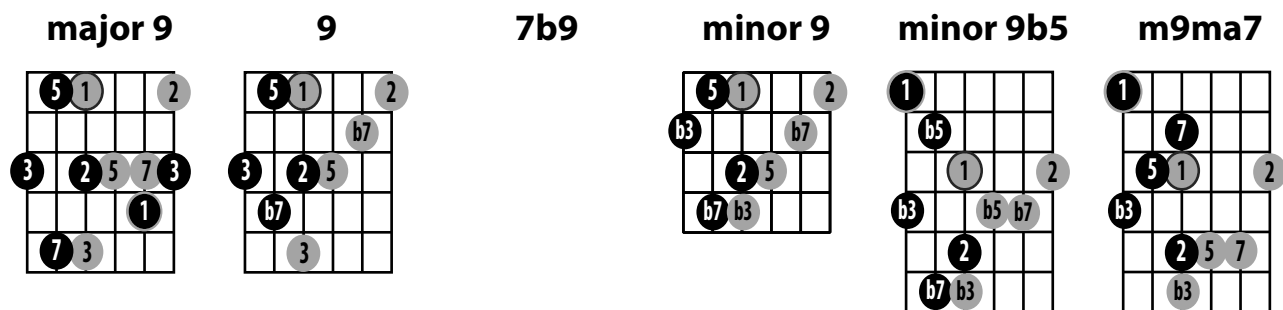
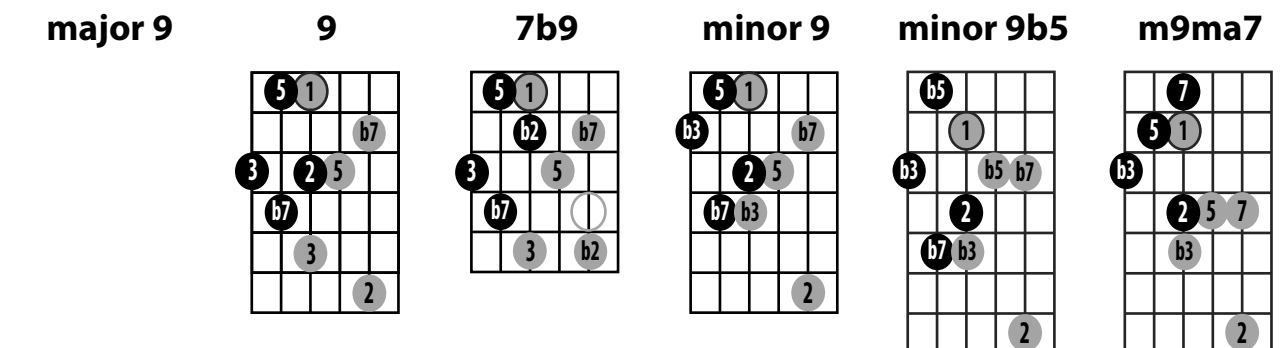
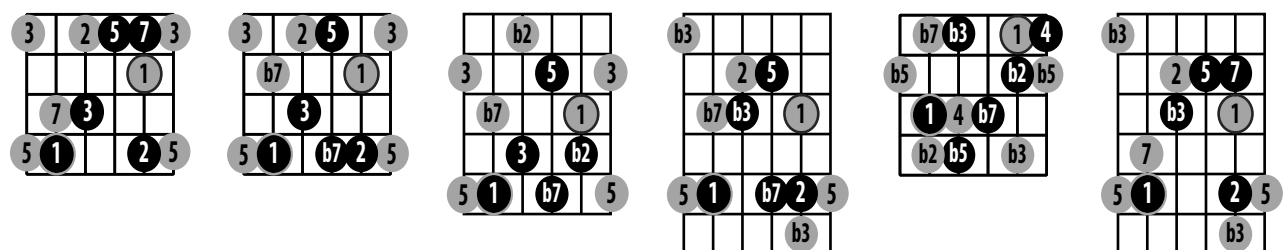
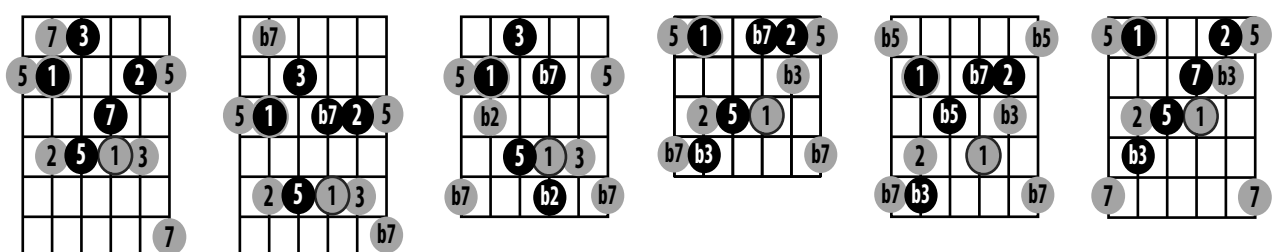
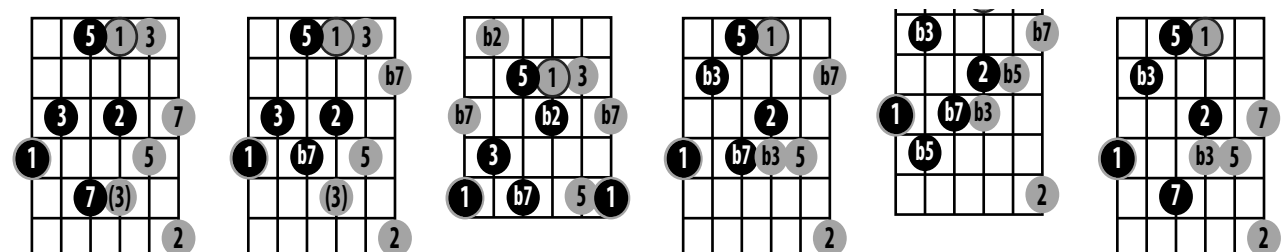
	7#5	7b5	ma7#5	ma7b5	7sus4	7sus2	ma7sus4	ma7sus2
formula	1-3-#5-b7	1-3-b5-b7	1-2-3#-5-7	1-3-b5-7	1-4-5-b7	1-2-5-b7	1-4-5-7	1-2-5-7
E form								
D form								
C form								
A form								
G form								

NINTH ARPEGGIOS

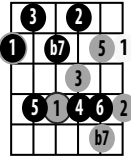
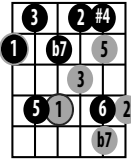
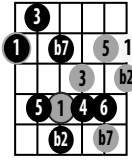
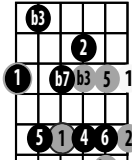
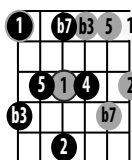
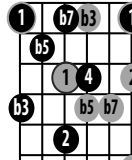
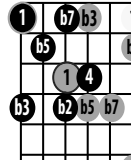
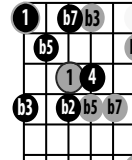
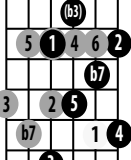
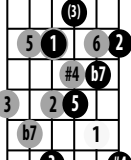
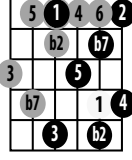
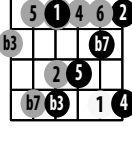
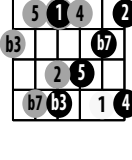
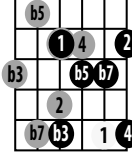
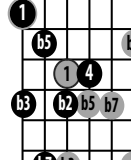
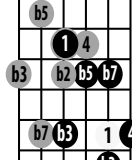
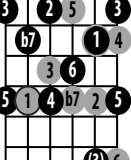
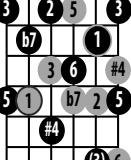
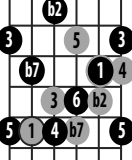
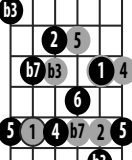
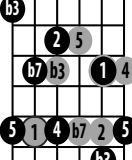
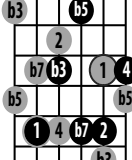
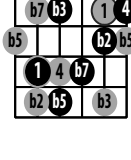
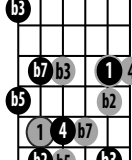
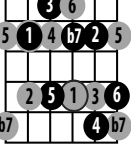
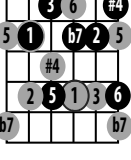
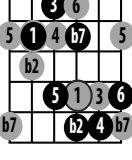
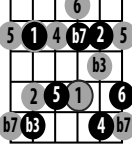
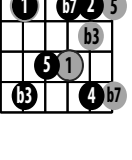
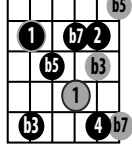
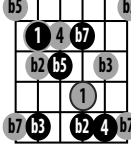
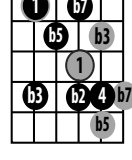
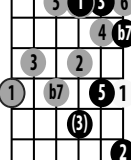
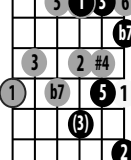
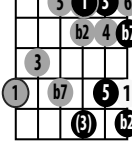
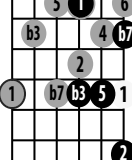
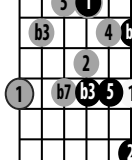
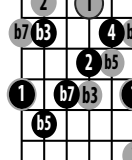
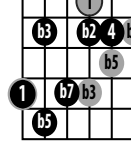
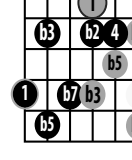
These fingerings show the lower or middle octave with black-backed numbers and the remaining notes with grey-backed numbers. Ascend each octave in the order 1-3-5-7-2, honoring any indicated flats. Due to range limitations, the beginning of the 1-3-5-7-2 series may not be fully available in the bass (on the larger strings). Likewise, the end of the 1-3-5-7-2 series may not all be available in the treble (on the smaller strings).

Some m9(ma7) arpeggios may seem impractical, but they are necessary subsets of [primary melodic minor scale fingerings](#). Although it is an eleventh chord, 11b5b9 is included since it is useful as a II type in minor II-V-I cadences. See [Arpeggios and Their Scales](#).

	major 9	9	7b9	minor 9	minor 9b5	m9ma7
G/E form						
E form						
E/D form						

D
formD/C
formC
formA
formG
form

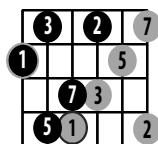
ELEVENTH AND THIRTEENTH ARPEGGIOS

	13	13#11	13b9	m13	m11	m11b5	m11b9	m11b5b9
modes→	Mixolydian	Lydian dom.	Mixolydian b6	Dorian	Aeolian or Dorian	Aeolian b5 or Dorian b5	Phrygian	Locrian
E form								
D form								
C form								
A form								
G form								

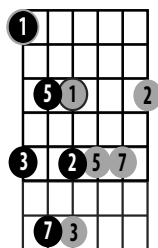
ARPEGGIOS AND THEIR SCALES

major 9

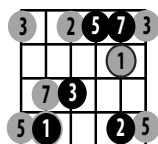
E form



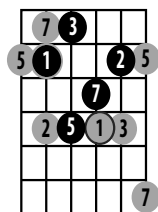
D form



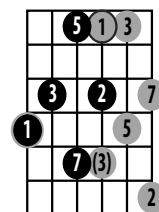
C form



A form

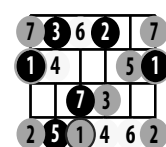


G form

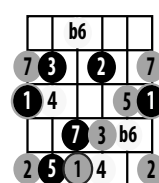
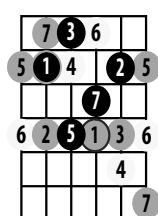
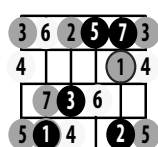
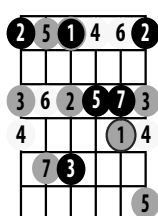


major scale

songs: Albatross, All The Things You Are, Breezin', Cast Your Fate to the Wind, Cryin', Don't Dream It's Over, Don't Know Why, Fast Car, Fly Me To The Moon, Golden Lady, Here's That Rainy Day, How High The Moon, Imagine, Isn't She Lovely, Lenny, Love's Theme, Misty, Ordinary People, September, Sleepwalk, Slow Dancing in a Burning Room, Something, Spain, Sun King,

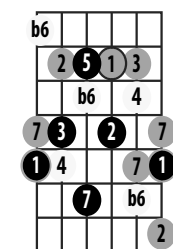
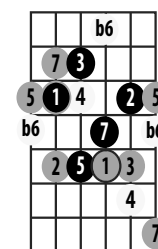
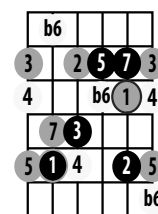
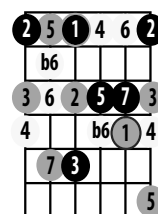
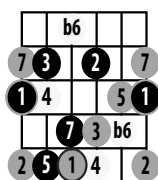


Theme From Hill Street Blues, Time, Tiny Dancer, The Way You Look Tonight.



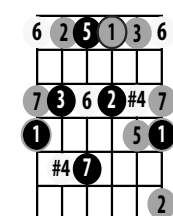
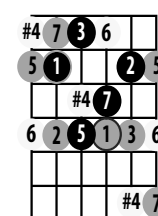
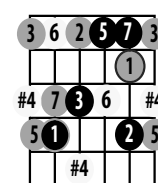
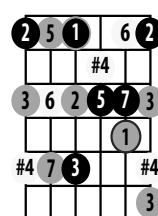
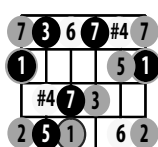
major b6 scale

songs: Night And Day, Poinciana, Sleepwalk, Afternoon In Paris (on the I chords),



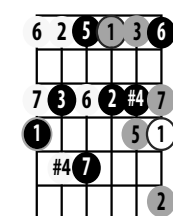
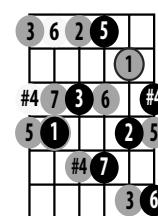
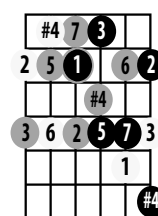
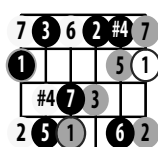
Lydian mode songs:

Dreams (Fleetwood Mac), Freewill, Flying in a Blue Dream, Blue Jay Way (alternates Lydian diminished and Lydian), Eleanor Rigby (the "C" chords), Golden Lady (bars 3-4, 7-8 of chorus), Maria, Donna Lee bars 3-4 key scale (Mixolydian chord scale),



major 13#11

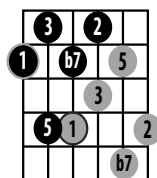
(Lydian mode) see songs listed in Lydian mode above



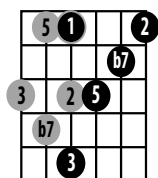
9

(dominant ninth)

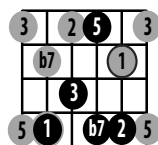
E form



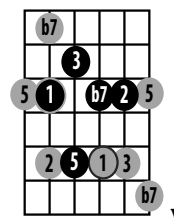
D form



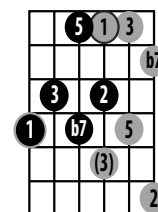
C form



A form

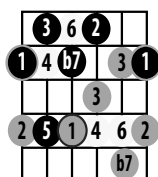


G form

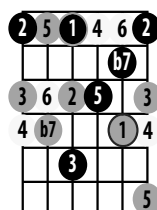


Mixolydian

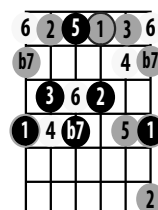
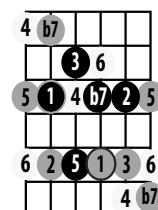
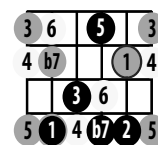
songs: most major key blues.
Black Cat Bone, Can't Stand
Your Funk, Chank, Chicken,
Cissy Strut, Cold Duck
Time, Cold Sweat, Cucumber
Slumber, Don't Give It Up,
Fame, Fashion, Freeway Jam,
Give Up the Funk, Goin'
Down (Mystery Lights),
Gratitude, Hard Place, I Don't
Need No Doctor, Play That
Funky Music, The Preacher,
Put It Where You Want It,



Rio Samba, Soul
Vaccination, Spare Tire,
Squib Cakes, Them
Changes, The Way You
Make Me Feel, What
Is Hip?,



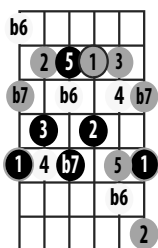
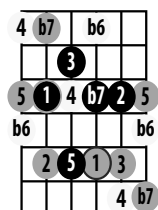
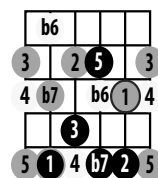
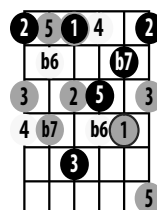
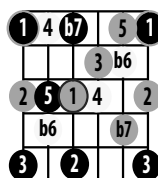
Willow Weep For Me,
You Got To Funkafize,
You Know What I
Mean



Aeolian dominant

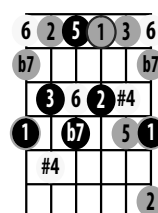
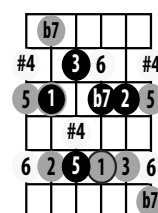
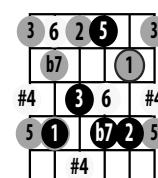
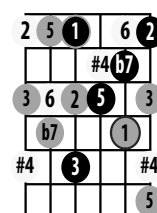
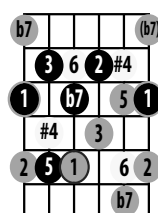
(Mixolydian b6)

songs: C Mixo. b6 on
Bb13#11 of Killer Joe, Brazil
(C7 Gm7b5 C7 Db6),



Lydian dominant

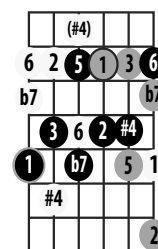
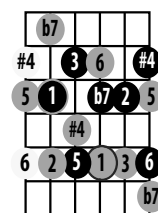
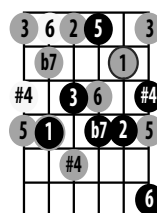
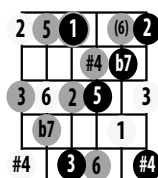
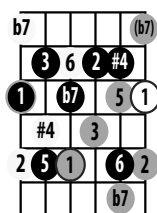
songs: 13#11 blues, Night In
Tunisia, Malaguena (second
chord), Sunny, Equinox,
Spain, Cantaloupe Island,
Only So Much Oil, Come
Dancing, Smooth, Simpsons,
altered blues, One Note
Samba, jazz blues bars 8-11,
Comin' Home Baby, see also
super Locrian as b5 sub.



13#11

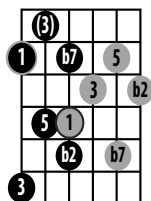
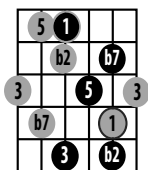
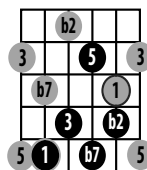
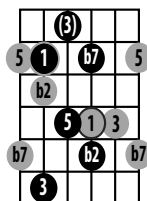
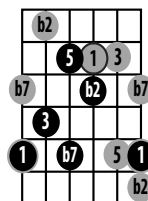
Lydian dominant

songs: see the Lydian
dominant song list for ninth
arpeggios above.



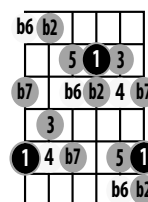
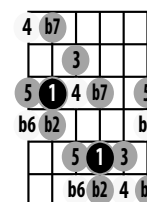
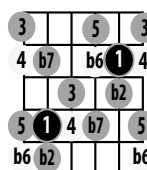
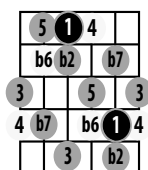
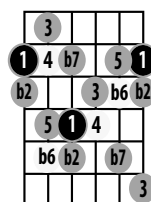
7b9

Songs: Asturias Leyenda, Black Magic Woman, Caravan, Come Out and Play, Gunes Topla Benim Icin, Joy, Kashmir, Move Your Body, Malaguena, Move Your Body, Nefsim Nefesine, Ole, Remeber Tomorrow, Rumores de La Caleta, Sails of Charon, Set the Controls for the Heart of the Sun, This Is How We Do It, Trilogy Suite Op, 5, White Rabbit

E form**D form****C form****A form****G form****Phrygian dominant**

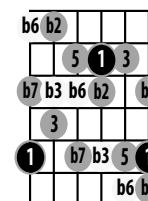
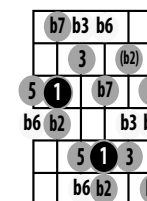
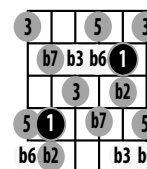
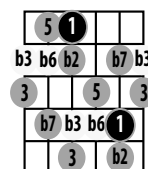
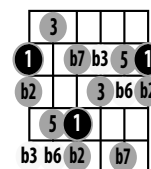
with dim. 7 subset in gray

7b9 no root is diminished 7. The roots are on black. The remaining gray tones make a diminished 7. Most minor key V chords. Also to darken a V of a major II V.

**super Phrygian**

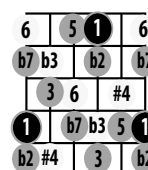
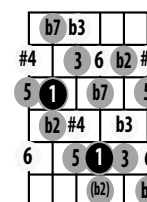
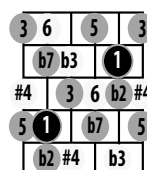
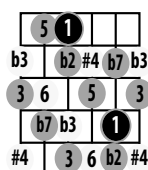
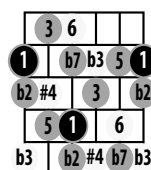
with dim. 7 subset in gray

The roots are on black. The remaining gray tones make a diminished 7.

**diminished half/whole**

with dim. 7 subset in grey

songs: Caravan. Most minor key V chords. Also to darken a V of a major II V.



fingering 1& 2

fingering 1& 2

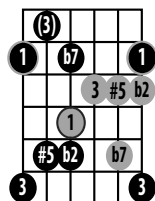
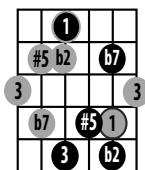
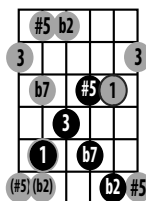
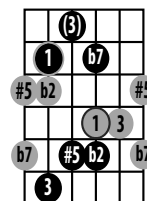
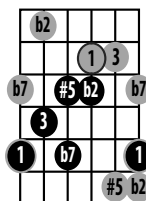
fingering 2 & 3

fingering 1& 2

fingering 1& 3

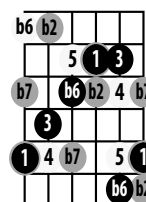
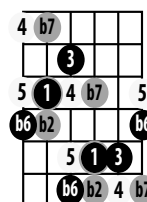
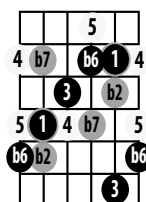
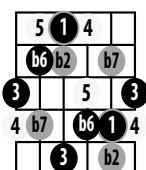
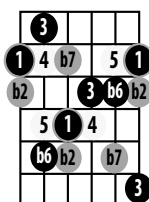
7#5b9

Songs: Asturias Leyenda, Black Magic Woman, Caravan, Come Out and Play, Gunes Topla Benim Icin, Joy, Kashmir, Move Your Body, Malaguena, Move Your Body, Nefsim Nefesine, Ole, Remeber Tomorrow, Rumores de La Caleta, Sails of Charon, Set the Controls for the Heart of the Sun, This Is How We Do It, Trilogy Suite Op, 5, White Rabbit

E form**D form****C form****A form****G form****Phrygian dominant**

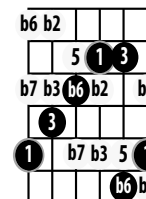
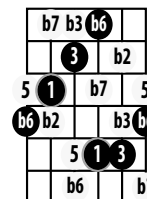
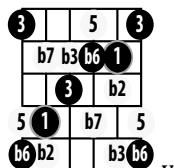
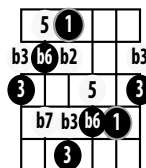
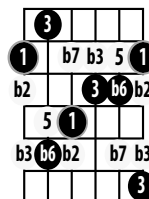
with augmented subsets

Augmented tones (1,3,b6) are on black.

**super Phrygian**

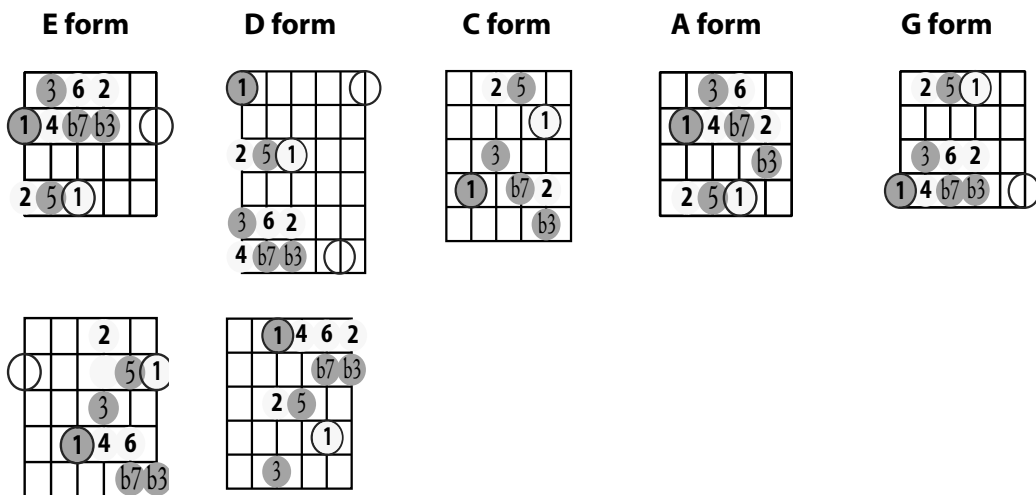
with augmented subset in grey

songs: see the song list for Phrygian dominant above.

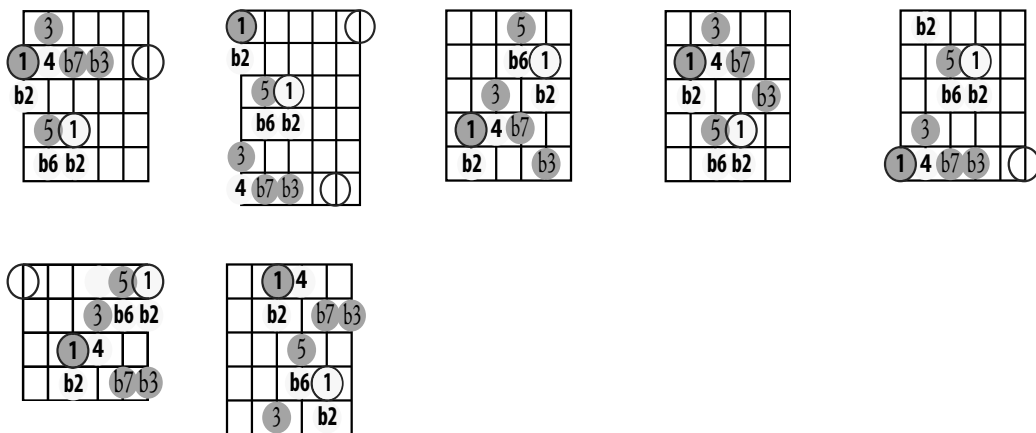


7#9see also Scale Ambiguity/[Scales for 7#9 and 13#9 \(natural five\)](#)**Mixolydian/Dorian**
(hybrid scale)

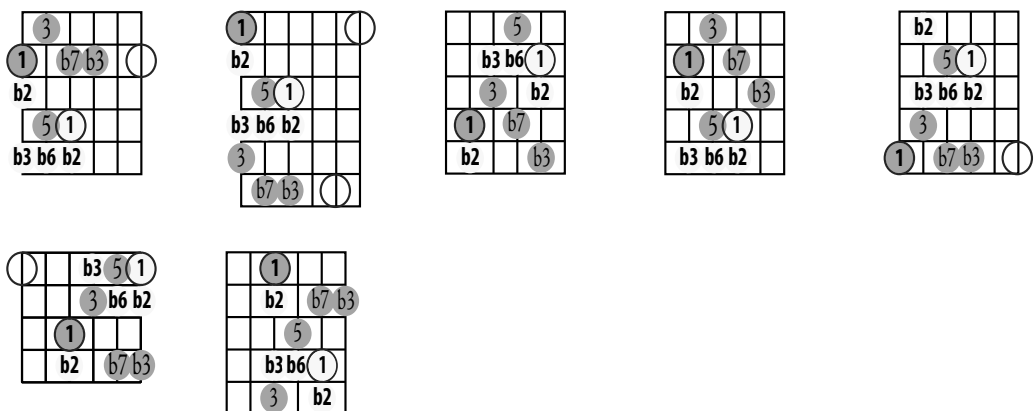
Arpeggio notes are grey-backed. All notes make the hybrid: Mixolydian in the low octave, Dorian in the high octave. Flat three proxies as sharp nine.

**Phrygian major/minor**
(hybrid scale)

Arpeggio notes are grey-backed. All notes make the hybrid: Mixolydian in the low octave, Dorian in the high octave.

**super Phrygian**

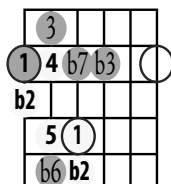
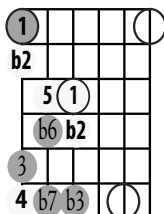
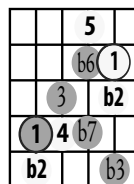
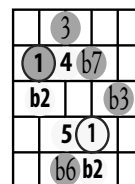
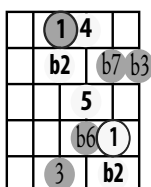
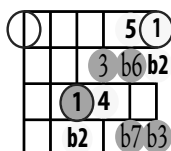
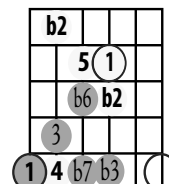
(Phrygian flat four)
songs: Caravan. Most minor key V chords. Also to darken a V of a major II V.



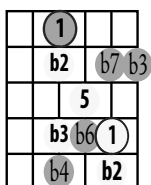
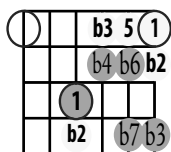
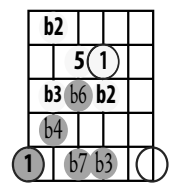
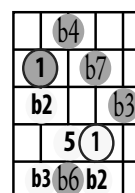
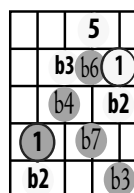
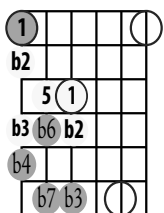
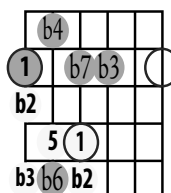
7#5#9see also Scale Ambiguity/[Scales for 7#5#9 and 7#5b9](#), also [Scale for 7#5b9](#)**Phrygian****major / minor**

(hybrid scale)

Arpeggio notes are grey-backed. All notes make the hybrid Phrygian major low, Phrygian minor high. Flat six proxies as sharp five.

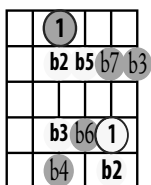
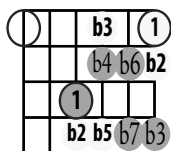
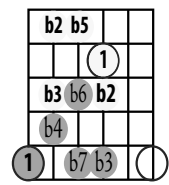
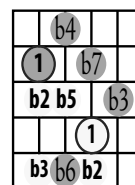
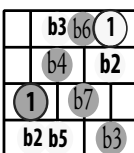
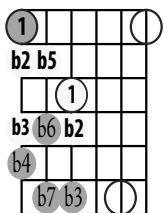
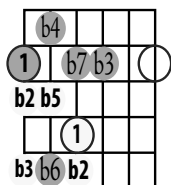
E form**D form****C form****A form****G form****super Phrygian**

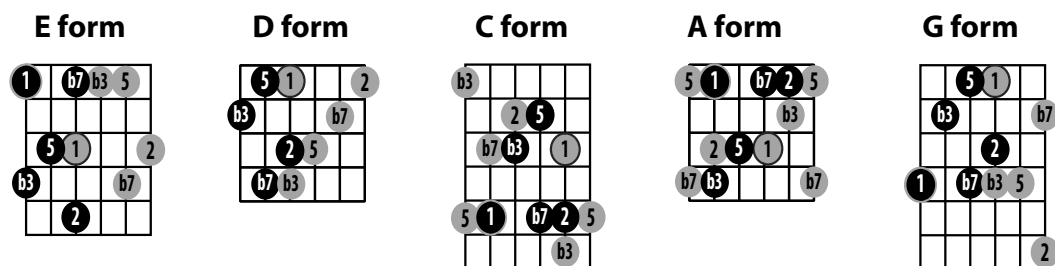
Arpeggio notes are grey-backed. Flat four proxies as natural three, Flat six proxies as sharp five. Fkat three proxies as sharp nine.

**super Locrian**

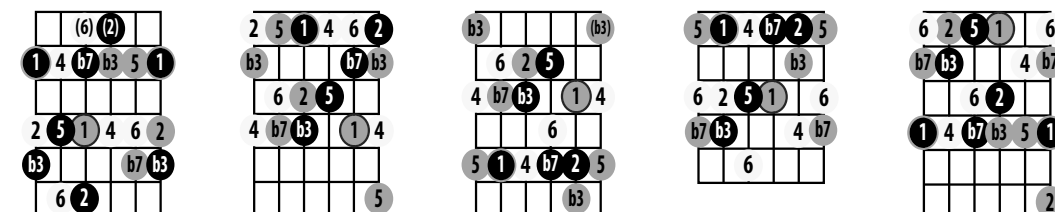
Arpeggio notes are grey-backed. Flat four proxies as natural three, Flat six proxies as sharp five. Fkat three proxies as sharp nine.

Caravan, Smooth, I Like It Like That

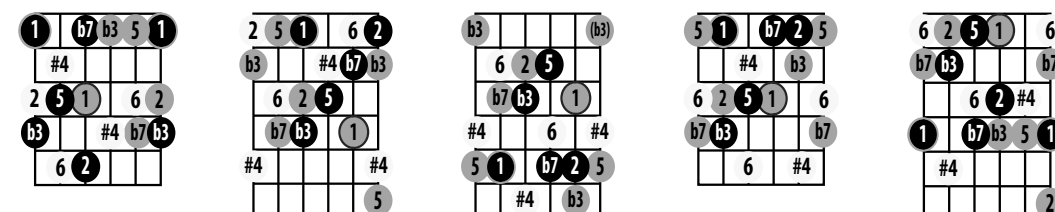


minor 9**Dorian**

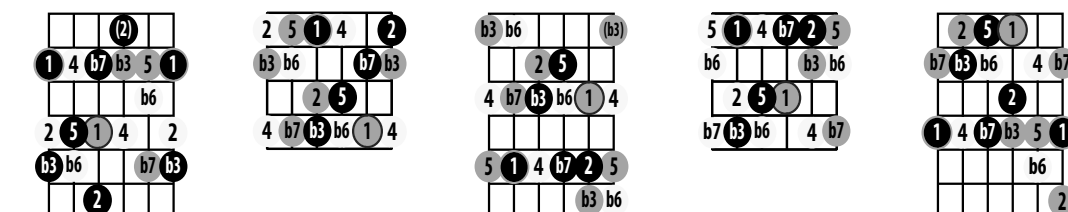
songs: Use Me, This Masquerade, Oye Como Va, Evil Ways, In Memory of Elizabeth Reed, I Wish, Mister Magic

**Dorian #4**

songs: for the IV chord in any of the Aeolian songs below. Also key I Dorian #4 on #IVdim7 (=I dim7) as in bar 6 of a jazz blues.

**Aeolian**

songs: Affirmation, Afro Blue, Ain't No Sunshine, All Along the Watchtower, Always with Me Always with You, Another Star, Attention, Black Magic Woman, Cause We Ended as Lovers, Chim Chim Cheree, Desert Rose, Despacito, Eastside, Eleanor Rigby, Equinox, Europa, Fields of Gold, For the Love of God, Fragile, Hot 'Lanta,



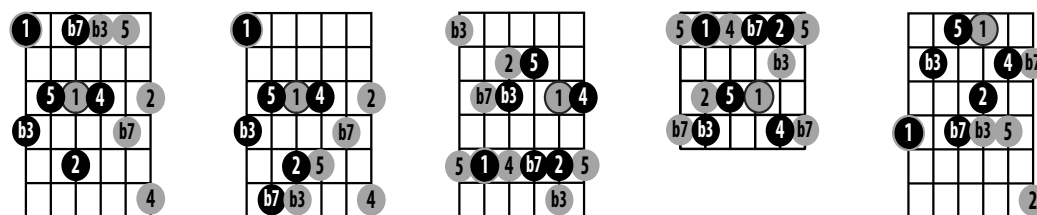
I Like It Like That, In a Sentimental Mood, Loan Me a Dime, Losing My Religion, Mambo Influenciado,

Master Blaster, Minor Swing, My Funny Valentine, Night in Tunisia, Papa Don't Preach, Red Rain,

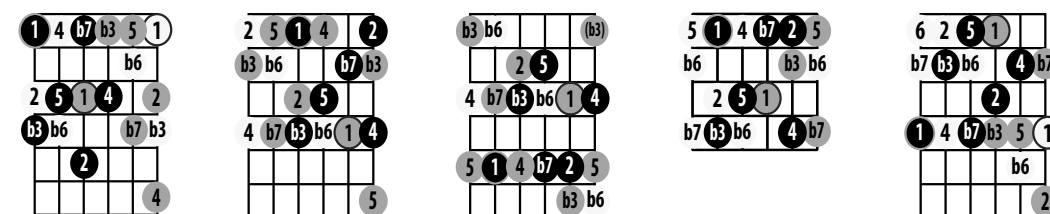
Rhiannon, Rikki Don't Lose That Number, Road Song, 'Round Midnight, Senorita, Since I've Been Loving

You, Slow Dancing in a Burning Room, Softly as in a Morning Sunrise, Song For My Father, Sugar,

Summertime, Sunny, The Thrill Is Gone, Work Song

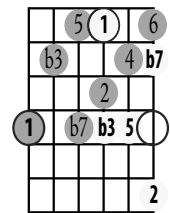
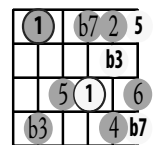
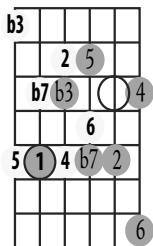
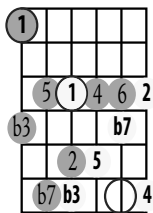
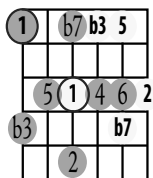
minor 11**Aeolian (m11)**

songs: Alone Together, Angl Eyes, Autumn Leaves, Black Orpheus, Minnie The Moocher, My Funny Valentine, Song For My Father, St. James Infirmary, Nature Boy, Road Song, Sultans of Swing, Summertime, Sunny, Take Five, The Thrill Is Gone,

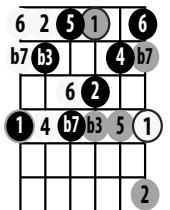
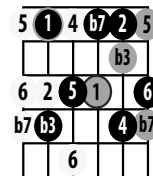
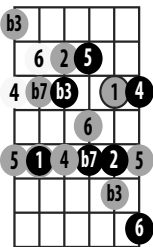
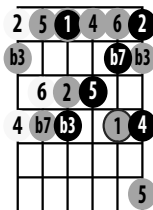
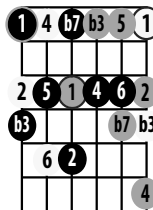


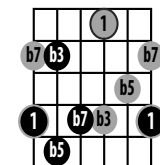
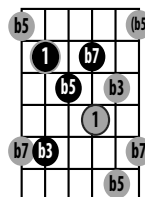
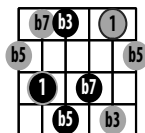
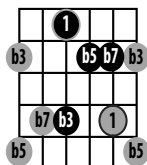
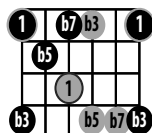
minor 13 (15)

"minor 15" implies the ambiguity between 13 on the top of the thirteenth arpeggio and the same note as six, a lower neighbor to "15" the high octave "1".

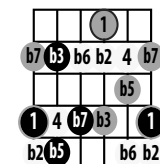
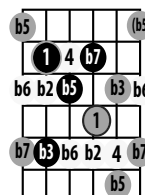
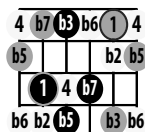
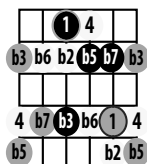
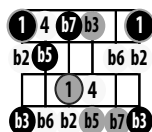
**Dorian (m13)**

songs: Afro Blue, Affirmation, Funk in the Hole, I Wish, Speak Low, Scrapple From The Apple, Put It Where You Want It, My Favorite Things

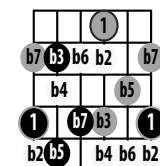
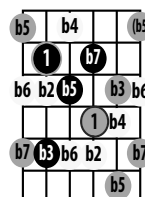
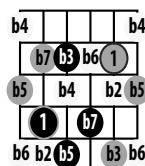
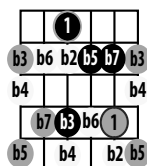
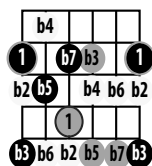


E form**D form****C form****A form****G form****minor 7 flat 5****Locrian (m7b5)**

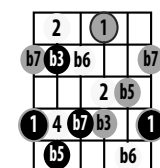
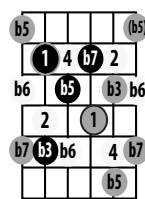
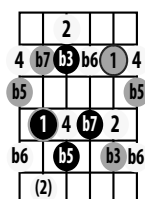
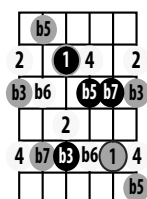
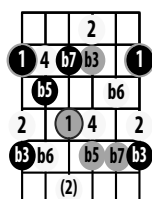
use on the first chord in a IIIm7b5-V7 cadence (minor II-V).

**super Locrian**

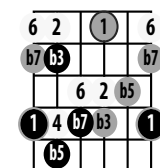
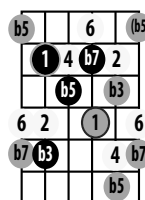
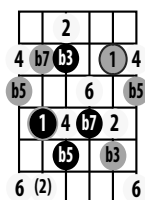
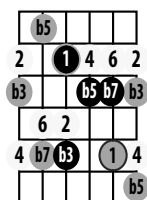
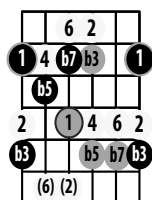
use on "super altered" V chords with b5, #5, b9, #9. Avoid emphasizing "b4" to avoid suggesting "natural 3".

**Aeolian flat five**

songs: Only So Much Oil, Glass Onion or Pawky (Im11b5 on bVII7), Angel Eyes (last half of bars 1 and 5),

**Dorian flat five (m11b5)**

songs: use to darken Dorian. Key I Dorian b5 on #IVdim7 (=I dim7) as in bar 6 of a jazz blues.



	E form	D form	C form	A form	G form
minor 9 flat 5					

minor 11 flat 5					
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Dorian flat five (m11b5)

songs: use to darken Dorian. Key I Dorian b5 on #IVdim7 (=I dim7) as in bar 6 of a jazz blues.

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Aeolian flat five (m11b5)

songs: Only So Much Oil, Glass Onion, Smooth or Pawky (Im11b5 on bVI7). Fm9b5 on Db7 in Canteloupe Island. Summertime bar 6 (Am9b5 on F9 in Am). Im9b5 in bar 9 of minor 12-bar blues: Equinox, Mr. P.C., Cousin Mary, The Thrill Is Gone.

Unchain My Heart in Gm: Gm9b5 on Eb7. . Hummingbird-Im11b5 on bVI7 in bar 2.

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m11b5b9

E form	D form	C form	A form	G form

Locrian

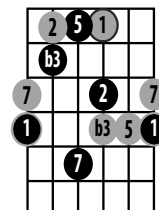
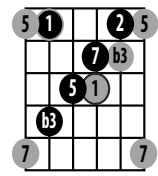
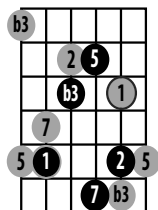
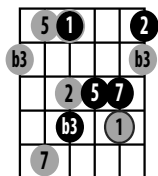
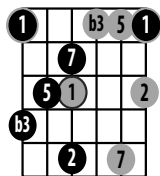
(m11b5b9, arpeggio-not a chord)

use on the IIm7b5 of minor II V cadences.

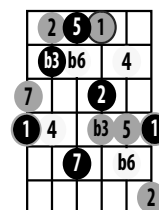
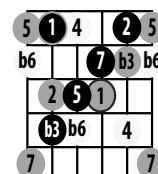
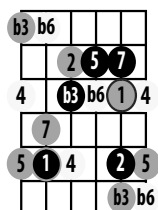
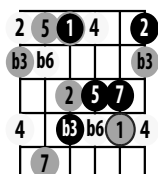
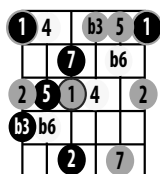
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E form**D form****C form****A form****G form****minor 9 (ma7)**

minor ninth (major seventh)

**harmonic minor**

Common use: the second chord in Im Im(ma7) Im7 Im6.



Songs: And Your Bird Can Sing, Ballad of A Thin Man, Being for the Benefit of Mr. Kite, Billie's Bounce, Blue Skies, Body and Soul (Coltrane version), Chim Chim Cheree, Cry Baby Cry, Dear Lord, Don't You Worry 'Bout A Thing, Driftin', Feelings, Fixing a Hole, God Bless the Child, Golden Lady,

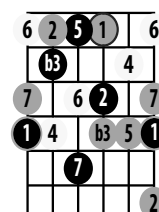
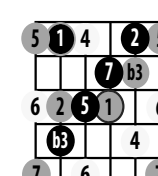
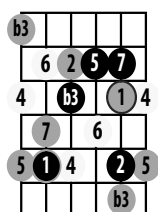
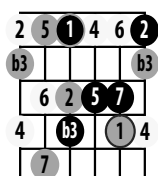
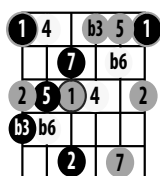
Got to Get You Into My Life, Harlem Nocturne, I Me Mine, In a Sentimental Mood, Into the Great Wide Open, It Don't Mean a Thing, It's Alright with Me, James Bond (ending chord), Let It Rain, Let's Fall In Love, Loan Me a Dime, Michelle, Mississippi Half Step Uptown Toodeloo,

My Funny Valentine, Nature Boy, Nica's Dream, Oye Como Va, 'Round Midnight, Save Me, Something, Stairway to Heaven, A Taste of Honey, Tenor Madness, This Masquerade, Time in a Bottle, Town Without Pity, What Are You Doing the Rest of Your Life?,

Us and Them, Yesterdays, You Are the Sunshine of My Life, You're the Top.

melodic minor

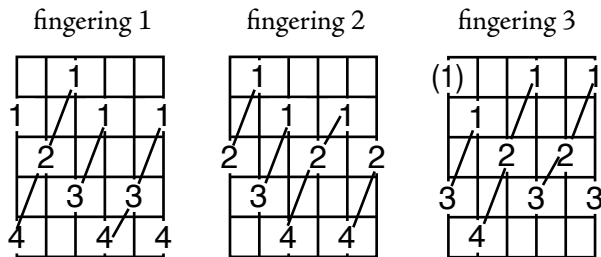
songs: Us and Them, James Bond ending chord



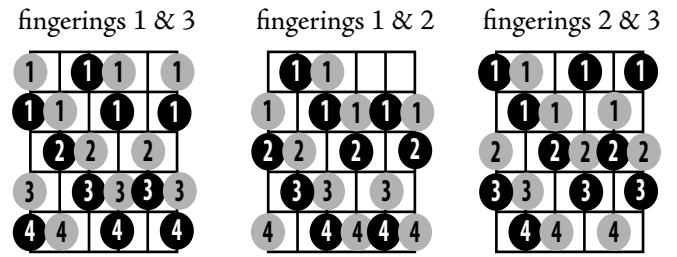
Diminished Seventh Arpeggio and Diminished Scale

the numbers on the diagrams below are finger numbers

diminished seventh arpeggio



diminished scale



half/whole versus whole/half diminished scale

A half step is the interval from one fret to the next higher or lower fret. A whole step is a two-fret interval, such as the first to third frets. The "half/whole" diminished scale ascends alternating half and whole steps, starting with the half step. The "whole/half" diminished scale ascends alternating whole and half step intervals, starting with the whole step. Think most of the time in terms of the half/whole version of the scale and determine whether the emphasis is on the lower note or on the upper note of each chromatic pair.

diminished scale exercise

VI position
the gray "3" on the sixth string is "C"

$\text{♩} = 60$

C half-whole diminished scale

play 4 times

VII position
the gray "2" on the sixth string is "C"

C half-whole diminished scale

play 4 times

VIII position
the gray "1" on the sixth string is "C"

C half-whole diminished scale

play 4 times

ways to use the diminished scale

Think the diminished scale as a chord. C half/whole diminished scale is the notes C-Db-D#-E-F#-G-A-Bb-C. All eight notes of a C half/whole diminished scale constitute the chord C13#11b9#9, a very dissonant, eight-note chord.

Seventh flat nine chords with no root are diminished sevenths. C7b9 with no root is E dim7. The Edim7 part of the C diminished scale can represent the V7b9 chord for the key of F, where “C” is the V. Like any diminished seventh chord, any of its four chord tones (E-G-Bb-A#) can be the root. Edim7 can also be named C#dim7. As C#dim7, it can be thought of as the V7b9 chord with no root for F major’s relative minor key, D minor.

A lower chromatic embellishment to a chord tone is a note a half step (one fret) below a chord tone played immediately before the chord tone. An upper chromatic embellishment to a chord tone is a note a half step (one fret) above a chord tone played immediately before the chord tone. C half/whole diminished scale provides lower chromatic embellishments for Db diminished seventh tones and upper chromatic embellishments for C diminished seventh tones.

The most straight-forward applications of the diminished scale are to use half/whole diminished scale in either of these two ways:

- Emphasize the lower note of each chromatic pair or the upper note in each perfect fourth pair to sound Im6b5. In each case, this emphasizes the notes of I diminished seventh. By calling it Im6b5, I’m implying that you melodically use the “6” as a lower neighbor to “1” and the “b3” as an upper neighbor of “1”. Use “b5” as an occasional blue note.
- Emphasize the upper note of each chromatic pair to sound I7b9 no root, usually used as a V type chord. This uses the notes of bII diminished seventh (I7b9 no root = bII dim7).

diminished seventh modes of harmonic minor

The important harmonic minor modes with diminished seventh are IV Dorian #4 and VII Mixolydian #1. Other diminished seventh modes of harmonic minor are II Locrian natural 6 and bVI Lydian #2.

All diminished seventh modes of major sharp five are VII Locrian natural 6, II Dorian #4, IV Lydian #2, #V Mixolydian #1.

diminished seventh modes of major flat six (harmonic major)

Diminished seventh modes of major b6 are II Dorian b5, IV Lydian b3 (Lydian diminished), bVI Aeolian b1, VII Locrian bb7. In Lydian diminished, use the “5” as an upper neighbor to #4.

Diminished Scale In Perfect Fourths

Emphasize notes most commonly by putting them on the beat, by accenting, pivot tone, etc. With pairs of perfect fourths moving in minor thirds emphasize the the upper note of each perfect fourth pair for Im6b5 and emphasize the lower note of each perfect fourth pair for V7b9. With pairs of chromatic notes moving in minor thirds, emphasize the lower note of each pair for Im6b5 and the upper note of each pair for V7b9 (ascending or descending).

Using V Diminished Half/Whole Scale As V7b9

To sound the V7b9 no root (II dim7) linearly with the V half/whole diminished scale, emphasize the upper note of each chromatic pair. In a minor key, de-emphasize the 13 of the V chord, since it is the “3” in the mi or key.

To sound the V7b9 no root (II dim7) in perfect fourth pairs moving in minor thirds, locate the scale by establishing an upper note of a perfect fourth pair as a II dim7 tone. Then play pairs of perfect fourths, ascending or descending in minor thirds and emphasize the lower note of each perfect fourth pair.

Using I Diminished Half-Whole Scale As Goodman-Christian Im6b5

This is a more vocal-oriented melodic approach. Think of the diminished half/whole scale as a I13b9#9#11 chord, particularly focusing on the Im6b5 part of it. Yes, Im6b5 is the same as I dim7, but by thinking Im6b5, you are more likely to think of the individual character of each note.

The m6b5 chord has a flat third for bluesy sounds, which can be played with a microtonal bend. The flat third uses the #9 in the I13b9#9#11 chord. It functions as an upper neighbor to the root, in terms of a pentatonic upper neighbor. If you’ve heard the blues song “Spoonful” (written by Willie Dixon and recorded by Howlin’ Wolf and Cream), that’s the main theme, repeating flat three to one.

The m6b5 chord also has a flat five. The flat five should usually be used sparingly for a very dark, bluesy effect. We’re using the #11 of the I13b9#9#11 chord as a flat five.

Arguably, the most significant swing era tone is six. The m6b5 chord has a six to get that swing color. It is the thirteenth in the I13b9#9#11 chord. Especially use the six as a lower neighbor to the root, which I call a “low six”.

To sound Im6b5 no root (I dim7) linearly with the I half/whole diminished scale, emphasize the lower note of each chromatic pair. The group of lower notes of the lower notes of each chromatic pair makes I dim7.

To sound Im6b5 no root (I dim7) in perfect fourth pairs moving in minor thirds, first build your melody as described above. Next, locate the scale in perfect four pairs by establishing an upper note of a perfect fourth pair as a I dim7 tone. Then play pairs of perfect fourths, ascending or descending in

minor thirds and emphasize the upper note of each perfect fourth pair. See: “Dovetailing Diminished Seventh Arpeggios In Perfect Fourths” below.

Combine Diminished Seventh Arpeggios to Make Diminished Scale

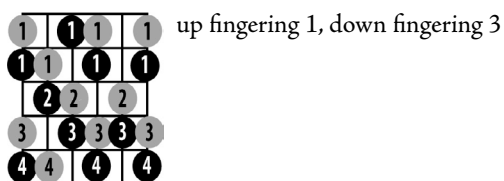
Linearly, the scale is 1-b2; b3-3; #4-5; 6-b7, which is the combination of I diminished seventh and bII diminished seventh. Pairing the notes chromatically produces these pairs separated by semi-colons (;): 1-b2; b3-3; #4-5; 6-b7.

When conceiving diminished scale in pairs of notes in the interval of a perfect fourth ascending or descending in minor thirds, the group of lower-pitched tones in the perfect fourth pairs makes bII diminished seventh. The group of upper-pitched tones in the perfect fourth pairs makes I diminished seventh.

Perfect fourth pairs ascend with the cycle <b2-b5; 3-6; 5-1; b7-b3>, and descend with the cycle <1-5; 6-3; b5-b2; b3-b7>.

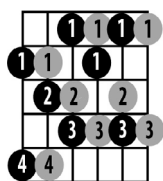
The group of the lower-pitched first notes of each perfect fourth pair in the ascending minor thirds sequence of perfect fourth pairs (b2-b5; 3-6; 5-1; b7-b3) makes b2-3-5-b5, which is bII diminished seventh and is also I7b9 no root. The group of the higher-pitched second notes of each perfect fourth pair in the ascending minor thirds sequence of perfect fourth pairs (b2-b5; 3-6; 5-1; b7-b3) makes 1-b3-b-6, which is I diminished seventh.

The group of the higher-pitched first notes of each perfect fourth pair in the ascending minor thirds sequence of perfect fourth pairs (1-5; 6-3; b5-b2; b3-b7) makes 1-6-b5-b3, which is I diminished seventh. The group of the lower-pitched second notes of each perfect fourth pair in the descending minor thirds sequence of perfect fourth pairs (1-5; 6-3; b5-b2; b3-b7) makes b2-3-5-b7, which is bII diminished seventh and is also I7b9 no root.



1 G7b9nr (B°7) = Bb7b9nr (D°7) = Db7b9nr (F°7) = E7b9nr (G#°7)

5 A°7 = C°7 = Eb°7 = F#°7

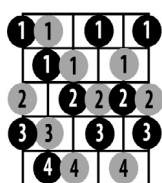


9 A°7 = C°7 = Eb°7 = F#°7

13 G7b9nr (B°7) = Bb7b9nr (D°7) = Db7b9nr (F°7) = E7b9nr (G#°7)

2

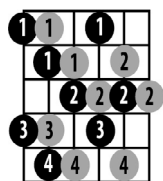
Diminished Scale Stepwise And In Fourths



up fingering 3, down fingering 2

17 G7b9nr (B°7) = Bb7b9nr (D°7) = Db7b9nr (F°7) = E7b9nr (G#°7)

21 A°7 = C°7 = Eb°7 = F#°7



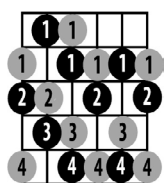
on the diagram, each perfect four pair is a black and a grey, usually with the same finger

25 A°7 = C°7 = Eb°7 = F#°7

29 G7b9nr (B°7) = Bb7b9nr (D°7) = Db7b9nr (F°7) = E7b9nr (G#°7)

Diminished Scale Stepwise And In Fourths

3



up fingering 2, down fingering 1

33 G7b9nr (B°7) = Bb7b9nr (D°7) = Db7b9nr (F°7) = E7b9nr (G#°7)

1 2 4 1 2 3 1 1 3 4 1 2 4 1 3 4 1 2 2 1 4 3 1 4 2 1 4 3 1 1 3 2 1 4 2 1

T 4 5 7 3 5 6 3 4 6 7 4 5 7 4 6 7 4 5 5 4 7 6 4 7 5 4 7 6 4 3 6 5 3 7 5 4

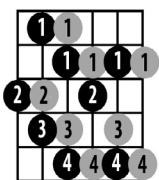
A B

37 A°7 = C°7 = Eb°7 = F#°7

1 2 4 1 2 3 1 1 3 4 1 2 4 1 3 4 1 2 2 1 4 3 1 4 2 1 4 3 1 1 3 2 1 4 2 1

T 4 5 7 3 5 6 3 4 6 7 4 5 7 4 6 7 4 5 5 4 7 6 4 7 5 4 6 4 3 6 5 3 7 5 4

A B



on the diagram, each perfect four pair is a black and a grey, usually with the same finger

41 A°7 = C°7 = Eb°7 = F#°7

2 2 1 1 3 3 1 1 4 4 2 3 1 1 4 4 4 4 1 1 3 2 4 4 1 1 3 3 1 1 2 2

T 5 5 3 3 6 6 4 7 7 5 6 4 4 7 7 7 7 4 4 6 5 7 7 4 4 6 6 3 3 5 5

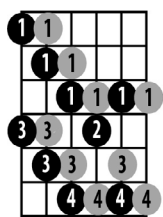
A B

45 G7b9nr (B°7) = Bb7b9nr (D°7) = Db7b9nr (F°7) = E7b9nr (G#°7)

2 2 1 1 3 3 1 1 4 4 2 3 1 1 4 4 4 4 1 1 3 2 4 4 1 1 3 3 1 1 2 2

T 5 5 3 3 6 6 4 7 7 5 6 4 4 7 7 7 7 4 4 6 5 7 7 4 4 6 6 3 3 5 5

A B



on the diagram, each perfect four pair is a black and a grey,
usually with the same finger

49 $A^{o7} = C^{o7} = E\flat^{o7} = F\sharp^{o7}$ A^{o7}

53

diminished scale cycles with perfect fourth pairs in minor thirds

Ascending number cycles: 14; b3b6; #47; 62; repeat. 4b7; b6b2; 73; 25; repeat. 51; b7b3; b2b5; 36; repeat.

Ascending letter cycles: EA; GC; BbEb; C#F#; repeat. AD; CF; EbAb; F#B; repeat. BE; DG; FBb; G#C#; repeat.

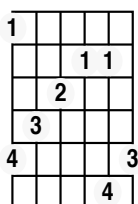
Descending number cycles: 15; 63; b5b2; b3b7; repeat. 41; 26; 7#4; b6b3; repeat. b74; 52; 37; b2b6; repeat.

Descending letter cycles: EB; C#G#; BbF; GD; repeat. AE; F#C#; EbBb; CG; repeat. DA; BF#; AbEb; FC; repeat.

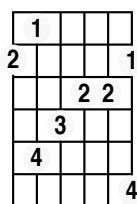
Augmented Arpeggio

Augmented arpeggios are a serial pattern, a repeating interval pattern of major thirds. Any note in an augmented arpeggio can be the root. For any given position, the three fingerings below can represent augmented arpeggios in all keys. The numbers on the diagrams below are finger numbers.

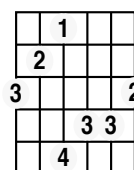
fingering 1



fingering 2



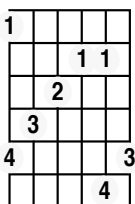
fingering 3



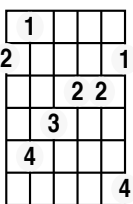
augmented arpeggio subset of augmented scale

augmented arpeggio

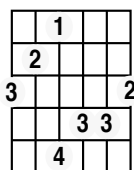
fingering 1



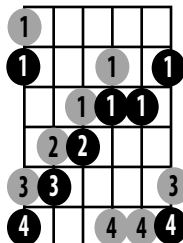
fingering 2



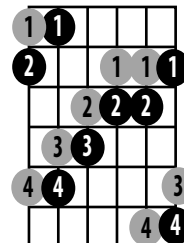
fingering 3



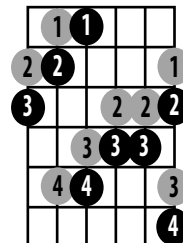
fingering 1



fingering 2



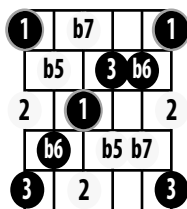
fingering 3



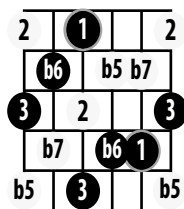
augmented arpeggio subset of whole tone scale

"1-3-b6" is the augmented triad basis. "b6" is an enharmonic numbering (a synonym) for "#5".

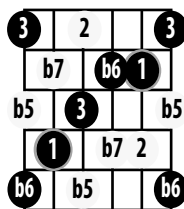
E form



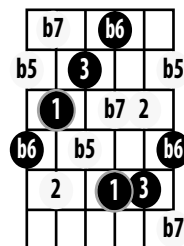
D form



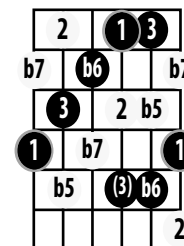
C form



A form



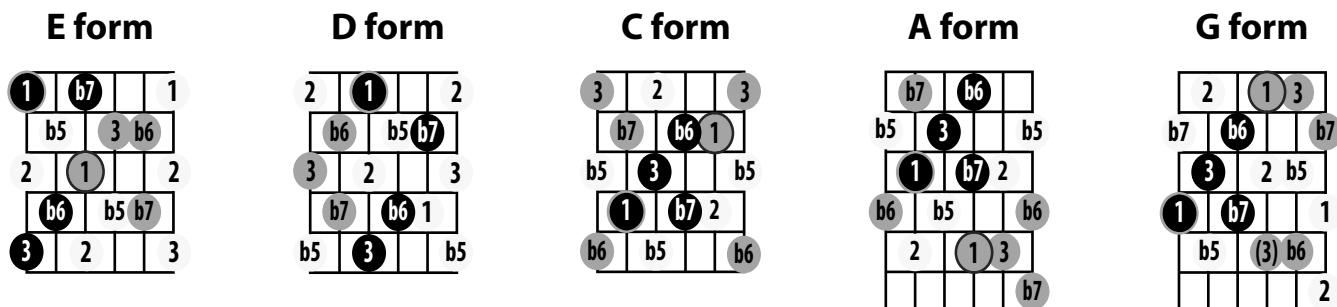
G form



Augmented arpeggios are an important part of altered dominant chords with a sharp five.

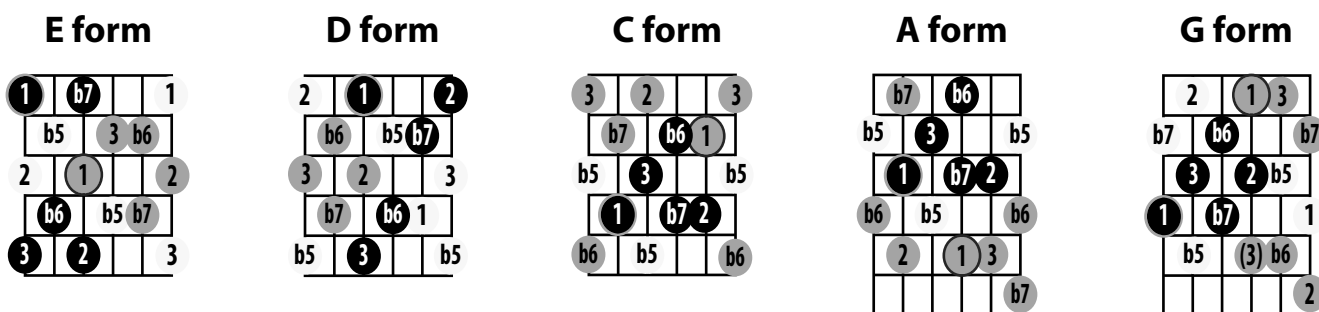
7#5 (1-3-b6) subset of whole tone scale

“1-3-b6” is the augmented triad basis. “b6” is an enharmonic numbering (a synonym) for “#5”. Black and gray backgrounds separate the octaves.



9#5 (1-3-b6) subset of whole tone scale

“1-3-b6” is the augmented triad basis. “b6” is an enharmonic numbering (a synonym) for “#5”. Black and gray backgrounds separate the 9#5 arepggios in the low octave from the high octave.



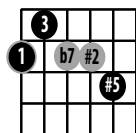
scales for 7#5#9 and 7#5b9

scale for 7#5b9

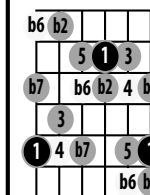
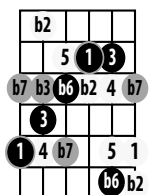
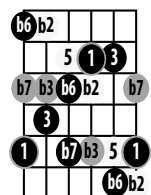
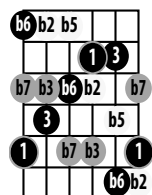
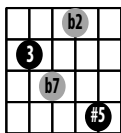
1-3-#5 (or b6) are an augmented triad, shown on black. The b7 and #9 are on gray. See [augmented arpeggio fingerings](#).

7#5#9
chord7#5b9
chordsuper Locrian
1-b2-b3-3-b5-b6-b7
(b6 proxies as #5)super
Phrygian
1-b2-b3-3-5-b6-b7
(b4 proxies as 3)Phrygian major/
minor
1-b2-b3-3-4-5-b6-b7Phrygian major
(Phrygian dominant)
1-b2-3-4-5-b6-b7

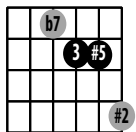
G form



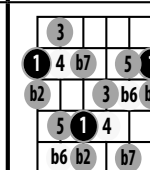
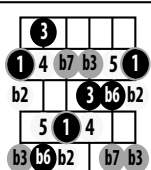
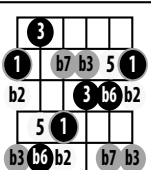
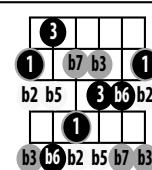
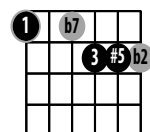
G form



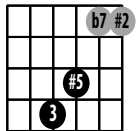
E form



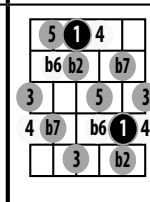
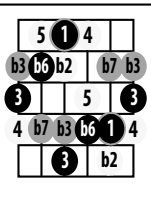
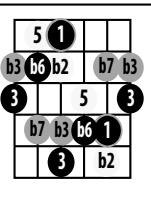
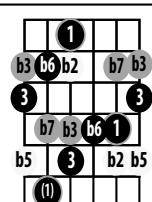
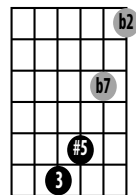
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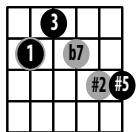
D form



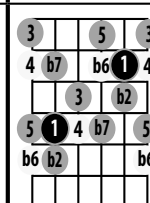
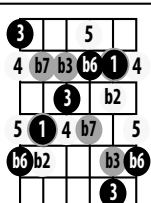
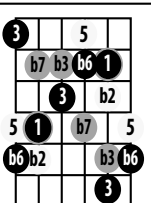
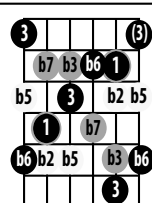
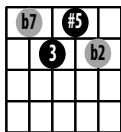
D form



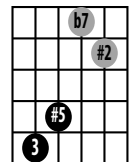
C form



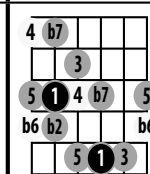
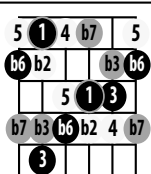
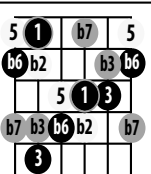
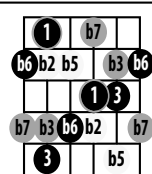
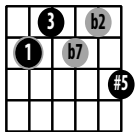
C form



A Form

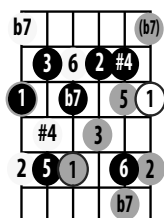


A Form

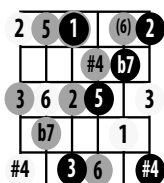


augmented arpeggio is a subset (b7-2-#4) of 13#11 (Lydian dominant)

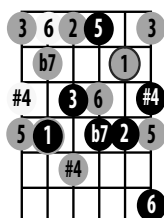
E form



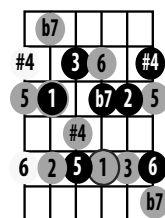
D form



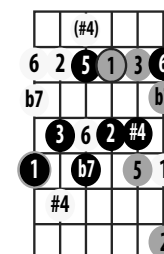
C form



A form



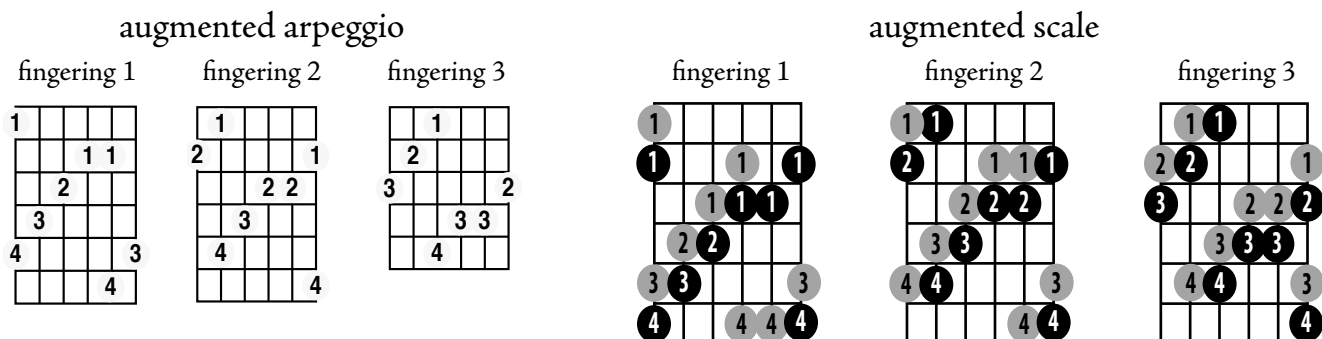
G form



AUGMENTED SCALE

Augmented Arpeggio and Scale Fingerings

Augmented arpeggios are a repeating interval pattern of major thirds. Any note in an augmented arpeggio can be the root. For any given position, the three fingerings below can represent augmented arpeggios in all keys. The numbers on the diagrams are finger numbers.

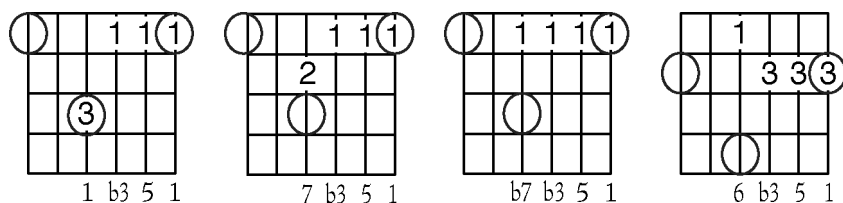


Augmented is commonly used as an altered V chord, as the second chord in chromatically descending minor (Am-G#Aug -Am7-Am6) or in the “Brazil” vamp: C-Caug-C6-Caug, D-Dm#5-Dm6-Dm#5.

Common Use of Augmented Arpeggios

chromatic descending minor

See more fingerings in “[Voice Leading](#)”/[Chromatic Descending Minor Library](#).



The “Brazil” vamp - [click to play video](#)

In the Antonio Carlos Jobim version of Ary Barroso’s “Brazil”, this vamp is used at 1:12.

Swing Eighthths
♩ = 180

The musical notation for the “Brazil” vamp is presented in 4/4 time with a tempo of 180 beats per minute (Swing Eighthths). The key signature is one sharp (F#), indicating D major. The notation is divided into three systems, each containing four measures. The first system features the chords D, D+, D6, and D. The second system features D+, D6, Em(add9), and Em(add9)#5. The third system features Em6, Em6, Em6, and Em6. Above each staff, guitar fretboard diagrams are provided for each chord, showing fingerings. Below each staff, a bass line is shown with fingerings for the bass player. The vamp concludes with a double bar line.

Augmented Triads and Diminished Seventh as Tension Chords

augmented tension chords

Augmented can also be used as a tension chord to resolve the #5 of the augmented to a II, IV or VI chord in the key of the augmented root. The II or VI may each be major or minor. The same rules can apply to a dominant (7th type) chord with a sharp five, but the augmented triad version is usually easier to hear.

Augmented scale is an augmented triad (any augmented triad tone can be the root) with a half step below each tone, essential two augmented triads a half step apart. With discrete rules of harmonic beat tension, the scale can be used in two ways: half/whole augmented with the tone centers on the lower tone of each chromatic pair and whole/half augmented with the tone centers on the upper tone of each chromatic pair. Also, one augmented scale of six notes includes all three major seventh arpeggios. Great possibilities, strong need for discrete rules so the listener can relate to known music.

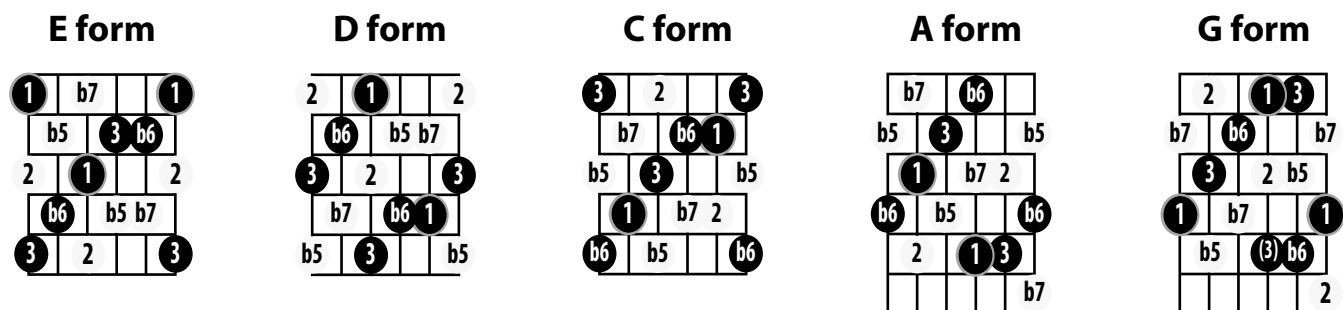
diminished seventh tension chords

Diminished seventh chords also create tension. They can resolve to any chord with a root a half step above or a whole step below either of the four diminished seventh tones. It is well-worn. Augmented presents more opportunity for new music.

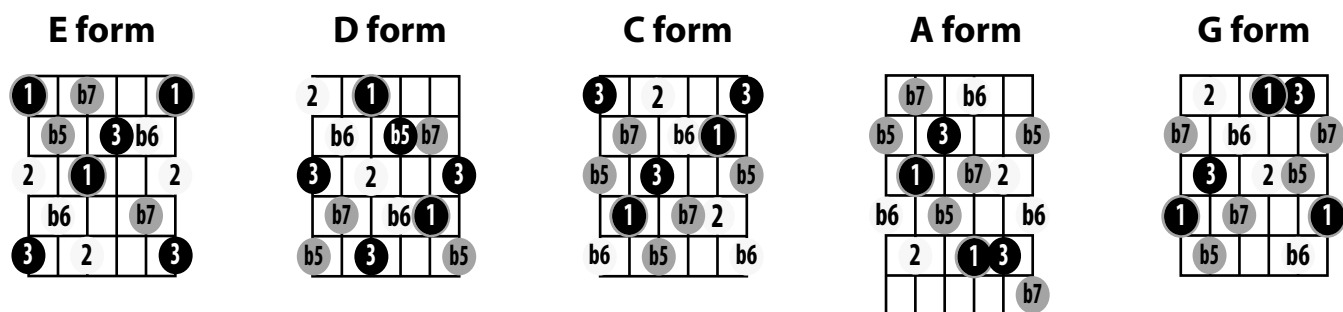
Whole Tone Scale

augmented subsets of whole tone scale

“b6” is an enharmonic numbering (a synonym) for “#5”. “1-3-#5” is an augmented triad and any of its notes can be a root. The remaining notes, “2-b5-b7” are also an augmented triad and either of the notes can be a root.

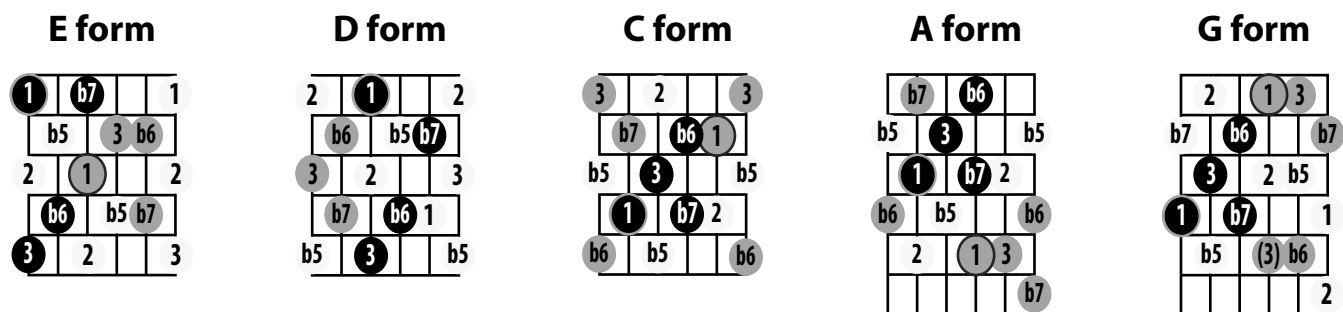


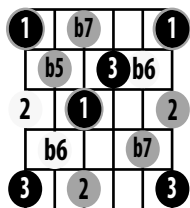
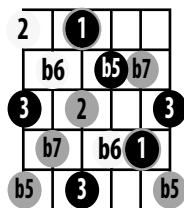
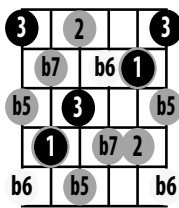
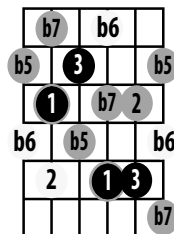
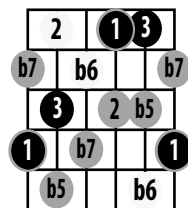
7b5 subset of whole tone scale



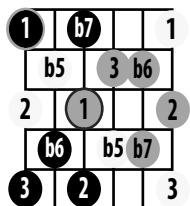
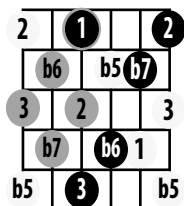
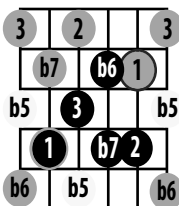
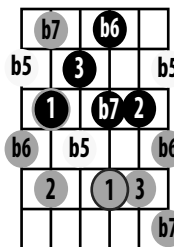
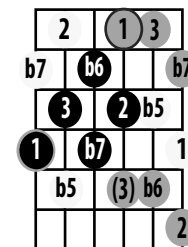
7#5 subset of whole tone scale

“b6” is an enharmonic numbering (a synonym) for “#5”. The triad basis is augmented.

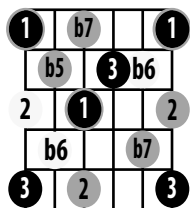
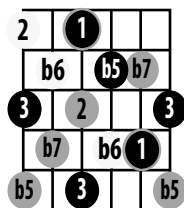
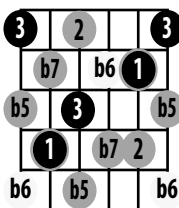
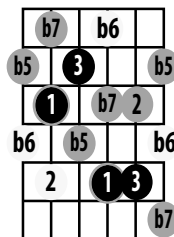
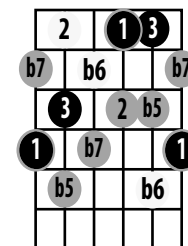


9b5 subset of whole tone scale**E form****D form****C form****A form****G form****9#5 subset of whole tone scale**

“b6” is an enharmonic numbering (a synonym) for “#5”. The triad basis is augmented.

E form**D form****C form****A form****G form****9b5#5 subset of whole tone scale**

1-3-#5 (or b6) are an augmented triad, shown on black. The b7 and #9 are on gray. Sharp nine (flat three) is shown as a chord tone in the high octave and as a scale tone in the low octave. See [augmented arpeggio fingerings](#).

E form**D form****C form****A form****G form**

HARMONIC MINOR SCALE FINGERINGS

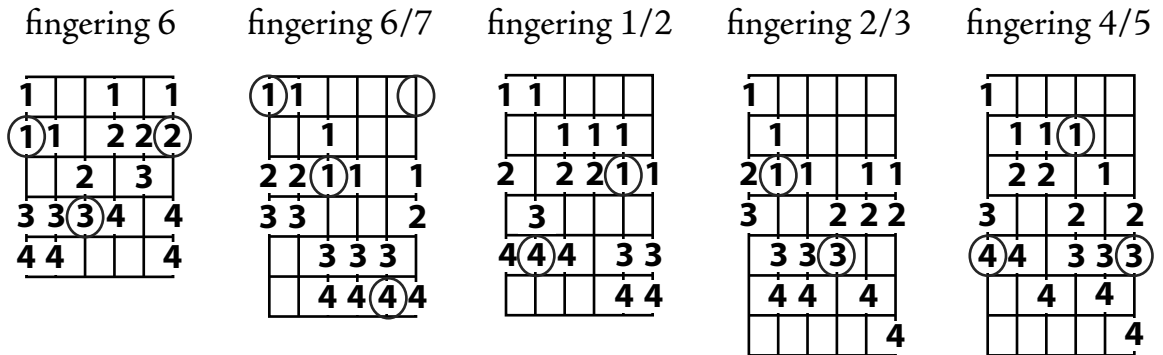
Also see [Harmonic Minor Scale Summary/Fingerings](#).

harmonic minor scale

This row shows finger numbers.

Place the circled notes on the desired tone center.

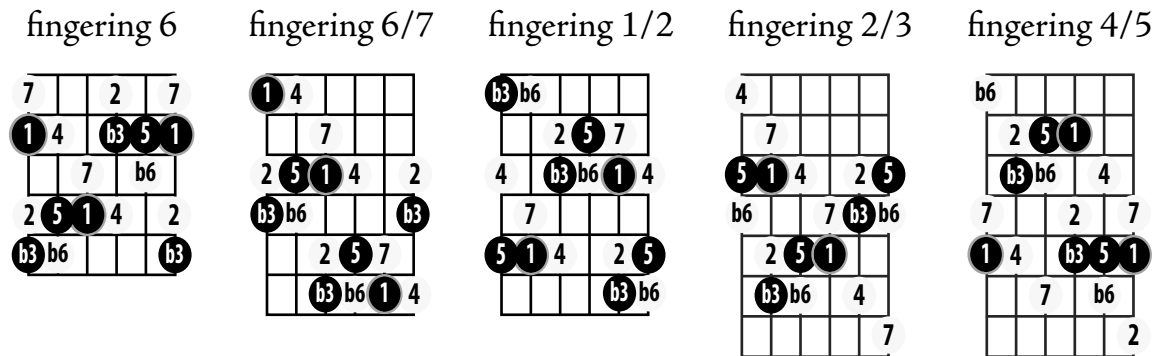
place the circled notes on the desired tone center



harmonic minor scale

This row shows scale-tone numbers. Black backed tones are the Im triad.

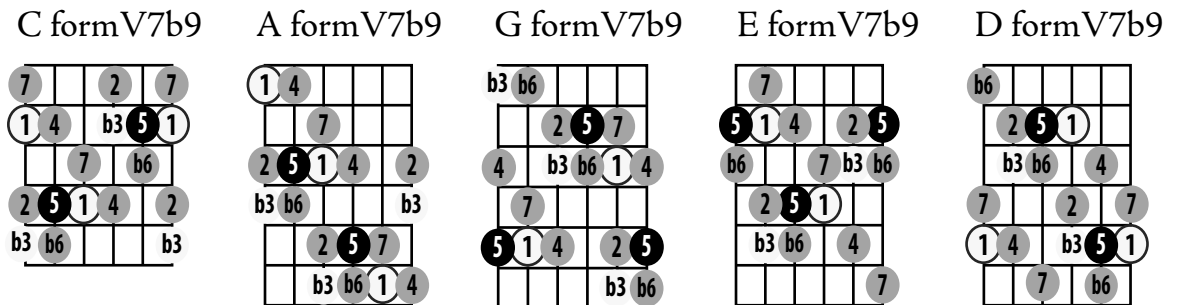
place the tones numbered "1" on the desired tone center



V7b9 arpeggio

On these diagrams, "5" is the root of V7b9 and is five of harmonic minor.

place the tones numbered "5" on the V7b9 root



7b9 no root is diminished seventh. The roots are on black. The remaining diminished seventh tones are on gray. In A minor, E7b9 no root can be named as either of these four diminished seventh chords: G#dim7, Bdim7, Ddim7, Fdim7. In the key of A minor, E7b9 is the V7b9 chord. VIIIdim7 in the key of A minor is the V7b9 chord with no root.

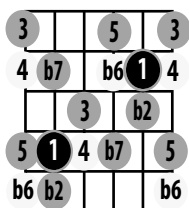
In using diminished seventh setup chords, think of the diminished seventh down a half step from the root of the target chord. This produces VIIIdim7, which is V7b9 no root, as explained above.

V7b9 arpeggio place the tones numbered "1" on the root of the V7b9 chord (5 of the key)

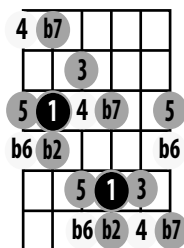
V Phrygian dominant

On these diagrams, "1" is the root of V7b9 and is five of harmonic minor.

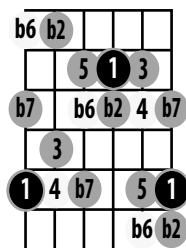
C form V7b9



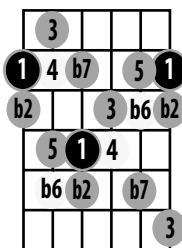
A form V7b9



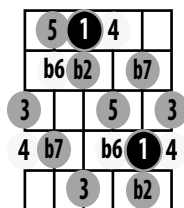
G form V7b9



E form V7b9



D form V7b9



In-Position And Three-Note-Per-String Fingerings

Harmonic minor scale fingerings are numbered in reference to major sharp five scale fingerings in this course. Harmonic minor is as mode on the sixth step of major sharp five scale.

major sharp five and harmonic minor modes

see [All Scale-Tone Chords/Harmonic Minor Scale-Tone Chords](#)

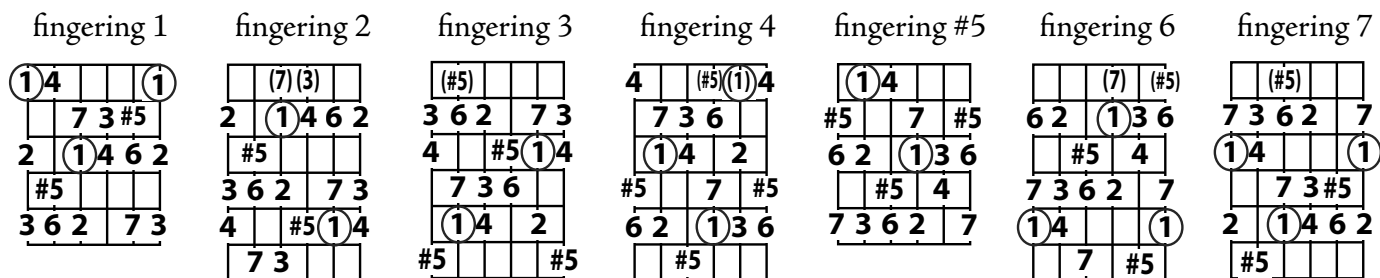
Harmonic minor is a mode on step six of major sharp five scale. If you know the modes of the major scale, thinking in major sharp five is a matter of altering one note in each mode. Note the descending number series of altered tones: major #5, Dorian #4, Phrygian natural 3 (raised from b3), Lydian #2, Mixolydian #1, Aeolian natural 7 (raised from b7 to produce harmonic minor) and Locrian natural 6.

mode names →	major #5	Dorian #4	Phrygian dominant (nat. 3)	Lydian #2	Mixolydian #1	Aeolian nat.7	Locrian nat.6
major #5 scale tones →	I	II	III	IV	#V	VI	VII
I major #5 chords	Ima9#5	IIIm13#11 or IIDim7	III7b9(/11)b13	IVma7/6(#11) or bVIDim7	#Vdim7	VIIm9(ma7)	VIIIm7b5(/11) or VIIIdim7
C ma#5 chords	Cma9/6#5	Dm13#11 or Ddim7	E7b9(/11)b13	Fma7/6(#11) or Fdim7	G#dim7	Am9(ma7)	Bm7b5(/11) or VIIIdim7
harmonic minor tones →	bIII	IV	V	bVI	VII	I	II
VI har. min. chords	bIIIma9#5	IVm13#11 or IVdim7	V7b9(/11)b13	bVIIma7/6(#11) or bVIDim7	VIIIdim7	Im9(ma7)	IIIm7b5(/11) or IIDim7
A harmonic minor chords	Cma9/6#5	Dm13#11 or Ddim7	E7b9(/11)b13	Fma7/6(#11) or Fdim7	G#dim7	Am9(ma7)	Bm7b5(/11) or VIIIdim7

The fingerings are numbered according to the scale number of lowest major sharp five scale tone fingered with the index finger on the sixth string. The harmonic minor tone center is scale tone six of major sharp five scale, so when the lowest pitch on the sixth string is the harmonic minor tone center ("A" for A harmonic minor), it is fingering 6, since that note is the sixth step of C major sharp five.

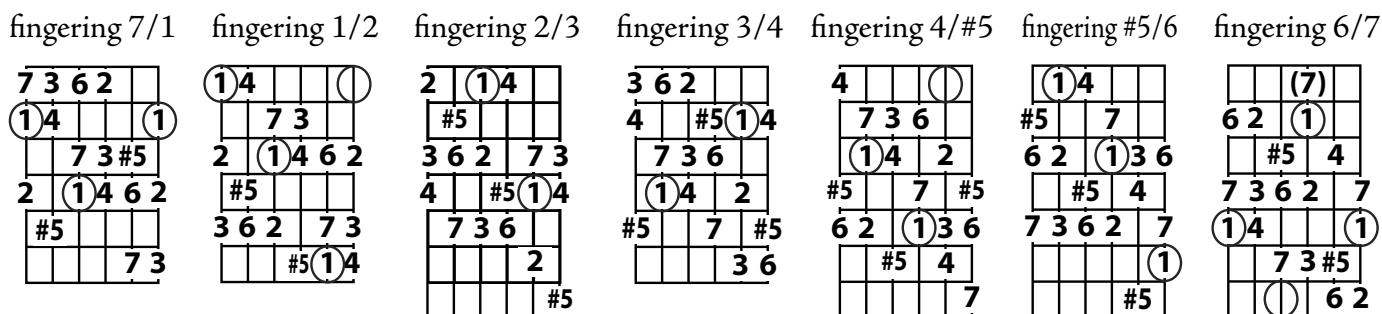
Other fingerings called “three-note-per-string” fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

in-position major sharp five scale fingerings, numbered by scale tones



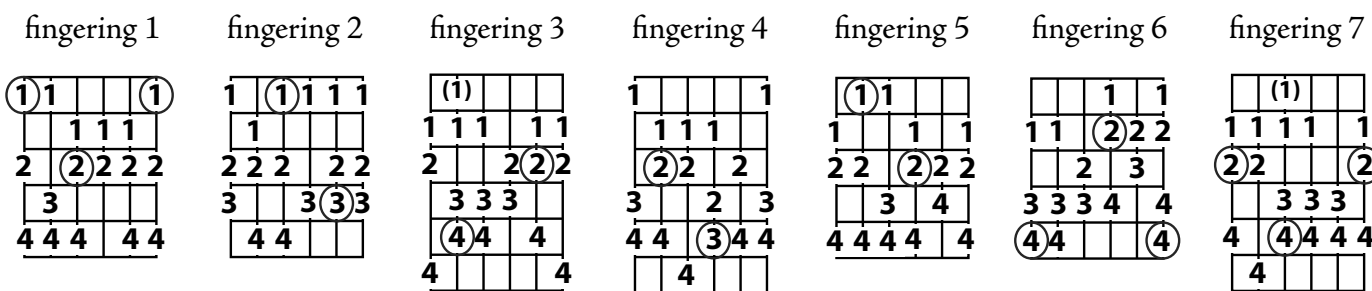
The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall. Here are the three-note-per-string major scale fingerings:

three-note-per-string major sharp five scale fingerings, numbered by scale tones



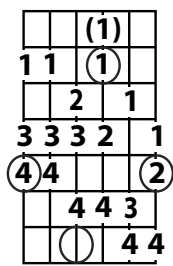
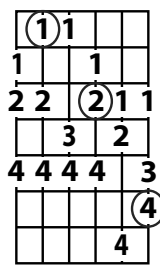
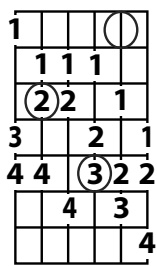
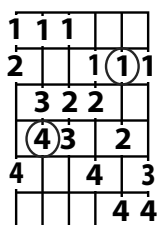
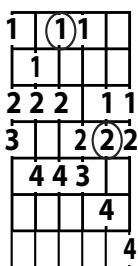
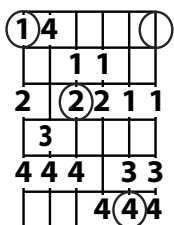
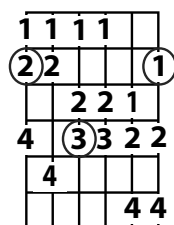
Three-note-per-string major scale fingerings shown above combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on. in-position fingerings, numbered by fingers

in-position major sharp five scale fingerings, numbered by fingers

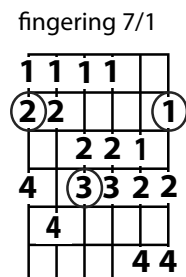
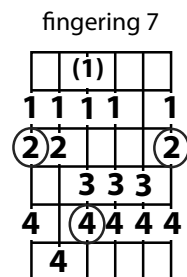
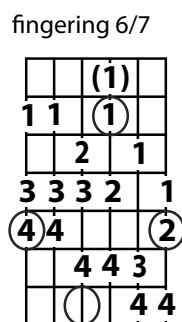
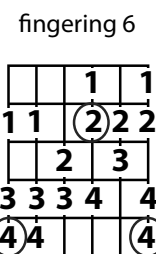
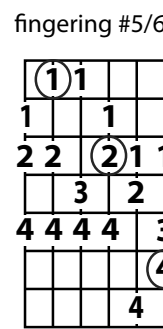
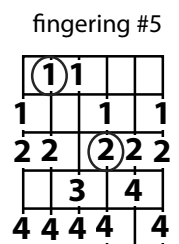
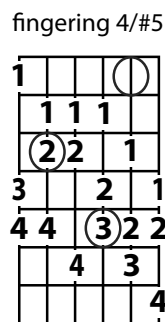
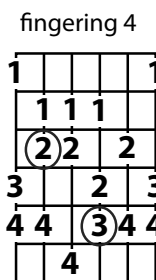
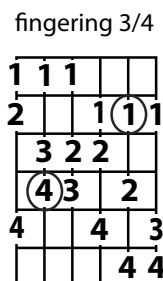
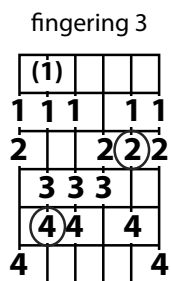
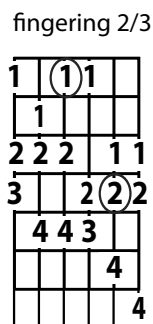
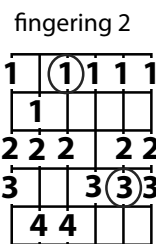
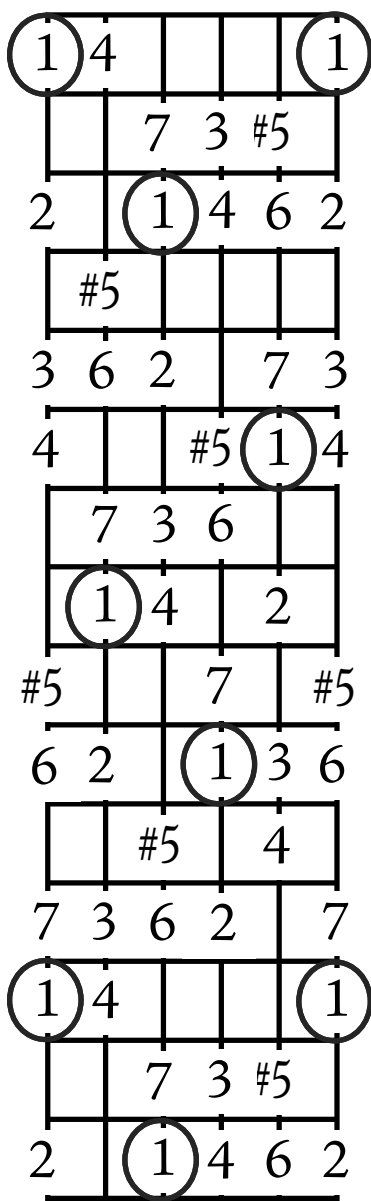
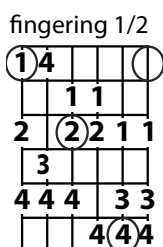
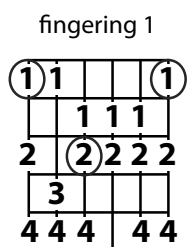


three-note-per-string major sharp five scale fingerings, numbered by fingers

fingering 7/1 fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/#5 fingering #5/6 fingering 6/7



full-fretboard major sharp five scale



in-position harmonic minor scale fingerings, numbered by scale tones

vv

fingering 1	fingering 2	fingering 3	fingering 4	fingering #5	fingering 6	fingering 7

in-position harmonic minor scale fingerings, numbered by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

three-note-per-string harmonic minor scale fingerings, numbered by scale tones

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/#5	fingering #5/6	fingering 6/7

three-note-per-string harmonic minor scale fingerings, numbered by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/#5	fingering #5/6	fingering 6/7

full-fretboard harmonic minor scale

Diagram illustrating the full-fretboard harmonic minor scale across 12 frets, showing various fingering patterns (1-7) and their corresponding fretboard positions.

Scale Diagram (12 Frets):

```

  (1) 4 | b3 5 (1)
    | 7 | b6
  2 5 (1) 4 | 2
b3 b6 | | b3
    | 2 5 7
  4 | b3 b6 (1) 4
    | 7
  5 (1) 4 | 2 5
b6 | | 7 b3 b6
    | 2 5 (1)
  b3 b6 | 4
  7 | | 2 | 7
(1) 4 | b3 5 (1)
    | 7 | b6
  2 5 (1) 4 | 2
b3 b6 | | b3
    | 2 5 7
  4 | b3 b6 (1) 4
  
```

Fingering Patterns (Left Column):

- fingering 1:** 1 1 | 1 1 | 2 2 2 (2) 2 | 3 | 4 (4) 4 | 4 4
- fingering 3:** (1) | 1 (1) 1 | 1 1 | 2 | 2 2 2 | 3 3 (3) | 4 4 | 4 4
- fingering 5:** 1 1 | 1 1 | (2) 2 | 2 2 (2) | 3 | 3 | 4 4 (4) 4 | 4
- fingering 7:** (1) | 1 (1) 1 | 1 | 2 2 | 3 3 3 | 4 4 4 (4) 4 | 4

Fingering Patterns (Right Column):

- fingering 1/2:** 1 1 | 1 1 | 2 | 2 2 (1) 1 | 3 | 4 (4) 4 | 3 3 | 4 4
- fingering 3/4:** (1) | 1 (1) 1 | 1 | 2 | 1 1 1 | 2 2 (2) | 3 3 | 2 | 4 | 4 4 3 | (1) | 4 (4)
- fingering 5/6:** 1 1 | 1 1 | 1 | 1 | 1 | 2 (2) 2 | 2 1 (1) | 3 | 2 | 4 5 (4) 4 | 2 | 3 | 4
- fingering 7/1:** (1) | 1 (1) 1 | 1 | 2 2 | 2 2 1 | 2 2 | 3 3 (2) 2 | 4 | 4 4

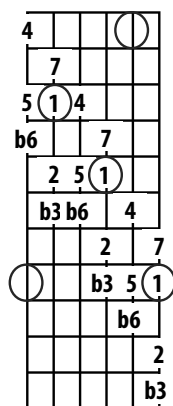
Fingering Patterns (Far Right Column):

- fingering 7:** (1) | 1 (1) 1 | 1 | 2 2 | 3 3 3 | 4 4 4 (4) 4 | 4
- fingering 7/1:** (1) | 1 (1) 1 | 1 | 2 2 | 2 2 1 | 2 2 | 3 3 (2) 2 | 4 | 4 4
- fingering 2:** 1 | 1 1 (1) 1 | 1 | 2 (2) 2 | 2 2 | 3 | 3 3 3 | 4 4 (1) | 4
- fingering 2/3:** 1 | 1 1 1 | 1 | 2 | 2 2 (1) 1 | 3 | 3 | 4 (4) 4 | 3 3 | 4 4
- fingering 4:** 1 | 1 1 (1) | 1 | 2 2 | 1 | 3 | 3 3 2 | 4 4 4 3 (3) | 4 4
- fingering 4/5:** 1 | 1 1 (1) | 1 | 2 2 | 1 | 3 | 3 2 1 | 4 4 3 2 (2) | 4 4 3 | 4
- fingering 6:** 1 | 1 1 (1) | 1 | 2 | 2 | 3 3 (3) 3 | 3 | 4 4 | 7
- fingering 6/7:** (1) 4 | 1 1 | 1 | 2 | (2) 2 1 1 | 3 | 4 4 4 | 3 3 | 4 (4) 4

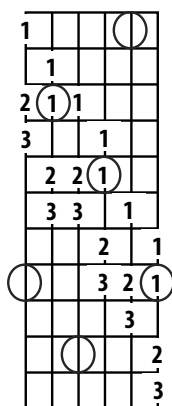
wide-range fingerings

low 4 to high b3

by formula

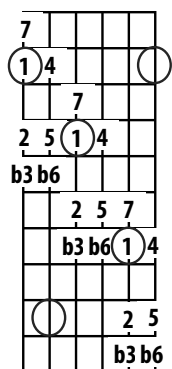


by finger

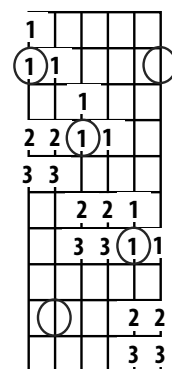


low 7 to high b6

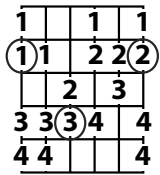
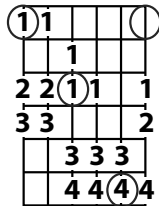
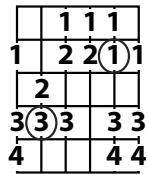
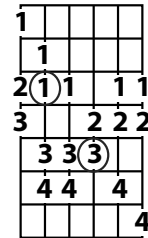
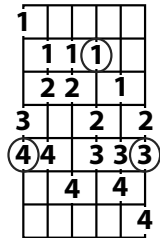
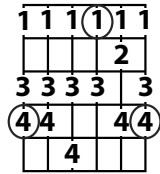
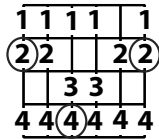
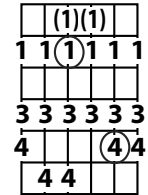
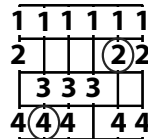
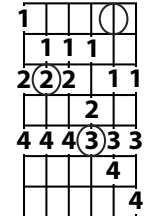
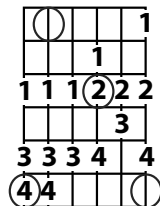
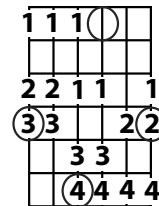
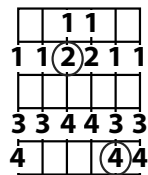
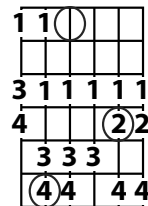
by formula



by finger



Origins of A Harmonic Minor Fingerings

harmonic minor scale	fingering 6 A har.m. IV 	fingering 6/7 A har.m. V 	fingering 2 A har.m. IX 	fingering 2/3 A har.m. X 	fingering 4/5 A har.m. I 
parent C major scale origins	fingering 6 C major VI 	fingering 7 C major VI 	fingering 2 C major VI 	fingering 3 C major VI 	fingering 4/5 C major VI 
customized major scale	fingering 2 C major III sidestep on 123 	fingering 6/7 C major V 	fingering 2 C major IX sidestep on 34 	fingering 2/3 C V 	combines fingerings 4 & 5, as shown above

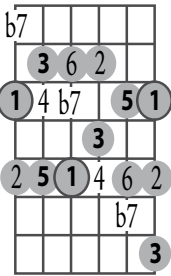
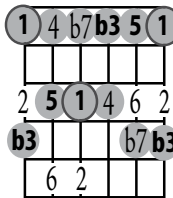
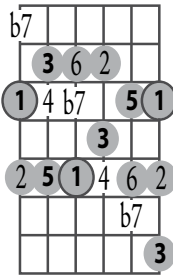
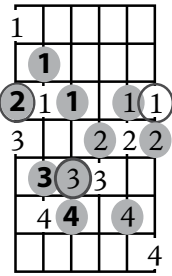
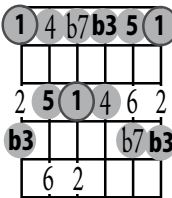
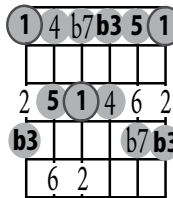
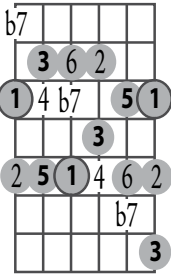
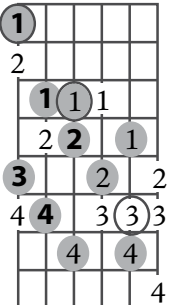
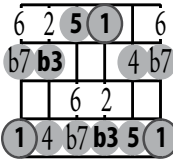
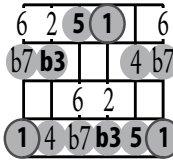
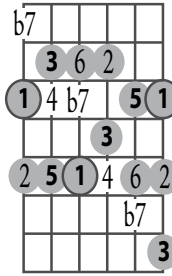
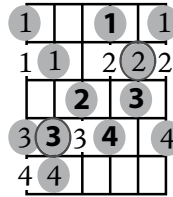
Harmonic Minor Video Links

<http://www.guitarencyclopedia.com/zzDefaultHepta5HarmonicMinor.mov>

PLAYING OVER PROGRESSIONS WITH HARMONIC MINOR

Twelve Bar Jazz Blues - E Form Key

IV, II and I harmonic minor (E form key)

Bb7	Eb7	Bb7	Bb7	Eb9	Eb9
bar 1	bar 2	bar 3	bar 4	bar 5	bar 6
6/9 E form pentatonic finger- ing 2 Bb6/9 IV major fingering 4/5	m6/9 E form pentatonic finger- ing 1 Bbm6/9 V major fingering 2	6/9 E form pentatonic finger- ing 2 Bb6/9 IV major fingering 4/5	7b9 E form Bb7b9 IV Eb har. m. fing. 2/3	m6/9 E form pentatonic finger- ing 1 Bbm6/9 V major fingering 2	m6/9 E form pentatonic finger- ing 1 Bbm6/9 V major fingering 2
					
Bb7	G7	Cm7	F9	Bb7 G7	Cm7 F9
bar 7	bar 8	bar 9	bar 10	bar 11	bar 12
6/9 E form pentatonic finger- ing 2 Bb6/9 IV major fingering 4/5	7b9 D form G7b9 III C har. M. fing. 6/7	m7/11 G form pentatonic finger- ing 5 Cm7/11 V major fingering 7	m7/11 G form pentatonic finger- ing 5 Cm7/11 V major fingering 7	Bb6/9 E form pentatonic finger- ing 2 Bb6/9 IV major fingering 4/5	7b9 C form F7b9 V Bb har. min. fing. 6
					

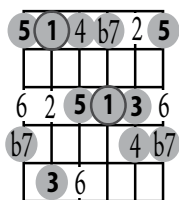
Twelve Bar Jazz Blues - A Form Key

IV, II and I harmonic minor (A form key)

F7

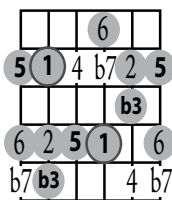
bar 1

7/11 A form
pentatonic finger-
ing 4
F7/11 VIII
major fingering 2

**Bb7**

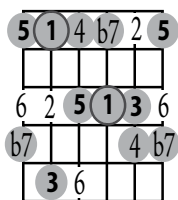
bar 2

m6/9 A form
pentatonic finger-
ing 5
Fm6/9 VII
major fingering 6
(headreach on 3)

**F7**

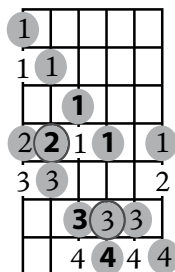
bar 3

7/11 A form
pentatonic finger-
ing 4
F7/11 VIII
major fingering 2

**F7**

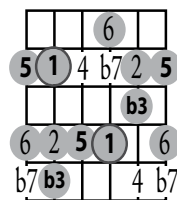
bar 4

7b9 C form
F7b9 V
Bb har. m. fing. 6/7

**Bb7**

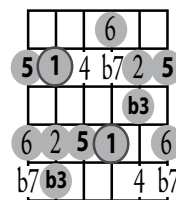
bar 5

m6/9 A form
pentatonic finger-
ing 5
Fm6/9 VII
major fingering 6
(headreach on 3)

**Bb7**

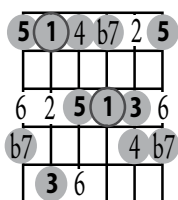
bar 6

m6/9 A form
pentatonic finger-
ing 5
Fm6/9 VII
major fingering 6
(headreach on 3)

**F7**

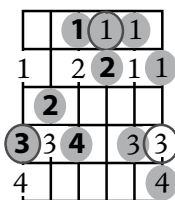
bar 7

7/11 A form
pentatonic finger-
ing 4
F7/11 VIII
major fingering 2

**D7**

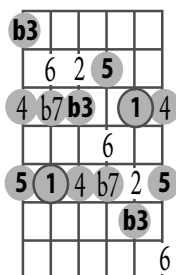
bar 8

7b9 D form
D7b9 VII
G har. min. fing. 2

**Gm7**

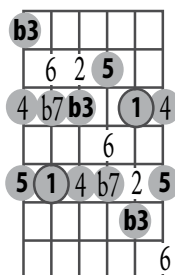
bar 9

m7/11 C form
pentatonic finger-
ing 4
Gm7/11 VI
major fingering 4/5

**C9**

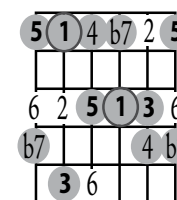
bar 10

m7/11 C form
pentatonic finger-
ing 4
Gm7/11 VI
major fingering 4/5

**F7****D7**

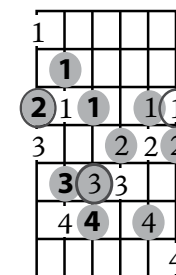
bar 11

7/11 A form
pentatonic finger-
ing 4
F7/11 VIII
major fingering 2

**Gm7** **C9**

bar 12

7b9 C form
C7b9 VI
F har. m. fing. 2/3



MELODIC MINOR SCALE FINGERINGS

Also see [Melodic Minor Scale Summary/Fingerings](#).

In-Position And Three-Note-Per-String Fingerings

Melodic minor is used in jazz as a major scale with a flatted third. In classical music, it ascends as a major scale with a flatted third, but descends as Aeolian, like a major scale with flat three, flat six and flat seven. Melodic minor scale fingerings are numbered in this course according to the number of the lowest note of the parent major scale fingered with the index finger on the sixth string. The parent major scale for C melodic minor is C major. Other fingerings called “three-note-per-string” major scale fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

in-position fingerings

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall.

three-note-per-string fingerings

Three-note-per-string major scale fingerings shown below combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/b3 combines in-position fingerings 2 and b3; and so on.

in-position melodic minor scale fingerings, numbered by fingers

[illegible]

in-position melodic minor scale fingerings, numbered by scale tones

fingering 1 fingering 2 fingering b3 fingering 4 fingering 5 fingering 6 fingering 7

three-note-per-string melodic minor scale fingerings, numbered by fingers

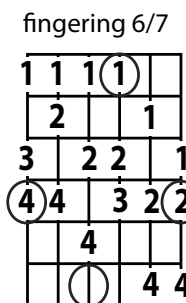
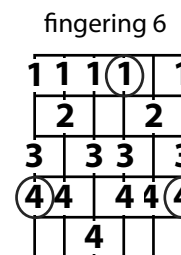
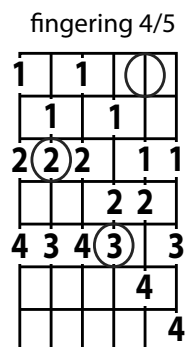
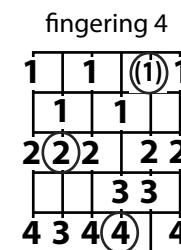
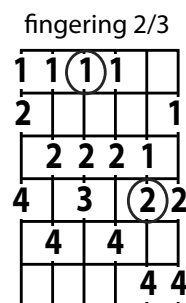
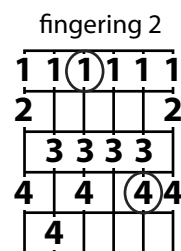
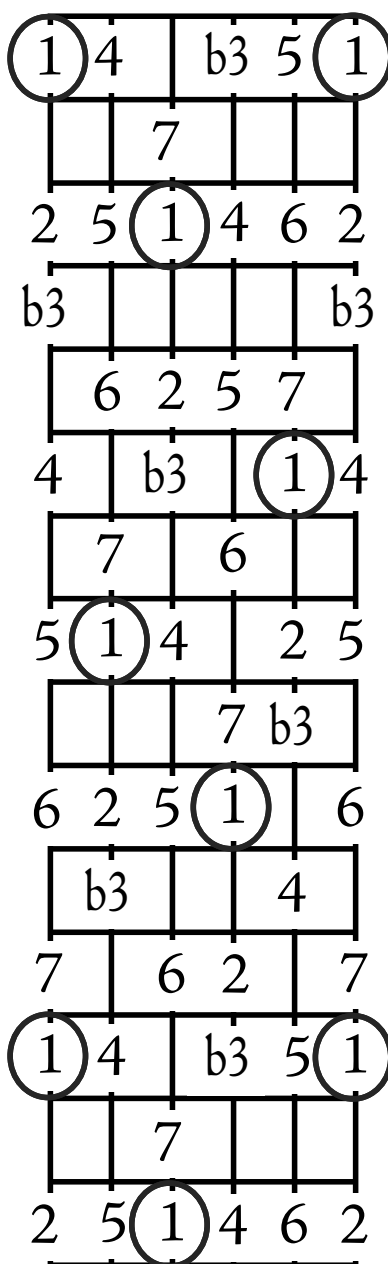
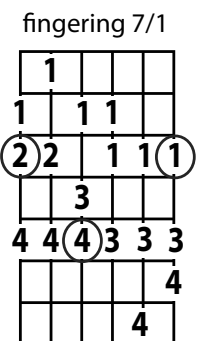
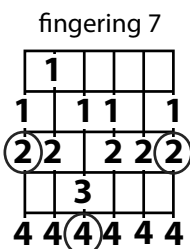
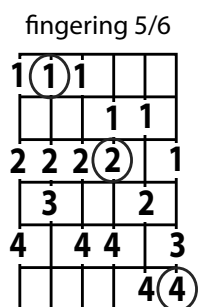
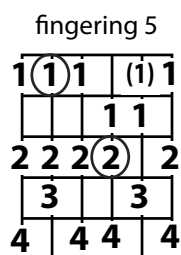
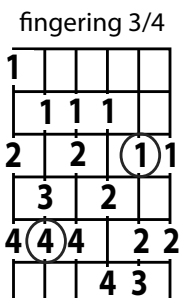
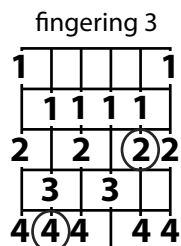
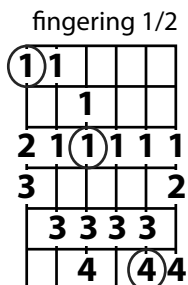
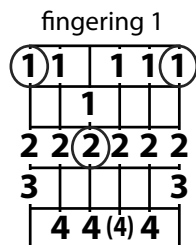
fingering 7/1 fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7

three-note-per-string melodic minor scale fingerings, numbered by scale tones

fingering 7/1 fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7

The diagrams show the following fingering patterns for the G major scale (strings 1-5):

- fingering 7/1:** 7 6 2 (1) 4 b3 5 (1) 7 2 5 (1) 4 6 2 b3 7
- fingering 1/2:** (1) 4 b3 (1) 7 2 5 (1) 4 6 2 b3 6 2 5 7 (1) 4
- fingering 2/3:** 2 5 (1) 4 b3 6 2 5 7 4 b3 (1) 4 7 6 2 5
- fingering 3/4:** b3 6 2 5 4 b3 (1) 4 7 6 5 (1) 4 2 5 7 b3 6
- fingering 4/5:** 4 b3 (i) 4 7 6 5 (1) 4 2 5 7 b3 6 2 5 (1) 6
- fingering 5/6:** 5 (1) 4 7 b3 6 2 5 (1) 6 b3 4 7 6 2 7 5 (1)
- fingering 6/7:** 6 2 5 (1) b3 4 7 6 2 7 (1) 4 b3 5 (1) 7 6 2

full-fretboard melodic minor scale

PLAYING OVER PROGRESSIONS WITH MELODIC MINOR

Melodic minor mode are commonly used in jazz.

1-melodic minor

Melodic minor is often substituted for Aeolian to make a key I minor sixth chord, as in Miles Davis' *Summertime*, the A section of *I Love Paris*, *Birk's Works*, *Get Out of Town*, *Besame Mucho*, *My Heart Belongs to Daddy*.

2-Dorian Flat Two

This mode works well for a IIm7 chord (Dm7) progressing to V7#5 (G7#5), since the sharp five of the V chord (the "D#" note) is the flat two (D# = Eb) in the key of the II chord.

3-Phrygian Flat One

Phrygian flat one can be a secondary root chord scale to sound the maj7#5 chord or arpeggio on the flatted third of Im9(ma7).

4-Lydian Dominant (Lydian Flat Seven)

This mode is the classic flat five substitute, used to resolve its dominant 7, 9 or 13 with #11 to a target down a half step.

5-Mixolydian Flat Six

A perfect scale when you want a natural fifth in the bass and a sharp five in the treble, using the flat six of this mode as a sharp five, yet still having a natural five available for the bass.

6-Aeolian Flat Five

Aeolian flat five can be a chord scale on the third of a IV7 chord or a darkened version of an Aeolian minor seventh chord.

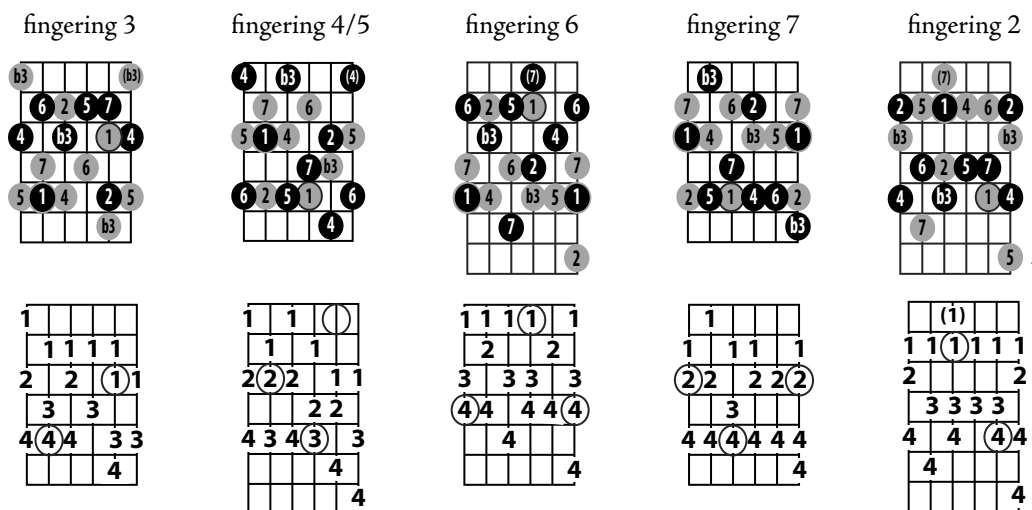
7-Super Locrian (Locrian flat four)

Super Locrian is the super altered mode for the "Swiss Army" chord V7b5#5b9#9. It can also be a chord scale for a secondary root on the third of a Mixolydian flat six chord like V7#5 or V9b13.

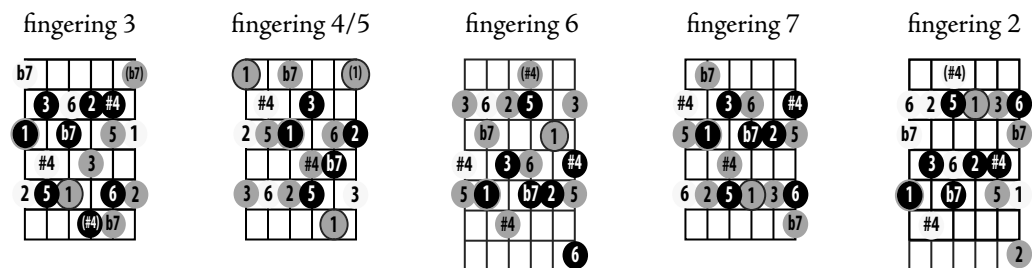
Modal Application of Melodic Minor Scale in Improvising

parent melodic minor scale

Arpeggios can be built with the melodic minor scale fingerings below by playing every other note in ascending or descending numerical order, making tertian thirds. One set of tertian thirds is in black, another in grey. Fingering numbers below (i.e. "fingering 3") are determined in relation to the numbering of scale fingerings, since melodic minor is major scale with flat three. See [Major Scale Fingering/Major Scale Fingering Numbers](#).



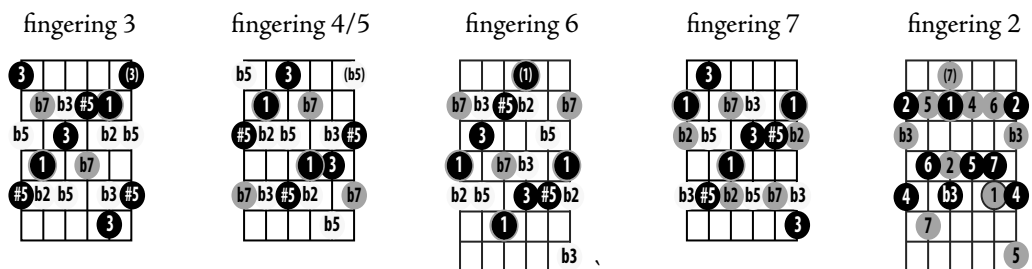
Lydian dominant: typically used with "1" on bII of the target chord



Lydian dominant is built on the fourth step of melodic minor. The harmonized Lydian dominant scale is the 13#11 chord. It is tones 4-6-1-b3-5-7-2 of melodic minor or 1-3-5-b7-2-#4-6 of Lydian dominant.

super Locrian: typically used with its tone center ("1") on V of the target chord

Augmented tones are shown with a black circled background



using Lydian dominant as a flat five substitute

The mode on the fourth step of melodic minor, Lydian dominant, is used as a flat five substitute. See [Modes/Modes of Four Heptatonic Scales/Melodic Minor Modes](#). Also see [Substitution/Flat Five Substitute](#). For a C chord target, the flat five substitute for G7, the V7 or C is Db7. The parent melodic minor scale used to create a Lydian dominant scale (13#11) is on the flatted sixth of the target. For a C major target, the parent melodic minor scale would be Ab melodic minor. The mode on the fourth step of the Ab melodic minor scale, Db Lydian dominant (and its harmonized chord Db13#11) would be used in place of G7. It is simpler way to think of the flat as a bII of the target (“Db” is bII of “C”). See this [Lydian dominant resolution video](#).

the super Locrian super-altered V chord

The mode on the seventh step of melodic minor, super Locrian can create a seventh chord with sharp five, flat five, sharp nine or flat nine, using any or all of these alterations. The harmonized scale could be called a “Swiss-army” seventh chord, because of its ability to use all of the altered tones commonly applied to seventh chords in dissonant jazz.

Lydian dominant and super Locrian are modes of the same melodic minor scale, so they are scalar synonyms. Also, the harmonized versions of each of them are synonyms. For the Ab melodic minor scale, Db Lydian dominant makes the chord Db13#11 as a harmonized scale built on the fourth step. G super Locrian built on the seventh step of Ab melodic minor makes the chord G7#5b5#9b9 as a harmonized scale. Since those two chords each use all seven notes of the Ab melodic minor scale, they are chord synonyms. Db13#11 is a chord synonym of G7#5b5#9b9.

The seventh chord basis of Db13#11 is the Db7 chord. It could also be based on Db7b5, since the #11 in the Db13#11 chord is equivalent to a flat five. Db7 is a synonym of Gb7b5. To bring out a different chord, the 7#5 chord part of super Locrian is featured below.

Melodic Minor Cadences

Melodic minor cadences work better to major targets. Of the minor modes, melodic minor resolves best to Phrygian, like in Night In Tunisia.

The best melodic resolutions use a bII triad tone (root, third or fifth of the bII of target chord), resolving to a triad tone of the target chord. When the duration is long enough to communicate this three-chord cadence, use these melodic minor “Im9(ma7)” arpeggios to “cadence to the melodic minor IV triad as a setup chord, then to the target triad (shown as major, but could be minor). If the duration is shorter, you may want to only use the bII of target (Db7 to C).

the bVIIm(ma9) bII9 I cadence

Build Abm9(ma9) arpeggios with Ab melodic minor by ascending up and down 1-b3-5-7-9 in order.
Build Db13#11 arpeggios with Db Lydian dominant by ascending up and down 1-3-5-b7-2-#4-6 in order.

E form target	bVIIm9(ma7) of target fingering 3 Ab mel.m. VII	bII13#11 of target fingering 3 Db Lyd. dom. VII	I target resolve to black 1-3-5
D form target	fingering 5 Ab mel.m. IX	fingering 4&5 Db Lyd. dom. IX	C VIII
C form target	fingering 6 Ab mel.m. XIII	fingering 6 Db Lyd. dom. XIII	C XII
A form target	fingering 7 Ab mel.m. II	fingering 7 Db Lyd. dom. II	C II
G form target	fingering 2 Ab mel.m. V	fingering 2 Db Lyd. dom V	C V

the bVIIm(ma9) bII9 I cadence

Build Dm13 arpeggios with D Dorian by ascending up and down 1-b3-5-b7-9-11-13 in order. Build Db13#11 arpeggios with Db Lydian dominant by ascending up and down 1-3-5-b7-2-#4-6 in order.

E form target	IIIm13 of target fingering 7 D Dorian VII 	bII13#11 of target fingering 3 Db Lyd. dom. VII 	I target resolve to black 1-3-5 C VII
D form target	fingering 2 D Dorian IX 	fingering 4&5 Db Lyd. dom. IX 	C VIII
C form target	fingering 3 D Dorian XII 	fingering 6 Db Lyd. dom. XIII 	C XII
A form target	fingering 4&5 D Dorian I 	fingering 7 Db Lyd. dom. II 	C II
G form target	fingering 6 D Dorian I1V 	fingering 2 Db Lyd. dom V 	C V

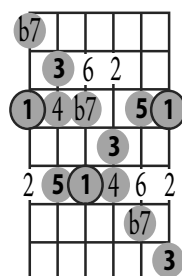
Twelve Bar Blues 1111 4411 5511 - E form Key

bVI melodic minor to produce bII Lydian dominant (E form key)

A7

bar 1

7/11 E form
pentatonic finger-
ing 1
A7/11 III
major fingering 4/5

**A7**

bar 2

7/11 E form
pentatonic finger-
ing 1
A7/11 III
major fingering 4/5

continue
previous scale

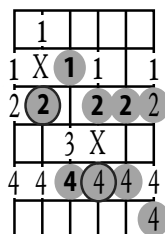
A7bar 3 through bar 4
beats 1-2

7/11 E form
pentatonic finger-
ing 1
A7/11 III
major fingering 4/5

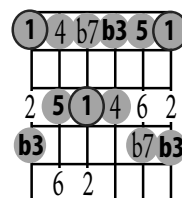
continue
previous scale

A7bar 4, beats 3-4
(superimpose Eb9)

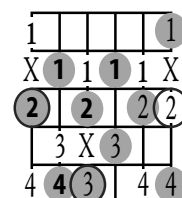
ma9 A form
major scale finger-
ing 7
Eb9 IV
Eb Lydian dom.

**D7**bar 5 through bar 6
beats 1-2

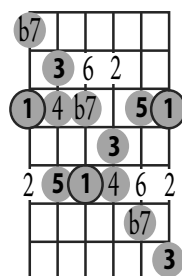
m7/11 E form
pentatonic finger-
ing 1
Am7/11 V
major fingering 2

**D7**bar 6, beats 3-4
(superimpose Bb9)

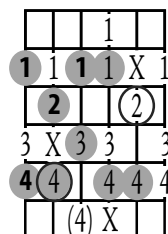
9 A form
major scale finger-
ing 3
Bb9 IV
Bb Lydian dom.

**A7**bar 7 through bar 8
beats 1-2

7/11 E form
pentatonic finger-
ing 1
A7/11 III
major fingering 4/5

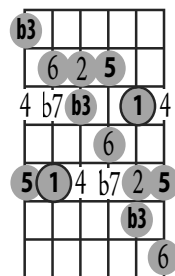
**A7**bar 8, beats 3-4
(superimpose Db9)

9 C form
major scale finger-
ing 6
F9 V
F Lydian dom.

**E9**

bar 9

m7/11 C form
pentatonic finger-
ing 3
Em7/11 IV
major fingering 4/5

**E9**

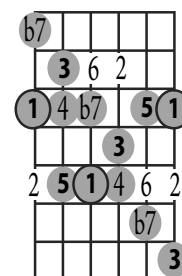
bar 10

m7/11 C form
pentatonic finger-
ing 3
Em7/11 IV
major fingering 4/5

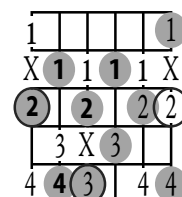
continue
previous scale

A7bar 11 through bar 12
beats 1-2

7/11 E form
pentatonic finger-
ing 1
A7/11 III
major fingering 4/5

**A7**bar 12, beats 3-4
(superimpose Bb9)

9 A form
major scale finger-
ing 3
Bb9 V
Bb Lydian dom.



Twelve Bar Blues 1111 4411 5511 - G form Key

bVI melodic minor to produce bII Lydian dominant (G form key)

C7	C7	C7	C7	F7	F7
bar 1	bar 2	bar 3 through bar 4 beats 1-2	bar 4, beats 3-4 (superimpose Gb9)	bar 5 through bar 6 beats 1-2	bar 6, beats 3-4 (superimpose Db9)
6/9 G form pentatonic finger- ing 1 C6/9 V major fingering 3	6/9 G form pentatonic finger- ing 1 C6/9 V major fingering 3	6/9 G form pentatonic finger- ing 1 C6/9 V major fingering 3	9 C form major scale finger- ing 6 G9 VI Gb Lydian dom.	m6/9 G form pentatonic finger- ing 1 Cm6/9 V major fingering 7	9 G form major scale finger- ing 2 Db9 VI Db Lydian dom.
	(continue)	(continue)			
C7	C7	G7	G7	C7	C7
bar 7 through bar 8 beats 1-2	bar 8, beats 3-4 (superimpose Ab9)	bar 9	bar 10	bar 11 through bar 12 beats 1-2	bar 12, beats 3-4 (superimpose Db9)
6/9 G form pentatonic finger- ing 1 C6/9 V major fingering 3	9 D form major scale fingering 4/5 Ab9 V Ab Lydian dom.	m6/9 D form pentatonic finger- ing 3 Gm6/9 V major fingering 3	m7/11 D form pentatonic finger- ing 2 Gm7/11 V major fingering 3	6/9 G form pentatonic finger- ing 1 C6/9 V major fingering 3	9 G form major scale finger- ing 2 Db9 VI Db Lydian dom.
			(continue)		

HARMONIC MAJOR SCALE FINGERINGS

In-Position And Three-Note-Per-String Fingerings

Major flat six is the most rare of the four usable heptatonic scales. Major flat six scale fingerings are numbered in this course according to the number of lowest note of the parent major scale fingered with the index finger on the sixth string. The parent major scale for C harmonic major is C major.

Other fingerings called “three-note-per-string” major scale fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

in-position fingerings

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall.

three-note-per-string fingerings

Three-note-per-string major scale fingerings shown below combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on.

in-position major flat six scale fingerings, numbered by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering b6	fingering 7

in-position major flat six scale fingerings, numbered by scale tones

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering b6	fingering 7

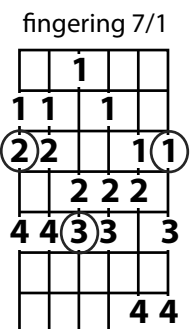
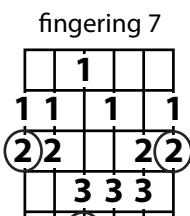
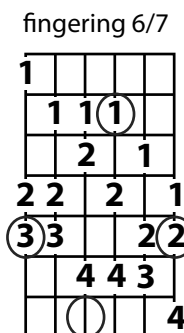
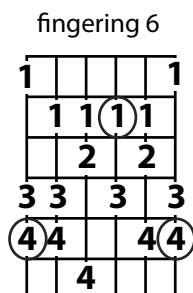
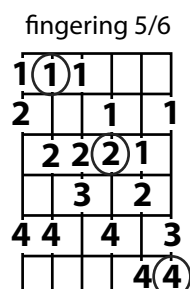
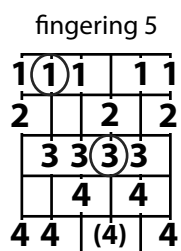
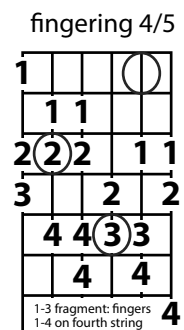
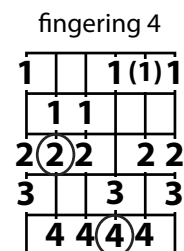
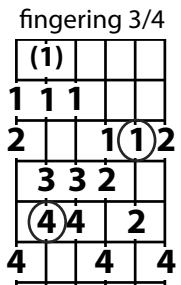
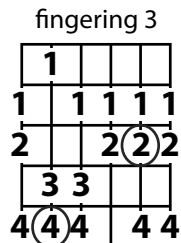
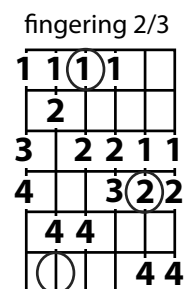
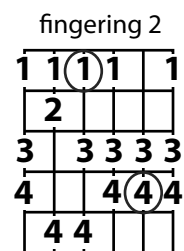
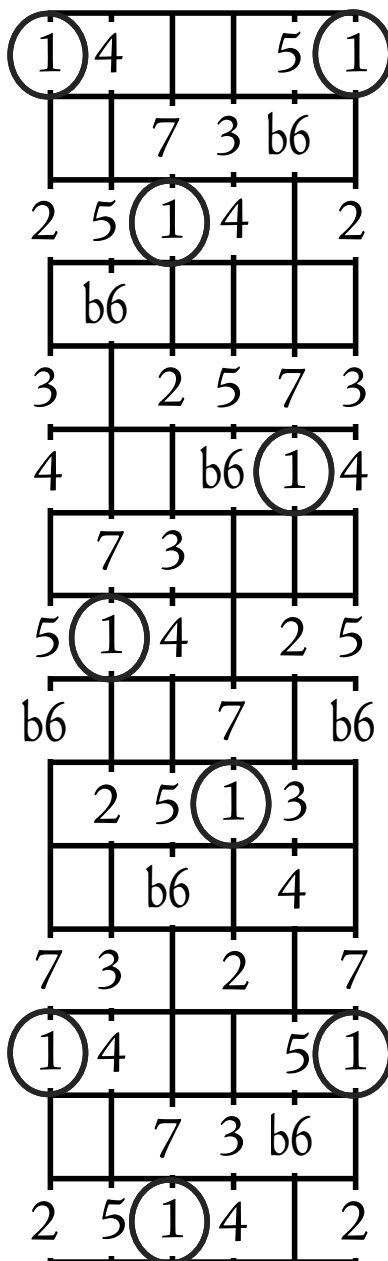
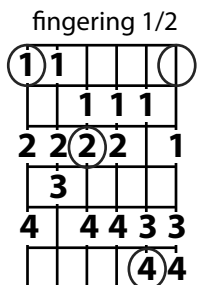
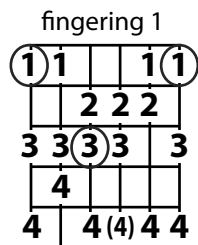
three-note-per-string major flat six scale fingerings, numbered by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/b6	fingering b6/7

three-note-per-string major flat six scale fingerings, numbered by scale tones

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/b6	fingering b6/7

full-fretboard major flat six scale



PLAYING OVER PROGRESSIONS WITH HARMONIC MAJOR

Interesting Exotic Modes

Harmonic major presents these notable modes: harmonic major, Dorian flat five, Phrygian flat four (“Super Phrygian”) Lydian diminished, Mixolydian flat two, Aeolian flat one and Locrian diminished (Locrian double-flat seven).

1-Harmonic Major

When chord progressions in a major key include a IV minor chord, a I diminished chord or a #IV diminished seventh chord, the harmonic major key scale is useful.

2-Dorian Flat Five

Bar six of a jazz blues often uses a #IVdim7 chord. Key Dorian flat five scale provides all the notes of the #IVdim7 and makes a variation of the common key Dorian scale. Dorian flat five scale also works well in the Benny Goodman/Charlie Christian tradition of playing in a major key with key diminished sounds.

3-Super Phrygian (Phrygian Flat Four)

Super Phrygian is a useful variation of super Locrian, the scale for super-altered chords with sharp five, flat five, sharp nine, flat nine. Super Phrygian has a natural five, but still has the flat nine and sharp nine like super Locrian. Like super Locrian, super Phrygian has a sharp five, but also a natural five, so the sharp five is called “flat thirteen”.

4-Lydian Diminished (Lydian Flat Three)

George Russell’s 1953 book “The Lydian Chromatic Concept” explored use of the Lydian diminished scale, which is Lydian with a flatted third. This mode is based on the m9(ma7) chord and has a sharp four, which can act as a lower chromatic embellishment for the fifth.

5-Mixolydian Flat Two

A perfect scale for 13b9 chords with flat nine in the bass.

b6-Aeolian Flat One

Aeolian flat one can act as a secondary root chord scale for a super Phrygian chord. Using C harmonic major as an example, consider playing the key of A minor, using an E7b9#9 chord as a V chord with the E super Phrygian chord scale. Then consider using A Aeolian flat one as a secondary root chord scale on the E7b9#9, where the flat four of E super Phrygian functions as a major third (the “G#” note). A Aeolian flat one is based on an “Ab” note, enharmonically the same as the “G” which functions as the major third of the E7b9#9. Then you can improvise on the rest of the progression with A Aeolian and use A Aeolian flat one on the E7b9#9 chord.

7-Locrian Diminished (Locrian double-flat seven)

Where harmonic minor combine the notes of I minor and VII diminished, Locrian diminished (Locrian double-flat seven) can combine the notes of I major and VII diminished. This should come as no surprise, since the parent scale of Locrian diminished, harmonic major (1-2-3-4-5-b6-7) has the same formula as harmonic minor (1-2-b3-4-5-b6-7) except harmonic major has a natural three.

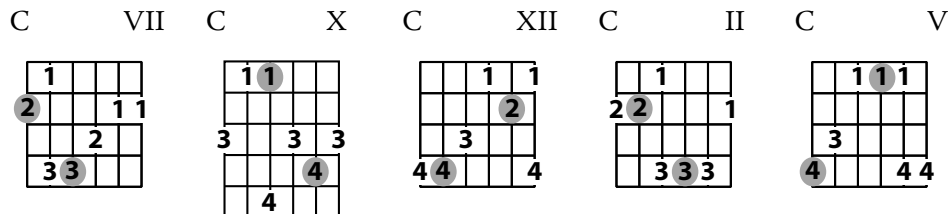
Tones 7-2-4-b6 of either scale (harmonic minor or harmonic major) make a diminished seventh chord. Tones 1-3-5 of harmonic major make a major triad arpeggio or chord, which can be used as a tension release preceding movement to the tension in VII dim7. Compare the melodic use of Am-Bdim7 with that of C-Bdim7.

ALTERED V CHORD TONES IN COMMON

All of these scales have $b6 - 5 - 4 - b3$ in the target key (I). Each of the three scales shown add three notes in the target key to make a seven tone scale based on "5" of the target and each implying types of V chords that lead to a I chord target. Harmonic minor adds $7 - 1 - 2$. Phrygian flat one adds $b1 (7) - b7 - 2$. Aeolian flat one adds $b7 - b1 (7) - 2$. See the [Scale Ambiguity](#) chapter to apply each of these as V type setup chords for a I target chord. All the diagrams below are numbered in terms of the target key, except for the target key row, which shows finger numbers. The examples use a "C" target chord, so the circled note is always "C".

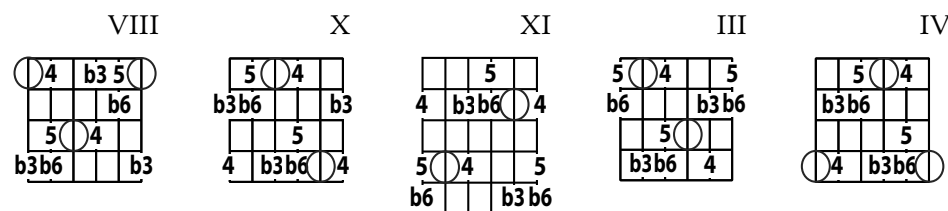
target key

"Grey back" notes in this row show the root of the target triad.



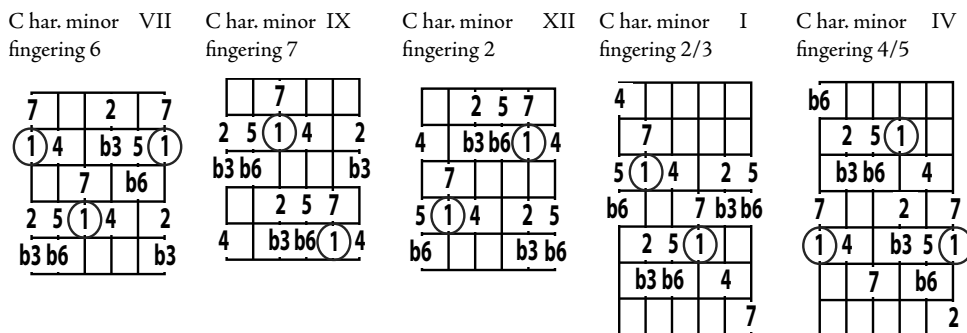
$b3, 4, 5, b6$

common
numbered in
the target key of C



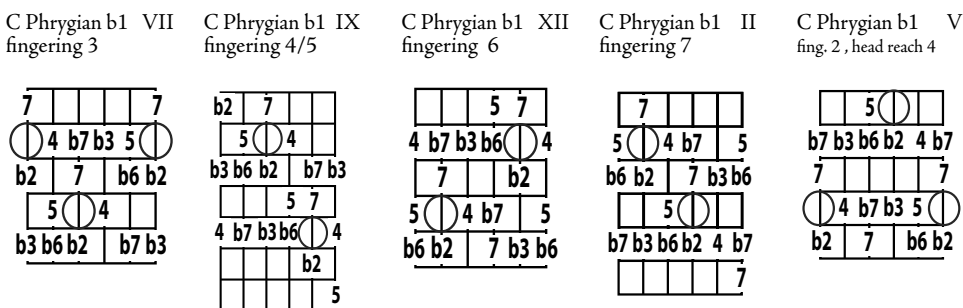
G Phrygian major

= Eb major #5
= C harmonic minor



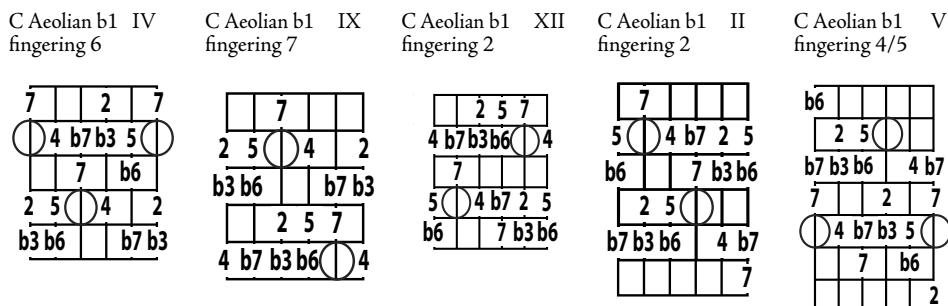
G super Locrian

= Ab (bVI) melodic minor
= C Phrygian flat one
= G Locrian b4



G super Phrygian

= Eb major b6
= C Aeolian b1
= G Phrygian b4



Compensated Fingering for Standard Guitar Tuning

- **Evolution of the Guitar**
- **Two Categories of Fingering Instead of Five**
- **Pentatonic Scales**
- **Arpeggios**
- **Six, Seven and Eight-Note Scales**
- **Three and Four-Note Chord Duplicates by String Set**

EVOLUTION OF THE GUITAR

Predessors of the Guitar

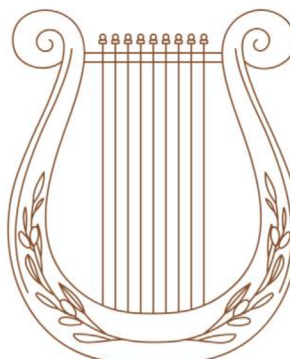
chang



harp



lyre



lute



chitarra battente



ancient predecessors of the guitar

The guitar evolved from harps and lyres, then later from short-necked lutes and the chitarra battente. The chang was invented in Persia around 4000 BCE. Lyres and harps are similar. The harp has a triangular shape, while the lyre is “U-shaped”. The earliest harps and lyres were found in Sumer, 3500 BCE. The earliest lutes shown on Mesopotamian pottery around 3100 BC are long-necked instruments. Long-necked lutes include the banjo and sitar. Some ancient images discovered in the Middle East from before 1000 BC appear to show frets.

the most recent predecessors of the guitar

The Moors, who conquered Andalusia and other parts of Spain in the eighth century introduced the lute or oud (ahh-oooud). The standard tuning for the guitar, EADGBE, evolved from the Italian folk guitar, or chitarra battente, which was tuned A-D-G-B-E from its largest fifth to smallest first string. When six-string guitars were introduced, a low E string was added. By the early 19th century, most guitars were tuned to a variation of standard contemporary tuning, with the strings tuned to E, A, D, F# (or G), B, and E.

Contemporary Guitar Tuning

With standard contemporary guitar tuning, the intervals from each string to the next smaller string are a perfect fourth, except the third (G) to the second (B) are a major third. With this tuning, you can tune by comparing the pitch of each string at the fifth fret to the next smaller string open. The reason for the change in interval between the third and second string was to make the notes of a chord easier to fret, with a lesser span. Without the major third exception in tuning these major barre chords would be nearly impossible to fret: these E, A and C-form major chords (demonstrate) would be have to be fretted like this (re-tune and demonstrate).

TWO CATEGORIES OF FINGERING INSTEAD OF FIVE

Two Categories

See [Playing in Position/Two Categories of Octave Shapes](#).

Without the major third exception to tuning between the third and second strings, there would be about forty percent as many fretting patterns if you conceive fingerings in two categories instead of five (2/5 is forty percent).. Patterns in approximately an octave occur in two families, one with a low-numbered fretting finger on the root or tone center in the bass and another with a high-numbered on the root or tone center in the bass. Those with a low-numbered fretting finger on the root or tone center in the bass span the octave with a “forward slash” angle as viewed on a standard chord-style diagram. Those with a high-numbered fretting finger on the root or tone center in the bass span the octave with a “backward slash” angle as viewed on a standard chord-style diagram.

Five Categories

The traditional category of octave shapes (commonly called the “CAGED” system, better-named as the EDCAGE system) uses five categories of fingering. It should also be studied. Scales, melodies and arpeggios that span approximately an octave should also be conceived in the forward and backslash manner described above and elaborated in this study.

getting to the forty percent

This system of compensation for standard guitar tuning will get you closer to that forty percent. The compensation involves memorizing a pattern on the larger four strings and applying it to a string set that includes the second and or first string or vice-versa. Ascending a scale or arpeggio, notes on the smaller two strings have to be moved one fret toward the guitar body, since they are tuned relatively a half step flat to the four bass strings. Descending a scale or arpeggio, notes on the larger four strings have to be moved one fret toward the head of the guitar, since the four bass strings are tuned relatively a half step sharp to the two treble strings. The system will cover pentatonic scales, arpeggios, chords, and six, seven and eight-tone scales.

PENTATONIC SCALES

See “[Pentatonic Fingering](#)”/Locating Pentatonic Scales, Favored Pentatonic Fingering, Triads and Pentatonic Scales, Pentatonic Exercises. See “[Master Pentatonic and Major Scale Patterns](#)”/Pentatonic Lines.

Pentatonic Themes in Seven Octaves

minor pentatonic [pdf](#)/[videotab](#) [Youtube](#) [Spotify](#)

major pentatonic [pdf](#)/[videotab](#) [Youtube](#) [Spotify](#)

Outline of 22 Progressive, Accumulative Pentatonic Elements

Use the outline below and the corresponding [Youtube video](#) as a progressive checklist to confirm you know each of the 22 items. Learn them in order, so they will build an accumulative knowledge and ability.

1. **the A major scale on the sixth string by numbers, letters, frets and intervals**
2. **the A minor pentatonic scale (1-b3-4-5-b7) on the sixth string by numbers, letters, frets and intervals**

Play 1-2-3-4-5-6-7. “b3” is one fret toward the guitar head from 3. “b7” is one fret toward the guitar head from 7.

3. **pentatonic lines one through five and cycling up and down the fretboard**

Line 1 is a six-string barre. Line 4 is a six-string barré but has chromatically (by 1 fret) high 2. Lines 2, 3 and 5 each have one or more notes on the head side of a barre by one fret, which can be called “low”. Line 2 has strings “5-4-3 low”. Line 3 has “3 low”. Line 5 has “4 & 3 low”. Lines 2, 3 and 5 are shaped like a four-finger open-position “G” chord but have these deviations: line 2 has chromatically low strings 5-4-3 with a first-finger barré; line 3 has a three-string barre with the second finger, but chromatically low string 3 with the second finger; line 5 has a two-string bar with the second finger and chromatically low strings 4 and 3 barréd with the index finger.

4. **combine consecutive pairs of pentatonic lines to build minor pentatonic fingerings one through five**

Associate line 1 with fingering 1 and build fingering 1 with lines 1 and 2. Associate line 2 with fingering 2 and build fingering 2 with lines 2 and 3. Associate line 3 with fingering 3 and build fingering 3 with lines 3 and 4. Associate line 4 with fingering 4 and build fingering 4 with lines 4 and 5. Associate line 5 with fingering 5 and build fingering 5 with lines 5 and 1.

5. **pentatonic fingerings by finger number**

State each fingering in finger numbers, using the default fingering. Fingering 1 is 14-13-13-13-14-14. Fingering 2 is 24-14-14-13-24-24. Fingering 3 is 13 -13 -13 -low1,3 -14 -13. Fingering 4 is 14-14-13-13-24-14. Fingering 5 is 13 -13 -low1,3 -low1,3- 13 -13.

6. **memorize the pentatonic master pattern**

See [Master Pentatonic and Major Scale Patterns/The Master Pentatonic Scale Pattern](#) and [Pentatonic Lines](#).

7. **associate minor pentatonic's 1-b3-4-5-b7 respectively with pentatonic fingerings 1-2-3-4-5**

Ascend A minor pentatonic scale tones 1-b3-4-5-b7 on the sixth string and memorize their locations. Play them again and name them as fingerings 1-2-3-4-5.

To illustrate the association, (1) say "one" and hold up your first finger, (2) say "flat three" and hold up your first two fingers. (3) say "four" and hold up your first three fingers, (4) say "five" and hold up your first four fingers and (5) say "flat seven" and hold up all five fingers.

8. **play the C major scale on the sixth string by numbers, letters, frets and intervals**

Play the C major scale from "C" to "C" on the sixth string on an electric guitar.

9. **play the C major pentatonic scale on the sixth string by numbers, letters, frets and intervals**

Descend "1-7-6" in the C major scale on the sixth to find scale tone "6". Illustrate C major pentatonic tones "6-1-2-3-5-6" and "A-C-D-E-G-A" on the sixth string.

10. **associate C major pentatonic's 6-1-2-3-5 respectively with pentatonic fingerings 1-2-3-4-5**

Ascend C major pentatonic scale tones 6-1-2-3-5 on the sixth string. Play them again and name them as the lowest notes of fingerings 1-2-3-4-5.

11. **relative A minor pentatonic and C major pentatonic with tone center fingers**

See [Triads and Pentatonic Scales](#) below.

In fingering 1, the low-octave minor tone center is on the sixth string fretted with the index finger and the low-octave major tone center is fretted on the sixth string with the little finger. In fingering 4, the low-octave minor tone center is on the fifth string fretted with the index finger and the low-octave major tone center is fretted on the fifth string with the little finger. In fingering 2, the low-octave minor tone center is on the fourth string fretted with the index finger and the middle-octave major tone center is fretted on the fourth string with the little finger.

In fingering 5, the low-octave minor tone center is on the sixth string fretted with the little

finger and the low-octave major tone center is fretted on the fifth string with the index finger. In fingering 3, the low-octave minor tone center is on the fifth string fretted with the little finger and the low-octave major tone center is fretted on the fourth string with the index finger.

- 12. show the origin of the five octave shapes with open E, A, D, G and B moved up to the more common "C"**
- 13. octave "A" notes in E-D-C-A-G octave shapes correspond to A minor pentatonic scale fingerings one thru five**
- 14. octave "C" notes in G-E-D-C-A octave shapes correspond to C major pentatonic scale fingerings one thru five**
- 15. show the A minor chord(s), arpeggio and pentatonic scale in the E-D-C-A-G octave shapes**
- 16. show the C major chord(s), arpeggio and pentatonic scale in the G-E-D-C-A octave shapes**
- 17. show each of the five pentatonic fingerings with relative minor and major tone centers and chords**
- 18. show each octave shape with parallel A minor and parallel A major pentatonic fingerings and chords**

Notice that in each octave shape the major pentatonic fingering number is one higher than the minor. Major and minor pentatonic share tones 1 and 5. Minor adds b3-4-b7. Major adds 2-3-6.

- 19. show the seven octaves on the guitar**

Low-numbered finger in the bass on strings 6-5-4-3, then high-numbered finger in the bass on strings 6-5-4.

- 20. play minor pentatonic scale in each of the seven octaves with compensated fingering, then with themes**
- 21. play major pentatonic scale in each of the seven octaves with compensated fingering, then with themes**
- 22. "transpose" pentatonic fingerings**

Chromatically raise (move one fret toward the guitar body) the fifth of minor pentatonic or chromatically raise the third of major pentatonic to change the key up a perfect fourth or down a perfect fifth. Chromatically lower (move one fret toward the guitar head) the flatted third of minor pentatonic or chromatically lower the tone center of major pentatonic to change the key up a perfect fifth or down a perfect fourth.

Triads and Pentatonic Scales

relative major and minor arpeggios and pentatonic scales

Each pentatonic scale can be used with a major tone center or a minor tone center. The minor tone center is in a key three frets (a minor third) below the major tone center. See [Pentatonic Fingering](#). Here is that relationship for all keys:

major key	A	Bb	B	C	C#	Db	D	Eb	E	F	F#	Gb	G
minor key	F#m	Gm	G#m	Am	A#m	Bbm	Bm	Cm	C#m	Dm	D#m	Ebm	Em

E form

fingering 2

3

6

2

1

5

1

3

6

2

D form

fingering 3

3

6

2

5

3

2

5

1

6

2

3

6

2

5

3

C form

fingering 4

3

6

2

5

3

1

3

6

5

1

2

5

A form

fingering 5

3

6

2

5

5

1

2

5

6

2

5

1

3

6

G form

fingering 1

6

2

5

1

3

6

3

6

2

1

5

1

major pentatonic scale

triad tones in gray

major pentatonic scale

triad tones in gray

major pentatonic scale

triad tones in gray

major pentatonic scale

triad tones in gray

major pentatonic scale

triad tones in gray

minor pentatonic scale

triad tones in gray

minor pentatonic scale

triad tones in gray

minor pentatonic scale

triad tones in gray

minor pentatonic scale

triad tones in gray

minor pentatonic scale

triad tones in gray

alternate major triad arpeggio by fingers

roots in gray

alternate major triad arpeggio by fingers

roots in gray

alternate minor triad arpeggio by fingers

roots in gray

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triad chords, triad arpeggios and pentatonic scales

	E form	D form	C form	A form	G form
major triad chords					
major triad arpeggios					
major pent. scale					
minor triad chords					
minor triad arpeggios					
minor pent. scale					
m7b5 arpeggio					
m7b5 pent. scale					

ARPEGGIOS

Arpeggio Exercises in Seven Octaves

[Exercises for ten types of arpeggios in seven octaves](#)

Triad Arpeggio Exercises

See the chapter [Triad Arpeggio Exercises](#).

Ninth Arpeggio Improv Studies

major 9

Albatross [pdf/videotab](#) [youtube](#) Ema9 & F#m9 in 5 octave shapes.

Sun King [pdf/videotab](#) [Youtube](#)

Hill Street Blues [pdf/video](#) [Youtube](#)

Lenny [pdf/videotab](#) [Youtube](#)

dominant 9

Black Cat Bone [pdf/videotab](#) [Youtube](#)

The Chicken [pdf/videotab](#) [Youtube](#)

Cold Duck Time [pdf/videotab](#) [Youtube](#)

Sledgehammer [pdf/videotab](#) [Youtube](#)

minor 9

Desert Rose [pdf/videotab](#) [Youtube](#)

Losing My Religion [pdf/videotab](#) [Youtube](#)

Fields of Gold [pdf/videotab](#) [Youtube](#)

Spotify Playlist and All Favored Ireal Search Criteria

[link to All Favored iReal](#)

Ireal search criteria will find songs with long durations of the featured ninth chord

major 9 [Spotify list](#). All Favored iReal Search Criteria: $\wedge 9!-2b$

dominant 9 [Spotify list](#). All Favored iReal Search Criteria: $9!-2b$

7b9 b9-2b [Spotify list](#). All Favored iReal Search Criteria: $b9-2b$

minor 9 [Spotify list](#). All Favored iReal Search Criteria: $m9!-2b$

minor 9b5 [Spotify list](#). All Favored iReal Search Criteria: $m9b5!-2b$

minor 9(ma7) [Spotify list](#). All Favored iReal Search Criteria: $m\wedge 7-1b$

Outline of 14 Progressive, Accumulative Arpeggio Elements

1. the G major scale on the sixth string by numbers, letters, frets and intervals
2. Illustrate four triad arpeggio types linearly in G on the sixth string
3. show the origin of the five octave shapes
4. learn G major chords in five octave shapes, originated with open-position chords
5. expand each of the five movable G major chord shapes into arpeggios
6. show the three arcs of major chord tones
See [Note Sets, Structure and Design/Triad Arcs](#)
7. learn G minor chords in five octave shapes, originated with open-position chords
8. expand the five movable minor chord shapes into arpeggios
9. show the three arcs of G minor chord tones
See [Note Sets, Structure and Design/Triad Arcs](#)
10. Illustrate six ninth arpeggio types linearly in G on the sixth string
11. show the seven octaves on the guitar
12. play major, minor, diminished and augmented arpeggios in each of the seven octaves with compensation
See [Arpeggios in the Seven-Octave Forward and Back Slash System/Triad Arpeggios](#)
13. play six types of ninth arpeggios in each of the seven octaves with compensation
See [Arpeggios in the Seven-Octave Forward and Back Slash System/Ninth Arpeggios](#)
14. build any ninth arpeggio by recalling the formula

Play the in-position reference major scale with any necessary altered tones from “1” to “9” (high 1 is 8, high 2 is 9). Come down to 8 and count it as “1” as you ascend the higher octave. In some of the fingerings, you may to add one to three notes in the bass on the sixth string to include “1”. Play in swing eighths with the odd numbered tones louder, then go back and play only the on-beat emphasized 1-3-5-7-9 tones (with any necessary alterations).
ma9=1-3-5-7-9, 9=1-3-5-b7-9, m9=1-b3-5-b7-9, m9b5=1-b3-b5-b7-9, 7b9=1-3-5-b7-b9, m9(ma7)=1-b3-5-7-9. See [Reference Major Scale Fingerings](#) below.

Reference Major Scale Fingerings

Reach options are minimized in these versions to make the fingerings simpler for building arpeggios. More reach options are shown in the [Pentatonic Scales](#) section, where head-reaches are more practical.

seven in-position reference major scale fingerings, numbered by scale tones

Major scale fingerings are numbered in this course according to the number of lowest note fingered with the index finger on the sixth string. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the an alternate string.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

in-position reference major scale fingerings by finger number

“1” is the index finger, “2” is the middle finger, “3” is the ring finger and “4” is the little finger.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

Major scale fingerings can also be conceived in all twelve positions for any particular key. See [“Playing in Position”/In-Position Major Scale Fingerings](#).

Major Scale Mode (Mood) Cycles

expressive modes in order of darkening

In the tables of diagrams below, the modes are shown in a darkening sequence from left to right. See the earlier section [The Expressive Use of Modes](#). As you progress through each row from left to right, first the sharp four in Lydian mode is made natural, lowering it chromatically (by a half step). This darkens the mood from the exceedingly bright mood of Lydian to the commonplace bright mood of major (Ionian) mode. Continuing to the right in each row flatted tones are accumulated in the order b7-b3-b6-b2-b5 (a numeric order of fourths), progressively darkening the mood. This succession of darkening modes is a common basis of composition, arranging and improvisation.

Hypothetical Ninths for Melody Only

The Phrygian m7b9 (IIIIm7b9) and Locrian m7b5b9 (VIIIm7b5b9) are not currently accepted as chords. You won't find them in any of the forty or so fake books in circulation. They can be used melodically, however, as long as the flat nine is not sustained, but used as a neighboring tone or passing tone.

major scale mode fingering

major basis	#4 Lydian	natural 4 major	b7 Mixolydian	b7, b3 Dorian	b7, b3, b6 Aeolian	b7, b3, b6, b2 Phrygian	b7, b3, b6, b2, b5 Locrian
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

major scale-tone ninth arpeggios

major basis	#4 Lydian ma9	natural 4 major ma9	b7 Mixolydian 9	b7, b3 Dorian m9	b7, b3, b6 Aeolian m9	b7, b3, b6, b2 Phrygian m7b9	b7, b3, b6, b2, b5 Locrian m7b5b9
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

major scale-tone triad plus two and six pentatonic

major basis	#4	natural 4	b7	b7, b3	b7, b3, b6	b7, b3, b6, b2	b7, b3, b6, b2, b5
	Lydian ma69	major ma69	Mixolydian ma69	Dorian m69	Aeolian m b69	Phrygian mb6b9	Locrian mb6b9b5
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

major scale-tone triad plus four and seven pentatonic

major basis	Lydian ma7#11	natural 4 major ma711	b7 Mixolydian 7/11	b7, b3 Dorian m7/11	b7, b3, b6 Aeolian m/711	b7, b3, b6, b2 Phrygian m7/11	b7, b3, b6, b2, b5 Locrian m7/11b5
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

Arpeggios in the Seven-Octave Forward & Back Slash System

[click to play this whole section on Youtube](#)

triad arpeggios

Major Triad Arpeggios in Seven Octaves-forward & back slash

♩ = 160

Diagram 1: VII E form low (fingering: 1(1), 2, 3(3))

Diagram 2: II A form middle (fingering: 1(1), 2(2), 3(3))

Diagram 3: X D form middle (fingering: 1(1), 2, 3(3))

Diagram 4: V G form high (fingering: 1(1), 2, 4(4))

Diagram 5: V G form low (fingering: 1(1), 2, 4(4))

Diagram 6: XII C form middle (fingering: 1(1), 2(2), 3(3))

Diagram 7: VII E form high (fingering: 1(1), 2, 3(3))

Handwritten fingering numbers: 1 1 1 1 4 1 1 1 1 1 4 1 4 4 1 1 4 1 1 1 1 1

Minor Triad Arpeggios in Seven Octaves-forward & back slash

♩ = 160

Diagram 8: VIII E form low (fingering: 1(1), 2, 3(3))

Diagram 9: III A form middle (fingering: 1(1), 2, 3(3))

Diagram 10: X D form middle (fingering: 1(1), 2, 3(3))

Diagram 11: V G form high (fingering: 1(1), 2, 3(3))

Diagram 12: V G form low (fingering: 1(1), 2, 3(3))

Diagram 13: XI C form middle (fingering: 1(1), 2(2), 3(3))

Diagram 14: VIII E form high (fingering: 1(1), 2, 3(3))

Handwritten fingering numbers: 1 1 1 1 4 1 1 1 1 4 4 4 4 1 1 4 1 1 1 1 1 1


Diminished Triad Arpeggios in Seven Octaves-forward & back slash

① 1 ① VIII
2
3
4 4 4
E form
low

II
A form
middle

IX
D form
middle

IV
G form
low
Cm


 XI
 C form
 middle
 Cm

① 1 1 VIII
2 E form
③ high
4 4 4
Cm

Augmented Arpeggios in Seven Octaves-forward & back slash

VII
E form
low
Caug

II
A form
middle

X
 D form
 middle

V
 G form
 low

XII
C form
middle

VII
E form
high

Major Ninth Arpeggios in Seven Octaves-forward & back slash

(Dominant) Ninth Arpeggios in Seven Octaves-forward & back slash

Minor Ninth Arpeggios in Seven Octaves-forward & back slash

Minor Ninth Arpeggios in Seven Octaves-forward & back slash

Tempo: $\text{♩} = 160$

Diagram 1 (VII): E form, low. Fingering: 1 (1), 2 (3), 3 (4).

Diagram 2 (II): A form, middle. Fingering: 1 (1), 2 (1), 3 (3), 4 (4).

Diagram 3 (X): D form, middle. Fingering: 1 (1), 2 (2), 3 (3), 4 (4).

Diagram 4 (V): G form, high. Fingering: 1 (1), 2 (1), 3 (3), 4 (4).

Diagram 5 (XII): C form, middle. Fingering: 1 (1), 2 (2), 3 (4), 4 (4).

Diagram 6 (VIII): E form, high. Fingering: 1 (1), 2 (1), 3 (3), 4 (4).

The piece consists of three systems of music, each with a treble and bass staff. The first system (measures 1-8) features a Cm⁹ arpeggio in the treble and a bass line with notes 8, 11, 10, 11, 8, 10, 11, 8. The second system (measures 9-16) continues the Cm⁹ arpeggio in the treble and the bass line with notes 10, 13, 12, 11, 10, 13, 12, 11. The third system (measures 17-24) continues the Cm⁹ arpeggio in the treble and the bass line with notes 15, 13, 12, 15, 13, 12, 15, 13.

Minor Ninth Flat Five Arpeggios in Seven Octaves-forward & back slash

Minor Ninth Flat Five Arpeggios in Seven Octaves-forward & back slash

Tempo: $\text{♩} = 160$

Diagram 1 (VII): E form, low. Fingering: 1 (1), 2 (2), 3 (4).

Diagram 2 (II): A form, middle. Fingering: 1 (1), 2 (1), 3 (3), 4 (4).

Diagram 3 (IX): D form, middle. Fingering: 1 (1), 2 (2), 3 (4).

Diagram 4 (V): G form, high. Fingering: 1 (1), 2 (1), 3 (3), 4 (4).

Diagram 5 (XII): C form, middle. Fingering: 1 (1), 2 (2), 3 (3), 4 (4).

Diagram 6 (VIII): E form, high. Fingering: 1 (1), 2 (1), 3 (3), 4 (4).

The piece consists of three systems of music, each with a treble and bass staff. The first system (measures 1-8) features a Cm^{9(b5)} arpeggio in the treble and a bass line with notes 8, 9, 12, 8, 9, 11, 8, 9. The second system (measures 9-16) continues the Cm^{9(b5)} arpeggio in the treble and the bass line with notes 10, 13, 11, 11, 10, 13, 11, 11. The third system (measures 17-24) continues the Cm^{9(b5)} arpeggio in the treble and the bass line with notes 15, 13, 16, 15, 13, 16, 15, 13.

Seventh Flat Nine Arpeggios in Seven Octaves-forward & back slash

♩ = 160

Diagram 1: VII E form low C7(b9)

Diagram 2: II A form middle C7(b9)

Diagram 3: X D form middle C7(b9)

Diagram 4: V G form high C7(b9)

Diagram 5: XII C form middle C7(b9)

Diagram 6: VII E form high C7(b9)

Seventh Flat Nine Arpeggios in Seven Octaves-forward & back slash

Minor Ninth (major seven) Arpeggios in Seven Octaves-forward & back slash

♩ = 160

Diagram 1: VII E form low Cm9(ma7)

Diagram 2: II A form middle Cm9(ma7)

Diagram 3: X D form middle Cm9(ma7)

Diagram 4: V G form high Cm9(ma7)

Diagram 5: XII C form middle Cm9(ma7)

Diagram 6: VIII E form high Cm9(ma7)

Minor Ninth (major seven) Arpeggios in Seven Octaves-forward & back slash

SIX, SEVEN AND EIGHT-TONE SCALES

show the G major scale on the sixth string by numbers, letters, frets and intervals

show the G major scale lines one through seven and cycling up and down the fretboard

Memorize 2, 3 & 6 (straight); line 1 (high 3 & 4); line 4 (high 3-4-5); line 5 (high 3); line 7 (low 2).

combining three G major scale lines to build major scale fingerings one through seven

show fretting the 7-3-6-2-5-1-4 sequence and compensating its fretting for guitar tuning

show elaborating the 7-3-6-2-5-1-4 sequence to three scale tones on each string

building three-note-per-string major scale fingerings from each numbered tone (1 thru 7) on the sixth string

establishing modes by focusing on a particular scale tone

show four harmonizable seven-tone scales: major scale, melodic minor, harmonic minor and harmonic major

modify in-position major scales to create the other three harmonizable seven-tone scales

modify three-note-per-string major scales to create the other three other harmonizable seven-tone scales

28 modes: creating modes on each of the four harmonizable seven-tone scales

7/11 type pentatonic scales

6/9 type pentatonic scales

building six-tone scales by adding a “2” or “b2” to 7/11 type pentatonic or by adding “4” or “#4” to a 6/9 type

using hexatonic (six tone) tone scales with chord-beat relationship on triads

building eight-tone scales by adding #5 to scales with natural seven

building eight-tone scales by adding natural seven to scales with flat seven

using octatonic (8-tone) scales with chord-beat relationship on seventh chords

•show the seven octaves on the guitar

play heptatonic (7-tone) scales in each of the seven octaves with compensation

play hexatonic (6-tone) scales in each of the seven octaves with compensation

play octatonic (8-tone) scales in each of the seven octaves with compensation

THREE AND FOUR-NOTE CHORD DUPLICATES BY STRING SET

six types of triads on string sets 321, 432, 543 and 654

seven types of seventh chords on string sets 4321, 5432 and 6543

Triad Arpeggio Exercises

- **Triad Chord and Arpeggio Fingering**
- **Day in The Life**
- **Black Magic Woman**
- **Friend of the Devil**
- **Let It Be**
- **Hotel California**
- **For the Love of God**
- **I Put a Spell on You**
- **The Way**
- **Sweeping Triad Arpeggios**
- **I-VIm-IIIm-V Triad Arpeggio Exercise**
- **Ninth Arpeggio Triad Subsets, Funky**

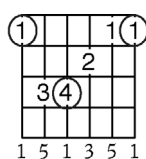
TRIAD CHORD AND ARPEGGIO FINGERING

In a Way, Triads Are the Tonal Basis of All Chords

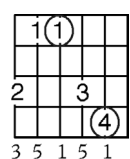
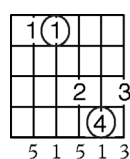
Larger chords can be conceived more easily if you can see their triad subsets. It is important to know triad structures. See [“Note Sets, Structure and Design”/Triad Arcs](#), [“Comping Design”/EDCAGE Movable Triads and Arcs](#), [“Scale-Tone Arpeggios and Pentatonics”/Building Triad Arcs](#), [“Full-Fretboard Chord Tones”/The Major and Minor Chord Tone Arcs](#), [“Full-Fretboard Major Scale Visualization”/Major Scale-Tone Triad Arcs](#), [“Phrases Built with Core Melody and Filler”/Harmonic Clusters](#), [“Double Stops”/Triad Arcs](#), [“All Scale-Tone Chords”/Arc-Based Triads with Roots in Fourths](#), [“Pedal Point Chord Progression”/Modal Triad Improv and Cluster Playing](#), [“Scale Ambiguity”/Ambiguous Scales For Dominant Chords](#)/augmented arpeggio fingerings.

major triad chords

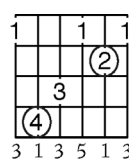
E form



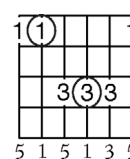
D form



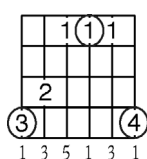
C form



A form

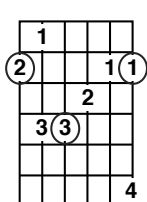


G form

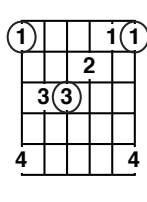


major triad arpeggios

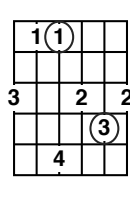
G/E form



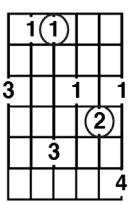
E form



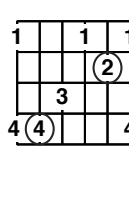
D form



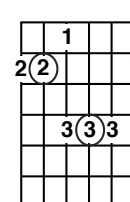
D/C form



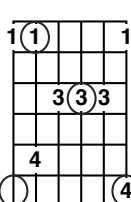
C form



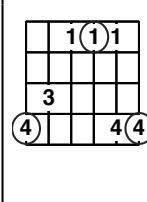
C/A form



A form

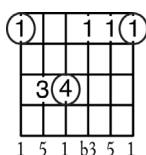


G form

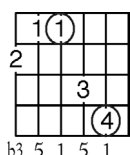
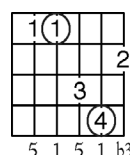


minor triad chords

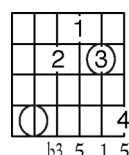
E form



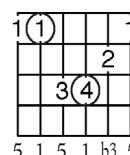
D form



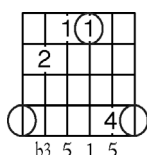
C form



A form

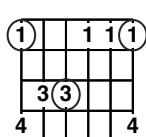


G form

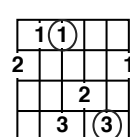


minor triad arpeggios

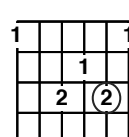
E form



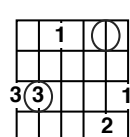
D form



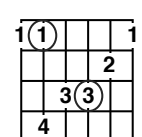
D/C form



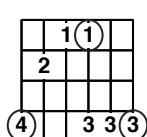
C/A form



A form



G form



DAY IN THE LIFE

Day in the Life “Ahh” Bridge Arpeggio Exercise - 1-2-3

rules of construction

In sixteenth notes, begin on the lowest chord tone and ascend three chord tones (including the first note), making the “1-2-3” fragment pattern. Play this pattern a total of five times, except change the last note to an eighth note. See Fragment Patterns/[1-2-3 With Anti-Metric Grouping](#).

The exercise is divided into three systems, each for a different chord: C, G, and D. Each system includes a treble clef staff with a key signature of one sharp (F#), a bass clef staff, and a set of fingerings (1-5) for both hands. The exercise is played in 4/4 time and consists of five measures per system. The first measure of each system is a half note, and the remaining four measures are eighth notes. The exercise ends with a double bar line and a repeat sign.

System 1: C

Measure 1: C (half note)
 Measure 2: C (eighth), E (eighth), G (eighth), A (eighth)
 Measure 3: C (eighth), E (eighth), G (eighth), A (eighth)
 Measure 4: C (eighth), E (eighth), G (eighth), A (eighth)
 Measure 5: C (eighth), E (eighth), G (eighth), A (eighth)

System 2: G

Measure 1: G (half note)
 Measure 2: G (eighth), B (eighth), D (eighth), E (eighth)
 Measure 3: G (eighth), B (eighth), D (eighth), E (eighth)
 Measure 4: G (eighth), B (eighth), D (eighth), E (eighth)
 Measure 5: G (eighth), B (eighth), D (eighth), E (eighth)

System 3: D

Measure 1: D (half note)
 Measure 2: D (eighth), F# (eighth), A (eighth), B (eighth)
 Measure 3: D (eighth), F# (eighth), A (eighth), B (eighth)
 Measure 4: D (eighth), F# (eighth), A (eighth), B (eighth)
 Measure 5: D (eighth), F# (eighth), A (eighth), B (eighth)

Day in the Life “Ahh” Bridge Arpeggio Exercise - 3-2-1

rules of construction

In sixteenth notes, begin on the highest chord tone and descend three chord tones (including the first note), making the “3-2-1” fragment pattern. Play this pattern a total of five times, except change the last note to an eighth note. See [Fragment Patterns/1-2-3 With Anti-Metric Grouping](#) (3-2-1 with anti-metric grouping is shown there as well).

The exercise is presented in three systems, each for a different chord: C, G, and D. Each system shows a treble clef staff with a melodic line of sixteenth notes, a bass clef staff with a bass line, and a set of fingerings (1-5) for both hands. The exercise is in 4/4 time and uses a key signature of one sharp (F#).

System 1: Chord C

Melodic line (treble clef): C5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter), E4 (quarter).
 Bass line (bass clef): C4 (quarter), B3 (quarter), A3 (quarter), G3 (quarter), F#3 (quarter), E3 (quarter).
 Fingerings: Treble (4 1 3 1 3 3), Bass (8 3 5 3 5 5).

System 2: Chord G

Melodic line (treble clef): G4 (quarter), F#4 (quarter), E4 (quarter), D4 (quarter), C4 (quarter), B3 (quarter).
 Bass line (bass clef): G3 (quarter), F#3 (quarter), E3 (quarter), D3 (quarter), C3 (quarter), B2 (quarter).
 Fingerings: Treble (1 1 2 1 2 3), Bass (3 3 4 3 4 5).

System 3: Chord D

Melodic line (treble clef): D5 (quarter), C#5 (quarter), B4 (quarter), A4 (quarter), G4 (quarter), F#4 (quarter).
 Bass line (bass clef): D4 (quarter), C#4 (quarter), B3 (quarter), A3 (quarter), G3 (quarter), F#3 (quarter).
 Fingerings: Treble (4 1 2 1 2 1), Bass (5 2 3 2 3 2).

Day in the Life "Ahh" Bridge Arpeggio Exercise - 1-2-3-4

rules of construction

In sixteenth notes, begin on the lowest chord tone and ascend four chord tones (including the first note), making the "1-2-3-4" fragment pattern. Play this pattern a total of four times for each chord, beginning on the lowest reachable (in position) chord tone for each chord. See [Fragment Patterns/1-2-3-4 With Anti-Metric Grouping](#),

The exercise is divided into three systems, each for a different chord: C, G, and D. Each system shows a treble clef staff with a key signature of one sharp (F#) and a 4/4 time signature. Below the staff are three lines of tablature labeled T, A, and B. The notation includes sixteenth notes and rests, with fingerings indicated by numbers 1-4. The exercise is divided into four measures per chord, with a repeat sign at the end of the third system.

System 1: Chord C

Measure 1: 2 1 3 3 1 3 3 3 3 3 3 1 3 3 1 4
 Measure 2: 2 1 4 4 1 3 3 2 3 3 2 1 3 2 1 1
 Measure 3: 3 2 5 5 2 5 5 5 5 5 5 3 5 3 8
 Measure 4: 3 2 5 5 2 5 5 5 5 5 4 5 4 3 3

System 2: Chord G

Measure 1: 1 4 4 3 4 4 3 1 4 3 1 2 3 1 2 1
 Measure 2: 4 3 1 1 3 1 1 1 1 1 1 4 1 1 4 4
 Measure 3: 2 5 5 4 5 5 4 2 5 4 2 3 4 2 3
 Measure 4: 5 4 2 2 4 2 2 2 2 2 2 5 2 2 5

System 3: Chord D

Measure 1: 3 1 1 4 1 1 4 3 1 4 2 3 4 2 3 2
 Measure 2: 4 2 2 6 2 2 6 4 2 6 4 5 6 4 5
 Measure 3: 4 2 2 6 2 2 6 4 2 6 4 5 6 4 5
 Measure 4: 4 2 2 6 2 2 6 4 2 6 4 5 6 4 5

Day in the Life "Ahh" Bridge Arpeggio Exercise - 4-3-2-1

rules of construction

In sixteenth notes, begin on one of the highest chord tones and descend four chord tones (including the first note), making the "4-3-2-1" fragment pattern. Play this pattern a total of four times for each chord. See [Fragment Patterns/1-2-3-4 With Anti-Metric Grouping](#) (4-3-2-1 with anti-metric grouping is shown there as well).

The exercise is divided into three systems, each for a different chord: C, G, and D. Each system includes a treble clef staff with a 4/4 time signature, a guitar tablature staff (T, A, B), and a sequence of numbers indicating the frets for each note.

System 1: C

Measure 1: 1 3 3 3 3 3 3 1 3 3 1 2 4 1 2 2

Measure 2: 1 1 2 3 1 2 3 3 2 3 3 1 4 4 1 2

System 2: G

Measure 3: 4 1 2 1 1 2 1 3 2 1 3 4 1 2 3 4

Measure 4: 4 4 1 1 4 1 1 1 1 1 1 3 1 1 3 4

System 3: D

Measure 5: 2 3 2 4 3 2 4 1 2 4 1 1 4 1 1 3

Measure 6: 0

Day in the Life “Ahh” Bridge Arpeggio Exercise - 1-2-3-4, 4-3-2-1

rules of construction

Play all sixteenth notes (except the ending note in bar six). Ascend four instances of the 1-2-3-4 fragment pattern in each of the bars 1, 3 and 5. In bars 2 and 4, descend four instances of the 4-3-2-1 fragment pattern. See Fragment Patterns/[1-2-3-4 With Anti-Metric Grouping](#) (4-3-2-1 with anti-metric grouping is shown there as well).

The musical score is divided into three systems, each representing a bar of music. The first system (bars 1 and 2) is in the key of C major. The second system (bars 3 and 4) is in the key of D major. The third system (bar 5) is in the key of E major. Each system includes a treble clef staff with a melodic line and a bass line with a bass clef. Fingerings are indicated by numbers 1-4 for the right hand and 2-5 for the left hand. The exercise is based on triads C, G, D, A, and E.

System 1 (Bars 1-2):

- Bar 1: Treble clef, C major. Melodic line: C4, D4, E4, F#4, G4, A4, B4, C5. Bass line: C3, D3, E3, F#3, G3, A3, B3, C4.
- Bar 2: Treble clef, C major. Melodic line: C5, B4, A4, G4, F#4, E4, D4, C4. Bass line: C4, B3, A3, G3, F#3, E3, D3, C3.

System 2 (Bars 3-4):

- Bar 3: Treble clef, D major. Melodic line: D4, E4, F#4, G4, A4, B4, C5, D5. Bass line: D3, E3, F#3, G3, A3, B3, C4, D4.
- Bar 4: Treble clef, D major. Melodic line: D5, C5, B4, A4, G4, F#4, E4, D4. Bass line: D4, C4, B3, A3, G3, F#3, E3, D3.

System 3 (Bar 5):

- Bar 5: Treble clef, E major. Melodic line: E4, F#4, G4, A4, B4, C5, D5, E5. Bass line: E3, F#3, G3, A3, B3, C4, D4, E4.

Day in the Life “Ahh” Bridge Linear Arpeggio Exercise

rules of construction

Read and play the example first, then read the rules.

1. Use fretted notes only. Begin on the lowest octave root, unless there are two tones below it, in which case you should begin on the lowest tone.
2. Progress up the arpeggio to the highest tone in the position and back down to the lowest note in the position.
3. After reaching the lowest tone in the position, ascend the arpeggio until you complete sixteen note. If the last note would end up on the third string, as it would have with the arpeggios for the “A” and “E” chords, change direction to stay in close range of the bass note for the next arpeggio.
4. In the “D” chord, the last note would have been “A”, the same note that should start the “A” chord that follows. To avoid redundancy, change the last note to the next arpeggio tone above. The last note of the “D” chord was changed to the “D” note, rather than using the redundant “A” note.

The musical notation shows the following structure:

- System 1:** C and G chords. Treble clef staff with notes and guitar tablature with fret numbers. Fingerings are indicated by numbers 1-4.
- System 2:** D and A chords. Treble clef staff with notes and guitar tablature with fret numbers. Fingerings are indicated by numbers 1-4.
- System 3:** E chord. Treble clef staff with notes and guitar tablature with fret numbers. Fingerings are indicated by numbers 1-4.

Day in the Life "Ahh" Bridge - Arpeggios and Heptatonic Scales

Start each bar with the next lower chord tone in relation to the last note of the previous bar. On beat 1, ascend 1234 from a chord tone. On beat 2, ascend 1234 from the next higher chord tone, compared to beat 1. On beat 3, continue to the next higher chord tone in relation to the last note on beat 2 and descend the seven tone scale. Begin the fourth beat with a chord tone, skipping if necessary. Use the G major scale on the C chord, the D major on the G, D and A chords and the A major scale on E.

Measure 1 (C): Treble: 2 1 3 3 1 3 3 3 1 4 3 1 3 2 1 3; Bass: 3 2 5 5 2 5 5 5 3 7 5 3 5 4 2 5

Measure 2 (G): Treble: 3 3 2 1 3 2 1 1 1 3 2 1 3 2 1 3; Bass: 5 5 4 5 4 3 3 2 4 2 5 4 2 5

Measure 3 (D): Treble: 3 3 2 1 4 3 1 2 1 4 2 1 1 4 3 1; Bass: 5 5 4 2 5 4 2 3 5 3 2 2 5 4 2

Measure 4 (A): Treble: 3 1 1 1 1 1 1 4 4 2 1 4 1 3 1 4; Bass: 4 2 2 2 2 5 5 3 2 5 2 4 2 5

Measure 5 (E): Treble: 1 1 4 2 1 4 2 3 2 1 3 1 2 1 4 2; Bass: 2 2 6 4 2 6 4 5 4 2 5 3 4 2 6 4

Keep the range of the starting notes in each bar close, avoiding skips. On beat 1, ascend the 123 arpeggio fragment pattern, which will take 9 notes by the first note of beat 3. Starting on that ninth note, begin a 31 (three one) fragment pattern, descending from each chord tone. Use the G major scale on the C chord, the D major on the G, D and A chords and the A major scale on E.

Measure 6 (C): Treble: 1 3 3 3 3 3 3 3 1 3 4 1 3 3 1 2; Bass: 2 5 5 5 5 5 3 5 3 4

Measure 7 (G): Treble: 3 2 1 3 2 1 1 1 4 1 3 1 2 4 1 2; Bass: 5 4 4 3 3 3 7 3 5 2 3 5 3

Measure 8 (D): Treble: 3 1 2 1 2 1 2 1 4 1 2 4 1 2 4 1; Bass: 4 2 3 3 3 2 5 2 3 5 2 3 5 2

Measure 9 (A): Treble: 1 1 1 1 1 1 4 1 4 4 1 2 4 1 2 4 1; Bass: 2 2 2 2 5 2 5 5 2 3 5 2 3 5 2

Measure 10 (E): Treble: 1 4 2 4 2 3 2 3 2 3 1 2 4 1 2 3; Bass: 2 6 4 4 4 4 5 4 5 2 3 5 2 3 4

Keep the range of the starting notes in each bar close and in the upper octave, to fit the wide range of this design. Beginning on beat 1, descend the 321 fragment pattern three times, making 9 notes. Beginning with the ninth note, ascend the major scale with a pivot tone pattern that changes notes with the first and third notes on each beat. Use the G major scale on the C chord, the D major on the G, D and A chords and the A major scale on E.

Measure 11 (C): Treble: 4 1 3 1 3 3 3 3 3 3 1 3 2 3 3 3; Bass: 8 3 3 5 5 5 5 2 5 4 5 5

Measure 12 (G): Treble: 1 1 2 1 2 3 2 3 3 3 1 3 2 3 3 3; Bass: 3 3 3 4 4 5 4 5 5 2 5 5 5 5

Measure 13 (D): Treble: 1 2 1 2 1 3 1 2 3 3 1 3 2 3 3 3; Bass: 2 3 3 2 2 4 4 5 2 5 4 5 5

Measure 14 (A): Treble: 4 4 1 4 1 1 1 1 1 1 3 1 4 1 1 1; Bass: 5 5 2 5 2 2 2 2 2 4 2 5 2 2

Measure 15 (E): Treble: 3 4 3 4 3 1 3 1 2 2 4 2 1 2 2 2; Bass: 4 5 4 4 1 4 1 2 2 4 2 1 2 2

Day In The Life “Ahh” Bridge Pivot Tone Arpeggio Exercise

C

1 1 4 1 3 1 3 1 3 1 3 1 3 1 4 1

TAB
3 3 7 3 5 3 3 3 3 5 3 7 3

G

1 1 4 1 3 1 3 1 2 1 3 1 3 1 4 1

TAB
3 3 7 3 5 3 3 3 3 5 3 7 3

D

4 4 3 4 1 4 2 4 1 4 2 4 1 4 3 4

TAB
5 5 4 5 5 5 5 5 5 5 4 5

A

4 4 3 4 1 4 1 4 1 4 1 4 1 4 3 4

TAB
5 5 4 5 5 5 5 5 5 5 4 5

E

1 1 4 1 2 1 3 1 2 1 3 1 2 1 4 1

TAB
2 2 6 2 4 2 2 2 2 4 2 6 2

C

3 3 1 3 4 3 3 3 1 3 1 3 1 3 1 3

TAB
5 5 5 5 5 5 2 5 5 5 3 3

G

1 1 4 1 1 1 2 1 3 1 3 1 4 1 2 1

TAB
3 3 7 3 3 3 3 3 3 3 3 3

D

2 2 4 2 1 2 1 2 3 2 4 2 4 2 4 2

TAB
3 3 5 3 2 3 2 3 3 3 3 3

A

4 4 3 4 1 4 1 4 1 4 3 4 3 4 3 4

TAB
5 5 5 5 5 5 5 5 5 5

E

3 3 2 3 4 2 1 3 1 3 2 3 0 3 2 3

TAB
5 5 4 5 5 5 5 5 5 5

Day in the Life - Double Stops

see the chapter [Double Stops](#)

1 1 2 3 1 2 3 4 2 1 3 1 2(or3) 4

2 2 4 5 5 4 5 4 2 2 4 6

BLACK MAGIC WOMAN

Black Magic Woman Arpeggio Exercise - 4-3-2-1

First system of the exercise, measures 1-4. Chords: Dm, A.

TAB: 10 5 6 7 5 6 7 7 | 6 7 7 7 7 8 8 5 | 9 5 5 5 5 6 7 | 5 6 7 6 7 7 7 4

Second system of the exercise, measures 5-8. Chords: Dm, Gm.

TAB: 10 5 6 7 5 6 7 7 | 6 7 7 7 7 8 8 5 | 10 6 8 7 6 8 7 8 | 8 7 8 5 7 8 5 5

Third system of the exercise, measures 9-12. Chords: Dm, A, Dm.

TAB: 10 5 6 7 5 6 7 7 | 5 6 7 6 7 7 7 4 | 10 5 6 7 5 6 7 7 | 6 7 7 7 7 8 8 5

Fourth system of the exercise, measure 25. Chord: Dm.

TAB: 8

Black Magic Woman Arpeggio Exercise - 1-2-3-4, 4-3-2-1

Dm **A**

1 4 3 3 4 3 3 2 1 2 3 3 2 3 3 4 2 1 4 4 1 3 3 2 1 2 3 3 2 3 3 1

T
A
B 5 8 7 7 8 7 7 6 5 6 7 6 7 7 8 5 4 7 7 4 7 7 5 5 6 7 6 7 7 4

5 **Dm** **Gm**

1 4 3 3 4 3 3 2 1 2 3 3 2 3 3 4 1 1 3 2 1 3 2 3 1 3 2 3 4 2 3 1

T
A
B 5 8 7 7 8 7 7 6 5 6 7 6 7 7 8 6 8 7 8 7 8 5 5 8 7 5 8 7 8 6 8 7 8 7 8 5

9 **Dm** **A** **Dm**

1 4 3 3 4 3 3 2 1 2 3 3 2 3 3 1 1 4 3 3 4 3 3 2 1 2 3 3 2 3 3 4

T
A
B 5 8 7 7 8 7 7 6 5 6 7 6 7 7 4 5 8 7 7 8 7 7 6 5 6 7 6 7 7 8

25 **Dm**

1

T
A
B 5

Black Magic Woman Arpeggio Exercise - 1-2-3

1 Dm A

1 4 3 4 3 3 3 3 2 3 2 1 2 3 3 4 2 1 3 1 3 3 3 3 2 3 2 1 2 3 3 1

T A B

5 8 7 8 7 7 7 7 6 7 6 5 6 7 7 8 5 4 7 4 7 7 7 7 6 7 6 5 6 7 7 8

5 Dm Gm

1 4 3 4 3 3 3 3 2 3 2 1 2 3 3 4 1 3 2 1 3 2 3 2 3 2 3 1 3 2 3 1

T A B

5 8 7 7 8 7 7 7 6 5 6 7 6 7 7 8 5 5 8 5 8 7 8 7 8 7 8 6 8 7 8 5

9 Dm A Dm

1 4 3 4 3 3 3 3 1 2 1 1 1 2 3 3 1 4 3 4 3 3 3 3 2 3 2 1 2 3 3 4

T A B

5 8 7 7 7 7 7 7 5 6 5 5 5 6 7 7 5 8 7 8 7 7 7 7 6 7 6 5 6 7 7 8

25 Dm

1

T A B

5

Black Magic Woman Arpeggio Exercise - 3-2-1

First system of the exercise, measures 1-4. Chords: Dm, A.

10 5 6 5 6 7 6 7 | 7 7 7 8 7 8 5 5 | 9 5 5 5 5 6 5 6 | 7 6 7 7 7 7 4 5

Second system of the exercise, measures 5-8. Chords: Dm, Gm.

10 5 6 5 6 7 6 7 | 7 7 7 8 7 8 5 5 | 10 6 8 6 8 7 8 7 | 8 7 8 5 8 5 5 6

Third system of the exercise, measures 9-12. Chords: Dm, A, Dm.

10 5 6 5 6 7 6 7 | 5 6 7 6 7 7 7 7 | 10 5 6 5 6 7 6 7 | 7 7 7 8 7 8 5 5

Fourth system of the exercise, measures 25-26. Chord: Dm.

25 Dm

26 Dm

5

Black Magic Woman Arpeggio and Scale Exercise

rules of construction

Play through the exercise as you read the rules. Begin with the “D” note, the root of the Dm chord on the fifth string. For the remaining chords, start each bar with the next lower chord tone from the ending note of the previous bar that is low enough to fit the design that follows.

Ascend the first two sets of four eighth notes each with a 1-2-3-4 fragment pattern starting one chord tone higher. With the third set of four eighth notes, start one chord tone higher than the last note in the second set of four notes and descend the seven tone scale for eight notes.

1 Dm A

TAB

5	8	7	7	8	7	7	6	5	8	6	5	7	5	8	7	5	4	7	7	4	7	7	6	5	7	6	8	7	5	8	7
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

5 Dm Gm

TAB

5	8	7	7	8	7	7	6	5	8	6	5	7	5	8	7	5	5	8	7	5	8	7	8	6	5	8	6	7	5	8	7
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

9 Dm A Dm

TAB

5	8	7	7	8	7	7	6	5	7	6	8	7	5	8	7	5	8	7	7	8	7	7	6	5	8	6	5	7	5	8	7
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

25 Dm

TAB

5

Black Magic Woman Pivot Tone Arpeggio Exercise

The image displays a musical score for the song "The Sound of Silence" by Simon & Garfunkel. The score is written for guitar and bass, using a 4/4 time signature and a key signature of one flat (B-flat). The music is presented in three systems, each with a guitar staff (treble clef) and a corresponding bass staff (bass clef). The guitar staff includes a melody line with fingerings (1-4) and a chord progression (Dm, A, Gm). The bass staff includes a bass line with fingerings (1-5) and a chord progression (Dm, A, Gm). The score is divided into measures by vertical bar lines, and the key signature is indicated by a flat symbol on the B line of the guitar staff. The song title "The Sound of Silence" is written in a stylized font at the top of the page.

Black Magic Woman Pivot Tone Scale Exercise 1

Dm A

TAB 5 5 7 5 8 5 5 5 7 5 8 5 5 5 5 5 6 5 4 5 5 5 7 5 8 5 5 5 5

5 Dm Gm

TAB 5 5 7 5 8 5 5 5 7 5 8 5 5 5 5 5 7 5 8 5 5 5 5 7 5 8 5 5 5 5

9 Dm A Dm

TAB 5 5 7 5 8 5 5 5 5 5 6 5 4 5 5 5 5 5 7 5 8 5 5 5 5 7 5 8 5 5 5 5

25 Dm

TAB 5

Black Magic Woman Pivot Tone Scale Exercise 2

4

Dm A

5 5 8 5 6 5 8 5 | 6 6 5 6 8 6 5 6 | 5 5 7 5 6 5 7 5 | 6 6 8 6 7 6 8 6

T
A
B

5

Dm Gm

5 5 8 5 6 5 8 5 | 6 6 5 6 8 6 5 6 | 8 8 6 8 5 8 6 8 | 7 7 5 7 5 7 5 7

T
A
B

9

Dm A Dm

5 5 8 5 6 5 8 5 | 5 5 7 5 6 5 7 5 | 5 5 8 5 6 5 8 5 | 6 6 5 6 8 6 5 6 .

T
A
B

25

Dm

7

T
A
B

Black Magic Woman Pivot Arpeggio and Pivot Scale Exercise 1

Musical notation for measures 1-4. Chords: Dm, A. Fingering: 10 5 6 5 6 7 6 7, 7 7 8 7 5 7 7 7, 9 5 5 5 5 6 5 6, 7 7 8 7 6 7 7 7.

Musical notation for measures 5-8. Chords: Dm, Gm. Fingering: 10 5 6 5 6 7 6 7, 7 7 8 7 5 7 7 7, 10 6 8 6 8 7 8 7, 8 8 5 8 7 8 8.

Musical notation for measures 9-12. Chords: Dm, A, Dm. Fingering: 10 5 6 5 6 7 6 7, 7 7 8 7 6 7 7 7, 10 5 6 5 6 7 6 7, 7 7 8 7 5 7 7 7.

Musical notation for measure 25. Chord: Dm. Fingering: 5.

Black Magic Woman Pivot Arpeggio and Pivot Scale Exercise 2

The first system of the musical score for 'The Rose Tree' is in 4/4 time, featuring a treble clef and a key signature of one flat (B-flat). The melody is divided into two measures, each with a chord symbol above it: 'Dm' (D minor) and 'A' (A major). The melody consists of eighth and quarter notes. Below the staff, there are three rows of tablature: 'T' (Treble), 'A' (Alto), and 'B' (Bass). The 'B' row contains fret numbers (5, 5, 8, 5, 7, 5, 5) corresponding to the notes in the first measure. The 'A' and 'B' rows contain fret numbers (6, 5, 6, 7, 7, 5, 7, 8) corresponding to the notes in the second measure. The 'T' row is empty for the first measure and contains fret numbers (4, 4, 7, 4, 7, 4, 4) for the second measure.

5

Dm

Gm

T

A

B

5 5 8 5 7 5 5

6 5 6 7 7 5 7 8

5 5 5 5 8 5 5

8 6 8 7 8 7 8 5

9 Dm A Dm

T
A
B

5 5 8 5 7 5 5 | 5 7 5 6 7 5 7 | 5 5 8 5 7 5 5 | 6 5 6 7 7 5 7 |

25 Dm

T
A
B 5

Black Magic Woman Pivot Arpeggio - 1-3 Scale Exercise

1 Dm A

TAB

5 8 7 8 7 7 7 7 6 7 5 5 7 8 5 7 5 4 7 7 4 7 7 6 5 7 6 8 7 5 8 7

5 Dm Gm

TAB

5 8 7 7 8 7 7 6 5 8 6 5 7 5 8 7 5 5 8 7 5 8 7 8 6 5 8 6 7 5 8 7

9 Dm A Dm

TAB

5 8 7 7 8 7 7 6 5 7 6 8 7 5 8 7 5 8 7 7 8 7 7 6 5 8 6 5 7 5 8 7

25 Dm

TAB

5

FRIEND OF THE DEVIL

Friend of the Devil Arpeggio Scale Exercise 1-2-3-4, 4-3-2-1

G **C**

4 3 1 2 3 1 2 1 4 1 2 1 1 2 1 3

3 3 2 1 3 2 1 1 4 1 1 2 1 1 2 3

moving roll

T
A
B

5 **D** **Am**

3 1 1 1 1 1 1 4 4 4 1 1 4 1 1 1

1 1 3 2 1 3 2 4 1 4 2 3 4 2 3 1

T
A
B

9 **D**

4 3 1 1 3 1 1 1 1 1 1 4 1 1 4 4

4 1 1 1 1 1 1 3 1 1 3 4 1 1 1 3

T
A
B

11 **G** **C**

4 3 1 2 3 1 2 1 4 1 2 1 1 2 1 3

3 3 2 1 3 2 1 1 4 1 1 2 1 1 2 3

T
A
B

LET IT BE

Let It Be Arpeggio Exercise - 1-2-3-4, 4-3-2-1

1 C G Am F

3 2 1 1 4 1 1 2 3 1 2 1 4 1 2 1 3 2 3 1 4 1 3 2 3 3 3 1 4 1 3 3

T 8 12 8 8 9 7 8 7 10 7 8 7 8 12 8 10 9 10 10 8 13 8 10 10

A 10 9 8 8 9 9 7 8 10 7 10 9 10 10 10 9 10 10 10 10

B 10 9 8 8 9 9 7 8 10 7 10 9 10 10 10 9 10 10 10 10

5 C G F Em Dm C

3 2 1 1 4 1 1 2 3 1 2 1 4 1 2 1 3 3 3 1 1 2 1 2 3 2 1 1 4 1 1 2

T 8 12 8 8 9 7 8 7 10 7 8 7 8 8 8 8 9 6 7 8 12 8 8 9

A 10 9 8 8 9 9 7 8 10 7 10 9 10 10 8 8 9 6 7 10 9 8 8 12 8 8 9

B 10 9 8 8 9 9 7 8 10 7 10 9 10 10 8 8 9 6 7 10 9 8 8 12 8 8 9

17 Am G F C

3 2 3 1 4 1 3 2 3 1 2 1 4 1 2 1 3 3 3 1 4 1 3 3 3 2 1 1 4 1 1 2

T 8 12 8 10 9 7 8 7 10 7 8 7 8 13 8 10 10 8 12 8 8 9

A 10 9 10 8 12 8 10 9 9 7 8 10 7 10 10 8 13 8 10 10 10 9 8 8 12 8 8 9

B 10 9 10 8 12 8 10 9 9 7 8 10 7 10 10 8 13 8 10 10 10 9 8 8 12 8 8 9

21 C G F Em Dm C

3 2 1 1 4 1 1 2 3 1 2 1 4 1 2 1 3 3 3 1 1 2 1 2 3 2 1 1 4 1 1 2

T 8 12 8 8 9 7 8 7 10 7 8 7 8 10 8 8 9 6 7 8 12 8 8 9

A 10 9 8 8 9 9 7 8 10 7 10 9 10 10 8 8 9 6 7 10 9 8 8 12 8 8 9

B 10 9 8 8 9 9 7 8 10 7 10 9 10 10 8 8 9 6 7 10 9 8 8 12 8 8 9

HOTEL CALIFORNIA

Hotel California Arpeggio Exercise

The image displays a guitar arpeggio exercise for the song "Hotel California" in D major. It is organized into three systems, each with a treble clef staff, a guitar tablature staff (labeled T, A, B), and a sequence of fret numbers. The exercise is in 4/4 time and consists of 12 measures.

System 1 (Measures 1-3):

- Measure 1: Chord Bm. Fret numbers: 1 4 3 3 1 1 1 4 1 1 1 3 1 1 3 3.
- Measure 2: Chord F#. Fret numbers: 1 4 4 3 1 2 1 4 1 2 1 3 2 1 3 4.
- Measure 3: Chord A. Fret numbers: 1 4 3 3 2 1 1 4 1 1 2 3 1 2 3 3.

System 2 (Measures 4-6):

- Measure 4: Chord E. Fret numbers: 2 2 1 3 3 3 1 4 1 3 3 3 3 3 1.
- Measure 5: Chord G. Fret numbers: 3 1 1 3 1 2 1 4 1 2 1 3 2 1 3 4.
- Measure 6: Chord D. Fret numbers: 1 1 3 1 1 1 4 4 4 1 1 1 1 1 1 3.

System 3 (Measures 7-12):

- Measure 7: Chord Em. Fret numbers: 1 1 4 3 3 2 1 4 1 2 3 3 2 3 3 4.
- Measure 8: Chord F#. Fret numbers: 1 4 4 3 1 2 1 4 1 2 1 3 2 1 3 4.
- Measures 9-12: The exercise concludes with a final measure (measure 12) that is not explicitly labeled with a chord but follows the fret sequence: 1 4 4 3 1 2 1 4 1 2 1 3 2 1 3 4.

Hotel California Arpeggio Exercise - complex

This is a one-bar repeating pattern on arpeggios. There are four notes per beat. Start on a low note. Ascend six tones (inclusively). Descend two chord tones. Start the third beat up one chord tone from the last tone on the second beat and descend four chord tones. Start the fourth beat with the same note as the second note on the third beat, descend four notes inclusively.

One bar repeating pattern: up six, down two; continue up a chord tone, down four; begin down a chord tone in down from the note that began the third beat: down four

17 G D Em Bm

TAB 4 3 1 2 1 4 1 2 1 2 1 3 2 1 3 4 3 1 1 1 4 4 1 4 1 1 1 1 1 1 3 1 4 3 3 2 1 2 3 2 3 3 4 3 3 4 1 3 3 1 1 1 4 1 1 1 1 1 3 1 1 3 3

TAB 10 9 7 8 7 10 7 8 7 8 8 7 7 9 10 9 7 7 10 10 7 10 7 7 7 7 9 7 10 9 9 9 9 9 9 9 9 7 7 7 7 7 7 7 9 9 9 9

21

G D Em F#

TAB

10 9 7 8 7 10 7 8 8 7 7 9 10 9 7 7 10 7 10 7 7 7 9 7 10 9 9 9 9 9 10 10 7 9 8 7 6 9 6 6 7 7 6 8 6 8 9

Hotel California Wide-Range Arpeggio Exercise

the first note of each bar is not on the diagram

Handwritten musical score for "Hotel California Wide-Range Arpeggio Exercise". The score is written in 4/4 time, with a tempo marking of ♩ = 100. The key signature is one sharp (F#), and the mode is B minor (Bm). The exercise consists of 16 measures, grouped into four sets of four measures each. Each measure contains a treble clef staff with a melodic line, a bass clef staff with a bass line, and a guitar fretboard diagram below. The fretboard diagrams are 6x6 grids showing fingerings for the notes in the arpeggio. The notes are: Bm (B, D, F#, A), F# (F#, A, C#, E), A (A, C#, E, G#), E (E, G#, B, D#), G (G, B, D, F#), D (D, F#, A, C#), Em (E, G, B, D), and F# (F#, A, C#, E). The score includes various musical notations such as slurs, ties, and dynamic markings. The fretboard diagrams are labeled with the chord name and the measure number. The score is written in a standard musical notation style, with a treble clef and a key signature of one sharp (F#). The tempo is marked as ♩ = 100. The exercise is a wide-range arpeggio exercise, meaning it covers a large range of the fretboard. The score is written in a standard musical notation style, with a treble clef and a key signature of one sharp (F#). The tempo is marked as ♩ = 100. The exercise is a wide-range arpeggio exercise, meaning it covers a large range of the fretboard.

Hotel California Pivot and Pivot Scale Exercise

Bm

F#

A

E

G

D

Em

F#

G

D

Em

Bm

G

D

Em

F#

FOR THE LOVE OF GOD

♩ = 90

Em F

1 4 2 1 3 1 1 1 4 1 1 1 3 1 2 4 1 3 3 1 3 3 2 1 4 1 2 3 3 4 1 1 1 4 3 1 3 2 1 1 4 1 1 2 3 1 3 4 1 2 2 1 3 3 3 1 4 1 3 3 3 1 2 2

T
A
B

7 12 10 9 14 12 12 15 12 12 14 9 10 12 3 7 5 9 8 7 12 7 8 9 9 10 7 7 8 12 10 14 13 12 17 13 13 14 10 12 13 5 8 7 10 8 13 8 10 10 7 8 8

Em Am

1 4 2 1 3 1 1 1 4 1 1 1 3 1 2 4 1 3 3 1 3 3 2 1 4 1 2 3 3 4 1 1 1 3 3 1 3 3 2 1 4 1 2 3 3 1 3 3 1 2 1 1 3 2 4 1 4 1 4 2 3 1 1 2

T
A
B

7 12 10 9 14 12 12 15 12 12 14 9 10 12 3 7 5 9 8 7 12 7 8 9 9 10 7 7 8 12 10 14 13 12 17 12 13 14 10 12 12 5 8 7 10 9 8 12 8 10 9 10 7 7 8

Em C

1 4 2 1 3 1 1 1 4 1 1 1 3 1 2 4 1 3 3 1 3 3 2 1 4 1 2 3 3 4 1 1 1 3 1 1 3 1 2 1 4 1 2 3 1 1 3 1 4 3 1 3 2 1 1 4 1 1 2 3 1 3 4

T
A
B

7 12 10 9 14 12 12 15 12 12 14 9 10 12 3 7 5 9 8 7 12 7 8 9 9 10 7 7 8 12 10 14 13 12 15 12 13 14 10 12 12 3 8 7 5 10 9 8 12 8 9 10 5 7 8

F Em

1 2 2 1 3 3 3 1 4 1 3 3 3 1 2 2 1 3 1 1 3 1 2 1 4 1 2 3 1 1 3 1 3 3 1 3 3 2 1 4 1 2 3 3 4 1 1 4 2 1 3 1 1 2 1 4 1 3 1 1 3 1 2 4

T
A
B

5 8 7 10 10 8 13 8 10 10 7 8 8 1 5 3 3 7 5 6 5 8 5 6 5 7 3 3 5 3 7 5 9 8 7 12 7 8 9 9 10 7 7 12 10 9 14 12 17 15 19 15 17 12 12 14 9 10 12

I PUT A SPELL ON YOU

I Put a Spell on You Full Range Arpeggio Exercise

Em Am Em

1 4 3 3 2 1 4 1 2 3 3 4 1 1 3 2 3 1 4 1 3 2 3 1 1 4 3 3 2 1 4 1 2 3 3 4 1 1 4 3 3 2 1 2 3 3 4 1

T
A
B

5 Am B

2 1 1 3 2 3 1 3 2 3 1 1 1 3 2 3 1 4 1 3 2 3 1 1 1 3 3 2 1 1 4 1 1 2 3 3 2 1 3 3 2 1 1 1 2 3 3 1

T
A
B

9 Em Am C

1 4 3 3 2 1 4 1 2 3 3 4 1 1 4 3 3 2 1 2 3 3 4 1 2 1 1 3 2 3 1 3 2 3 1 1 2 1 3 3 2 1 1 1 2 3 3 1

T
A
B

13 Em B Em Am Em

1 1 4 3 3 2 1 2 3 3 4 1 1 3 3 2 1 1 4 1 1 2 3 3 1 4 3 3 2 1 3 2 3 1 1 2 1 4 3 3 2 1 4 1 2 3 3 4

T
A
B

33 Em

1

T
A
B

THE WAY

The Way Arpeggio Exercise - 1-2-3-4, 4-3-2-1 (three times); 4-3-2-1, 4-3-2-1

F#m **Bm**

3 1 1 1 4 1 1 3 3 2 3 1 4 1 3 2 3 1 1 1 4 1 1 1 1 1 1 3 1 1 3 3

TAB: 4 2 2 2 5 2 2 7 6 7 5 9 5 7 6 9 7 7 7 10 7 7 7 7 7 9 7 9 9

C# **F#m**

2 1 3 3 3 3 2 1 3 3 3 3 3 3 3 3 1 1 1 4 1 1 1 1 1 1 3 1 1 3 3

TAB: 4 3 6 6 6 6 4 3 6 6 6 4 6 6 6 4 2 2 2 5 2 2 2 2 2 2 4 4 4

F# **Bm**

3 2 1 1 4 1 1 3 3 1 2 1 4 1 2 1 3 1 1 1 4 1 1 1 1 1 1 3 1 1 3 3

TAB: 4 3 2 2 6 2 2 8 6 7 6 9 6 7 6 9 7 7 7 10 7 7 7 7 7 7 9 9 9

C# **F#m** 1., 3.

2 1 3 3 3 3 2 1 3 3 3 3 3 3 3 3 1 1 1 4 1 1 1 1 1 1 3 1 1 3 3

TAB: 4 3 6 6 6 6 4 3 6 6 6 4 6 6 6 4 2 2 2 5 2 2 2 2 2 2 4 4 4

F#m **E** 2.

3 1 1 1 4 1 1 1 1 2 1 3 2 1 3 4

TAB: 4 2 2 2 5 2 2 2 4 5 4 5 4 6 6 7

Each 8: from root, 5 up, 3 down, succeeding beginning on near chord tone.

33

A E F#m C#

T
A
B

7 6 5 9 5 9 6 9 9 9 7 12 7 9 11 11 10 9 14 9 10 11 11 10 9 9 13 9 9 10

37

D A E

T
A
B

12 11 10 10 14 10 11 11 9 10 9 12 9 10 9 9 9 9 7 12 7 9 9 6 4 5 4 7 4 5 4

[illegible]

45

D A E C#

start 1 chord tone lower to prepare for return to beginning

TAB

10 14 10 10 11 11 11 9 10 10 9 9 9 7 12 7 9 9 6 6 4 9 4 6 6 3 6 6 6 6 . .

jump to low octave for finality

4.

F#m

T
A
B

2

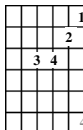
SWEEPING TRIAD ARPEGGIOS

Sweeping Arpeggio Exercise 1

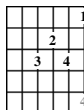
Am XVII



Am XII



Am VIII



Am V



[1]

T 19 17 17 17 20 17 17 17 14 14 13 12 17 12 13 14

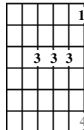
A 10 9 10 8 12 8 10 9 7 5 5 5 8 5 5 5

B 10 9 10 8 12 8 10 9 7 5 5 5 8 5 5 5

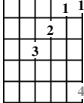
E IV



E VII



E XII



E XVI



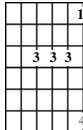
[3]

T 6 4 5 4 7 4 5 4 9 9 9 7 12 7 9 9

A 14 13 12 12 16 12 12 13 18 16 17 16 19 16 17 16

B 14 13 12 12 16 12 12 13 18 16 17 16 19 16 17 16

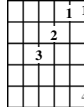
D XVII



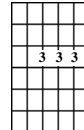
D XIV



D X



D V



[5]

T 19 19 19 17 22 17 19 19 16 14 15 14 17 14 15 14

A 12 11 10 10 14 10 10 11 7 7 7 5 10 5 7 7

B 12 11 10 10 14 10 10 11 7 7 7 5 10 5 7 7

B dim.7 IV



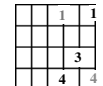
B dim.7 VII



B dim.7 X



B dim.7 XIII



Am

[7]

T 4 7 6 4 7 4 6 4 7 10 9 7 9 7 10 13 12 10 13 10 12 10 13 16 15 13 16 18 19 16 19

A 4 7 6 4 7 4 6 4 7 10 9 7 9 7 10 13 12 10 13 10 12 10 13 16 15 13 16 18 19 16 19

B 4 7 6 4 7 4 6 4 7 10 9 7 9 7 10 13 12 10 13 10 12 10 13 16 15 13 16 18 19 16 19

Sweeping Arpeggio Exercise 2

Am XVII

Am XII

Am VIII

Am V

1

E IV

E VII

E XII

E XVI

5

D XVII

D XIV

D X

D V

9

B dim.7 IV

B dim.7 VII

B dim.7 X

B dim.7 XIII

B dim.7 XVI

13

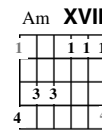
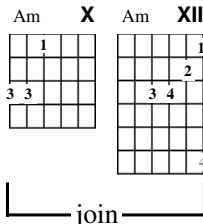
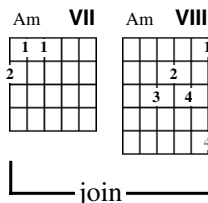
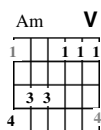
Am XVII

Am XII

Am VIII

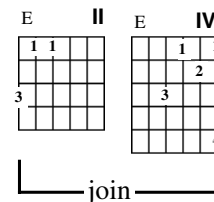
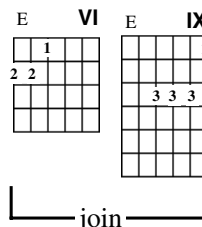
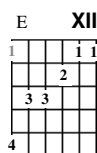
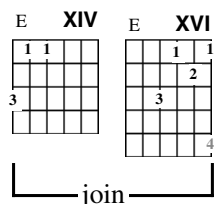
17

Sweeping Arpeggio Exercise 3



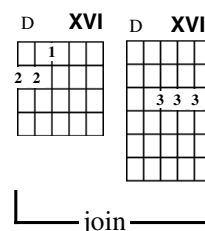
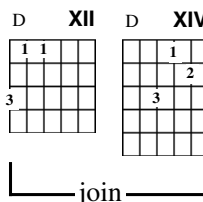
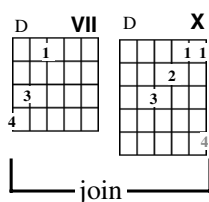
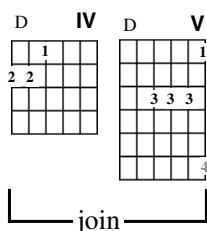
Tablature for Am V to Am XVII:

T: 5 5 8 5 5 5 7 7 8 5 8 7 10 9 10 7 7 8 12 10 14 13 12 13 14 14 10 12 12 17 20 17 17 17 19 19 20 17



Tablature for E II to E XVI:

T: 17 16 19 16 17 16 18 14 14 16 12 16 12 12 13 14 14 16 12 7 7 6 9 9 7 12 7 9 9 6 7 7 4 2 2 6 4 5 4 7 4 5 4 6 2 4 4



Tablature for D IV to D XVII:

T: 7 5 10 5 7 7 7 4 5 5 10 9 7 12 11 10 14 10 11 12 7 9 10 14 12 16 14 15 14 17 14 15 16 12 12 14 17 17 19 19 17 22 17 19 19 16 17 17

B dim.7 XIII

	1	1
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2	2	
3	3	3
4		

B dim.7 X

	1	1
1		
2	2	
3	3	3
4		

B dim.7 VII

	1	1
1		
2	2	
3	3	3
4		

B dim.7 IV

	1	1
1		
2	2	
3	3	3
4		

13 16 13 15 16 13 15 16 13 15 17 14 13 11 14 12 10 13 10 12 13 10 12 14 11 10 8 11 9 7 10 9 10 7 9 11 8 7 5 8 6 4 7 6 4 7 4 6 7 4 6 8 5

Am V

1		1	1	1
3	3			
4				4

5 5 5 8 5 5 7 7 5 5 5 7 7 8 5 5 5 5 5 5 5

Bold As Love Sweeping Arpeggio Exercise

A XII

1			1
	2	2	2
4			
			4

E XI

1			
			1 1
	2		
3	3		
			4

F#m IX

1			1
		2	
	3	4	
4			
			4

D IX

1			
			1 1
	2		
3	3		
			4

1

A XII

1			1
	2	2	2
4			
			4

E XI

1			
			1 1
	2		
3	3		
			4

5

F#m IX

1			1
		2	
	3	4	
4			
			4

D IX

1			
			1 1
	2		
3	3		
			4

G X

1			1
	2	2	2
4			
			4

7

A XII

1			1
	2	2	2
4			
			4

9

I-VIm-IIIm-V Triad Arpeggio Exercise

♩ = 80

Exercise 1 (Measures 1-4):

Chords: C, Am

Right Hand Fingering: 2 1 3 3 2 1 1 4 1 1 2 3 3 1 2 1 | 1 4 3 3 1 1 1 4 1 1 1 3 3 4 1 4

Left Hand Fingering: 8 7 10 10 9 8 8 12 8 8 9 10 10 7 8 7 | 5 8 7 7 5 5 8 5 5 5 7 7 8 5 8

Exercise 2 (Measures 5-8):

Chords: Dm, G

Right Hand Fingering: 4 2 1 1 4 4 4 4 4 1 1 2 4 2 1 2 | 4 1 4 4 3 1 2 1 4 1 2 1 3 4 4 1

Left Hand Fingering: 10 8 7 7 10 10 10 10 7 7 8 10 8 7 8 | 10 7 10 10 9 7 8 7 10 7 8 7 9 10 10 7 8

Exercise 3 (Measures 9-12):

♩ = 80
Swing Sixteenths

Chords: C, Am

Right Hand Fingering: 2 1 3 3 2 1 1 4 1 1 2 3 3 1 2 1 | 1 4 3 3 1 1 1 4 1 1 1 3 3 4 1 4

Left Hand Fingering: 8 7 10 10 9 8 8 12 8 8 9 10 10 7 8 7 | 5 8 7 7 5 5 8 5 5 5 7 7 8 5 8

Exercise 4 (Measures 13-16):

Chords: Dm, G

Right Hand Fingering: 4 2 1 1 4 4 4 4 4 1 1 2 4 2 1 2 | 4 1 4 4 3 1 2 1 4 1 2 1 3 4 4 1

Left Hand Fingering: 10 8 7 7 10 10 10 10 7 7 8 10 8 7 8 | 10 7 10 10 9 7 8 7 10 7 8 7 9 10 10 7 8

NINTH ARPEGGIO TRIAD SUBSETS, FUNKY

click to play: [melody](#), [rhythm track](#)

♩ = 90

0

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33 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

34 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

35 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

36 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

37 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

38 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

39 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

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41 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

42 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

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44 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

45 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

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62 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

63 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

64 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

65 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

66 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

67 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

68 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

69 $G7(\sharp 9)$ $B\flat$ $C7$ $G7(\sharp 9)$

Scales for Songs in All Keys

- **Parent Scale**
- **Spontaneous Melody and Jazz Arpeggios**
- **Master Song List**
- **Order of Study for Each Major Family**
- **C Major/A Minor**
- **Bb Major/G Minor**
- **F Major/D Minor**
- **G major/E Minor**
- **Eb Major/C Minor**
- **Ab Major/F Minor**
- **D Major/B Minor**
- **A Major/F# Minor**
- **E Major/C# Minor**
- **B Major/G# Minor**
- **Db Major/Bb Minor**
- **Gb Major/Eb Minor**
- **F# Major/D# Minor**

PARENT SCALE

A *parent scale* is a reference scale from which a scale or mode was derived. Most commonly, a major scale is used as a parent scale. Any of the modes of the major scale would refer to that major scale (which was their source) as their parent scale. Other parent scales are *major #5*, *major b3* and *major b6*, each of which have seven modes like the major scale and are simple modifications of the major scale.

C major scale uses the notes C, D, E, F, G, A, B and C. Modes are constructed on each of the tones of the C major scale. The [Discovering the Modes of the C Major Scale](#) section of the [Modes](#) chapter demonstrates modes of the C major scale. Those modes all have the C major scale as their parent scale.

In the example below, play the C major scale from the sixth string to the first string. It will be the parent major scale. Now play the notes from “D” to “D”, followed by the D minor triad (three-note chord), to emphasize the chosen note as a focal point or main note. This establishes a new scale, “D Dorian”.

Follow the same procedure with “E” to “E” for E Phrygian, “F” to “F” for F Lydian, and so on. You have now experienced all the modes of the C major parent scale.

C major parent scale

D Dorian mode on "2" of the parent C major scale Dm E Phrygian mode on "2" of the parent C major scale Em

F Lydian mode on "4" of the parent C major scale F G Mixolydian mode on "5" of the parent C major scale G

A Aeolian mode on "6" of the parent C major scale Am B Locrian mode on "7" of the parent C major scale Bdim.

SPONTANEOUS MELODY AND JAZZ ARPEGGIOS

Sing As You Play Pentatonic

Practice singing as you play minor pentatonic on the first four strings until you can only gesture the notes (finger the notes without actually sounding them in air guitar fashion) and sing the right notes. Make sure you are singing the same pitch you are playing. Gradually play the notes softer and mute them until you are only gesturing them, vocally predicting their sound. Experiment and let your imagination tell you which notes to choose to elaborate the two bar melodic rhythm.

Learn the Jazz Arpeggios for Each Chord

Memorize the [Quadrant Arpeggios](#), [Ninth Arpeggios](#) and [Eleventh And Thirteenth Arpeggios](#) in [Prime Scales, Chords and Arpeggios](#).

VIm and I type arpeggios are very interchangeable. Most importantly, learn VIm11 and use it as a basis of to establish the minor key on VI or the major key on I. IIm and IV type arpeggios are very interchangeable also, so next learn IIm15 and use it on IIm type and IV type chords; IIm type arpeggios are largely usable on V type chords, but make the V sound sound suspended.

Five Modes Based on Each Major Scale Fingering

patterns in darkening and brightening

By playing a major scale from any particular numbered tone up and down an octave, a mode is created. “Modus” means “mood” in Greek. From two to two is Dorian, for example. Music is commonly composed in the modes on steps one, two, five and six. In each case, the piece of music is composed in such a manner that it sounds as if the piece would sound complete ending on a chord named after the chosen tone, such as a Dm chord with the C major scale establishing D Dorian.

The modes have various degrees of dark and bright moods. The order of modes in brightening order is 7-3-6-2-5-1-4. You would compare the modes in the same key, so “C”, for example is on “7” of one particular parent major scale (Db) would be compared to “C” on “3” of another parent major scale (Ab) and “6” of another (Eb) and so on.

As you progress through the brightening order of modes, some interesting patterns happen. To change each parent major scale to the next in the series, its fourth step would be sharpened. In regard to major scale fingerings (“4/5” is called “5” here), the brightening sequence is 7-3-6-2-5. See [Prime Scales, Chords and Arpeggios/Major Scale Fingerings](#).

The sequence of major scales for brightening modes is the cycle of fifths: F-C-G-D-A-E-B, or more completely Cb-Gb-Db-Ab-Eb-Bb-F-C-G-D-A-E-B-F#-C#.

In progressing through the darkening order of modes, each parent major scale changes to the next in the series by flattening its seventh step. In regard to major scale fingerings ("4/5" is called "5" here), the darkening sequence is 5-2-6-3-7. The sequence of major scales for darkening modes is the cycle of fourths (fifths in reverse order): C#-F#-B-E-A-D-G-C-F-Bb-Eb-Ab-Db-Gb-Cb.

parallel key modes and modal interchange

Parallel key modes is modal interchange on the same tone center. See [Modes/Modal Interchange \(Change of Mode\)](#).

parallel key modes on VI of parent major: VI Aeolian, VI Dorian, VI Mixolydian

Play from the sixth step to the sixth step of a major scale, such as from "G" to "G" in a Bb major scale. This will produce Aeolian mode (G Aeolian on the sixth of Bb major). Play some songs that use that mode.

on the sixth of the parent major scale, change Aeolian to Dorian

In relation to a G major scale, G Aeolian has flat three, flat six and flat seven. In any key, Aeolian has flat three, flat six and flat seven. Dorian has a natural six. In G Aeolian, the flat six is "Eb". By changing the "Eb" to "E" natural (not flat), the scale is changed to G Dorian.

next, change Dorian to Mixolydian

Compared to "G" major, G Aeolian has b3-b6-b7. G Dorian has b3-b7. G Mixolydian has only flat seven. G Aeolian has its tone center on the sixth of Bb major, which has Bb and Eb, otherwise all natural notes. G Dorian has its tone center on the second step of F major, which has only Bb. G Mixolydian has its tone center on the fifth step of C major, which has no sharps or flats.

parallel key modes on I of parent major: I major, I Mixolydian, I Dorian

On the first step of the parent major scale, change major to Mixolydian by flattening the seventh. This would change Bb major (Bb-C-D-Eb-F-G-A-Bb) to Bb Mixolydian (Bb-C-D-Eb-F-G-Ab-Bb), with "Ab" being the flattened seventh.

To further change the parent major scale to Dorian, you would flat the third as well. Bb major is Bb-C-D-Eb-F-G-A-Bb. Bb Mixolydian has a flattened seventh (Ab): Bb-C-D-Eb-F-G-Ab-Bb. Bb Dorian has a flattened seventh (Ab) and a flattened third (Db): Bb-C-Db-Eb-F-G-Ab-Bb.

MASTER SONG LIST

KEY

C major family

order of study: Am in V position, Am
and C in VII position, C in V position, Am
and C in XII position

A minor (A Aeolian)

PARENT SCALE (S)

C major

TITLE

Summertime
All Along The Watchtower (Dylan)
Sunny
House Of The Rising Sun
While My Guitar Gently Weeps
Otherside
Stolen Dance
Baja Nights
Unchain My Heart
Californication
Hurricane
Cowgirl In The Sand
Hesitation Blues
Ghost Riders In The Sky
Walk Don't Run (Johnny A)
Walk Don't Run (Chet Atkins)
Still Got The Blues
Pegao
Black Orpheus
On Every Page
Jam Man
Topsy in Am
Kid Charlemagne
Little Black Submarines
Moondance
I Want You
From The Beginning
In Memory Of Elizabeth Reed
John Barleycorn
Pretzel Logic
Killing Floor
Crossroads

A Dorian

G major

A Dorian/A Aeolian

G major/C major

A Dorian/A Mixolydian

major/major

A Mixolydian C major	C major	Key To The Highway
		Life By The Drop
		Johnny B. Goode in A
		Beck's Bolero
		Cocaine blues
		Stand By Me in C
		Imagine
		Wildwood Flower
		Don't Worry, Be Happy
		Last Date
C major/Cmajor flat six C Mixolydian/C Dorian	C major/Cmajor flat six F major/Bb major	Heart And Soul
		St. Thomas
		Bell Bottom Blues verse (see A major for chorus)
		Fly Me To The Moon
		Take The "A" Train
		Sleepwalk
		C Jam Blues
		From Four Until Late
		Chitlins Con Carne
		Mary Ann
C Mixolydian/C Dorian/C major	F major/Bb major/C major	I'm Tore Down
		Don't Think Twice, It's Alright
		The Preacher in C
		Can't Buy Me Love
		You Are The Sunshine Of My Life
		Nobody Knows You When You're Down And Out
		Yardbird Suite
C Mixolydian/C Dorian/A Aeolian C major/A Major C major/C Mixolydian/D Aeolian/E Aeolian	F major/Bb major/C major C major/A major C major/Fmajor/F major/G major	

Bb major family

order of study: Gm in III position, Gm and Bb in V position, Bb in III position, Gm and Bb in X position

G minor (G Aeolian)	Bb major	Equinox in Gm (originally in Cm)
		I Shot The Sheriff
		Road Song
G Aeolian/G Aeolian b5/G Dorian	Bb major/Bb melodic minor/F major	Only So Much Oil
G Dorian/G Mixolydian	F major/C major	Grinnin' In Your Face
		All Blues

		Stormy Monday
		The Thumb
		Willow Weep For Me
G Dorian/G Mixolydian/Bb Mixolydian	F major/C major/Eb major	Don't Give It Up
Bb Major	Bb major	Autumn Leaves
		I Got Rhythm
		Anthropology
		Flintstones
		One Note Samba
		Stella By Starlight
		Rocket Man
Bb Mixolydian/Bb Dorian	Bb major	Chameleon
		Freddie Freeloader
		Blues By Five
		Sonnymoon For Two
		Tenor Madness
		Straight No Chaser
		One For Daddy'O
		Gibson Creek Shuffle
		Excuse My Blues
		Everyday I Have The Blues
		Bloomdido
		Blues For Alice

F major family

order of study: Dm and F in V, then X position, then XII position

D minor (D Aeolian)	F major	Sultans Of Swing
		California Dreaming
		Caravan
		Nature Boy
		Night In Tunisia
		Walk Don't Run (Johnny Smith)
D Aeolian/D Aeolian b5	F major/F melodic minor	Pawky
D Dorian	C major	Come Together
D Dorian/D Mixolydian	C major/G major	Someday After A While
F major	F major	The Way You Look Tonight
		Since I Fell For You
		A Foggy Day

F Mixolydian/F Dorian

Bb major/Eb major

Speak Low
 Have You Met Miss Jones?
 Witchcraft
 Georgia On My Mind
 Scrapple From The Apple
 The Days Of Wind And Roses
 Tequila
 Bags' Groove
 Au Privave
 Now's The Time
 Well You Needn't
 Billie's Bounce
 The Preacher in F

F Mixolydian/F Dorian/F major

Bb major/Eb major/F major

G major family

order of study: Em and G in VII, then XII, then II position

Em minor (E Aeolian)

G major

Paint It Black
 Me And My Uncle
 Baja Nights
 Little Wing
 Eleanor Rigby
 Take Five in Em
 Mediterranean Sundance/Rio Ancho

E Dorian

D major

E Dorian/E Aeolian

D major/G major

Man Of Constant Sorrow in E
 Superstition
 Higher Ground
 Affirmation
 Valdez In The Country

E Dorian/E Aeolian/E major

D major/G major/E major

E Dorian/E Mixolydian

D major/A major

My Favorite Things
 Boom Boom
 Hideaway
 Need Your Love
 I Saw Her Standing There
 The Stumble
 Hallelujah (capo V)

G major

G major

G Mixolydian/G Dorian	C major/F major	All The Things You Are, section C. See Ab major for section A and see Eb major for section B. Revelation (Robben Ford) Do Nothing 'Til You Hear From Me Stormy Weather Beck's Bolero Grinnin' In Your Face All Blues Stormy Monday The Thumb Willow Weep For Me How High The Moon Ornithology
G major/F major/Eb major/G Aeolian	G major/F major/Eb major/Bb major	

Eb major family

order of study: Cm and Eb in VIII, then III, then X position

C minor (C Aeolian)	Eb major	Equinox in Cm Sugar Footprints Mister Magic My Funny Valentine Europa Chopin Waltz, Op. 64 #2 in Cm
C Dorian C Dorian/C Mixolydian	Bb major Bb major/F major	C Jam Blues Chitlins Con Carne Mary Ann I'm Tore Down Blue Moon Four There Will Never Be Another You
Eb major	Eb major	Misty
Eb Mixolydian/Eb Dorian Eb major/Ab major	Ab major/Db major Eb major/Ab major	

Ab major family

order of study: Fm and Ab in I or XIII, then VIII, then III position

F minor (Aeolian)	Ab major	Song For My Father
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F Dorian/F Aeolian	Eb major/Ab major	The Work Song
		Lullaby Of Birdland
		Coming Home Baby
		Afro Blue
F Dorian/F Aeolian b5/F major	Eb major/Ab melodic minor/F major	Canteloupe Island
F Dorian/F Mixolydian	Eb major/Bb major	Tequilla
		Bags' Groove
		Au Privave
		Now's The Time
		Billie's Bounce
Ab major	Ab major	Killing Me Softly With His Song
		All The Things You Are, section A. See Eb major for section B and see G major for section C
		Ceora
		Donna Lee
Ab Mixolydian/Ab Dorian	Db major/Gb major	

D major family

order of study: Bm and D in II or XIV, then VII, then IX position

B minor (B Aeolian)	D major	Same Old Blues
B Aeolian/B Dorian	D major/A major	Hotel California
B Dorian/B Mixolydian	A major/E major	Red House
D major	D major	Breezin'
		Spain
D Mixolydian/D Dorian	G major/C major	Badge
		Someday After A While
D Mixolydian/D Dorian/B Aeolian	G major/C major/D major	The In Crowd

A major family

order of study: F#m and A in II or XIV, then IX, then IV position

F#m minor (Aeolian)	A major	The Way
F# Dorian/F# Mixolydian	E major/B major	
A major	A major	Stand By Me
		Bell Bottom Blues chorus (see C major for verse)
		I've Been Loving You Too Long
		Mister Sandman

A Mixolydian/A Dorian	D major/G major	Killing Floor Crossroads Key To The Highway Life By The Drop Johnny B. Goode in A Need Your Love
A major, A Mixolydian/A Dorian	A major/D major/G major	Mercy, Mercy, Mercy

E major family

order of study: C#m and E in IX, then IV, then XI position

C# minor (C# Aeolian)	E major	All Along The Watchtower
C# Dorian/C# Mixolydian	B major/F# major	
E major	E major	Santeria Under The Bridge (verse and bridge) Isn't She Lovely Monkey Man
E Mixolydian/E Dorian	A major/D major	What'd I Say Boom Boom Hideaway
E major/E Mixolydian/E Dorian	E major/A major/D major	The Stumble

B major family

order of study: G#m and B in VI, then XI, then IV position

G#m minor (G# Aeolian)	B major	
B major	B major	
B Mixolydian/B Dorian	E major/A major	Red House

Db major family

order of study: Bbm and Db in I or XIII, then VI, then VIII position

Bb minor (Bb Aeolian)	Db major	
Bb Dorian/Bb Mixolydian	Ab major/Eb major	
Db major	Db major	
C# Mixolydian/C# Dorian	F# major/B major	

Gb major family

order of study: Ebm and Gb in VI, then I or XIII, then XI position

Eb minor (Bb Aeolian)	Gb major	Take Five in Ebm
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Eb Dorian/Bb Mixolydian	Db major/Eb major
Gb major	Gb major
F# Mixolydian/F# Dorian	B major/E major

F# major family

order of study: D#m and F# in VI, then I or XIII, then XI position

D# minor (Aeolian)	F# major
Eb Dorian/Eb Mixolydian	Db major/Ab major
F# major	F# major
F# Mixolydian/F# Dorian	B major/E major

ORDER OF STUDY FOR EACH MAJOR FAMILY

Examples are given for the C major family below, in parenthesis. For each major scale (C) family, play songs in the order listed below. See [the arpeggio](#) sections of the [Prime Scales, Chords and Arpeggios](#) chapter.

- ✦ Play songs in Aeolian (A) relative minor, based on VIm (Am) pentatonic and the VIm11 (Am11) arpeggio.
- ✦ In the same key as the Aeolian (A), play songs in Dorian (A Dorian), based on minor pentatonic and the VIm13 arpeggio.
- ✦ In the same key as the Aeolian (A), play songs in Mixolydian (A Mixolydian), based on minor pentatonic with a major third and the VI13 arpeggio.
- ✦ Play songs in major (C major), based on I (C) major pentatonic and the VIm11 (Am11) arpeggio (Ima9/6).
- ✦ In the same key as the major mode (C major), play songs in Mixolydian (C Mixolydian), based on major pentatonic and the I13 (C13) arpeggio.
- ^ In the same key as the major mode (C major), play songs in Dorian (C Dorian).

Relative Major and Minor Scales with Modes and Pentatonic Subsets

the pentatonic basis

Determine whether you want major or minor pentatonic. Major is happy, minor sad. You will then need to qualify the rest of the seven-tone (heptatonic) scale.

the elaboration to modes (seven-tone scales)

A parent major scale is the major scale that is being used as a resource to build another scale. Roman numerals (VI and I, etc.) in this discussion refer to the step of the parent major scale on which a mode (such as VI Aeolian) is built.

VI Minor pentatonic may be elaborated to VI Aeolian or VI Dorian. Particularly in blues-based music like rock, blues and jazz, Dorian is typically used as a darkening of Mixolydian in blues, making a major chord sound minor. See [Modes/Modes On I IV V Blues](#). By changing the flat of the minor pentatonic to natural three, you can change the minor pentatonic to dominant 7/11 pentatonic, a subset of Mixolydian mode. This is commonly used in blues, typically preceding three with flat three and including instances of flat three in the phrase to keep it bluesy.

Major (major 6/9) pentatonic can be elaborated to major (Ionian) mode or Mixolydian mode. By flattening the third, it can be changed to minor 6/9 pentatonic, which is a subset of Dorian.

fingering for relative major and minor scales with pentatonic subsets

This shows the layout of the relative major and minor families, starting in two pages with C major and A Aeolian. Notice the option (b3) blues option in dominant 7/11 with Mixolydian.

		minor pentatonic basis			major pentatonic basis		
		Aeolian	Dorian	Mixolydian	major	Mixolydian	Dorian
pentatonic fingering	fingering 1 1 1 1 (1) 1 1 3 3 3 4 4	minor pentatonic subset 1 4 b7 b3 5 1 2 5 (1) 4 2 b3 b6 b7 b3 (2)	minor pentatonic subset 1 4 b7 b3 5 1 2 5 (1) 4 6 2 b3 b7 b3	minor pent. natural 3 subset b7 (b3) 3 6 2 1 4 b7 (b3) 5 1 2 5 (1) 4 6 2 (b3) b7 (b3) 3	major pentatonic subset 6 2 5 (1) 3 6 7 3 6 2 7 1 4 5 1 7	I major 6/9 pentatonic subset 6 2 5 (1) 3 6 b7 3 6 2 7 1 4 b7 5 1	major pent. b3 subset 6 2 5 (1) 6 b7 b3 4 b7 1 4 b7 b3 5 1
parent major scale →		major scale fing. 6 6 2 5 1 3 6 7 3 6 2 7 1 4 5 1 7	major scale fing. 2 2 5 1 4 6 2 3 6 2 5 7 3 4 1 4 7 3	major scale fing. 4/5 4 7 3 6 5 1 4 2 5 6 2 5 1 3 6 7	major scale fing. 6 6 2 5 1 3 6 7 3 6 2 7 1 4 5 1 7	major scale fing. 2 2 5 1 4 6 2 3 6 2 5 7 3 4 1 4 7 3	fingering 7 7 3 6 2 7 1 4 5 1 2 5 1 4 6 2 3
pentatonic fingering	2 1 1 1 1 1 4 4 (3) 3 3	2 5 (1) 4 2 b3 b6 b7 b3 4 b7 b3 b6 (1) 4	2 5 (1) 4 6 2 b3 b7 b3 (1) 4	2 5 (1) 4 6 2 (b3) b7 (b3) 3 6 2 5 3 4 b7 (b3) 1 4 3	7 3 6 2 7 1 4 5 1 2 5 1 4 6 2	b7 3 6 2 7 1 4 b7 5 1 2 5 1 4 6 2 b7 3	(b3) 6 2 5 1 1 4 b7 b3 5 1 2 5 1 4 6 2 b3 b7 b3
parent major scale →		major scale fing. 7 7 3 6 2 7 1 4 5 1 2 5 1 4 6 2 3	major scale fing. 3 3 6 2 5 7 3 4 1 4 5 1 4 2 5 7 3	major scale fing. 6 6 2 5 1 3 6 7 3 6 2 7 1 4 5 1 7	major scale fing. 7 7 3 6 2 7 1 4 5 1 2 5 1 4 6 2 3	major scale fing. 4/5 4 7 3 6 5 1 4 2 5 6 2 5 1 3 6 7	major scale fing. 2 2 5 1 4 6 2 3 6 2 5 7 3 4 1 4 7 3
pentatonic fingering	fingering 4 1 1 1 1 1 3 3 (2) 4 (4) 4 4	5 (1) 4 b7 2 5 b6 b3 b6 2 5 (1) b7 b3 b6 4 b7	5 (1) 4 b7 2 5 6 2 5 (1) 6 b7 b3 4 b7 6	4 b7 (b3) 3 6 2 5 1 4 b7 2 5 (b3) 6 2 5 (1) 3 6 (b3) 4 b7	3 6 2 5 7 3 4 1 4 5 1 4 2 5	3 6 2 5 3 4 b7 1 4 5 1 4 b7 2 5	b3 6 2 5 4 b7 b3 1 4 5 1 4 b7 2 5 b3 6
parent major scale →		major scale fing. 3 3 6 2 5 7 3 4 1 4 5 1 4 2 5	major scale fing. 6 6 2 5 1 3 6 7 3 6 2 7 1 4 5 1 7	major scale fing. 1/2 1 4 7 3 2 5 1 4 6 2 3 6 2 5 7 3 1 4	major scale fing. 3 3 6 2 5 7 3 4 1 4 5 1 4 2 5	major scale fing. 7 7 3 6 2 7 1 4 5 1 2 5 1 4 6 2 3	major scale fing. 4/5 4 7 3 6 5 1 4 2 5 6 2 5 1 3 6 7

the last column on the right is III Phrygian dominant

It is the V chord in the key of VI Aeolian. A Aeolian is the key built on the sixth step of the C major scale. Thinking in the key of A Aeolian, E Phrygian dominant (E is III of C) is the V chord of A Aeolian. Phrygian dominant can also be called Phrygian major.

This complicates the tables a bit, but the III Phrygian major is important to pair with the VI Aeolian as its V chord. Notice the option (b3) blues option in dominant 7/11 with Phrygian dominant.

minor pentatonic basis				major pentatonic basis			III Phrygian major (I major #5)
Aeolian	Dorian	Mixolydian		major	Mixolydian	Dorian	
minor pentatonic subset	minor pentatonic subset	minor pent. natural 3 subset		major pentatonic subset	I major 6/9 pentatonic subset	major pent. b3 subset	minor pent. natural 3 subset
pentatonic fingering 1 							III 7/11 fingering 3
parent major scale →	major scale fing. 6	major scale fing. 2	maj. scale fing. 4/ 5	major scale fing. 6	major scale fing. 2	fingering 7	I maj #5 fingering 6
pentatonic fingering 2 							III 7/11 fingering 4
parent major scale →	major scale fing. 7	major scale fing. 3	major scale fing. 6	major scale fing. 7	maj. scale fing. 4/ 5	major scale fing. 2	I maj #5 fingering 7
pentatonic fingering 4 							III 7/11 fingering 1
parent major scale →	major scale fing. 3	major scale fing. 6	maj. scale fing. 1/2	major scale fing. 3	major scale fing. 7	maj. scale fing. 4/ 5	I maj #5 fingering 3

C MAJOR and A MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	A Aeolian	A Dorian	A Mixolydian	C major	C Mixolydian	C Dorian	E Phrygian maj.
	A minor 7/11 pentatonic subset	A minor 7/11 pentatonic subset	A dom. 7/11 pentatonic subset	C major 6/9 pentatonic subset	C major 6/9 pentatonic subset	C minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 V	fingering 2 V	fingering 5 IV	fingering 6 V	fingering 3 V	fingering 7 V	C maj #5 F6 IV
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Am711 IV	Am711 IV	A711 III	Cma69 V	Cma69 V	Cm69 V	E7/11 F3 IV
E form minor,							
G form major							
triads and modes	fingering 7 VII	fingering 3 VII	fingering 6 VII	fingering 7 VII	fingering 5 VII	fingering 2 VIII	C maj #5 F7 VI
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Am711 VII	Am711 VII	A711 VII	Cma69 VII	Cma69 VI	Cm69 VI	E7/11 F4 VI
D form minor,							
E form major							
triads and modes	fingering 3 XII	fingering 6 XI	fing. 1 & 2 X	fingering 3 XII	fingering 7 XII	fingering 5 XII	C maj #5 F3 XI
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Am711 XII	Am711 XII	A711 X	Cma69 XII	Cma69 XII	Cm69 XI	E7/11 F1 XII
A form minor,							
C form major							

Songs in A Minor Modes

Sunny chords in Am

bar 1 Am7 V 1 b7 b3 5 C major scale	bar 2 C7 VIII 1 b7 3 5 C Mixolydian	bar 3 Fma7 V 1 3 5 7 C major scale	bar 4 E7 V 1 3 b7 1 C maj. (opt. #5)	bar 5 Am7 V 1 b7 b3 5 C major scale	bar 6 C7 VIII 1 b7 3 5 C Mixolydian	bar 7 Fma7 V 1 3 5 7 (opt. C mel. min.)	bar 8 E7 V 1 3 b7 1 C maj. (opt. #5)
bar 9 Am7 V 1 b7 b3 5 C major scale	bar 10 C7/G III 5 1 5 b7 3 C Mixolydian	bar 11 Fma7 I 1 7 3 5 7 F major scale	bar 12 Bb9#11 V 1 3 b7 2#4 F mel. min.	bar 13 Bm711b5 V 1 b7 b3 4 C maj. (opt. #5)	bar 14 E7 V 1 3 b7 1 C major scale	bar 15 Am7 V 1 b7 b3 5 C major scale	bar 16 E7 V 1 3 b7 1 C maj. (opt. #5)

House Of The Rising Sun chords (jazzy) in Am

(use the last 4 bars as an intro). Base your improv on A minor pentatonic.

bar 1 Am7 V 1 b7 b3 5 C major scale	beat 3 C7 VIII 1 b7 3 5	bar 2 D9 IV 1 3 b7 2	beat 3 F9 VII 1 3 b7 2	bar 3 Am7 V 1 b7 b3 5 C major scale	beat 3 C7 VIII 1 b7 3 5	bar 4 E7#9 VI 1 3 b7 #9 C major scale	beat 3 E7#9 VI 1 3 b7 #9 C maj. (opt. #5)
bar 5 Am7 V 1 b7 b3 5 C major scale	beat 3 C7 VIII 1 b7 3 5	bar 6 D9 IV 1 3 b7 2	beat 3 F9 VII 1 3 b7 2 (opt. b5)	bar 7 Am7 V 1 b7 b3 5 C major scale	beat 3 E7 V 1 3 b7 1 C maj. (opt. #5)	bar 8 Am7 V 1 b7 b3 5 C major scale	beat 3 C7 VIII 1 b7 3 5
bar 9 D9 IV 1 3 b7 2 C major scale	beat 3 F9 VII 1 3 b7 2 Cmajor (opt. b5)	bar 1 Am7 V 1 b7 b3 5 C major scale	beat 3 E7#9 VI 1 3 b7 #9 C maj. (opt. #5)	bar 7 Am7 V 1 b7 b3 5 C major scale	beat 3 E7#9 VI 1 3 b7 #9 C maj. (opt. #5)		

Summertime chords in Am

Base your improv on A minor pentatonic.

bar 1	beat 3	bar 2	beat 3	bar 3	beat 3	bar 4	beat 3
Am6 IV	E9/B VI	Am7 VII	E9/B VI	Am6 IV	E9/B VI	Am7 VII	E9/B VI
1 6 b3 5	5 3 b7 2	b3 1 5 b7	5 3 b7 2	1 6 b3 5	5 3 b7 2	b3 1 5 b7	5 3 b7 2

C major scale

bar 5	bar 6	beat 3	bar 7	beat 3	bar 8
Dm7 V	F9 VII		E7 V	B7#5 VII	E7 V
1 5 b7 b3 5	1 3 b7 2		1 3 b7 1	1 b7 3 #5	1 3 b7 1

C major scale

C major scale (option #5)

bar 9	beat 3	bar 10	beat 3	bar 11	beat 3	bar 2	beat 3
Am6 IV	E9/B VI	Am7 VII	E9/B VI	Am6 IV	E9/B VI	Am7 VII	D9 IV
1 6 b3 5	5 3 b7 2	b3 1 5 b7	5 3 b7 2	1 6 b3 5	5 3 b7 2	b3 1 5 b7	1 3 b7 2

C major scale

bar 13	beat 3	bar 14	beat 3	bar 15	beat 3	bar 16	beat 3
Cma7 VIII	Am7 V	Dm7 V	E7#9#9 VI	Am6 IV	E9/B VI	Am7 VII	E9/B VI
1 6 b3 5	5 3 b7 2	1 5 b7 b3 5	1 3 b7 #2 #5	1 6 b3 5	5 3 b7 2	b3 1 5 b7	5 3 b7 2

C major scale

C major scale
(option #5)

C major scale

Key To The Highway chords in A - see [Modes On I IV V Blues](#)

Base your improv on A minor pentatonic. Optionally, use A major pentatonic on A7 and E7 and optionally use E minor pentatonic with a major third on E7.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7-8	beat 3
A7 V	E7 V	D9 IV	D9 IV	A7 V	E7 V	A7 V	E7 V
1 5 b7 3 5 1	1 3 b7 1	1 3 b7 2	1 3 b7 2	1 5 b7 3 5 1	1 3 b7 1	1 5 b7 3 5 1	1 3 b7 1

G major scale

Crossroads chords in A - see [Modes On I IV V Blues](#)

Base your improv on A minor pentatonic.

bar 1 A7 V 1 5 b7 3 5 1	bar 2 D9 IV 1 3 b7 2	bar 3 A7 V 1 5 b7 3 5 1	bar 4 A7 V 1 5 b7 3 5 1	bar 5 D9 IV 1 3 b7 2	bar 6 D9 IV 1 3 b7 2	bar 7 A7 V 1 5 b7 3 5 1	bar 8 A7 V 1 5 b7 3 5 1
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G major scale

bar 9 E7 V 1 3 b7 1	bar 10 D9 IV 1 3 b7 2	bar 11 A7 V 1 5 b7 3 5 1	bar 12 A7 V 1 5 b7 3 5 1	beat 3 E7#9 VI 1 3 b7 #9	(end on A7)
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Hesitation Blues chords in Am (blues in C with first four bars Am)

Base your improv on C major pentatonic. Flat the third (use Eb) on the F7 chord.

bar 1 Am V 1 5 1 b3 5 1	beat 3 E7 V 1 3 b7 1	bar 2 Am V 1 5 1 b3 5 1	beat 3 E7 V 1 3 b7 1	bar 3 Am V 1 5 1 b3 5 1	beat 3 E7 V 1 3 b7 1	bar 4 Am V 1 5 1 b3 5 1	beat 3 C7 VIII 1 b7 3 5
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C major scale

bar 5 F7 VI 1 3 b7 1	bar 6 F7 VI 1 3 b7 1	beat 3 F#dim7 VII b5 b3 6 1	bar 7 C7 VIII 1 b7 3 5	bar 8 C7 VIII 1 b7 3 5	bar 9 G7 VIII 1 3 b7 1	bar 10 Dm7 X 1 b7 b3 5	beat 3 G7 VIII 1 3 b7 1
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C major scale

bar 11 C VIII 1 5 1 3 5 1	beat 2 C7 VIII 1 5 3 b7	beat 3 F VIII 1 5 1 3	beat 4 Fm VIII 1 5 1 b3	bar 12 C7 VIII 1 b7 3 5	beat 3 G7 VIII 1 3 b7 1	(end on C7)
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C major scale

Songs In C Major Modes

Life By The Drop chords - see [Modes On I IV V Blues](#)

Base your improv on A minor pentatonic.

bar 1 A I 1 5 1 3 5 D major scale	bar 2 E I 1 5 1 3 5 1 D major scale	bar 3 F#m II 1 5 1 b3 5 1 D major scale	bar 4 D I 1 5 1 3 G major scale	bar 5 A I 1 5 1 3 5 D major scale	bar 6 E I 1 5 1 3 5 1 D major scale	bar 7 F#m II 1 5 1 b3 5 1 D major scale	bar 8 D I 1 5 1 3 G major scale
bar 9 F#m II 1 5 1 b3 5 1 D major scale	bar 10 D I 1 5 1 3 G major scale	beat 3 E I 1 5 1 3 5 1 D major scale	bar 11 F#m II 1 5 1 b3 5 1 D major scale	bar 12 D I 1 5 1 3 G major scale	beat 3 E I 1 5 1 3 5 1 D major scale		
bar 13 F#m II 1 5 1 b3 5 1 D major scale	bar 14 (2 beats) D7 I 1 5 b7 3 G major scale	bar 15 A I 1 5 1 3 5 D major scale	bar 16 A I 1 5 1 3 5 D major scale				

Don't Worry, Be Happy chords in C - Base your improv on C major pentatonic.

bar 1 C I 1 3 5 1 3 C major scale	bar 2 C I 1 3 5 1 3 C major scale	bar 3 Dm I 1 5 1 b3 C major scale	bar 4 Dm I 1 5 1 b3 C major scale	bar 5 F I 5 1 3 5 C major scale	bar 6 F I 5 1 3 5 C major scale	bar 7 C I 1 3 5 1 3 C major scale	bar 8 C I 1 3 5 1 3 C major scale
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From Four Until Late chords in C - see [Modes On I IV V Blues](#)

Base your improv on C major pentatonic. Flat the third (Eb instead of E) during the F and F#dim7.

bar 1 C7 I 1 3 b7 1	bar 2 F I 5 1 3 5	bar 3 C7 I 1 3 b7 1	bar 4 C7 I 1 3 b7 1	bar 5 F I 5 1 3 5	bar 6 F#dim7 II b5 1 b3 6	bar 7 C7 I 1 3 b7 1	bar 8 A7 I 1 5 b7 3 5
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C major scale

bar 9 D7 I 1 3 b7 1	bar 10 G7 III 1 b7 3 5	bar 11 C I 1 3 5 1 3	beat 2 C7 I 1 3 b7 1	beat 3 F I 5 1 3 5	beat 4 Fm I 5 1 b3 5	bar 12 C7 I 1 3 b7 1	beat 3 G7 III 1 b7 3 5
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End on C7.

St. Thomas chords in C - Base your improv on C major pentatonic.

bar 1 C6 VII 1 6 3 5	bar 2 Em7 V 1 b3 b7 b3	beat 3 A7 VI 5 1 3 b7	bar 3 Dm7 X 1 b7 b3 5	beat 3 G7 VIII 1 3 b7 1	beat 4 C6 VII 1 6 3 5	bar 4 C6 VII 1 6 3 5	repeat bars 1-4
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C major scale

(opt. C Mixo. #1)

C major scale

bar 9 Em7b5 V 1 b5 b7 b3	beat 3 Bb7 VI 1 b7 3 5	beat 4 A7 V 1 b7 3 5	bar 10 A7 V 1 b7 3 5	bar 11 Dm7 X 1 b7 b3 5	beat 3 G7 VIII 1 3 b7 1	beat 4 C6 VII 1 6 3 5	bar 12 C6 VII 1 6 3 5
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C major scale

F maj. (opt. #5)

C major scale

bar 13 C6 VII 1 6 3 5	beat 3 C7 VIII 1 b7 3 5	bar 14 F6 VII 1 5 6 3	beat 3 F#dim7 VIII 1 b5 6 b3	bar 15 Dm7 X 1 b7 b3 5	beat 3 G7 VIII 1 3 b7 1	beat 4 C6 VII 1 6 3 5	bar 16 C6 VII 1 6 3 5
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C major scale

F maj. (opt. #5)

C Dori. (opt. b5)

C major scale

Don't Think Twice, It's Alright chords in C

Base your improv on C major pentatonic. Flat the third (Eb instead of E) during the F and F#dim7.

bar 1 C I 1 3 5 1 3	bar 2 G I 1 3 5 1 5 1	bar 3 Am I 1 5 1 b3 5	bar 4 Am/G I b7 5 1 3	bar 5 F I 5 1 3 5	bar 6 F I 5 1 3 5	bar 7 C I 1 3 5 1 3	bar 8 G I 1 3 5 1 5 1
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C major scale

bar 9 C I 1 3 5 1 3	bar 10 G I 1 3 5 1 5 1	bar 11 Am I 1 5 1 b3 5	bar 12 Am/G I b7 5 1 3	bar 13 F I 5 1 3 5	bar 14 F I 5 1 3 5	bar 15 D7 I 1 5 b7 3	bar 16 G I 1 3 5 1 5 1
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C major scale

bar 17 C I 1 3 5 1 3	bar 18 C I 1 3 5 1 3	bar 19 C7 I 1 3 b7 1	bar 20 C7 I 1 3 b7 1	bar 21 F I 5 1 3 5	bar 22 F I 5 1 3 5	bar 23 D7 I 1 5 b7 3	bar 24 D7 I 1 5 b7 3
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F major scale

C major scale

bar 25 C I 1 3 5 1 3	bar 26 G/B I 3 5 1 5 1	bar 27 Am I 1 5 1 b3 5	bar 28 F I 5 1 3 5	bar 29 C I 1 3 5 1 3	bar 30 F I 5 1 3 5	bar 31 C I 1 3 5 1 3	bar 32 C I 1 3 5 1 3
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C major scale

End on C.

Bb MAJOR and G MINOR

Fingering With Subsets

	minor pentatonic basis			major pentatonic basis			
	G Aeolian	G Dorian	G Mixolydian	Bb major	Bb Mixolydian	Bb Dorian	D Phryg. major
	G minor 7/11 pentatonic subset	G minor 7/11 pentatonic subset	G dom. 7/11 pentatonic subset	Bb major 6/9 pentatonic subset	Bb major 6/9 pentatonic subset	Bb minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 III	fingering 2 III	fingering 5 II	fingering 6 III	fingering 3 III	fingering 7 III	Bb maj #5 F6 II
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Gm711 II	Gm711 II	G711 I	Bbma69 III	Bbma69 III	Bbm69 III	D7/11 F3 II
E form							
G minor,							
G form							
Bb major							
triads and modes	fingering 7 V	fingering 3 V	fingering 6 V	fingering 7 V	fingering 5 V	fingering 2 VI	Bb maj #5 F7 IV
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Gm711 VII	Gm711 VII	G711 VII	Bbma69 V	Bbma69 IV	Bbm69 IV	D7/11 F4 IV
D form							
G minor,							
E form							
Bb major							
triads and modes	fingering 3 X	fingering 6 X	fing. 1 & 2 VIII	fingering 3 X	fingering 7 X	fingering 5 XII	Bb maj #5 F3 IX
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Gm711 X	Gm711 X	G711 VIII	Bbma69 X	Bbma69 X	Bbm69 IX	D7/11 F1 X
A form							
G minor,							
C form							
Bb major							

Songs n G Minor Modes

Equinox chords in Gm Base your improv on G minor pentatonic and Bb major scale.

bars 1-4	bars 5-6	bars 7-8	bar 9	bar 10	bars 11-12
Gm7 III	Cm7 III	Gm7 III	Eb9 V	D7#9 IV	Gm7 III
Bb major			Bb major b3		Bb major

I Shot The Sheriff chords in Gm Base your improv on G minor pentatonic and Bb major scale.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Gm III	Cm III	Gm III	Gm III	Gm III	Cm III	Gm III	Gm III

play the next two bars five times

bar 1	beat 3	bar 2
Cm III	Gm III	Gm III

copy the six-beat theme by ear from the original recording

Gm III

let the last note of the theme sustain four beats more

Stormy Monday chords in G (Allman Brothers version) - see [Modes On I IV V Blues](#)

Base improv on G min. pent. and Bb major scale. Use an optional major third (B) during G7, Am7, Bm7.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	beat 3
G7 III	C9 II	G7 III	G7 III	C9 II	C9 II	G7 III	Am7 V

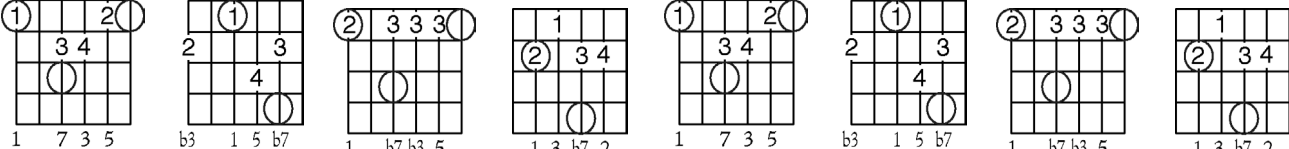
bar 8	beat 3	bar 9	bar 10	bar 5	beat 3	bar 6	beat 3
Bm7 VII	Bb7 III	Am7 V	Abma7 IV	G7 III	C9 II	G7 III	Daug III

Songs in Bb Major Modes

I Got Rhythm, section A chords in Bb Base your improv on Bb major pentatonic.

bar 1 beat 3 **bar 2** beat 3 **bar 3** beat 3 **bar 4** beat 3

Bbma7 VI	Gm7 V	Cm7 VIII	F9 VII	Bbma7 VI	Gm7 V	Cm7 VIII	F9 VII
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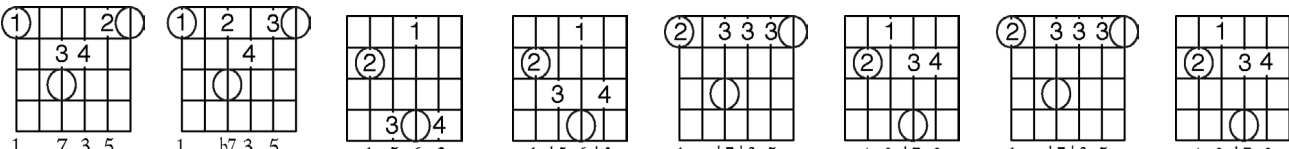


1 7 3 5 b3 1 5 b7 1 b7 b3 5 1 3 b7 2 1 7 3 5 b3 1 5 b7 1 b7 b3 5 1 3 b7 2

Bb major scale

bar 5 beat 3 **bar 6** beat 3 **bar 7** beat 2 **bar 8** beat 3 **bar 9** beat 4

Bbma7 VI	Bb7 VI	Eb6 V	Edim7 VI	Dm7 X	G9 IX	Cm7 VIII	F9 VII
----------	--------	-------	----------	-------	-------	----------	--------



1 7 3 5 1 b7 3 5 1 5 6 3 1 b5 6 b3 1 b7 b3 5 1 3 b7 2 1 b7 b3 5 1 3 b7 2

Bb major scale

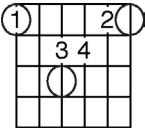
Bb Mixolydian

Bb major scale

Bb major scale

bar 8

Bbma7 VI



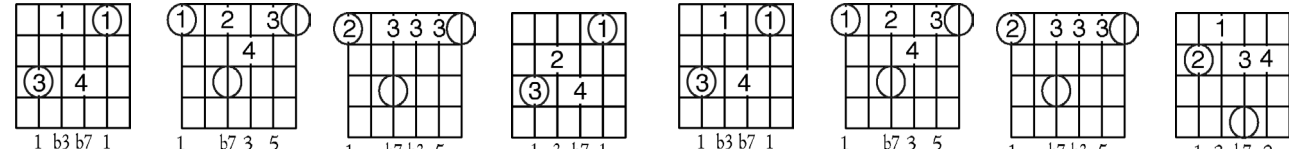
1 7 3 5

Bb major scale

I Got Rhythm, section B chords in Bb

bar 1 **bar 2** **bar 3** **bar 4** **bar 5** **bar 6** **bar 7** **bar 8**

Am7 X	D7 X	Dm7 X	G7 VIII	Gm7 VIII	C7 VIII	Cm7 X	F9 VII
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1 b3 b7 1 1 b7 3 5 1 b7 b3 5 1 3 b7 1 1 b3 b7 1 1 b7 3 5 1 b7 b3 5 1 3 b7 2

G major scale

C major scale

F major scale

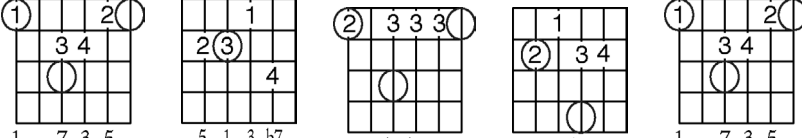
Bb major scale

repeat bars 1-6 of section A

I Got Rhythm chords in Bb, ending chords (end of last section A)

bar 7 **bar 8** **bar 9** beat 3 **bar 10**

Bbma7 VI	G7 IV	Cm7 X	F9 VII	Bbma7 VI
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1 7 3 5 5 1 3 b7 1 b7 b3 5 1 3 b7 2 1 7 3 5

Bb major scale

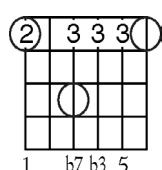
Bb Mixo. #1

Bb major scale

Autumn Leaves chords in Bb

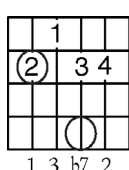
Base your improv on Bb major pentatonic. To darken the mood, think of it as Gm pentatonic.

bar 1
Cm7 VIII



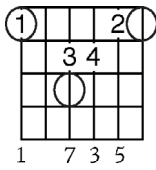
1 b7 b3 5

bar 2
F9 VII



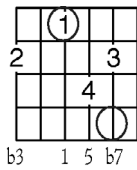
1 3 b7 2

bar 3
Bbma7 VI



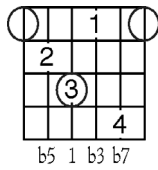
1 7 3 5

bar 4
Gm7 V



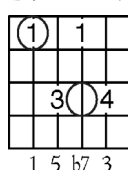
b3 1 5 b7

bar 5
Am7b5 V



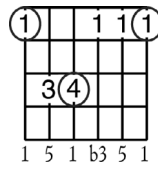
b5 1 b3 b7

bar 6
D7 V



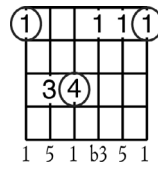
1 5 b7 3

bar 7
Gm III



1 5 1 b3 5 1

bar 8
Gm III



1 5 1 b3 5 1

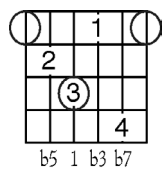
Bb major

Bb major (opt. #5)

Bb major

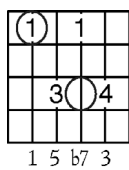
repeat bars 1-8 for 9-16

bar 17
Am7b5 V



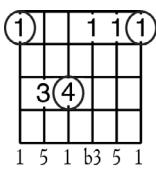
b5 1 b3 b7

bar 18
D7 V



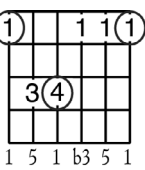
1 5 b7 3

bar 19
Gm III



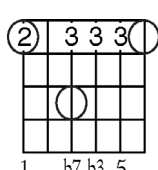
1 5 1 b3 5 1

bar 20
Gm III



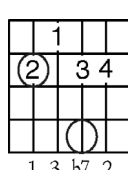
1 5 1 b3 5 1

bar 21
Cm7 VIII



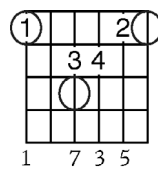
1 b7 b3 5

bar 22
F9 VII



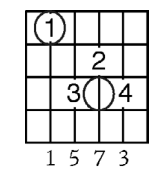
1 3 b7 2

bar 23
Bbma7 VI



1 7 3 5

bar 24
Ebma7 VI

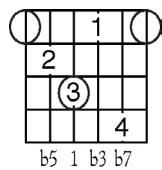


1 5 7 3

Bb major (opt. #5)

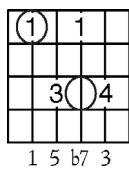
Bb major

bar 25
Am7b5 V



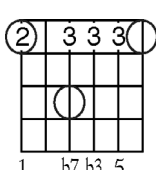
b5 1 b3 b7

bar 26
D7 V



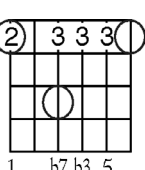
1 5 b7 3

bar 27
Gm7 III



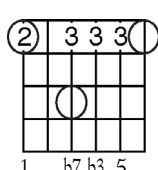
1 b7 b3 5

bar 28
Gm7 III



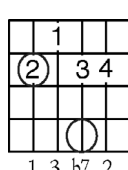
1 b7 b3 5

bar 29
Cm7 VIII



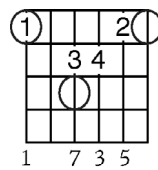
1 b7 b3 5

bar 30
F9 VII



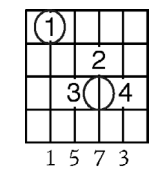
1 3 b7 2

bar 31
Bbma7 VI



1 7 3 5

bar 32
Ebma7 VI

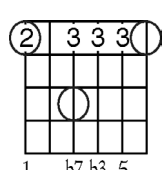


1 5 7 3

Bb major (opt. #5)

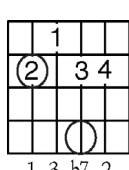
Bb major

bar 25
Cm7 VIII



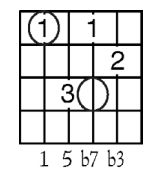
1 b7 b3 5

bar 26
F9 VII



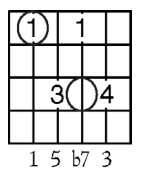
1 3 b7 2

bar 27
Gm7 X



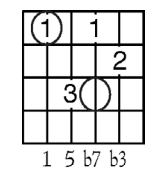
1 5 b7 b3

beat 3
Gb7 IX



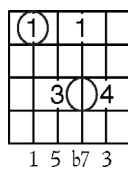
1 5 b7 3

bar 28
Fm7 VIII



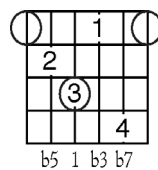
1 5 b7 b3

beat 3
E7 VI



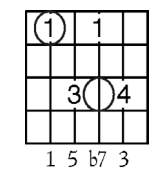
1 5 b7 3

bar 29
Am7b5 V



b5 1 b3 b7

bar 30
D7 V

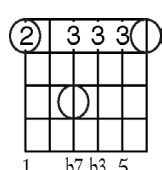


1 5 b7 3

Ab major

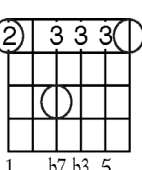
Bb major (opt. #5)

bar 25
Gm7 III



1 b7 b3 5

bar 26
Gm7 III



1 b7 b3 5

Bb major

end on Gm7

F MAJOR and D MINOR

Fingering With Subsets

	minor pentatonic basis			major pentatonic basis			
	D Aeolian	D Dorian	D Mixolydian	F major	F Mixolydian	F Dorian	A Phrygian maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 X	fingering 2 X	fingering 5 IX	fingering 6 X	fingering 3 X	fingering 7 X	F maj #5 F6 IX
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Dm711 IX	Dm711 IX	D711 VIII	Fma69 X	Fma69 X	Fm69 X	A7/11 F3 IX
E form							
D minor,							
G form							
F major							
triads and modes	fingering 7 XII	fingering 3 XII	fingering 6 XII	fingering 7 XII	fingering 5 XII	fingering 2 XIII	F maj #5 F7 XI
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Dm711 XII	Dm711 XII	D711 XII	Fma69 XII	Fma69 XI	Fm69 XI	A7/11 F4 XI
D form							
D minor,							
E form							
F major							
triads and modes	fingering 3 V	fingering 6 V	fing. 1 & 2 III	fingering 3 V	fingering 7 V	fingering 5 IV	F maj #5 F3 IV
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Dm711 V	Dm711 V	D711 III	Fma69 V	Fma69 V	Fm69 IV	A7/11 F1 V
A form							
D minor,							
C form							
F major							

Songs in D Minor Modes

Sultans Of Swing chords In Dm Base your improv on D minor pentatonic.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Dm	C Bb	A	A	Dm	C Bb	A	A
F major scale		F major (opt. #5)	F major scale	F major scale		F major (opt. #5)	
bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
F	F	C	C	Bb	Bb	Dm	Dm Bb
F major scale	F major scale				F major scale		
bar 17	bar 18	bar 19	bar 20	bar 21	"3 and" bar 22	bar 23	bar 24
C	C Bb	C	C	Dm	C Bb	C	C
F major scale					F major scale		
bar 25	"3 and" bar 26	bar 27	bar 28	end on Dm			
Dm	C Bb	C	C				
	F major scale						

Caravan chords in Dm Base your improv on D minor pentatonic, except section B.

section A

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
A Bb	A Bb	A Bb	A Bb	A Bb	A Bb	A Bb	A Bb
F major (opt. #5)							
bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
A Bb	A Bb	A Bb	A Bb	Dm	Dm	Dm	Dm
F major (opt. #5)				F major			

section B

bars 1-4	bars 5-8	bars 9-12	bar 13	bar 14	bar 15	bar 16
F7	Bb7	Eb7	Ab6	Ab6	G7#9b5	Db7
Bb major	Eb major	Ab major				Ab major b3

Songs in F Major Modes

Au Privave chords or Now's The Time chords in F - see [Modes On I IV V Blues](#)

Base your improv on F minor pentatonic or F major pentatonic. When using F major pentatonic on Bb7 or Bdim7, it should have a flatted third (Ab).

bar 1	bar 2	bars 3	bar 4	bar 5	bar 6	bar 7	bar 8	bar 9	bar 10	bar 11	bar 12
F7	Bb7	F7	F7	Bb7	Bdim7	F7	Am7 D7	Gm7	C7	Am7 D7	Gm7 C7
Bb maj. scale	Eb maj. scale	Bb maj. scale		Eb maj. scale		Bb maj. scale	F major scale				

The Preacher chords in F - see [Modes On I IV V Blues](#)

Base your improv on F minor pentatonic or F major pentatonic. When using F major pentatonic on Bb7 or Bdim7, it should have a flatted third (Ab).

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
F6	F6	Bb9 B°7	F6	F6	F6	G7	C7
Bb major scale		Eb ma scale	Bb major scale			F major scale	

bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 6	bar 7	bar 8
F6	F6	Bb9	Bdim7	F6	F6	F6	G7	C7
Bb major scale		Eb major scale		Bb major scale			F major scale	

The Way You Look Tonight chords in F

section A

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Fma7	Dm7	Gm7	C7	Fma7	D7	Gm7	C7
F major scale							

bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Cm7	F7	Bbma7	Gm7 C7	Fma7 D7	Gm7 C7	Fma7 D7	Gm7 C7
Bb major scale			F major scale				

repeat bars 1-14 for 15-30	bar 3	bar 4
	Bbm7	Eb7

section B

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Abma7	F7	Bbm7	Eb7	Abma7	Fm7	Bbm7	Eb7

Ab major scale Ab maj (opt. #5) Ab major scale

bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Abma7	F7	Bbm7	Eb7	Abma7	Dbma7	Gm7	C7

F major scale Ab maj (opt. #5) Ab major scale F major scale

repeat section A bars 1-16, end on Fma7

Have You Meet Miss Jones? chords i n F

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Fma7	D7	Gm7	C7	Am7	Dm7	Gm7	C7

F major scale Bb major scale F major scale

bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Fma7	D7	Gm7	C7	Am7	Dm7	Cm7	F7

F major scale Bb major scale F major scale Bb major scale

bar 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Bbma7	Abm7 Db7	Gbma7	Em7 A7	Dma7	Abm7 Db7	Gbma7	Gm7 C7

Bb major scale Gb major scale D major scale Gb major scale F major scale

bar 25	bar 26	bar 27	bar 28	bar 29	bar 30	bar 31	bar 32
Fma7	D7	Gm7	C7	Am7	Dm7	Fma7	Fma7

F major scale Bb major scale F major scale F major scale

G MAJOR and E MINOR

Fingering With Subsets

	minor pentatonic basis			major pentatonic basis			
	E Aeolian	E Dorian	E Mixolydian	G major	G Mixolydian	G Dorian	B Phrygian maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 XII	fingering 2 XII	fingering 5 XI	fingering 6 XII	fingering 3 XII	fingering 7 XII	G maj #5 F6 XI
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Em711 XI	Em711 XI	E711 X	Gma69 XII	Gma69 XII	Gm69 XII	B7/11 F3 XI
E form							
E minor,							
G form							
G major							
triads and modes	fingering 7 II	fingering 3 II	fingering 6 II	fingering 7 II	fingering 5 II	fingering 2 III	G maj #5 F7 I
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Em711 II	Em711 II	E711 II	Gma69 II	Gma69 I	Gm69 I	B7/11 F4 I
D form							
E minor,							
E form							
G major							
triads and modes	fingering 3 VII	fingering 6 VII	fing. 1 & 2	fingering 3 VII	fingering 7 VII	fingering 5 VI	G maj #5 F3 VI
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Em711 VII	Em711 VII	E711 V	Gma69 VII	Gma69 VII	Gm69 VI	B7/11 F1 VII
A form							
E minor,							
C form							
G major							

Songs in E Minor Modes

Little Wing chords in Em

Base your improv on E minor pentatonic.

bar 1 4/4	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8 2/4
Em	G	Am	Em	Bm	Am C	G F	C
G major scale					F major scale		

bars 9 4/4	bar 10	end on Em
D	D	
G major scale		

Paint It Black chords in Em

Base your improv on E minor pentatonic and G major scale.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Em	B7	Em	B7	Em	B7	Em	B7
bar 9	bar 10	bar 11	bar 13	bar 13	bar 14	bar 15	bar 16
Em D	G D	Em	Em	Em D	G D	A	B7

Eleanor Rigby chords in Em

Base your improv on E minor pentatonic and G major scale.

Play each section twice.

bar 1 C VIII 1 5 1 3 5	bar 2 Cma7#11 VII 1 3 7 2 #4	bar 3 Em7 VII 1 5 b7 b3 5	bar 4 Em7 VII 1 5 b7 b3 5	bar 5 C VIII 1 5 1 3 5	bar 6 Cma7#11 VII 1 3 7 2 #4	bar 7 Em7 VII 1 5 b7 b3 5	bar 8 Em7 VII 1 5 b7 b3 5
bar 1 Em VII 1 5 1 b3	bar 2 Em VII 1 5 1 b3	beat 3 (and of 2) Em7/D VIII b7 5 1 b3	beat 3 (and of 4) Em6/C# VIII 6 5 1 b3	beat 3 (and of 2) Em/B VII 5 1 5 1 b3	bar 4 Cma7 V 1 7 3 5	bar 5 Cma7 V 1 7 3 5	beat 3 (and of 2) Em VII 1 5 1 b3
bar 1 Em11 VII 1 5 b7 4	bar 2 Em6 VI 1 5 6 b3	bar 3 Cma7/E VIII 3 7 1 5	bar 4 Em VII 1 5 1 b3				

Songs in G Major Modes

Stormy Weather chords in G

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Gma7 G#°7	Am7 D7	Gma7 G#°7	Am7 D7	Gma7 G#°7	Am7 D7#5	Gma7 E7#9	Am7 D7

G major scale

bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Gma7 G#°7	Am7 D7	Gma7 G#°7	Am7 D7	Gma7 G#°7	Am7 D7#5	Gma7 C9	Bm7 G#°7

G major scale

bar 17	bar 18
Am7 D7#5	G6 G7

section B. Begin improv with G major pentatonic with b3 (Bb).

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
C6 C#°7	G6/D G7	C6 C#°7	G6/D G7	C6 C#°7	G6/D E7	G6/D D#°7	E7#9 Am7 D7

C major scale G maj. scale

repeat bars 9-18 of section A. end at the beginning of bar 18.

Willow Weep For Me chords in G - see [Modes On I IV V Blues](#)

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
G6 C9	G6 C9	Gma7 Am7 D7	G6 Am7 Bb°7	G6/B C9	Am7b5 D7	G6 C7	G6 D7#5

G major scale (opt. b3, opt. b7)

bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
G6 C9	G6 C9	Gma7 Am7 D7	G6 Am7 Bb°7	G6/B C9	Am7b5 D7	G6 C7	G6 Dm7 G7

G major scale (opt. b3)

bars 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Cm Cm6	Gm G7	Cm7 Bb7	Ab7 G7	Cm Cm6	Gm G7	Cm7 Bb7	Ab7 Am7 D7#5

G major scale with b3 (opt. b7)

repeat section A, end on G6

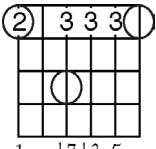
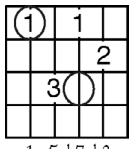
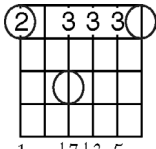
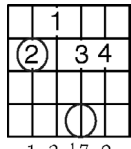
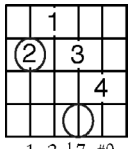
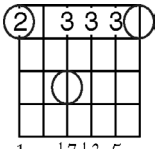
Eb MAJOR and C MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	C Aeolian	C Dorian	C Mixolydian	Eb major	Eb Mixolydian	Eb Dorian	G Phrygian maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 VIII	fingering 2 VIII	fingering 5 VIII	fingering 6 VIII	fingering 3 VIII	fingering 7 VIII	Eb maj #5 F6 VII
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Cm711 VII	Cm711 VII	C711 VI	Ebma69 VIII	Ebma69 VIII	Ebm69 VIII	G7/11 F3 VII
E form							
C minor,							
G form							
Eb major							
triads and modes	fingering 7 X	fingering 3 X	fingering 6 X	fingering 7 X	fingering 5 X	fingering 2 XI	Eb maj #5 F7 IX
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Cm711 X	Cm711 X	C711 X	Ebma69 X	Ebma69 IX	Ebm69 IX	G7/11 F4 IX
D form							
C minor,							
E form							
Eb major							
triads and modes	fingering 3 III	fingering 6 II	fing. 1 & 2 II	fingering 3 III	fingering 7 III	fingering 5 II	Eb maj #5 F3 II
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Cm711 III	Cm711 III	C711 I	Ebma69 III	Ebma69 III	Ebm69 II	G7/11 F1 III
A form							
C minor,							
C form							
Eb major							

Songs in C Minor Modes

Equinox chords in Cm Base your improv on C minor pentatonic and Eb major scale.

bars 1-4	bars 5-6	bars 7-8	bar 9	bar 10	bars 11-12
Cm7 VIII	Fm7 VIII	Cm7 VIII	Ab9 X	G7#9 IX	Cm7 VIII
					
1 b7 b3 5	1 5 b7 b3	1 b7 b3 5	1 3 b7 2	1 3 b7 #9	1 b7 b3 5

Sugar chords in Cm Base your improv on C minor pentatonic.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Cm7	Dm7b5 G7#5	Cm7	G7#5	Cm7	Cm7	Dm7b5	G7#5
Eb major scale	(opt. #5)	Eb major scale	(opt. #5)	Eb major scale			(opt. #5)
bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Cm7	Gb7	Fm7	Eb7	Dm7b5	G7#5	Ab7	G7#5
Eb major scale	Db maj. b3	Eb major scale	(opt. b3)		(opt. #5)	Eb major b3	Eb maj. (opt. #5)
repeat bars 1-14 with this alternate ending		bar 15	bar 16				
		Cm7	Cm7				
		Eb major scale					

Songs in Eb Major Modes

There Will Never Be Another You chords in Eb Eb major pent., except Ab ma. pent. bars 9-10.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Ebma7	Ebma7	Dm7b5	G7#5	Cm7	Cm7	Bbm9	Eb13
Eb major scale			(opt. #5)	Eb major scale		Ab major	
bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Abma7	Db9#11	Ebma7	Cm7	F9	F9	Fm7	Bb7
Ab major scale	Ab maj. b3	Eb major scale		Bb major scale		Eb major scale	
bar 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Ebma7	Ebma7	Dm7b5	G7#5	Cm7	Cm7	Bbm9	Eb13
Eb major scale			(opt. #5)	Eb major scale		Ab major	
bar 25	bar 26	bar 27	bar 28	bar 29	bar 30	bar 31	bar 32
Abma7	Db9#11	Ebma7	F13	Eb6 Ab9	Gm7 C7	Fm7 Bb7	Eb6
Ab major scale	Ab maj. b3	Eb major scale	Eb Mixo. #1	Eb major scale			

Ab MAJOR and F MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	F Aeolian	F Dorian	F Mixolydian	Ab major	Ab Mixolydian	Ab Dorian	C Phrygian maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
major scales modes	fingering 6 XIII	fingering 2 XIII	fingering 5 XII	fingering 6 XIII	fingering 3 XIII	fingering 7 XIII	Ab maj #5 F6 XII
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Fm711 XII	Fm711 XII	F711 XI	Abma69 XIII	Abma69 XIII	Abm69 XIII	C7/11 F3 XII
E form							
F minor,							
G form							
Ab major							
triads and modes	fingering 7 III	fingering 3 III	fingering 6 III	fingering 7 III	fingering 5 III	fingering 2 III	Ab maj #5 F7 II
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Fm711 III	Fm711 III	F711 III	Abma69 III	Abma69 II	Abm69 II	C7/11 F4 II
D form							
F minor,							
E form							
Ab major							
triads and modes	fingering 3 VIII	fingering 6 VIII	fing. 1 & 2 VI	fingering 3 VIII	fingering 7 VIII	fingering 5 IX	Ab maj #5 F3 VII
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Fm711 VIII	Fm711 VIII	F711 VI	Abma69 VIII	Abma69 VIII	Abm69 VII	C7/11 F1 VIII
A form							
F minor,							
C form							
Ab major							

Songs in F Minor Modes

Song For My Father chords in Fm

Base your improv on F minor pentatonic.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Fm9	Fm9	Eb9	Eb9	Db9	C7sus4	Fm9	Fm9
Ab major scale				Ab maj. b3		Ab major	

repeat bars 1-8 for 9-16

bar 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Eb9	Eb9	Fm9	Fm9	Db9	C7sus4	Fm9	Fm9
Ab major scale	Ab maj. b3	Eb major scale	Eb Mixo. #1	Ab maj. b3		Ab major	

repeat bars 1-8

Afro Blue chords in Fm (3/4 time, or every two bars as 6/8)

Base your improv on F minor pentatonic.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Fm7	Gm7	AbΔ7 Gm7	Fm7	Fm7	Gm7	AbΔ7 Gm7	Fm7
Ab major scale							

bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Eb	Eb	Db Eb	Fm7	Eb	Eb	Db Eb	Fm7
Ab major scale							

Bags' chords in F (3/4 time, or every two bars as 6/8) - see [Modes On I IV V Blues](#)

Base your improv on F minor pentatonic.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
F7	Bb7 B°7	F7	F7	Bb7	Bb7 B°7	F7	F7 D7
Bb major scale (optional b7: Ab)							
bar 9	bar 10	bar 11	bar 12	end on F7			
Gm7	C7	F7 D7	Gm7 C7				

Songs in Ab Major Modes

Killing Me Softly With His Song chords in Ab

Base your improv on Ab major pentatonic (Fm to darken), except Gb major pentatonic on Gbma7.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Bbm7	Eb9	Ab	Dbma7	Bbm7	Eb9	Fm7	Fm7
Ab major scale							
bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Bbm7	Eb9	Ab	C7	Fm7	Bbm7	Eb	Ab
Ab major scale			Ab maj. (opt. #5)	Ab major scale			
bar 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Fm	Bb/D	Eb	Db	Ab	Db	Gbma7	Gbma7
Ab major scale	Eb major	Ab major scale					
bar 25	bar 26						
F	F						
Db major scale with #5 (A)							

Donna Lee chords in Ab

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Abma7	F7	Bb7	Bb7	Bbm7	Eb7	Abma7	Ebm7 Ab7
Ab major scale		Eb major scale		Ab major scale		Db major scale	
bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Dbma7	Gb7	Abma7	F7	Bb7	Bb7	Bbm7	Eb7
Db major scale	B major scale	Ab major scale		Eb major scale		Ab major scale	
bars 17	bar 19	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Abma7	F7	Bb7	Bb7	Gm7b5	C7	Fm	C7
Ab major scale		Eb major scale		Eb major scale			
bars 25	bar 26	bar 27	bar 28	bar 29	bar 30	bar 31	bar 32
Fm	C7	Fm	Bdim7	Cm7 F7	Bbm7 Eb7	Abma7	Bbm7 Eb7
Ab major scale			Eb major scale	Bb major scale	Ab major scale		

D MAJOR and B MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	B Aeolian	B Dorian	B Mixolydian	D major	D Mixolydian	D Dorian	F# Phryg. maj.
	B minor 7/11 pentatonic subset	B minor 7/11 pentatonic subset	B dom. 7/11 pentatonic subset	D major 6/9 pentatonic subset	D major 6/9 pentatonic subset	D minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 VII	fingering 2 VII	fingering 5 VII	fingering 6 VII	fingering 3 VII	fingering 7 VII	D maj #5 F6 VI
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Bm711 VI	Bm711 VI	B711 V	Dma69 VII	Dma69 VII	Dm69 VII	F#7/11 F3 VI
E form							
B minor,							
G form							
D major							
triads and modes	fingering 7 IX	fingering 3 IX	fingering 6 IX	fingering 7 IX	fingering 5 IX	fingering 2 X	D maj #5 F7 VIII
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Bm711 IX	Bm711 IX	B711 IX	Dma69 IX	Dma69 VIII	Dm69 VIII	F#7/11 F4 VIII
D form							
B minor,							
E form							
D major							
triads and modes	fingering 3 II	fingering 6 II	fing. 1 & 2 II	fingering 3 II	fingering 7 II	fingering 5 I	D maj #5 F3 I
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Bm711 II	Bm711 II	B711 II	Dma69 II	Dma69 II	Dm69 I	F#7/11 F1 II
A form							
B minor,							
C form							
D major							

Songs in B Minor Modes

Same Old Blues chords in B minor - see [Modes](#) (related to D major)

bar 1	beat 3	bar 2				bar 3	beat 3	bar 4	beat 3	beat 4
D	F#7	Bm7				D	F#7	Bm7	Am7	D7
G major						D maj			G major	
bar 5	beat 3	bar 6	beat 2	beat 3		bar 7	beat 3	bar 8	beat 3	
G	G#°7	D7	C7/A	B7		Em7	A7	D	A7	
G major						D major				

Songs in D Major Modes

Breezin' chords in D major

bar 1	bar 1	bar 3	bar 4
Dma7	Bm7	Em7	A9sus4
D major			

Someday After A While chords in D major - see [Modes On I IV V Blues](#)

bar 1		bar 2		bar 3		bar 4		
D7		D7		G		G#°7		
G major				C major				
bar 5	beat 3	bar 6	beat 3	bar 7	beat 3	beat 4	bar 8	beat 3
D7	B7	Em7	A7	D7	G7	G#°7	D7	A7
G major				C major		G major		D msjot

The In Crowd chords in D - see [Modes On I IV V Blues](#)

bars 1-8	bars 9-12	bar 13-16	bar 17-18	bars 19-20	bars 21-22	bars 23-24	bars 25-26
D7	G7	D7	F#7	Bm7	E7	A	C
G major scale	D major scale	G major scale	D major scale		A major scale	D major scale	G major scale

A MAJOR and F# MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	F# Aeolian	F# Dorian	F# Mixolydian	A major	A Mixolydian	A Dorian	C# Phryg. maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
major scales	fingering 6 II	fingering 2 II	fingering 5 I	fingering 6 II	fingering 3 II	fingering 7 XIII	A maj #5 F6 I
modes							
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	F#m711 I	F#m711 I	F#711 I	Ama69 II	Ama69 II	Am69 II	C#7/11 F3 I
E form							
F# minor,							
G form							
A major							
triads and modes	fingering 7 IV	fingering 3 IV	fingering 6 IV	fingering 7 IV	fingering 5 IV	fingering 2 IV	A maj #5 F7 III
D form minor modes,							
E form major mode							
pentatonic fingering 2 subsets:	F#m711 IV	F#m711 II	F#711 IV	Ama69 IV	Ama69 III	Am69 III	C#7/11 F4 III
D form							
F# minor,							
E form							
A major							
triads and modes	fingering 3 IX	fingering 6 IX	fing. 1 & 2 VII	fingering 3 IX	fingering 7 IX	fingering 5 IX	A maj #5 F3 VIII
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	F#m711 IX	F#m711 IX	F#711 VII	Ama69 IX	Ama69 IX	Am69 VIII	C#7/11 F1 IX
A form							
F# minor,							
C form							
A major							

Songs in A Major Modes

Stand By Me chords in A major

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
A		F#m7		D	E	A	
A major							

Crossroads chords in A major

Key to the Highway chords in A major

E MAJOR and C# MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	C# Aeolian	C# Dorian	C# Mixolydian	E major	E Mixolydian	E Dorian	G# Phry. maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 IX	fingering 2 IX	fingering 5 IX	fingering 6 IX	fingering 3 IX	fingering 7 IX	maj #5 F6 VIII
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	C#m711 VIII	C#m711 VIII	C#711 VII	Ema69 IX	Ema69 IX	Em69 IX	G#7/11 F3 VIII
E form							
C# minor,							
G form							
E major							
triads and modes	fingering 7 XI	fingering 3 XI	fingering 6 XI	fingering 7 XI	fingering 5 XI	fingering 2 XII	maj #5 F7 X
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	C#m711 XI	C#m711 XI	C#711 XI	Ema69 XI	Ema69 X	Em69 X	G#7/11 F4 X
D form							
C# minor,							
E form							
E major							
triads and modes	fingering 3 IV	fingering 6 IV	fing. 1 & 2 II	fingering 3 IV	fingering 7 IV	fingering 5 III	maj #5 F3 III
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	C#m711 IV	C#m711 IV	C#711 II	Ema69 IV	Ema69 IV	Em69 III	G#7/11 F1 IV
A form							
C# minor,							
C form							
E major							

Songs in C# Minor Modes

All Along The Watchtower chords in C# minor

Base your improv on C# minor pentatonic. Optionally, add a "2" (D#). Elaborate with the E major scale.

bar 1	beat 3	bar 2	beat 3
C#m	B	A	B

Songs in E Major Modes

Santeria chords in E major - base your improv on E major pentatonic and E major scale.

Section A

bar 1	bar 2	bar 3	bar 4
E	G#	C#m	B7
E major	E major sharp 5	R major	

Section B

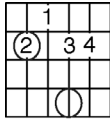
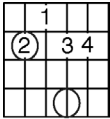
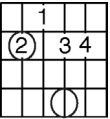
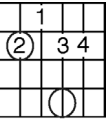
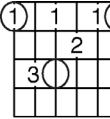
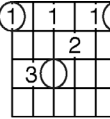
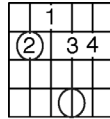
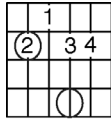
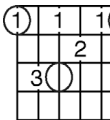
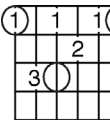
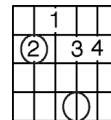
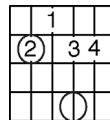
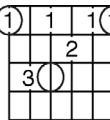
bars, 1,3,5	beat 3	bars 2,4,6	beat 2	beat 3	bar 7	beat 3
A	B	E	D#m	C#m	A	B
E major						

Isn't She Lovely chords in E major - base your improv on E major pentatonic and E major scale.

bars 1, 5	bars 2, 6	bars 3, 7	bars 4, 8	bar 9	bar 10	bar 11	bar 12	bars 13-14	bars 15-16
C#m9	F#7	B7sus4	Emaj7	A	G#7	F#7	C#m7	B7sus4	Emaj7
E major					E ma. #5	E major			

Hideaway chords in E major - see [Modes On I IV V Blues](#)

Base your improv on E major and E minor pentatonic. Be sure to use either E major pentatonic with a flatted third or E minor pentatonic on A7. E minor pentatonic on E7 and B7 is bluesy.

bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
E9 VI	E9 VI	E9 VI	E9 VI	A7 V	A7 V	E9 VI	E9 VI
							
1 3 b7 2	1 3 b7 2	1 3 b7 2	1 3 b7 2	1 5 b7 3 5 1	1 5 b7 3 5 1	1 3 b7 2	1 3 b7 2
bar 9	bar 10	bar 11	bar 12	beat 3	(end on B7)		
B7 VII	A7 V	E9 VI	E9 VI	B7 VII			
							
1 5 b7 3 5 1	1 5 b7 3 5 1	1 3 b7 2	1 3 b7 2	1 5 b7 3 5 1			

B MAJOR and G# MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	G# Aeolian	G# Dorian	G# Mixolydian	B major	B Mixolydian	B Dorian	D# Phry. major
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 IV	fingering 2 IV	fingering 5 IV	fingering 6 IV	fingering 3 IV	fingering 7 IV	B maj #5 F6 III
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	G#m711 III	G#m711 III	G#711 II	Bma69 IV	Bma69 IV	Bm69 IV	D#7/11 F3 III
E form							
G# minor,							
G form							
B major							
triads and modes	fingering 7 VI	fingering 3 VI	fingering 6 VI	fingering 7 VI	fingering 5 VI	fingering 2 VI	B maj #5 F7 V
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	G#m711 VI	G#m711 VI	G#711 VI	Bma69 VI	Bma69 V	Bm69 V	D#7/11 F4 V
D form							
G# minor,							
E form							
B major							
triads and modes	fingering 3 XI	fingering 6 XI	fing. 1 & 2 IX	fingering 3 XI	fingering 7 XI	fingering 5 X	B maj #5 F3 X
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	G#m711 XI	G#m711 XI	G#711 IX	Bma69 XI	Bma69 XI	Bm69 X	D#7/11 F1 XI
A form							
G# minor,							
C form							
B major							

Songs in B Major Modes

Red House chords in B - see [Modes On I IV V Blues](#)

Base your improv on B minor pentatonic. Optionally, use B major pentatonic on B7 and F#7 and optionally use F# minor pentatonic with a major third on F#7.

bar 1

B7 VII

1 5 b7 3 5 1

bar 2

E9 VI

1 3 b7 2

bar 3

B7 VII

1 5 b7 3 5 1

bar 4

B7 VII

1 5 b7 3 5 1

bar 5

E9 VI

1 3 b7 2

bar 6

E9 VI

1 3 b7 2

bar 7

B7 VII

1 5 b7 3 5 1

bar 8

B7 VII

1 5 b7 3 5 1

bar 9

F#7 VII

1 3 b7 1

bar 10

E9 VI

1 3 b7 2

bar 11

B7 VII

1 5 b7 3 5 1

bar 12

B7 VII

1 5 b7 3 5 1

beat 3

F#-7#9 VI

1 3 b7 #9

(end on B7)

Db MAJOR and Bb MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	Bb Aeolian	Bb Dorian	Bb Mixolydian	Db major	Db Mixolydian	Db Dorian	F Phryg. maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 VI	fingering 2 VI	fingering 5 VI	fingering 6 VI	fingering 3 VI	fingering 7 VI	Db maj #5 F6 V
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Bbm711 V	Bbm711 V	Bb711 IV	Dbma69 VI	Dbma69 VI	Dbm69 VI	F7/11 F3 V
E form							
Bb minor,							
Db major							
triads and modes	fingering 7 VIII	fingering 3 VIII	fingering 6 VIII	fingering 7 VIII	fingering 5 VIII	fingering 2 IC	Db maj #5 F7 VII
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Bbm711 VIII	Bbm711 VIII	Bb711 VIII	Dbma69 VIII	Dbma69 VII	Dbm69 VII	F7/11 F4 VII
D form							
Bb minor,							
E form							
Db major							
triads and modes	fingering 3 XIII	fingering 6 XIII	fing. 1 & 2 XI	fingering 3 XIII	fingering 7 XIII	fingering 5 XII	Db maj #5 F3 XII
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Bbm711 XIII	Bbm711 XIII	Bb711 XI	Dbma69 XIII	Dbma69 XIII	Dbm69 XII	F7/11 F1 XIII
A form							
Bb minor,							
Db major							

Gb MAJOR and Eb MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	Eb Aeolian	Eb Dorian	Eb Mixolydian	Gbmajor	Gb Mixolydian	Gb Dorian	Bb Phryg. maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 XI	fingering 2 XI	fingering 5 XI	fingering 6 XI	fingering 3 XI	fingering 7 XI	Gb maj #5 F6 X
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	Ebm711 X	Ebm711 X	Eb711 XI	Gbma69 XI	Gbma69 XI	Gbm69 XI	Bb7/11 F3 X
E form							
Eb minor,							
G form							
Gb major							
triads and modes	fingering 7 XIII	fingering 3 XIII	fingering 6 XIII	fingering 7 XIII	fingering 5 XIII	fingering 2 XI	Gb maj #5 F7 XII
D form minor modes,							
E form major modes							
pentatonic fingering 2 subsets:	Ebm711 XIII	Ebm711 XIII	Eb711 XIII	Gbma69 XIII	Gbma69 XII	Gbm69 XII	Bb7/11 F4 XII
D form							
Eb minor,							
E form							
Gb major							
triads and modes	fingering 3 VI	fingering 6 VI	fing. 1 & 2 IV	fingering 3 VI	fingering 7 VI	fingering 5 V	G maj #5 F3 V
A form minor modes,							
C form major modes							
pentatonic fingering 4 subsets:	Ebm711 VI	Ebm711 VI	Eb711 IV	Gbma69 VI	Gbma69 VI	Gbm69 V	Bb7/11 F1 VI
A form							
Eb minor,							
C form							
Gb major							

F# MAJOR and D# MINOR

Fingering with Subsets

	minor pentatonic basis			major pentatonic basis			
	D# Aeolian	D# Dorian	D# Mixolydian	F# major	F# Mixolydian	F# Dorian	A# Phryg. maj.
	VI minor 7/11 pentatonic subset	VI minor 7/11 pentatonic subset	VI dom. 7/11 pentatonic subset	I major 6/9 pentatonic subset	I major 6/9 pentatonic subset	I minor 6/9 pentatonic subset	III 7/11 pentatonic subset
triads and modes	fingering 6 XI	fingering 2 XI	fingering 5 XI	fingering 6 XI	fingering 3 XI	fingering 7 XI	F# maj #5 F6 X
E form minor modes,							
G form major modes							
pentatonic fingering 1 subsets:	D#m711 X	D#m711 X	D#711 XI	F#ma69 XI	F#ma69 XI	F#m69 XI	A#7/11 F3 X
E form							
D# minor,							
G form							
F# major							
triads and modes	fingering 7 XIII	fingering 3 XIII	fingering 6 XIII	fingering 7 XIII	fingering 5 XIII	fingering 2 XIV	F# maj #5 F7 XII
D form							
minor modes,							
E form							
major modes							
pentatonic fingering 2 subsets:	D#m711 XIII	D#m711 XIII	D#711 XIII	F#ma69 XIII	F#ma69 XII	F#m69 XII	A#7/11 F4 XII
D form							
D# minor,							
E form							
F# major							
triads and modes	fingering 3 VI	fingering 6 VI	fing. 1 & 2 IV	fingering 3 VI	fingering 7 VI	fingering 5 V	F# maj #5 F3 V
A form							
minor modes,							
C form							
major modes							
pentatonic fingering 4 subsets:	D#m711 VI	D#m711 VI	D#711 IV	F#ma69 VI	F#ma69 VI	F#m69 V	A#7/11 F1 VI
A form							
D# minor,							
C form							
F# major							

Scale-Tone Arpeggios & Pentatonics

- **Open Position Major Scales and Triad Arpeggios**
- **Major Scale-Tone Triad Arpeggios**
- **Major Scale Tone Seventh Arpeggios**
- **Major Scale-Tone Ninth Arpeggios**
- **Major Scale-Tone Full-Tertian Arpeggios**
- **Major Scale-Tone Pentatonic Scales**
- **Modal Pentatonic Scales**
- **Building Triad Arcs**
- **Major, Harmonic Minor and Melodic Minor**

OPEN POSITION SCALES AND TRIAD ARPEGGIOS

C major scale

fingers 3 0 2 3 0 2 0 1 0 2 0 3 2 0 3 2 0 3 1 0 1 3 0 2 3 0 2 3 0 2 0 1 3 0 1 3 1 0 3 1 0 2 0 3 2 0 3 2 3
 scale tones 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 7 6 5 4 3 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1

T A B
 3 0 2 3 0 2 0 1 0 2 0 3 2 0 3 2 0 3 1 0 1 3 0 2 3 0 2 3 0 2 0 1 3 0 1 3 1 0 3 1 0 2 0 3 2 0 3 2 3

A harmonic minor scale (C major sharp five)

fingers 0 2 3 0 2 3 1 2 0 1 3 0 1 3 4 3 1 0 3 1 0 2 1 3 2 0 3 2 0 4 1 0 1 4 1
 scale tones 1 2 b3 4 5 b6 7 1 2 b3 4 5 b6 7 1 7 b6 5 4 b3 2 1 7 b6 5 4 b3 2 1 7 b6 5 4 b3 2 1 7 b6 5 b6 7 1

T A B
 0 2 3 0 2 3 1 2 0 1 3 0 1 3 4 3 1 0 3 1 0 2 1 3 2 0 3 2 0 4 1 0 1 4 0

C Dm Em
 T A B
 3 2 0 1 0 3 0 1 0 2 3 3 0 3 3 0 3 2 3 1 5 1 3 2 3 0 0 1 0 0 0 3 2 0 0 2 2 3 0

E (A harmonic minor) F (C major scale) G
 T A B
 0 3 2 2 1 0 0 4 0 0 1 2 2 4 0 1 0 3 3 2 1 5 1 1 2 3 3 0 1 3 2 0 0 3 3 0 0 0 2 3

Am Bdim C
 T A B
 0 3 2 2 1 0 5 0 1 2 2 3 0 0 2 0 3 0 3 1 3 0 3 0 2 1 2 3 2 0 1 0 3 0 1 0 2 3 3 0 3 3

G major scale

fingers 3 0 2 3 0 2 4 0 2 0 1 3 0 2 3 2 0 3 1 0 3 0 4 2 0 3 2 0 3
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1

T
A
B

E harmonic minor scale (G major scale sharp five)

fingers 0 2 3 0 2 3 0 2 4 0 2 0 1 3 0 2 3 2 0 3 1 0 3 0 4 2 0 3 2 0 3 0
scale tones 1 2 b3 4 5 b6 7 1 2 b3 4 5 b6 7 1 2 b3 2 1 7 b6 5 4 b3 2 1 7 b6 5 4 b3 2 0 1

T
A
B

G Am Bm

T
A
B

B (E harmonic minor) C (G major scale) D

T
A
B

Em F#dim G

T
A
B

D major scale

fingers: 0 1 3 0 1 3 1 2 0 2 3 4 3 2 0 3 1 3 1 0 3 1 0 2 1 2 0 1 3 0
 scale tones: 1 2 3 4 5 6 7 1 2 3 4 5 4 3 2 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1 0

TAB: 2 2 4 0 2 0 2 3 0 2 3 5 3 2 0 3 2 0 2 0 4 2 0 4 2 0 3 2 3 0 2 4 0

B harmonic minor scale (D major scale sharp five)

fingers: 1 3 0 1 3 0 2 3 1 2 0 2 0 3 1 3 2 0 3 1 0 3 1 1 3 2 3 1 1
 scale tones: 1 2 b3 4 5 b6 7 1 2 b3 4 5 4 b3 2 1 7 b6 5 4 b3 2 1 7 b6 5 b6 7 1

TAB: 2 4 0 2 4 0 3 0 2 3 0 2 0 3 2 0 3 0 4 2 0 4 2 0 3 2 3 1 2

D Em F#m
 1 4 3 3 1 1 1 4 1 1 1 3 3 4 1

TAB: 0 4 2 3 2 5 2 3 2 4 0 0 0 0 0 3 0 0 0 2 2 2 3 0 2 5 4 4 2 2 2 4 4 5 2

F# (B harmonic minor) G A
 1 4 3 3 2 1 1 4 1 1 2 3 3 3 1 2

TAB: 2 1 4 4 3 2 2 6 2 2 3 4 4 4 1 2 3 2 0 0 3 3 7 3 3 0 0 0 0 2 3 0 4 2 2 2 0 5 0 2 2 2 4 0 0

Bm C#dim D
 4 2 1 2 0 4 0 2 1 2 4 4 0 4 4 0 3 1 2 1 4 1 2 1 3 0 0 1 0 0

TAB: 0 3 2 7 2 3 0 4 0 2 2 4 2 0 2 0 3 0 2 0 2 4 3 0 3 4 0 4 2 3 2 5 2 3 2 4 0 0 0 0

A major scale

The image displays the A major scale and its related chords in treble and bass clef. The scale is written in treble clef with a key signature of three sharps (F#, C#, G#). The scale is divided into four measures, each with a specific fingering and scale tones indicated below the notes. The chords are A, Bm, C#m, C# (F# harmonic minor), D, E, F#m, G#dim, and A, each with a specific fingering and scale tones indicated below the notes. The bass clef part is written in bass clef with a key signature of three sharps (F#, C#, G#). The bass clef part is divided into four measures, each with a specific fingering and scale tones indicated below the notes. The chords are A, Bm, C#m, C# (F# harmonic minor), D, E, F#m, G#dim, and A, each with a specific fingering and scale tones indicated below the notes.

fingers 0 1 3 0 1 3 1 1 0 1 2 4 1 3 4 3 1 4 2 1 0 1 1 3 1 0 3 1 0 3 1 0 1 3 0
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1 7 6 5 6 7 1

A Bm C#m

C# (F# harmonic minor) D E

F#m G#dim A

E major scale

Scale-Tone Arpeggios and Pentatonics for E major scale.

Scale-Tone Arpeggios:

Scale: E major (E, F#, G, A, B, C#, D, E)

Arpeggios: E, F#m, G#m, A, B, C#m, D#dim, E

Fingerings:

Scale tones: 0 2 4 0 | 2 4 1 2 | 4 1 2 0 | 2 4 0 4 | 2 0 2 1 | 4 2 1 4 | 2 4 2 1 | 0

Scale-Tone Arpeggios:

Scale: E major (E, F#, G, A, B, C#, D, E)

Arpeggios: E, F#m, G#m, A, B, C#m, D#dim, E

Fingerings:

Scale tones: 0 2 4 0 | 2 4 1 2 | 4 1 2 0 | 2 4 0 4 | 2 0 2 1 | 4 2 1 4 | 2 4 2 1 | 0

Scale-Tone Arpeggios:

Scale: E major (E, F#, G, A, B, C#, D, E)

Arpeggios: E, F#m, G#m, A, B, C#m, D#dim, E

Fingerings:

Scale tones: 0 2 4 0 | 2 4 1 2 | 4 1 2 0 | 2 4 0 4 | 2 0 2 1 | 4 2 1 4 | 2 4 2 1 | 0

Scale-Tone Arpeggios:

Scale: E major (E, F#, G, A, B, C#, D, E)

Arpeggios: E, F#m, G#m, A, B, C#m, D#dim, E

Fingerings:

Scale tones: 0 2 4 0 | 2 4 1 2 | 4 1 2 0 | 2 4 0 4 | 2 0 2 1 | 4 2 1 4 | 2 4 2 1 | 0

F major scale

MAJOR SCALE-TONE TRIAD ARPEGGIOS

Stepwise Major Scale-Tone Triads by Finger Number

Numbers on the diagram are fretting-hand fingers. Tone centers that name the parent major scale are shown with a circle on the outer perimeter of the circle. The chord roots are in stepwise order in black. Thirds and fifths are gray. Each row is a single major scale with each diagram in the row showing a chord built on a step of the scale, as numbered in roman numerals at the top of the columns.

form	I maj	II m	III m	IV maj	V maj	VI m	VII dim
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Major Scale-Tone Triads in Fourths by Finger Number

Numbers on the diagram are fretting-hand fingers. Tone centers that name the parent major scale are shown with a circle on the outer perimeter of the circle. The chord roots are in perfect fourths, in black. Thirds and fifths are gray. Each row is a single major scale with each diagram in the row showing a chord built on a step of the scale, as numbered in roman numerals at the top of the columns.

form	VII dim	III m	VI m	II m	V maj	I maj	IV maj
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Triad Arpeggios in Stepwise Order, Numbered By Parent Major Scale

Numbers on the diagram are tones of the parent major scale. Tone centers that name the parent major scale are shown with a circle on the outer perimeter of the circle. Each row is a single major scale with each diagram in the row showing a chord built on a step of the scale, as numbered in roman numerals at the top of the columns. The numbered tones that make up each chord are: I major = 1-3-5, II minor = 2-4-6, III minor = 3-5-7, IV major = 4-6-1, V major = 5-7-2, VI major = 6-1-3 and VII diminished = 7-2-4. See the chapter [Basic Chord Construction](#).

form	I maj	II m	III m	IV maj	V maj	VI m	VII dim
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Triad Arpeggios in Perfect Fourth Order, Numbered By Parent Major Scale

Numbers on the diagram are tones of the parent major scale. Tone centers that name the parent major scale are shown with a circle on the outer perimeter of the circle. Each row is a single major scale with each diagram in the row showing a chord built on a step of the scale, as numbered in roman numerals at the top of the columns. The numbered tones that make up each chord are: I major = 1-3-5, II minor = 2-4-6, III minor = 3-5-7, IV major = 4-6-1, V major = 5-7-2, VI major = 6-1-3 and VII diminished = 7-2-4. See the chapter [Basic Chord Construction](#).

form	VII dim	III m	VI m	II m	V maj	I maj	IV maj
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Major Scale-Tone Triad Arpeggio Origins

major scale fingerings

1

1

4

7

3

2

5

1

4

6

2

3

6

2

5

7

3

1/2

1

4

7

3

2

5

1

4

6

2

3

6

2

5

7

3

1

4

2

2

5

1

4

6

2

3

6

2

5

7

3

4

7

3

1

4

2/3

2

5

1

4

3

6

2

5

7

3

4

7

3

6

2

5

3

3

6

2

5

7

3

4

7

3

6

2

5

1

4

5

3/4

3

6

2

5

7

3

4

7

3

6

2

5

1

4

5

4

4

7

3

6

5

1

4

2

5

6

2

5

1

3

6

I major triad arpeggio

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

II minor triad arpeggio

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

III minor triad arpeggio

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

IV major triad arpeggio

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

V major triad arpeggio

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

VI minor triad arpeggio

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

VII diminished triad arpeggio

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

1

3

5

1

3

5

1

3

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	4/5	5	5/6	6	6/7	7	7/1
major scale fingerings							
I major triad arpeggio							
II minor triad arpeggio							
III minor triad arpeggio							
IV major triad arpeggio							
V major triad arpeggio							
VI minor triad arpeggio							
VII diminished triad arpeggio							

MAJOR SCALE-TONE SEVENTH ARPEGGIOS

Stepwise Scale -Tone Seventh Arpeggios by Chord Scale

These are numbered in the key of the chord.

form	I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7 ^b 5
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Seventh Arpeggios in Stepwise Order, Numbered by Parent Major Scale

Also see [Voice Leading Improv with Arpeggio Cadences/Graphically Voice Leading Improv with Arpeggio Cadences/Scale-Tone Seventh Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale](#) (includes [secondary dominants](#)).

form	I ^{ma} 7	I ^{lm} 7	II ^{lm} 7	IV ^{ma} 7	V7	VI ^{lm} 7	VII ^{lm} 7b5
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Major Scale-Tone Seventh Arpeggios in Perfect Fourths

Numbered By Parent Major Scale

form	VIIIm7b5	IIIm7	VIIm7	IIm7	V7	IIma7	IVma7
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Major Scale-Tone Seventh Arpeggio Origins

	1	1/2	2	2/3	3	3/4	4
major scale fingerings							
I ma7 arpeggio							
II m7 arpeggio							
III m7 arpeggio							
IV ma7 arpeggio							
V7 arpeggio							
VI m7 arpeggio							
VII m7b5 arpeggio							

	4/5	5	5/6	6	6/7	7	7/1
major scale fingerings							
I ma7 arpeggio							
II m7 arpeggio							
III m7 arpeggio							
IV ma7 arpeggio							
V 7 arpeggio							
VI m7 arpeggio							
VII m7b5 arpeggio							

MAJOR SCALE-TONE NINTH ARPEGGIOS

Scale-Tone Ninth Arpeggios in Stepwise Order, Notes Shown by Finger Number

parent major scale form	Ima9	IIIm9	IIIIm11b9	III7b9*	IVma9	V9	VIIm9	VIIIm11b5b9
E form parent major scale								
D form parent major scale								
C form parent major scale								
A form parent major scale								
G form parent major scale								

Scale-Tone Ninth Arpeggios in Perfect Fourths Order, Notes Shown by Finger Number

	VII ^m 11b5b9	III ^m 11b9	III ⁷ b9*	VI ^m 9	II ^m 9	V9	I ^m a9	IV ^m a9
parent major scale form	questionable as a usable chord, but definitely a usable arpeggio	questionable as a usable chord, but definitely a usable arpeggio	this common arpeggio uses parent major sharp five scale					
E form parent major scale								
D form parent major scale								
C form parent major scale								
A form parent major scale								
G form parent major scale								

Scale-Tone Ninth Arpeggios in Stepwise Order, Notes Shown by Parent Major Scale Number

parent major scale form	I ^{ma} 9	II ^m 9	III ^{lm} 11b9	III ^{7b} 9*	IV ^{ma} 9	V ⁹	VI ^m 9	VII ^{lm} 11b5b9
E form parent major scale								
D form parent major scale								
C form parent major scale								
A form parent major scale								
G form parent major scale								

* Without its root, III^{7b}9 is a diminished seventh, which can be named after any of its remaining four notes shown in gray: #V^{dim}7, VII^{dim}7, II^{dim}7 or IV^{dim}7.

Scale-Tone Ninth Arpeggios in Perfect Fourths Order, Notes Shown by Parent Major Scale Number

	VIIbm11b5b9	IIIm11b9	III7b9	VIm9	IIIm9	V9	IIma9	IVma9
parent major scale form	questionable as a usable chord, but definitely a usable arpeggio	questionable as a usable chord, but definitely a usable arpeggio	this common arpeggio uses parent major sharp five scale					
E form parent major scale								
D form parent major scale								
C form parent major scale								
A form parent major scale								
G form parent major scale								

* Without its root, III7b9 is a diminished seventh, which can be named after any of its remaining four notes shown in gray: #Vdim7, VIIdim7, IIdim7 or IVdim7.

Major Scale-Tone Ninth Arpeggio Origins

	1	1/2	2	2/3	3	3/4	4
major scale fingerings							
I ma9 arpeggio							
II m9 arpeggio							
III 7b9 arpeggio with #5 of parent (3,#5,7,2,4)							
IV ma9 arpeggio							
V 9 arpeggio							
VI m9 arpeggio							
VII m11b5b9 arpeggio with # of parent (7,2,4,6,1)							

	4/5	5	5/6	6	6/7	7	7/1
major scale fingerings	4 7 3 6 5(1) 4 2 5 6 2 5(1) 3 6 7 3 6 2 1 7	5(1) 4 2 5 6 2 5(1) 3 6 7 3 6 2 1 7	5(1) 4 2 5 6 2 5(1) 3 6 7 3 6 2 1 7	6 2 5(1) 3 6 7 3 6 2 1 7 1 4 5(1)	6 2 5(1) 3 6 7 3 6 2 1 7 1 4 5(1)	7 3 6 2 1 7 1 4 5(1) 3 6 2 5(1) 4 6 2	7 3 6 2 1 7 1 4 5(1) 3 6 2 5(1) 4 6 2
I ma9 arpeggio	1 1 1 1 2 2 2 1 1 4 4 3 3 3 4			1 1 1 1 1 3 3 3 3 3 4 4 4 4 4		1 1 1 1 2 2 2 2 2 4 4 4 4 4	
II m9 arpeggio	1 1 1 1 2 2 2 1 1 4 4 4 3 3 3 4			1 1 1 1 1 3 3 3 3 3 4 4 4 4 4		1 1 1 1 2 2 2 2 2 4 4 4 4 4	1 1 1 1 2 2 2 2 2 4 4 4 4 4
III 7b9 arpeggio with #5 of parent (3,#5,7,2,4)	1 1 1 1 2 2 2 1 1 3 3 3 3 3 4 4			1 1 1 1 1 3 3 3 3 3 4 4 4 4 4		1 1 1 1 2 2 2 2 2 4 4 4 4 4	
IV ma9 arpeggio	1 1 1 1 2 2 2 1 1 4 4 4 3 3 3 4			1 1 1 1 1 3 3 3 3 3 4 4 4 4 4		1 1 1 1 2 2 2 2 2 4 4 4 4 4	1 1 1 1 2 2 2 2 2 4 4 4 4 4
V9 arpeggio	1 1 1 1 2 2 2 1 1 4 4 3 3 3 4			1 1 1 1 1 3 3 3 3 3 4 4 4 4 4		1 1 1 1 2 2 2 2 2 4 4 4 4 4	
VI m9 arpeggio	1 1 1 1 2 2 2 1 1 4 4 4 3 3 3 4			1 1 1 1 1 3 3 3 3 3 4 4 4 4 4		1 1 1 1 2 2 2 2 2 4 4 4 4 4	1 1 1 1 2 2 2 2 2 4 4 4 4 4
VII m11b5b9 arpeggio with # of parent (7,2,4,6,1)	1 1 1 1 2 2 2 1 1 3 3 3 3 3 4 4			1 1 1 1 1 3 3 3 3 3 4 4 4 4 4		1 1 1 1 2 2 2 2 2 4 4 4 4 4	1 1 1 1 2 2 2 2 2 4 4 4 4 4

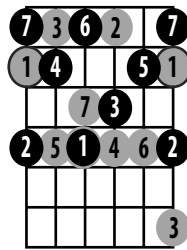
MAJOR SCALE-TONE FULL-TERTIAN ARPEGGIOS

6 1 3 “Tertian” refers to a structure of thirds. In full-tertian arpeggios, each note is a scale tone third from the next. They are a continuous series of every-other-note, using the numbered cycle 1-3-5-7-2-4-6, repeat. They can build major scale-tone arpeggios constructed in thirds (every-other-note).

4 5

2 7

Each of these full-tertian arpeggios contains smaller arpeggios. For example, II^m13 ascends with major Each fingering contains two full-tertian arpeggios, one shown in black, the other in gray. From bass treble, the fingering below ascends 7-2-4-6-1-3-5-7-2 in black and ascends 1-3-5-7-2-4-6-1-3 in gray.



Each of these full-tertian arpeggios contain smaller arpeggios. For example, II^m13 ascends with major scale tones 2-4-6-1-3-5-7. Each three consecutive tones of 2-4-6-1-3-5-7-2-4 makes a triad. 2-4-6 is a II minor triad, 4-6-1 is a IV major triad, 6-1-3 is a VI minor triad, 1-3-5 is a I major triad and 3-5-7 is a III minor triad. Each four consecutive notes of 2-4-6-1-3-5-7-2-4-6 make a seventh chord. 2-4-6-1 is II^m7, 4-6-1-3 is a IV^{ma}7, 6-1-3-5 is a VI^m7 and 1-3-5-7 is I^{ma}7.

Each five consecutive notes of 2-4-6-1-3-5-7-2-4-6-1 makes a usable ninth chord *if* the ninth chord is currently acceptable to listeners. Five of the possibilities are acceptable. 2-4-6-1-3 is II^m9, 4-6-1-3-5 is IV^{ma}9, 6-1-3-5-7 is VI^m9, 1-3-5-7-2 makes I^{ma}9 and 5-7-2-4-6 makes V9. Building a ninth on the “3” (3-5-7-2-4), would result in III^m7b9, which is not currently an acceptable chord. Likewise, building a ninth on the “7” (7-2-4-6-1), would result in VII^m7b5b9, which is not currently an acceptable chord.



IIm15 and V13 arpeggios include the other tertian arpeggios

A IIm15 arpeggio includes all the notes of IIm13, IVma13#11, VIm11, Ima9, IIIm7 and V major. A V13 arpeggio includes all the notes of V15, VIIIm11b5b9, IIm9, IVma7 and VI minor. These two arpeggios, IIm15 and V13 include all the other usable major scale tone arpeggios built in third. So it makes sense to memorize their fingerings.

Making the II minor chord a hypothetical IIm15, where the root and the fifteenth is the same note two octaves apart, allows making the maximum subset chords. The V13 chord allows making the remaining major scale-tone tertian chords not part of the IIm15. VIIIm7b5b9 is a usable arpeggio, but not an acceptable chord. In the use of VIIIm7b5b9 as an arpeggio, the “b9” tone needs to resolve to its upper or lower neighbor (root or flatted third). See the table below.

IIm15 and V13 subset arpeggios

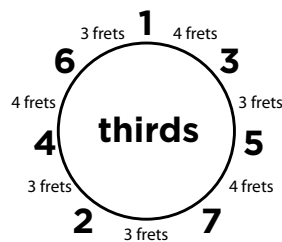
	on root	on third	on fifth	on seventh	on ninth	on eleventh
IIm15	IIm13	IVma13#11	VIm11	Ima9	IIIm7	V major
V13	V13	VIIIm11b5b9	IIm9	IVma7	VI minor	n/a

Using Full-Tertian in Composing and Improvising

See “[Commonality Chords](#)”, “[Substitution](#)” and “[Abbreviating and Elaborating Chord Progression](#)”.

Building Scale-Tone Arpeggios from Full Tertian

Ascend each of the arpeggios for fingering 7 in both “lowest full tertian” and “other full tertian with the limits shown below for each (IIIm7 is 3-5-7-2). Notice the *parent major scale* upper limit is “2” or “3” and the lower limit is most often thought of as II or V, sometimes VI.



scale-tone chord	numbers of parent	quantity
Ima9	1-3-5-7-2	5 notes
IIm13	2-4-6-1-3-5-7	7 notes
IIIm7	3-5-7-2	4 notes
IVma13#11	4-6-1-3-5-7-2	7 notes
V9	5-7-2-4-6	5 notes
VIm11	6-1-3-5-7-2	6 notes
VIIIm7b5	7-2-4-6-(1-3)	4(6) notes

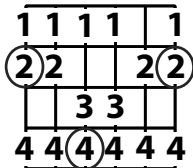
currently acceptable as an arpeggio, not as a chord

Ima13	1-3-5-7-2-4-6	7 notes
IIm15	2-4-6-1-3-5-7-2	8 notes
IIIm11b9	3-5-7-2-4-6	6 notes
V13	5-7-2-4-6-1-3	7 notes
VIIIm11b5b9	7-2-4-6-1-3	6 notes

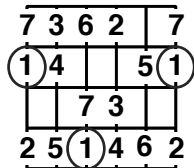
Fingering 7 Family of Chords and Arpeggios

Suggested songs: Autumn Leaves, Road Song

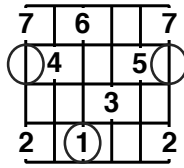
finger numbers
Bb ma. scale V



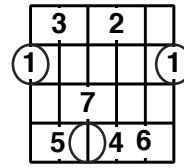
scale tones
Bb ma. scale V



low full tertian
fingering 7

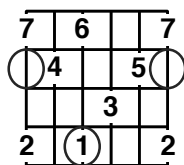


other full tertian
fingering 7

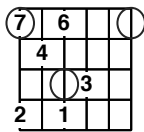


arpeggios from full tertian

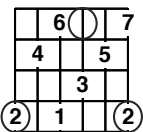
low full tertian
fingering 7 V



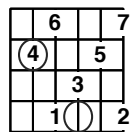
VIIIm11b5b9
Am11b5b9 V



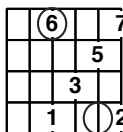
IIm15
Cm15 V



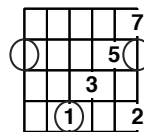
IVma7
Ebma13#11 V



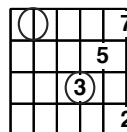
VIIm11
Gm11 V



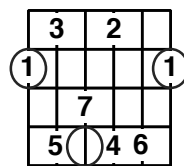
Ima9
Bbma9 V



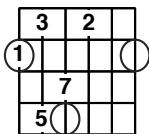
IIIIm7
Dm7 V



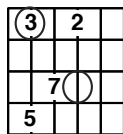
other full tertian
fingering 7 V



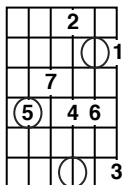
Ima9
Bbmas9 V



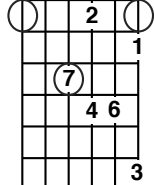
IIIIm7
Dm7 V



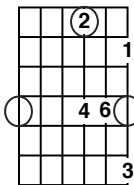
V13
F13 V



VIIIm11b5b9
Am11b5b9 V

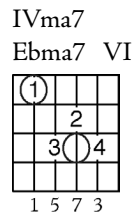
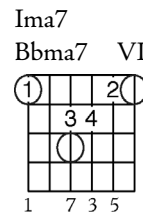
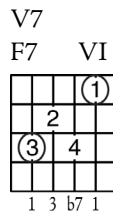
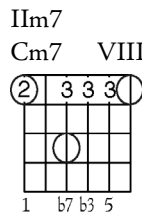
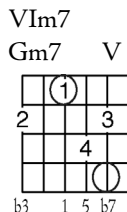
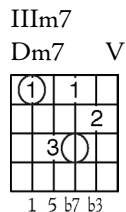
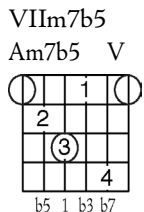


IIm7
Cm9 V

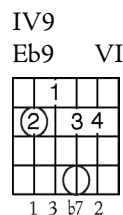
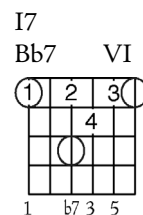
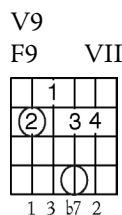
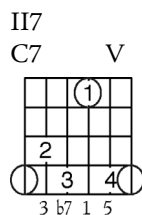
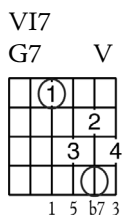
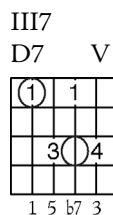


chords

scale-tone
chords
with roots
progressing in
perfect fourths



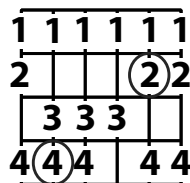
secondary
dominants



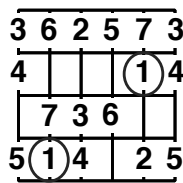
Fingering 3 Family of Chords And Arpeggios

Suggested songs: Fly Me To The Moon, Black Orpheus, Still Got The Blues

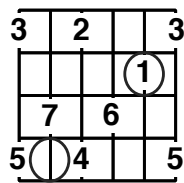
finger numbers
C ma. scale XII



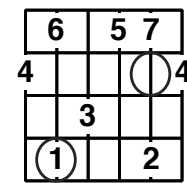
scale tones
C ma. scale XII



low full tertian
fingering 3

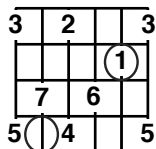


other full tertian
fingering 3

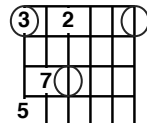


arpeggios from full tertian

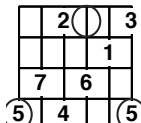
low full tertian
fingering 3 XII



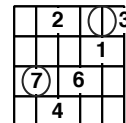
IIIIm7
Em7 XII



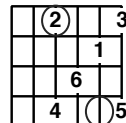
V13
G13 XII



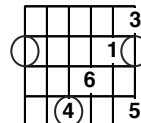
VIIIm11b5b9
Bm11b5b9 XII



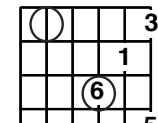
IIm11
Dm11 XII



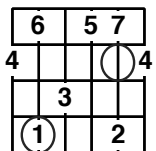
IVma9
Fma9 XII



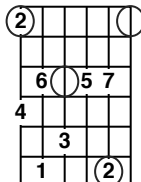
VIIm7
Am7 XII



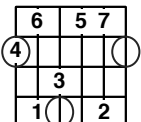
other full tertian
fingering 3 XII



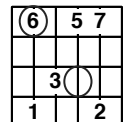
IIm15
Dm15 X



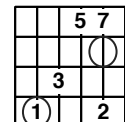
IVma13#11
Fma13#11 XII



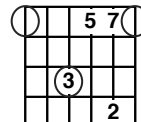
VIIm11
Am11 XII



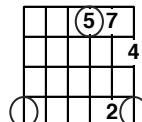
Ima9
Cma9 XII



IIIIm7
Em7 XII

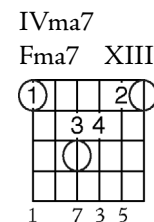
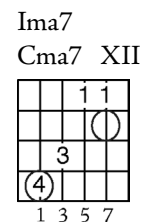
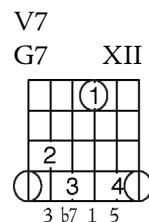
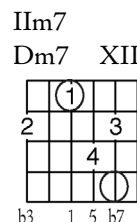
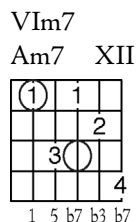
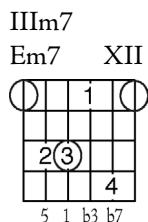
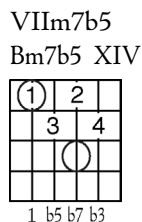


IIIIm7
G7 XII

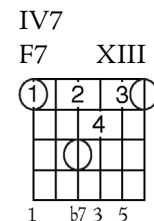
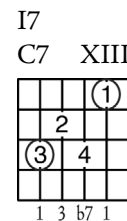
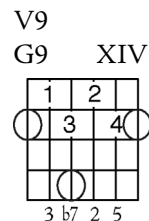
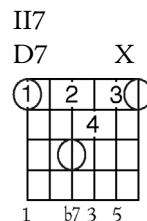
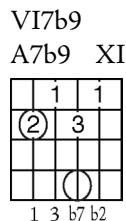
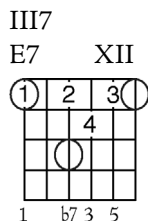


chords

scale-tone
chords
with roots
progressing in
perfect fourths



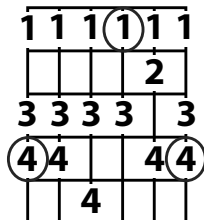
secondary
dominants



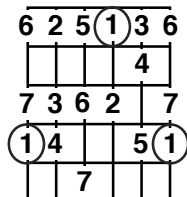
Fingering 6 Family of Chords and Arpeggios

Suggested songs: Europa, My Funny Valentine

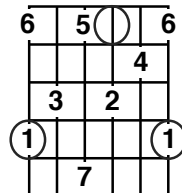
finger numbers
Eb ma. scale VIII



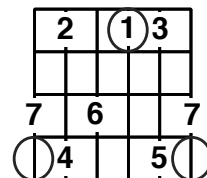
scale tones
Eb ma. scale VIII



low full tertian
fingering 6

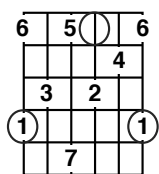


other full tertian
fingering 6



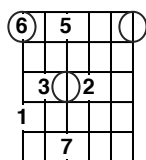
arpeggios from full tertian

low full tertian
fingering 6



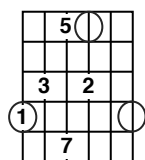
VIm11

Cm11 VIII



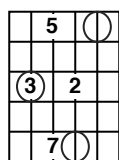
Ima9

Ebma9 VIII



VIm11

Gm7 VIII



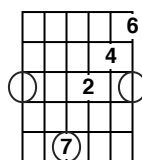
V11

Bb11 VIII



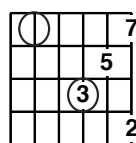
VIIIm7

Dm7b5 VIII

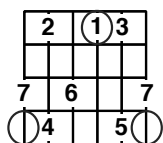


IIm7

Fm7 VIII

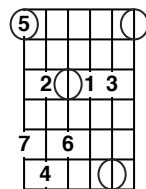


other full tertian
fingering 6 VIII



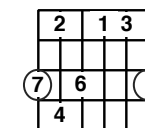
V13

Bb13 VI



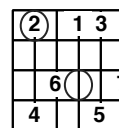
VIIIm11b5

Dm11b5b9 VIII



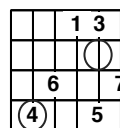
IIm13

Fm13 VIII



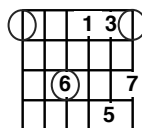
IVma9#11

Abma9#11 VIII



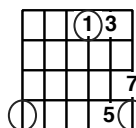
VIm9

Cm9 VIII



Ima7

Ebma7 VIII

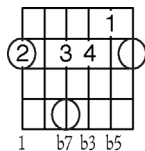


chords

scale-tone
chords
with roots
progressing in
perfect fourths

VIIIm7b5

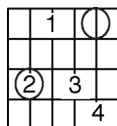
Dm7b5 IX



1 b7 b3 b5

IIIIm7

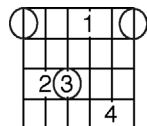
Gm7 VIII



1 b3 b7 b3

VIm7

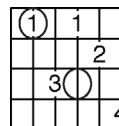
Cm7 VIII



5 1 b3 b7

IIm7

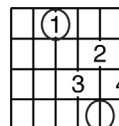
Fm7 VIII



1 5 b7 b3 b7

V7

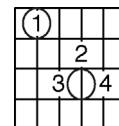
Bb7 VIII



1 5 b7 3

Ima7

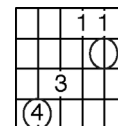
Ebma7 VI



1 5 7 3

IVma7

Abma7 VIII

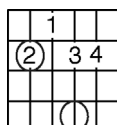


1 3 5 7

secondary
dominants

III7

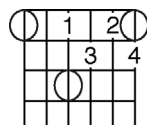
G7 VII



1 3 b7 2

VI7b9

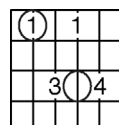
C7b9 VIII



b7 3 5 b2

II7

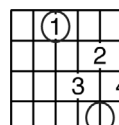
F7 VIII



1 5 b7 3

V7

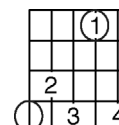
Bb7 VIII



1 5 b7 3

I7

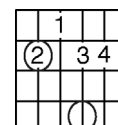
Eb7 VIII



3 b7 1 5

IV9

Ab9 X

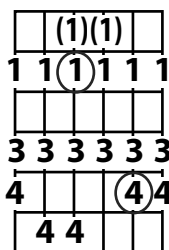


1 3 b7 2

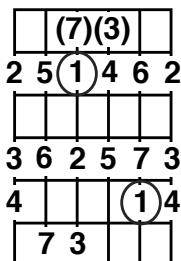
Fingering 2 Family of Chords and Arpeggios

Suggested songs: Oye Como Va, In Memory Of Elizabeth Reed

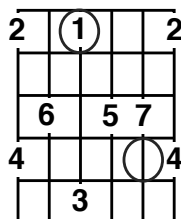
finger numbers
G ma. scale V



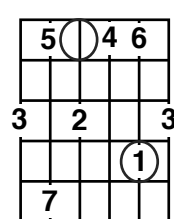
scale tones
G ma. scale V



low full tertian
fingering 2

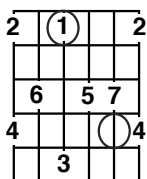


other full tertian
fingering 2

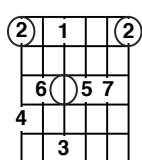


arpeggios from full tertian

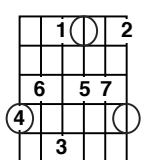
low full tertian
fingering 2 V



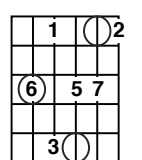
IIIm15
Am15 V



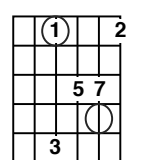
IVma7
Cma13#11 V



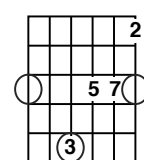
VIIm11
Em11 V



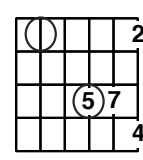
Ima9
Gma9 V



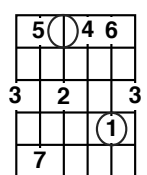
IIIIm7
Bm7 V



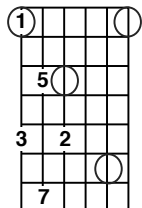
VIIm7
D7 V



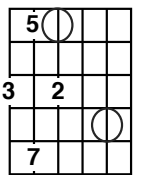
other full tertian
fingering 2 V



IIIm15
Gma9 III



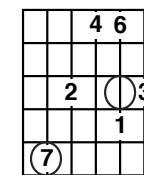
IIIIm7
Bm7 V



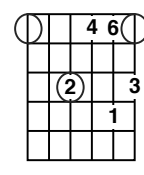
V13
D13 V



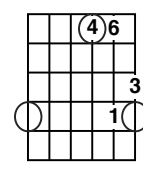
IIIm11b5
F#Am11b5b9 V



IIIm9
Am9 V



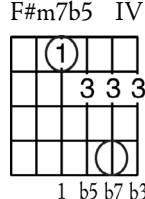
IVma7
Cma7 V



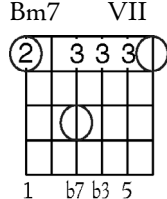
chords

scale-tone
chords
with roots
progressing in
perfect fourths

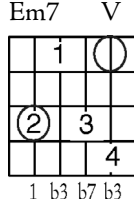
VIIIm7b5
F#m7b5 IV



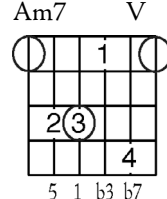
IIIIm7
Bm7 VII



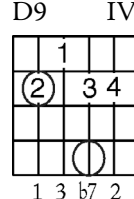
VIIm7
Em7 V



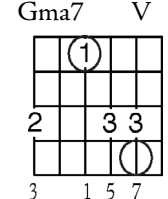
IIIm7
Am7 V



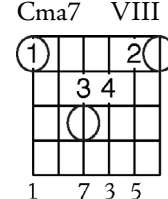
V9
D9 IV



Ima7
Gma7 V

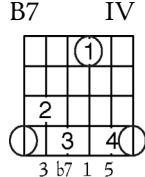


IVma7
Cma7 VIII

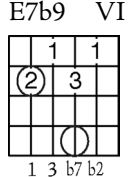


secondary
dominants

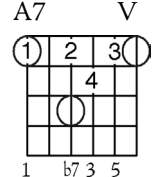
III7
B7 IV



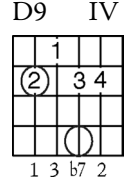
VI7b9
E7b9 VI



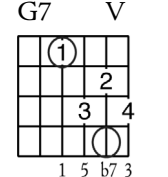
II7
A7 V



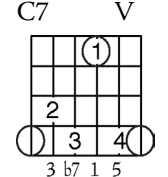
V9
D9 IV



I7
G7 V



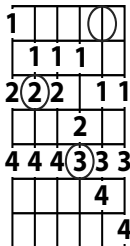
IV7
C7 V



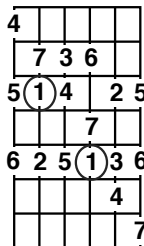
Fingering 4/5 Family of Chords and Arpeggios

Suggested songs: Put It Where You Want It, C Jam Blues

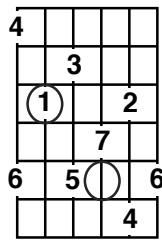
finger numbers
F ma. scale VI



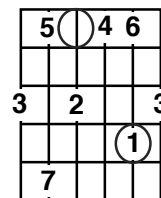
scale tones
F ma. scale VI



low full tertian
fingering 4/5

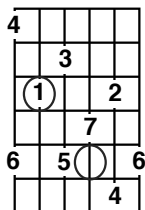


other full tertian
fingering 4/5

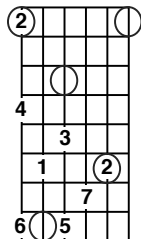


arpeggios from full tertian

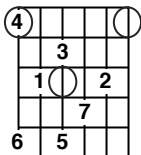
low full tertian
fingering 4/5 VI



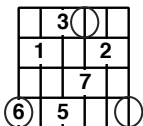
IIm15
Gm15 VI



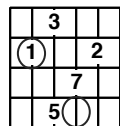
IVma7
Bbma13#11 VI



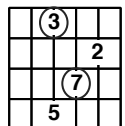
VIIm11
Dm11 VII



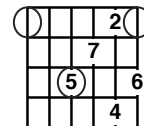
Ima9
Fma9 VII



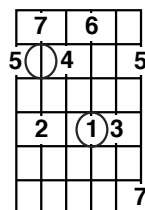
IIIIm7
Am7 VII



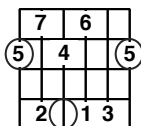
VIIm7
C9 VIII



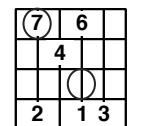
other full tertian
fingering 2 VIII



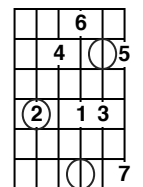
V15
C15 VII



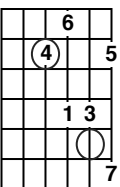
VIIm11b5b9
Em11b5 b9 VII



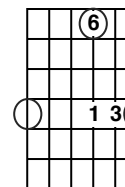
IIm13
Gm13 VII



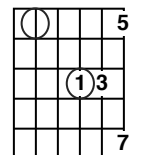
IVma9#11
Bbma9#11 VII



VIIm9
Dm9 VII



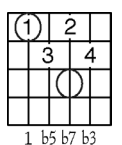
Ima7
Fma7 VIII



chords

scale-tone
chords

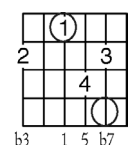
VIIm7b5
Em7b5 VII



with roots
progressing in
perfect fourths

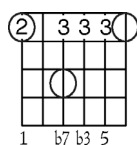
1 b5 b7 b3

IIIIm7
Am7 VII



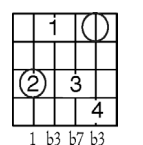
b3 1 5 b7

VIIm7
Dm7 X



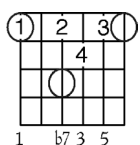
1 b7 b3 5

IIm7
Gm7 VIII



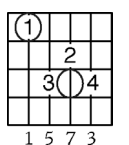
1 b3 b7 b3

V7
C7 VIII



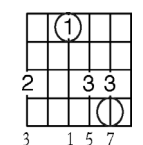
1 b7 3 5

Ima7
Fma7 VIII



1 5 7 3

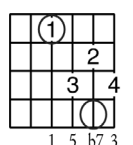
IVma7
Bbma7 VIII



3 1 5 7

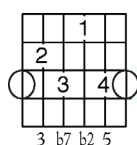
secondary
dominants

III7
A7 VII



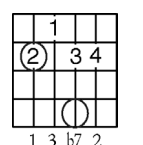
1 5 b7 3

VI7b9
D7b9 VIII



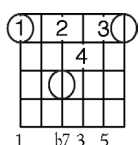
3 b7 b2 5

II9
G9 IX



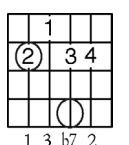
1 3 b7 2

V7
C7 VIII



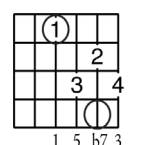
1 b7 3 5

I9
F9 VII



1 3 b7 2

IV7
Bb7 VIII



1 5 b7 3

Full-Tertian Arpeggios Paired in Thirds

these are particularly useful for **Chromaticizing Every Other Tertian Tone**

(two notes are played chromatically below each "grey back" note, before it ascending and after it descending)

	fingering 2 Bb VIII	fingering 6 Eb VIII	fingering 3 Ab VIII	fingering 7 C VIII	fingering 4/5 F VI
parent major scale by finger number					
LFT-LP lowest full tertian paired from lowest					
LFT-NLP lowest full tertian paired from next-lowest					
OFT-LP other full tertian paired from lowest					
OFT-NLP other full tertian paired from next-lowest					

Modal Series of Full-Tertian Arpeggios

uniform, optimized for in-position major scale fingerings (not three-note-per-string)

Each fingering progresses to the next at its right sharpening the fourth, equivalent to adding a sharp or removing a flat from the its signature. This goes through the modal series: 7-3-6-2-5-1-4; which is respectively Locrian, Phrygian, Aeolian, Dorian, Mixolydian, Ionian (major) and Lydian.

Each fingering progresses to the next at its left flattening the seventh, equivalent to adding a flat or removing a sharp from its key signature. This goes through the modal series: 4-1-5-2-6-3-7; , which is respectively Lydian, Ionian (major), Mixolydian, Dorian, Aeolian, Phrygian and Locrian.

Using the circled note as a reference point for Ionian (major scale), any fingering can be used for any mode and progress through the series. At either end of a row, it can continue from the opposite end.

	7	3	6	2	5	1	4
major scale fingerings							
lowest full tertian							
lowest triplet chromatic							
second lowest full tertian							
second lowest triplet chromatic							

MAJOR SCALE-TONE PENTATONIC SCALES

Stepwise Major Scale-Tone Modal Pentatonic Scales

These are numbered in the key of the pentatonic scale, not in the key of the parent scale. IIm pentatonic is numbered in relation to a major scale on "2" of the parent major scale shown in the "IIma pent" column. In the major scale on that note ("2" of the major scale in the IIma pent. column), three and seven had to be flatted to make the notes the same as in the major scale in the first column.

form	IIma pent	IIm pent	III pent	IV ma pent	V ma pent	VIIm pent	VIIImb5 pent
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Major Scale-Tone Modal Pentatonic Scales in Perfect Fourths

These are numbered in the key of the pentatonic scale, not in the key of the parent scale.

form	VII mb5 pent	III pent	VI m pent	II m pent	V ma pent	I ma pent	IV ma pent
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Pentatonic Scales in Stepwise Order, Numbered By Parent Major Scale

These are numbered in the key of the parent major scale, not by the key of the pentatonic scale. Notice that the numbered tones are identical in all the diagrams in the same row. Only the location of the black-backs and gray-backs have been changed to show the triad in black and the pentatonic scale in black *and* gray on each diagram in the row. The order of major scale tones on which the pentatonic scales are built is stepwise (Ima pent., IIm pent., etc.).

form	Ima pent	IIm pent	IIIm pent	IVma pent	Vma pent	VIIm pent	VIIImb5 pent
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Pentatonic Scales in Perfect Fourth Order, Numbered By Parent Major Scale

These are numbered in the key of the parent scale, not by the key of the pentatonic scale. The numbered tones are identical in all the diagrams in the same row. Only the location of the black-backs and gray-backs have been changed to show the triad in black and the pentatonic scale in black *and* gray on each diagram in the row. The order of major scale tones on which the pentatonic scales are built is fourths, 7-3-6-5-1-4. Fourths is the most common order of chord root progression. In C major the triads with with root progression in perfect fourths is B diminished-E minor-A- minor-D minor-G major-C major-F major.

form	VII ^{mb} 5 pent	III ^{lm} pent	VI ^{lm} pent	I ^{lm} pent	V ^{ma} pent	I ^{ma} pent	IV ^{ma} pent
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

MAJOR SCALE-TONE PENTATONIC SCALE ORIGINS

	1	1/2	2	2/3	3	3/4	4
major scale fingerings							
I ma 6/9 pentatonic tones 1-2-3-5-6							
IIIm7/11 pentatonic tones 6-1-2-3-5-							
IV ma 6/9 pentatonic tones 4-5-6-1-2							
IIIm7/11 pentatonic tones 2-4-5-6-1							
V ma 6/9 pentatonic tones 5-6-7-2-3							
IIIm7/11 pentatonic tones 3-5-6-7-2							
IIIm6/9 pentatonic tones 23467							
VIIIm7/11b5 pentatonic tones 72346							

	4/5	5	5/6	6	6/7	7	7/1
major scale fingerings							
I ma 6/9 pentatonic tones 1-2-3-5-6							
VI m7/11 pentatonic tones 6-1-2-3-5							
IV ma 6/9 pentatonic tones 4-5-6-1-2							
II m7/11 pentatonic tones 4-5-6-1-2							
V ma 6/9 pentatonic tones 5-6-7-2-3							
III m7/11 pentatonic tones 3-5-6-7-2							
II m6/9 pentatonic tones 2-3-4-6-7							
VII m7/11b5 pentatonic tones 7-2-3-4-6							

MODAL PENTATONIC SCALES

Pentatonic Subsets of Major Scale Modes

	pentatonic fingering 1	pentatonic fingering 2	pentatonic fingering 3	pentatonic fingering 4	pentatonic fingering 5
minor pentatonic elaborated to Aeolian (b3, b6, b7)	major scale fingering 6 	major scale fingering 7 	major scale fingering 2 	major scale fingering 3 	major scale fingering 4
minor pentatonic elaborated to Dorian (b3, b7)	major scale fingering 2 	major scale fingering 3 	major scale fingering 4/5 	major scale fingering 6 	major scale fingering 7
minor pentatonic with natural 3 elaborated to Mixolydian (b7) (b3 often precedes 3)	major scale fingering 4/5 	major scale fingering 6 	major scale fingering 7 	major scale fingering 2 	major scale fingering 3
major pentatonic elaborated to major scale	major scale fingering 6 	major scale fingering 7 	major scale fingering 2 	major scale fingering 3 	major scale fingering 4
major pentatonic elaborated to Mixolydian (b7) (b3 often precedes 3)	major scale fingering 3 	major scale fingering 4/5 	major scale fingering 6 	major scale fingering 7 	major scale fingering 2
major pentatonic with flat three elaborated to Dorian (b3, b7)	major scale fingering 7 	major scale fingering 1/2 	major scale fingering 3 	major scale fingering 4/5 	major scale fingering 5/6

Pentatonic Subsets

Pentatonic (five-tone) scales can be subsets of (part of) many heptatonic(seven-tone) scales. As you can see in the previous section, [Major Scale-Tone Pentatonic Scales](#), minor pentatonic scale occurs in the major scale on steps two, three and six. Major pentatonic scale occurs in the major scale on steps one, four and five. Pentatonic scales can also be subset of either of the three usable modified major scales, major sharp five (with harmonic minor by putting the tone center on its sixth step), melodic minor and major flat six (also called harmonic major).

Choosing the Mode

The accompaniment part on which you are improvising or composing a part for will suggest which mode should be used. The modes used for the accompaniment and for the melody don't have to match. They are commonly mis-matched for bluesy or exotic purposes. See the chapters [Substitution](#), [Scale Ambiguity](#), [Modes](#) and [Melodically Superimposed Cadences](#).

Naming Pentatonic Scales with Chord Names

These pentatonic scales can establish chord sounds within a heptatonic scale, since pentatonic scales are a form of arpeggio and all notes of a pentatonic scale can be played at once to make a chord. In this sense, the pentatonic scales can use chord names, as I've done since the 1970's. Major pentatonic is major 6/9, minor pentatonic is minor 6/9, and so on. I will use chord name-style pentatonic names in the tables below.

Black-Backed and Grey-Backed Numbers on the Diagrams

In the diagrams in this section, the black-backed notes are triad tones. In most cases, they show the notes of the major or minor chord on which the pentatonic scale is based. The grey-backed notes show the two additional notes in each octave that complete the pentatonic scale. The remaining notes complete a mode of the major scale or a mode of another seven-tone scale.

Movable Scale Fingerings

The diagrams in this section (Modal Pentatonic Scales) are movable. That allows them to be played in any key. For the "[Major Scale Fingerings Used in This Section](#)" page, the circled notes on each diagram are octaves of the same note (in that diagram). Use the circled note on the largest string available to locate the note on the fretboard that you want to be the key. If you want to play the G major scale, make sure the circled note is on "G". The remaining pages in this section have black-backed and grey-backed fingerings, as explained above. Place the number "1" on the desired tone center. To play a G minor 7/11 pentatonic scale elaborated to G Aeolian, you would place the number "1" on "G" on the fretboard.

Major Scale Fingerings Used in This Section

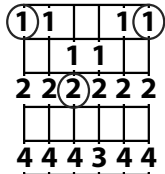
see also [Modal Pentatonic Scales by Numbered Tone](#)

The modal fingerings in this section primarily use the major scale and altered major scale fingerings shown below on this page. The common altered major scales are melodic minor (major flat three) and major sharp five. The mode on the sixth step of major sharp five is harmonic minor.

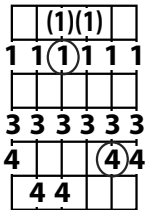
The numbers on the diagrams below on this page are all *finger numbers*, not scale-tone numbers. For each of the various modes each of the fingerings below are applied, a particular note is used as the tone center and is shown circled, not necessarily the same circled note shown below on this page.

in-position fingerings

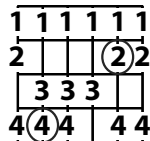
major scale
fingering 1



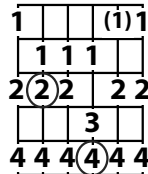
major scale
fingering 2



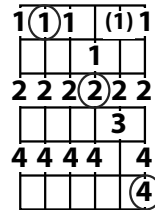
major scale
fingering 3



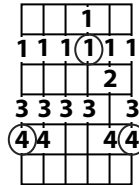
major scale
fingering 4



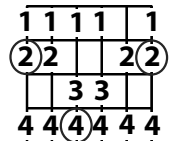
major scale
fingering 5



major scale
fingering 6



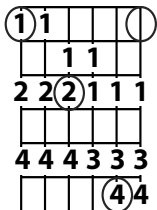
major scale
fingering 7



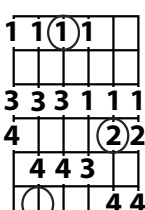
three-note-per-string fingerings

The numbers in parenthesis indicate the string on which the position is changed.

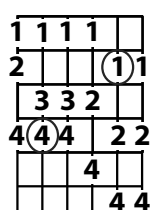
major scale
fingering 1/2(2)



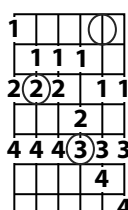
major scale
fingering 2/3(3)



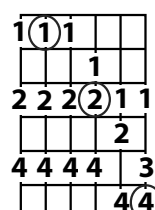
major scale
fingering 3/4(2)



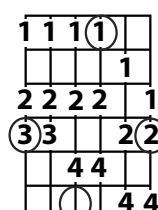
major scale
fingering 4/5(2)



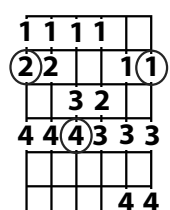
major scale
fingering 5/6(2)



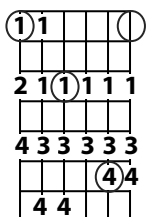
major scale
fingering 6/7(2)



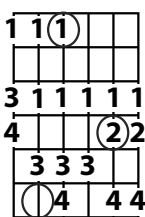
major scale
fingering 7/1(2)



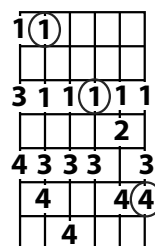
major scale
fingering 1/2(5)



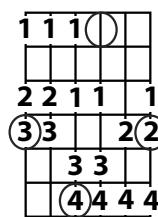
major scale
fingering 2/3(4)



major scale
fingering 5/6(5)



major scale
fingering 6/7(4)



Modal Blues with Favored Pentatonic Scales and Modes

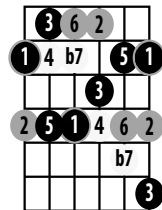
In using these scales on I-IV-V blues, you must use a scale with flat three on the IV chord, which could be minor pentatonic or major pentatonic with a flat three. Those same scales can be used on the I and V chords to darken the mood. Major pentatonic and minor pentatonic with natural three can be used on the I and V chords. Usually you should keep the mood dark by not using too much of scales with natural three. Blues rock primarily uses pentatonic scales. Jazz elaborates pentatonic to modes like Dorian and Mixolydian.

pentatonic subset of
heptatonic ↓

major pentatonic
elaborated to
Mixolydian
(b7)

E form
major & minor

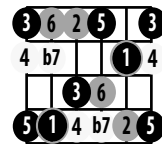
pent. fingering 2



D form
minor

C form
major

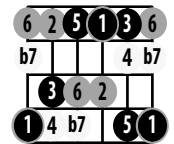
pent. fingering 4



A form
minor

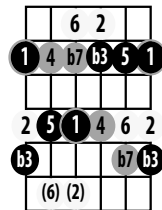
G form
major

pent. fingering 1

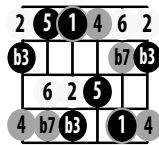


minor pentatonic
elaborated to
Dorian
(b3, b7)

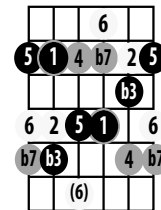
pent. fingering 1



pent. fingering 2

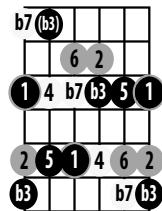


pent. fingering 4

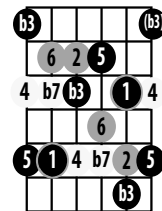


major pentatonic
with flat three
elaborated to
Dorian
(b3, b7)

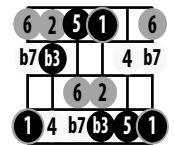
pent. fingering 2
with flat three



pent. fingering 4
with flat three

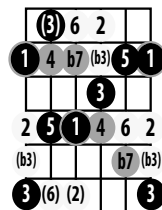


pent. fingering 1
with flat three

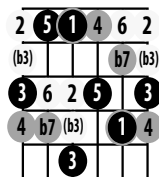


minor pentatonic
with natural three
(b3 often precedes 3)
elaborated to
Mixolydian
(b7)

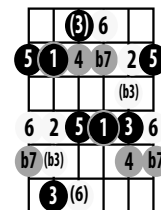
pent. fingering 1
with natural three



pent. fingering 2
with natural three



pent. fingering 4
with natural three



Favored Major Pentatonic and Major Mode

pentatonic subset of heptatonic ↓	E form major	D form	C form major	A form	G form major
major pentatonic elaborated to 7-tone major scale	pent. fingering 2		pent. fingering 4		pent. fingering 1

Favored Minor Pentatonic Scales and Minor Modes

Dorian and Aeolian differ only in that Dorian has scale tone six while Aeolian has flat six.

pentatonic subset of heptatonic ↓	E form major with b3 & minor	D form minor	C form major	A form minor	G form major
minor pentatonic elaborated to Aeolian (b3, b6, b7)	pent. fingering 1	pent. fingering 2		pent. fingering 4	
minor pentatonic elaborated to Dorian (b3, b7)	pent. fingering 1	pent. fingering 2		pent. fingering 4	
major pentatonic with flat three elaborated to Dorian (b3, b7)	pent. fingering 2 with flat three		pent. fingering 4 with flat three		pent. fingering 1 with flat three

Modal Pentatonic Scales Numbered in the Key of the Pentatonic

major 6/9 pentatonic (triad tones black, remaining pentatonic grey)

pentatonic
subset of
heptatonic

E form
fingering 2

D form
fingering 3

D/C form
fingering
3/4

C form
fingering 4

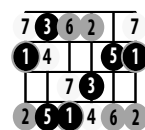
A form
fingering 5

G/E form
fingering
5/1

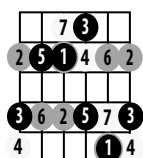
G form
fingering 1

major 6/9
major
scale

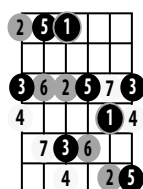
maj. scale fing. 7



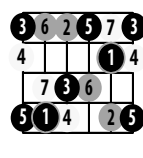
maj. scale fing. 2



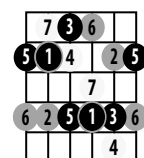
maj. sc. 2/3(4)



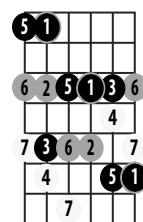
maj. scale fing. 3



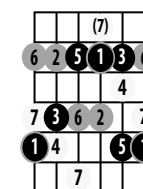
maj. scale fing. 4



maj. sc. 5/6(5)

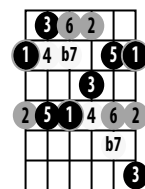


maj. scale fing. 6

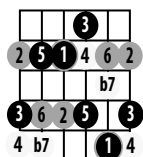


major 6/9
Mixo-
lydian
(major
scale
mode V)

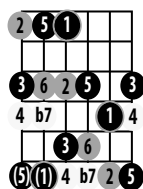
maj. sc. 4/5(2)



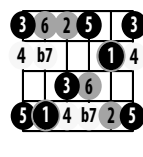
maj. scale fing. 6



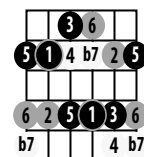
maj. sc. 6/7(4)



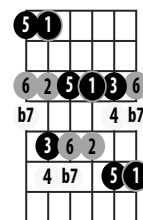
maj. scale fing. 7



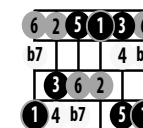
maj. sc. fing. 2



maj. sc. 2/3(5)

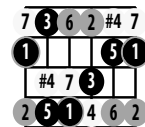


maj. scale fing. 3

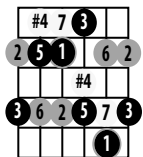


major 6/9
Lydian
(major
scale
mode IV)

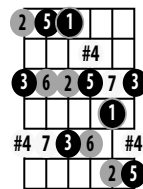
maj. scale fing. 3



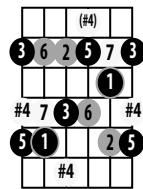
maj. sc. 4/5(2)



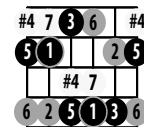
maj. sc. 5/6(2)



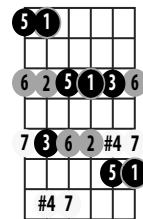
maj. scale fing. 6



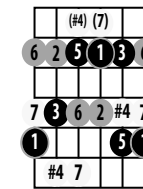
maj. sc. fing. 7



maj. sc. 1/2(5)

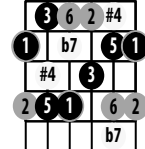


maj. scale fing. 2

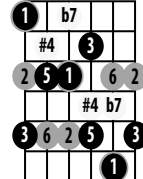


major 6/9
Lydian
dominant
(m.m.
scale
mode IV)

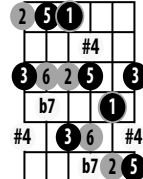
m.m. scale
fing. 3



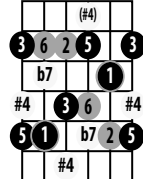
m.m. scale
fing. 4/5(2)



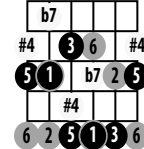
m.m. scale
fing. 5/6(3)



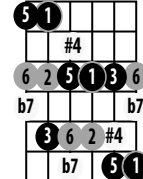
m.m. scale
fingering 6



m.m. scale
fingering 7



m.m. scale
fing. 1/2(5)



m.m. scale
fingering 2



minor 6/9 pentatonic (triad tones black, remaining pentatonic grey)

major pentatonic with flat three

pentatonic
subset of
heptatonic

E form
fingering 2

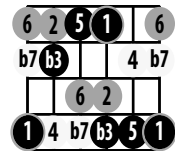
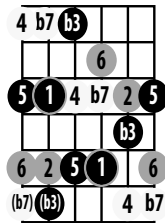
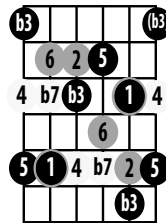
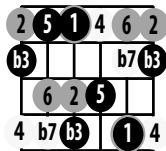
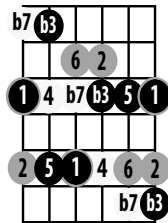
D form
fingering 3

C form
fingering 4

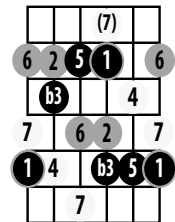
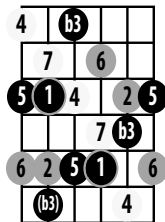
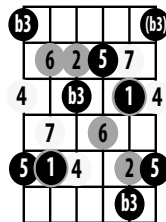
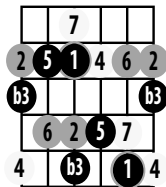
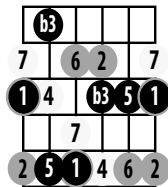
A form
fingering 5

G form
fingering 1

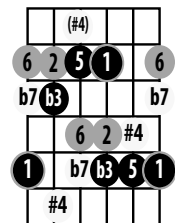
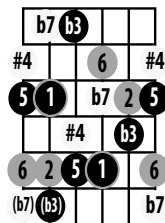
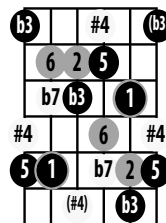
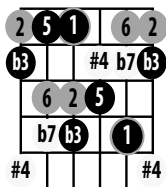
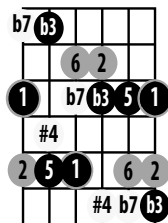
minor 6/9
Dorian



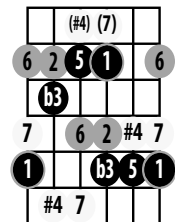
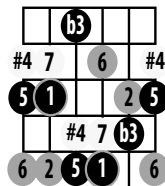
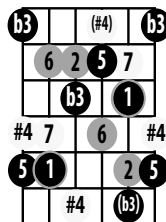
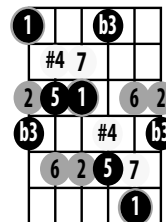
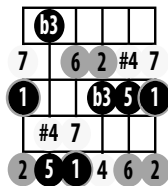
minor 6/9
melodic minor



minor 6/9
Dorian #4 (major
sharp five mode II
= harmonic minor
mode IV)



minor 6/9
Lydian diminished
(Lydian flat three =
major flat six mode
IV)



minor 7/11 pentatonic (triad tones black, remaining pentatonic grey)

pentatonic subset of heptatonic	G/E form fingering 5/1	E form fingering 1	D form fingering 2	C form fingering 3	C/A form fingering 3/4	A form fingering 4	G form fingering 5
minor 7/11 Dorian (major scale mode II)	maj. sc. 1/2(5) 	maj. scale fing. 2 	maj. scale fing. 3 	maj. sc. 4/5(2) 	maj. sc. 5/6(2) 	maj. scale fing. 6 	maj. sc. fing. 7
minor 7/11 Aeolian (major scale mode VI)	maj. sc. 5/6(5) 	maj. scale fing. 6 	maj. scale fing. 7 	maj. scale fing. 2 	maj. sc. 2/3(4) 	maj. scale fing. 3 	maj. scale fing. 4
minor 7/11 Phrygian (major scale mode III)	maj. sc. 2/3(5) 	maj. scale fing. 3 	maj. sc. 4/5(2) 	maj. scale fing. 6 	maj. sc. 6/7(4) 	maj. scale fing. 7 	maj. sc. fing. 2
minor 7/11 Dorian b2 (m.m. scale mode II)	m.m. sc. 1/2(5) 	m.m. scale fing. 2 	m.m. scale fing. 3 	m.m. sc. 4/5(2) 	m.m. sc. 5/6(2) 	m.m. scale fing. 6 	m.m. sc. fing. 7

minor 6/11 pentatonic (triad tones black, remaining pentatonic grey)

pentatonic subset of heptatonic	E form fingering 1	D form fingering 2	C form fingering 3	A form fingering 4	G form fingering 5
minor 6/11 Dorian					

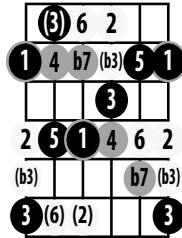
dominant 7/11 pentatonic (triad tones black, remaining pentatonic grey. b3 can precede 3)

minor pentatonic with natural three

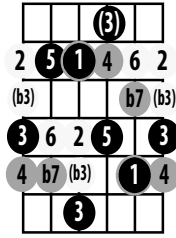
**pentatonic
subset of
heptatonic**

dominant
7/11
Mixolydian

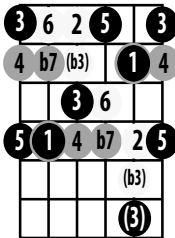
**E form
fingering 1**



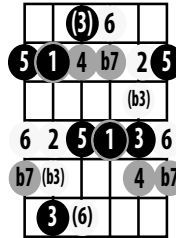
**D form
fingering 2**



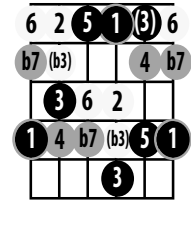
**C form
fingering 3**



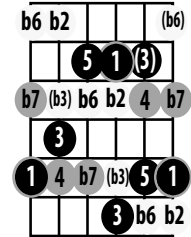
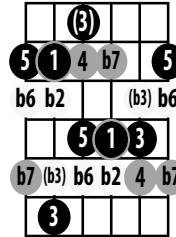
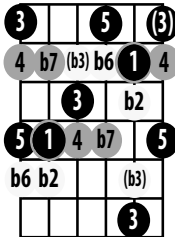
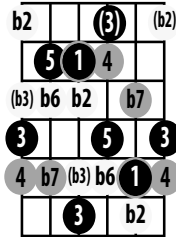
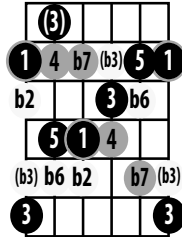
**A form
fingering 4**



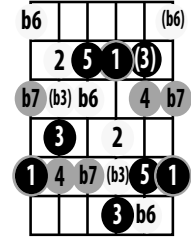
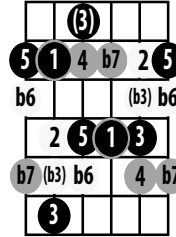
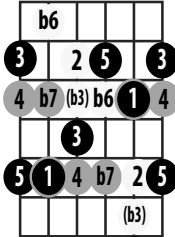
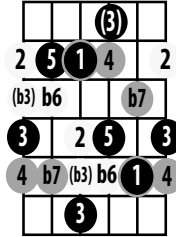
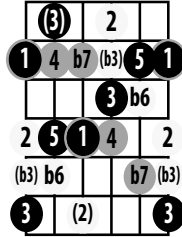
**G form
fingering 5**



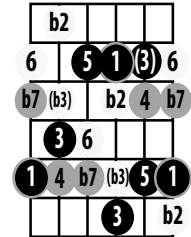
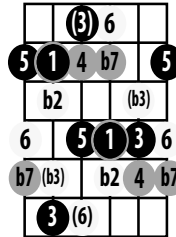
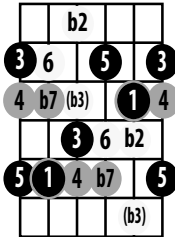
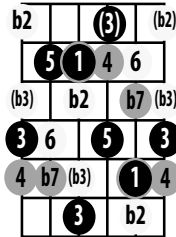
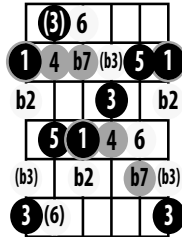
dominant
7/11
Phrygian
dominant
scale
(also called
Phrygian major,
mode III of
harmonic minor)

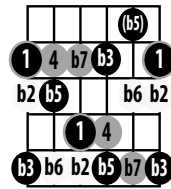
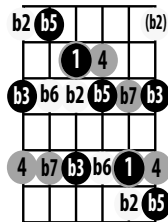
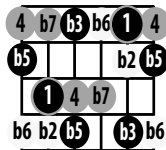
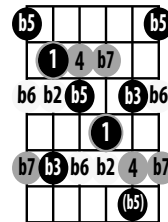
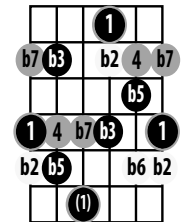
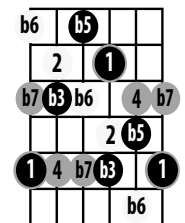
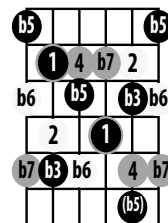
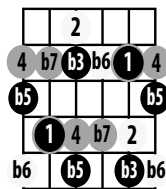
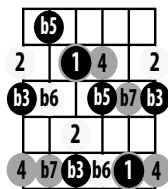
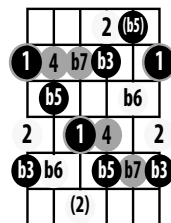
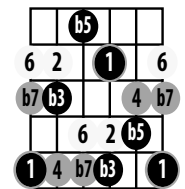
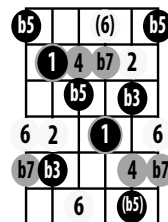
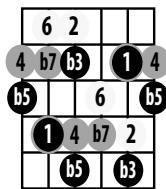
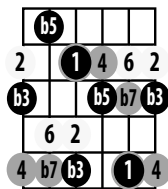
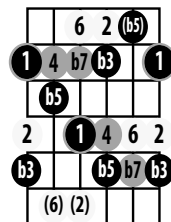
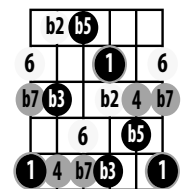
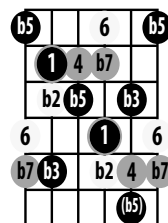
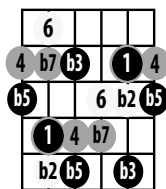
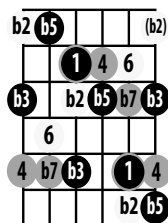
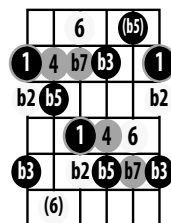


dominant
7/11
Aeolian
dominant
scale
(also called
Aeolian major
or Mixolydian
b6, mode V of
melodic minor)



dominant
7/11
Mixolydian
b2
(mode II of major
flat six)



minor 7/11b5 pentatonic (triad tones black, remaining pentatonic grey)**pentatonic subset of heptatonic**minor 7/11b5
Locrian**E form fingering 1****D form fingering 2****C form fingering 3****A form fingering 4****G form fingering 5**minor 7/11b5
Aeolian flat five
(mode VI of melodic minor)minor 7/11b5
Dorian flat five
(mode II of major flat six)minor 7/11b5
Locrian natural six
(mode VII of major sharp five)

BUILDING TRIAD ARCS

In the arcs, “i” indicates a note gestured or fretted with the picking hand index finger and “m” indicates a note gestured or fretted with the picking hand middle finger. Notes can be fretted with both hands, then simultaneously strummed with the picking hand thumbnail.

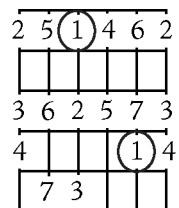
Major Scale Fingering 1

main scale		extend scale		E form		A form		C form	
F major I	F major I	F major III	F major III	F I	F I	Bb I	Bb I	Dm I	Dm I

Major Scale Fingering 2

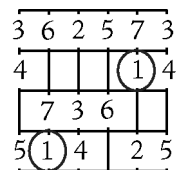
main scale

F major III



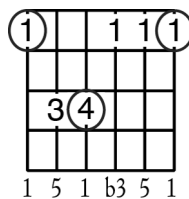
extend scale

F major V



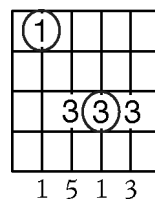
E form

Gm III



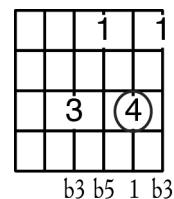
A form

C III

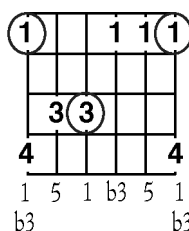


C form

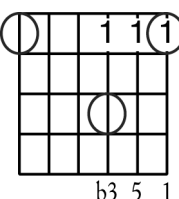
E dim. III



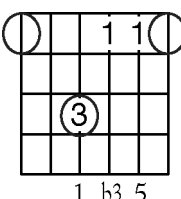
Gm III



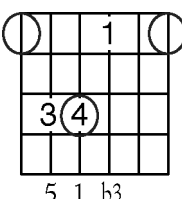
Gm III



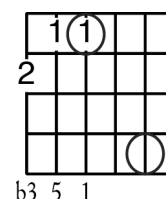
Gm III



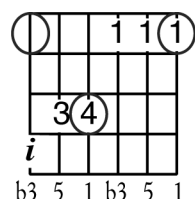
Gm III



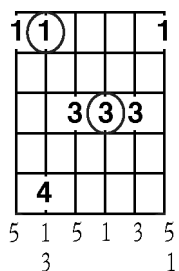
Gm V



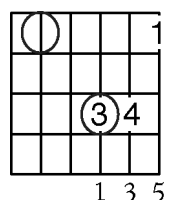
Gm arc III



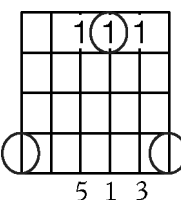
C III



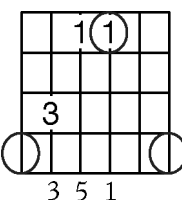
C III



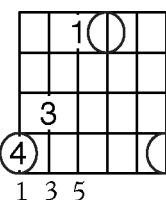
C V



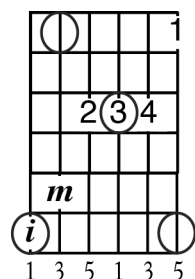
C V



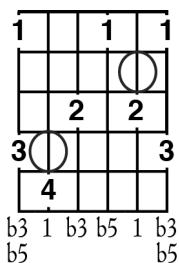
C V



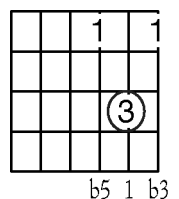
C arc III



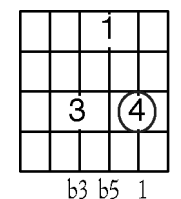
E dim. III



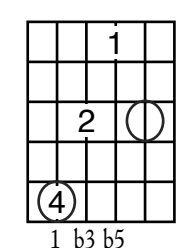
E dim. III



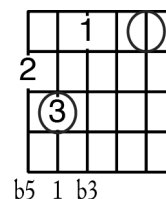
E dim. III



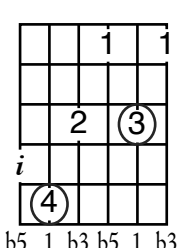
E dim. III



E dim. V

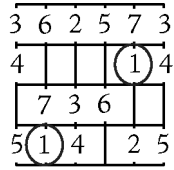


E dim. arc III

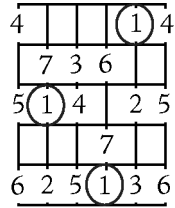


Major Scale Fingering 3

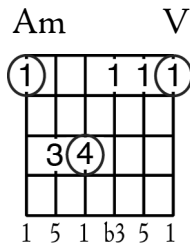
main scale
F major V



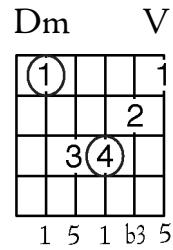
extend scale
F major VI



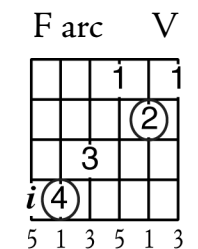
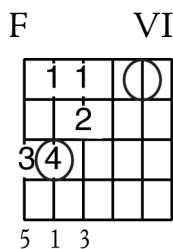
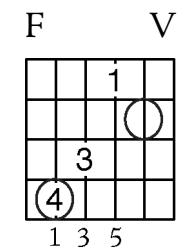
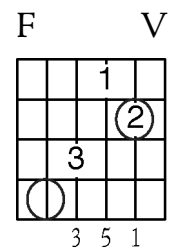
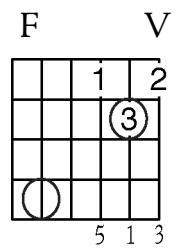
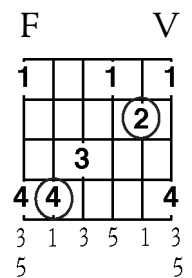
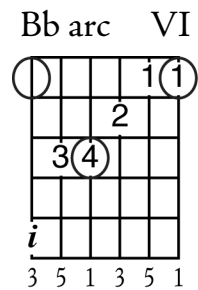
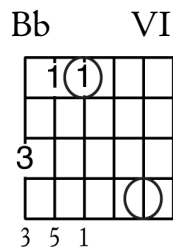
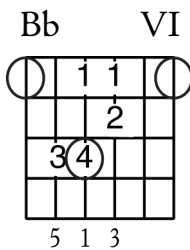
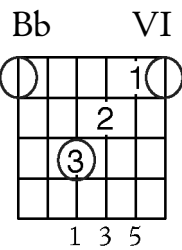
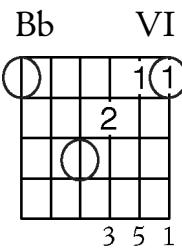
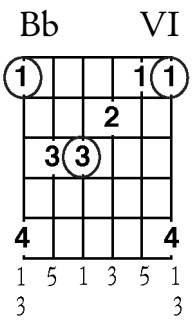
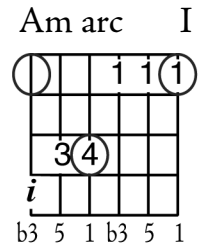
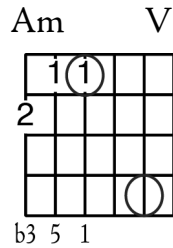
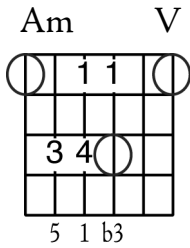
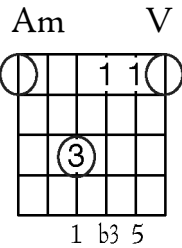
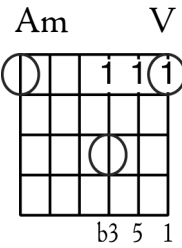
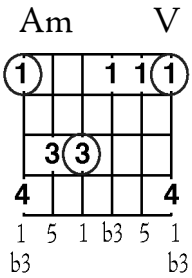
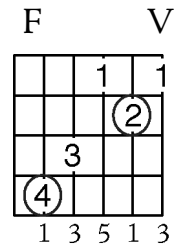
E form



A form



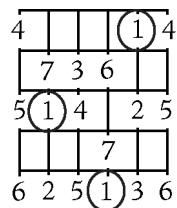
C form



Major Scale Fingering 4

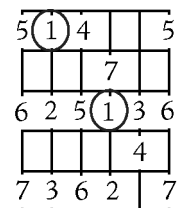
main scale

F major VI



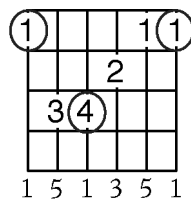
extend scale

F major VIII



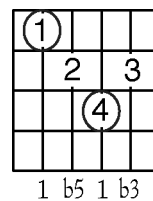
E form

Bb VI



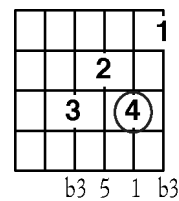
A form

Edim. VII

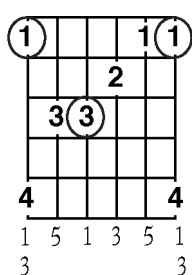


C form

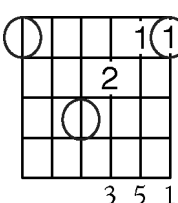
Gm VI



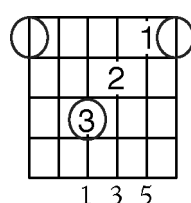
Bb VI



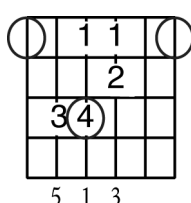
Bb VI



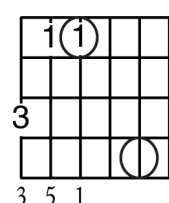
Bb VI



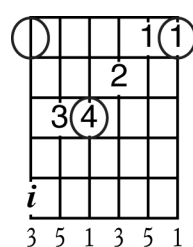
Bb VI



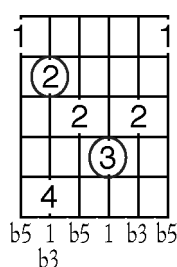
Bb VI



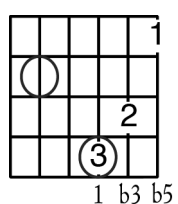
Bb arc VI



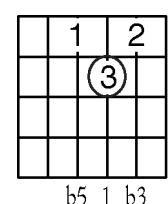
E dim. VI



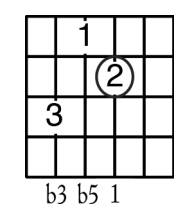
E dim. VI



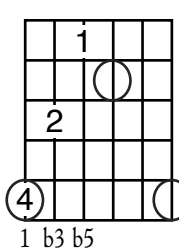
E dim. VIII



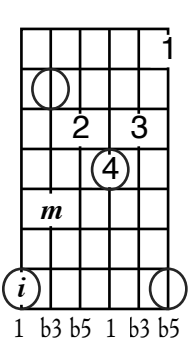
E dim. VI



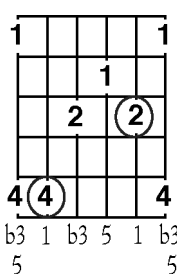
E dim. VIII



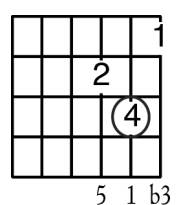
E dim. arc VI



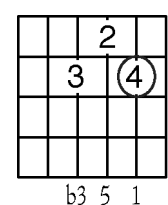
Gm VI



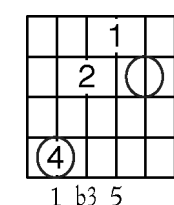
Gm VI



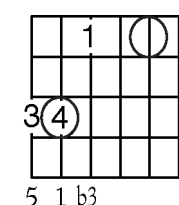
Gm VII



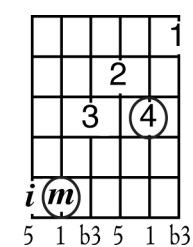
Gm VII



Gm VIII



Gm arc VI



Major Scale Fingering 5

main scale

F major VIII

extend scale

F major X

E form

C VIII

A form

F VIII

C form

Am VIII

C VIII

C VIII

C VIII

C VIII

C X

C arc VIII

F VIII

F VIII

F X

F X

F X

F arc VIII

Am VIII

Am VIII

Am IX

Am IX

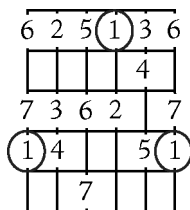
Am X

Am arc VIII

Major Scale Fingering 6

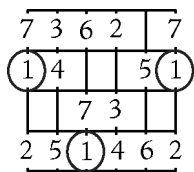
main scale

F major X



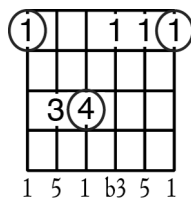
extend scale

F major XII



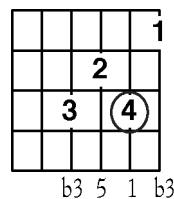
E form

Dm X



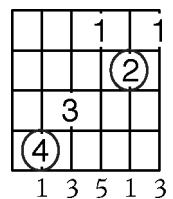
A form

Gm X

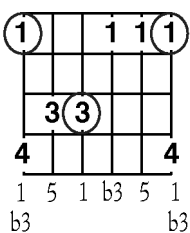


C form

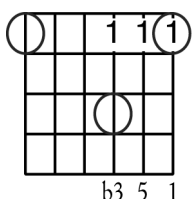
Bb X



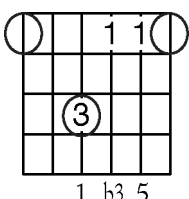
Dm X



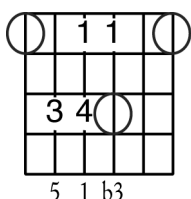
Dm X



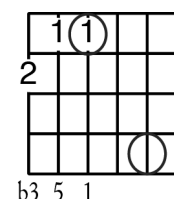
Dm X



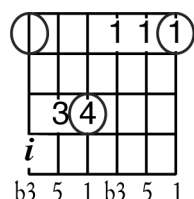
Dm X



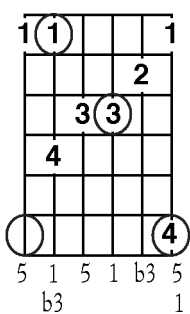
Dm XII



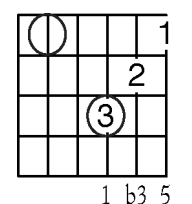
Dm arc X



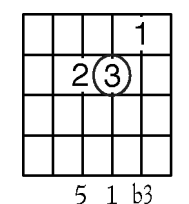
Gm X



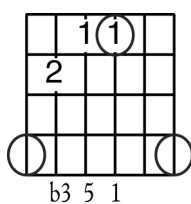
Gm X



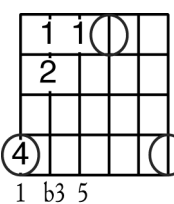
Gm XI



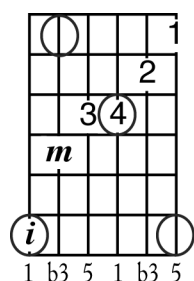
Gm XII



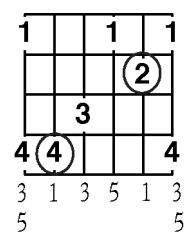
Gm XII



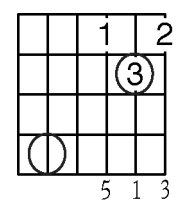
Gm arc X



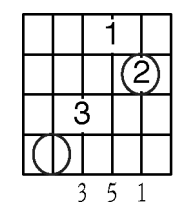
Bb X



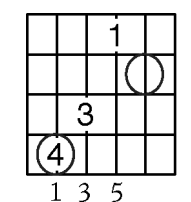
Bb X



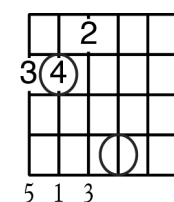
Bb X



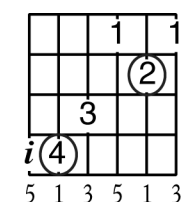
Bb X



Bb XII

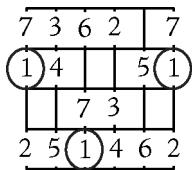


Bb arc X

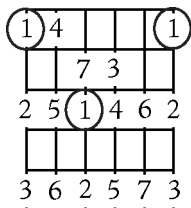


Major Scale Fingering 7

main scale
F major XII

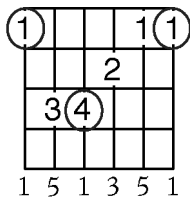


extend scale
F major XIII



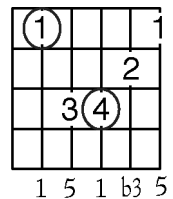
E form

F XIII



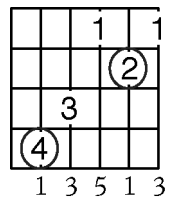
A form

Am XII

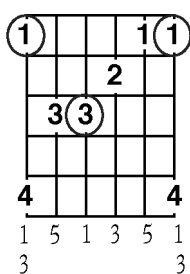


C form

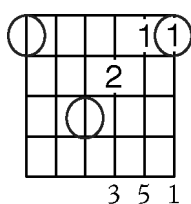
C XII



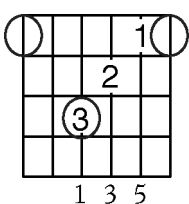
F XIII



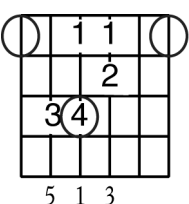
F XIII



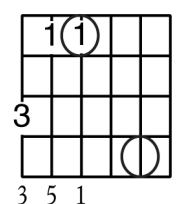
F XIII



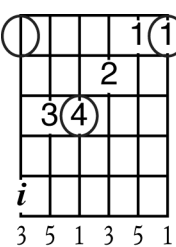
F XIII



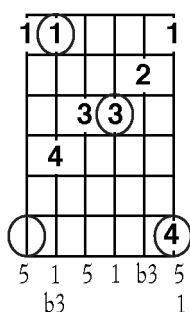
F XV



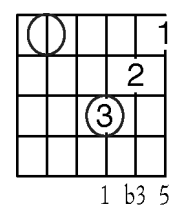
F arc XIII



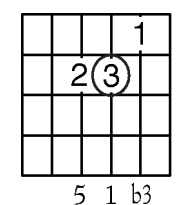
Am XII



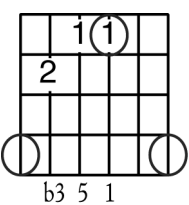
Am XII



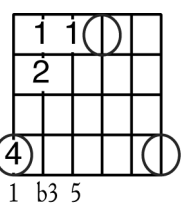
Am XIII



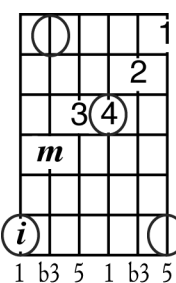
Am XIV



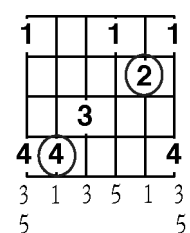
Am XIV



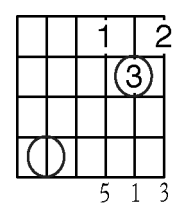
Am XII



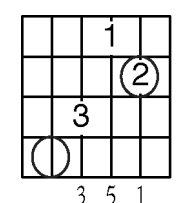
C XII



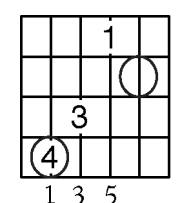
C XII



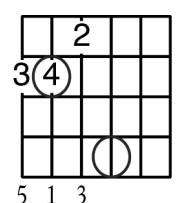
C XII



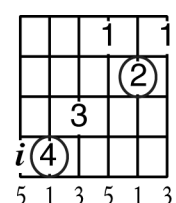
C XII



C XIV



C arc XII



MAJOR, HARMONIC MINOR AND MELODIC MINOR

By sharpening the fifth of a major scale and putting the tone center on the sixth, you create a harmonic minor scale with any major scale fingering. C major sharp five creates A harmonic minor. Please read [Application Of Harmonic Minor](#).

By flattening the third, any major scale fingering can be made into melodic minor. Be sure to read [Application Of Melodic Minor](#).

Read [Modes/Modes of Four Heptatonic Scales](#).

Major, Harmonic Minor And Melodic Minor Parent Scales

parent scale, key scale and chord scale

See Introduction to Improv/Using Scales and Chords in Improv/[Key Scales, Parent Scales and Chord Scales](#).

fingering numbers

The fingerings on the diagrams below are numbered according to the number of the lowest pitch on the sixth (largest) string. Fingering 3, for example has major scale tone “3” as its lowest pitch. That would be C major scale fingering 3 in the twelfth position, where the lowest pitch on the sixth string is “E”, the third step of the C major scale. Here are the seven in-position fingerings in numerical order:

harmonic minor is major sharp five with tone center on six

“D” Aeolian mode is an “F” major scale with the tone center on the sixth step, “D”. Likewise, “D” harmonic minor is a mode on the sixth step of “F” major sharp five scale. This is commonly done to change the III minor chord (Am in the F major scale) to III major or III7, so it progresses more strongly and dramatically to the Dm chord whose root is up a fourth. Changing a chord to a major or dominant seventh to progress its root up a fourth is called a secondary dominant (see [Secondary Dominant](#)). The Am chord is made into a secondary dominant A or A7 chord to progress more strongly to Dm.

melodic minor is major flat three

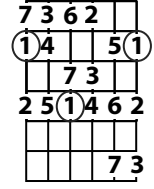
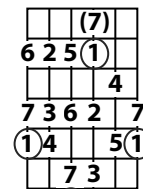
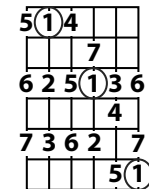
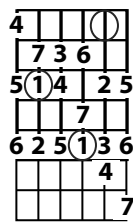
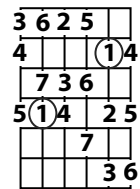
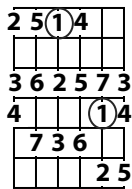
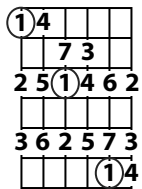
Major flat three is called melodic minor. The mode on its seventh step, super Locrian produces a “super altered” seventh chord with flat five, sharp five, sharp nine and flat nine. It is a “Swiss Army” altered seventh chord mode. Super Locrian is commonly used as an altered V of target chord.

The mode on the fourth step of melodic minor (melodic minor is major flat three) is Lydian dominant, commonly used as a flat five substitute, harmonized as a13#11 chord, which provides a bII of target chord. Db7 (Db13#11) is a bII of C and is a flat five substitute for G7 (or altered G7).

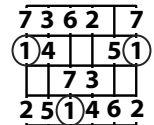
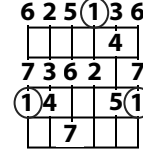
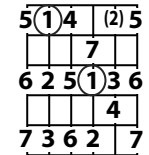
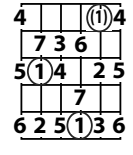
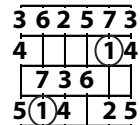
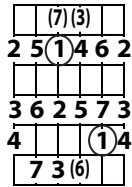
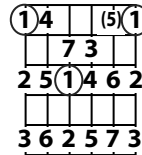
major, major sharp five and major flat three (melodic minor) parent scales

fingering 1 fingering 2 fingering 3 fingering 4 fingering 5 fingering 6 fingering 7

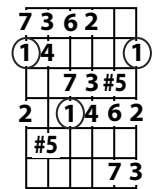
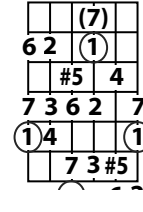
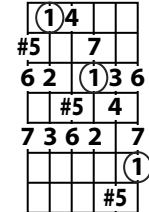
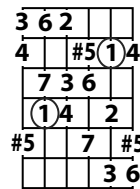
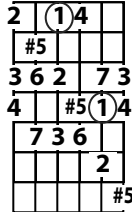
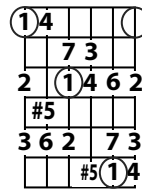
major,
three-
note-per-
string



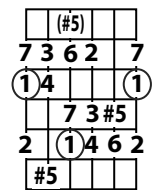
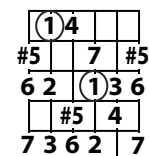
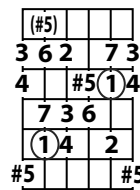
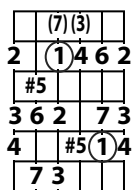
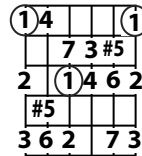
major,
in position



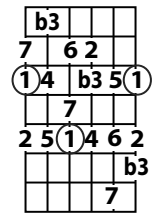
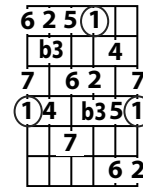
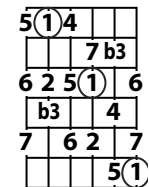
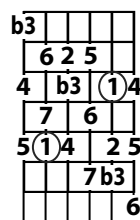
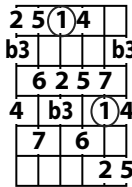
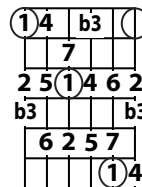
major
sharp five,
three-
note-per-
string



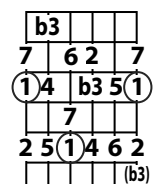
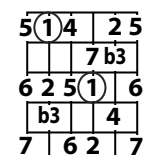
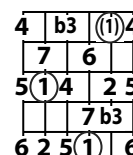
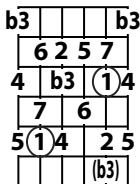
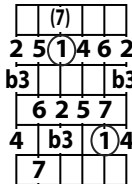
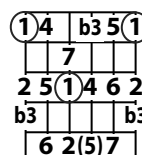
major
sharp five,
in position



melodic
minor,
three-
note-per-
string



melodic
minor,
in position



Major Scale Modified for Harmonic and Melodic Minor

fingering
number →

	1/2	2	3	4	6	7
major scale						
harmonic minor (major #5)						
melodic minor (major b3) "X" is target						

Modes IV, VI and VII of melodic minor are used in jazz, rather than melodic minor mode I. C melodic minor is typically not used in jazz in the key of C minor, but for the key of "E" where C is the flat six.

In playing major key blues, you typically flat the third on the IV chord, since IV7 used 4-6-1-b3 of the key scale. In common blues styles, you need to additionally flat the key scale seven for the IV chord to produce the familiar Dorian mode (b3 and b7), rather than the exotic jazz melodic minor with only flat three.

Initially, the most useful melodic minor mode is mode VI (Aeolian b5), applied as IV Aeolian b5 of the target chord.

Application of Harmonic Minor

First play harmonic minor in the key of the target. Just before C7, Cm7 or Cma7 (any target with a perfect fifth, not a flatted or sharped fifth) play C harmonic minor (same key as target). Once you are comfortable with that, start forming arpeggiated harmonic minor IIm7b5 V7b9 cadences (Dm7b5 G7b9 to C7, Cm7 or Cma7) with the scale and abstracting decorating the arpeggios with the scale.

Application of Melodic Minor

The mode on the sixth step of melodic minor is Aeolian flat five. Trust that for your target chord, IV Aeolian flat five works as a setup chord sound (F Aeolian flat five before C7, Cm7 or Cma7). This produces a familiar dark blues mood. Try it.

Get Aeolian flat five by playing a major scale with flat three and putting the tone center on six. They apply it as IV Aeolian flat five of your target chord (G Aeolian b5 for D7, Dm7 or Dma7, because G Aeolian b5 is IV Aeolian b5 of D).

Once you are comfortable using Aeolian flat five on the IV of your target, start thinking in other modes of melodic minor. The jazz basis of melodic minor is super Locrian as a super-altered setup chord on V of the target. Read [Melodically Superimposed Cadences/Melodic Minor Cadences](#).

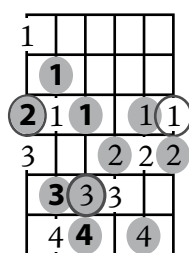
Ninth Subsets of Harmonic Minor and Melodic Minor

Since ninths span more than an octave it can “overlap” a ninth arpeggio in another octave. One ninth arpeggio is shown in bold numbers, another in plain numbers, but all in gray-backed notes. The remaining numbers without grey backs are scale tones not in the arpeggio.

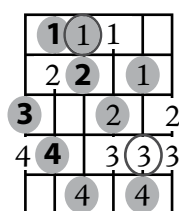
Phrygian major subset arpeggios (harmonic minor)

In using these as a setup chord, put the circled note on the fifth of the target chord (G7b9 for a C target). See [Target Chords and Setup Chords](#).

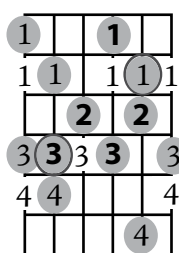
V7b9 in E form



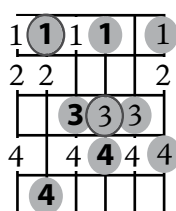
V7b9 in D form



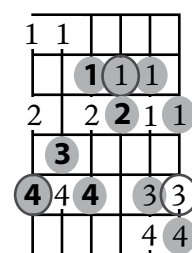
V7b9 in C form



V7b9 in A form



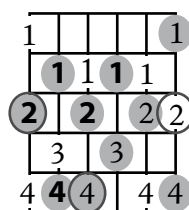
V7b9 in G form



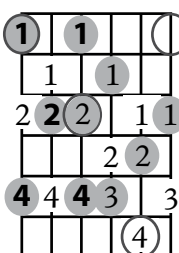
Lydian dominant subset arpeggios (melodic minor IV)

In using these as a setup chord, put the circled note on the “b2” of the target chord (Db9 for a C target). See [Target Chords and Setup Chords](#). The first row is ninth arpeggios. The bottom row is thirteenth sharp eleven arpeggios. Both are subsets of Lydian dominant, which is mode IV of melodic minor. See [Modes/Modes of Four Heptatonic Scales](#) and [Melodic Minor Cadences](#).

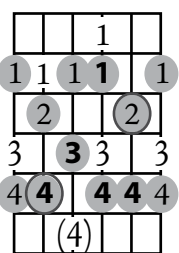
bII in E form



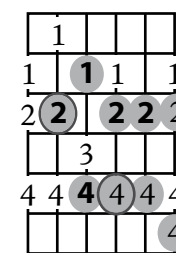
bII in E/D form



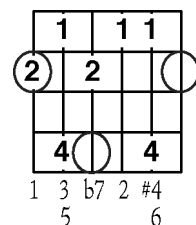
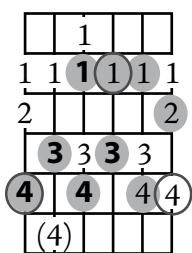
bII in C form



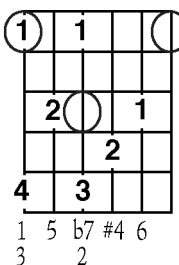
bII in A form



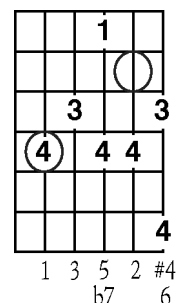
bII in G form



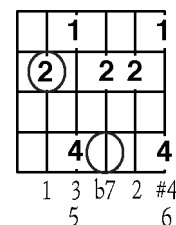
1 3 b7 2 #4
5 6



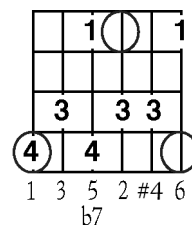
1 5 b7 #4 6
3 2



1 3 5 2 #4
b7 6



1 3 b7 2 #4
5 6



1 3 5 2 #4 6
b7

Full-Fretboard Chord Tones

- **Definitions of Terms**
- **Fifths, The Foundation of Chords**
- **Triads**
- **Quadrads (includes sevenths)**
- **Preferred Chord Tones**
- **Close-Voiced Three-Note Triads**
- **Close-Voiced Triad Examples**
- **Open-Voiced Three-Note Triads**
- **Open-Voiced Triad Examples**
- **Major Scale-Tone Triads Constructed in Thirds**
- **Expanding Triads into Progressions**

DEFINITIONS OF TERMS

The Major and Minor Chord Tone Arcs

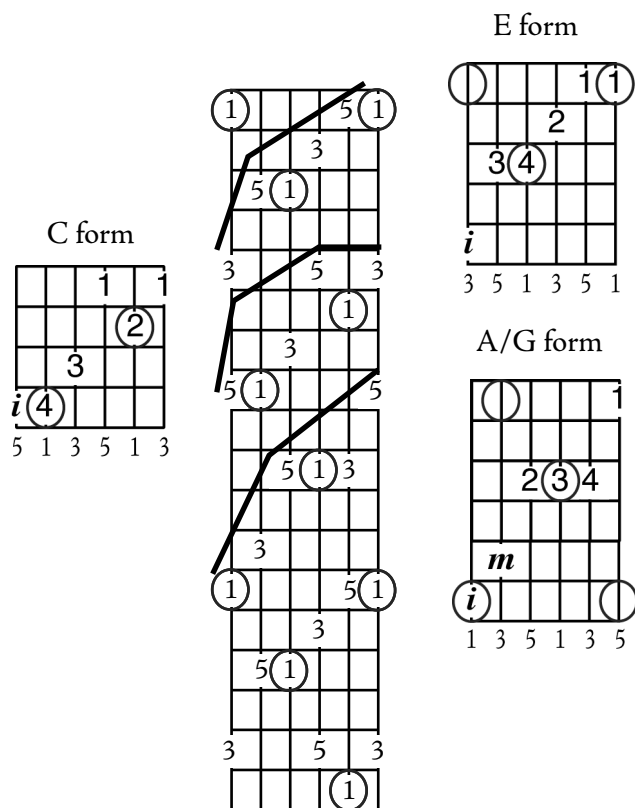
A major scale is a repeating seven-note sequence, where the eighth note is given the same numbered or lettered name as the first note. In the key of "C", the major scale is C-D-E-F-G-A-B-C-D-E, etc. Each note in a major scale is two frets from the next (leaving an "empty" fret between them), except the third to fourth notes are one fret apart, and the seventh to eighth notes are one fret apart.

A major chord consists of the first, third and fifth steps of a major scale, played together. The notes of a chord may be repeated. A major chord can have two or more of each note. They also can be in lower or upper octaves. There are ways to specify the order of notes, which we will cover here.

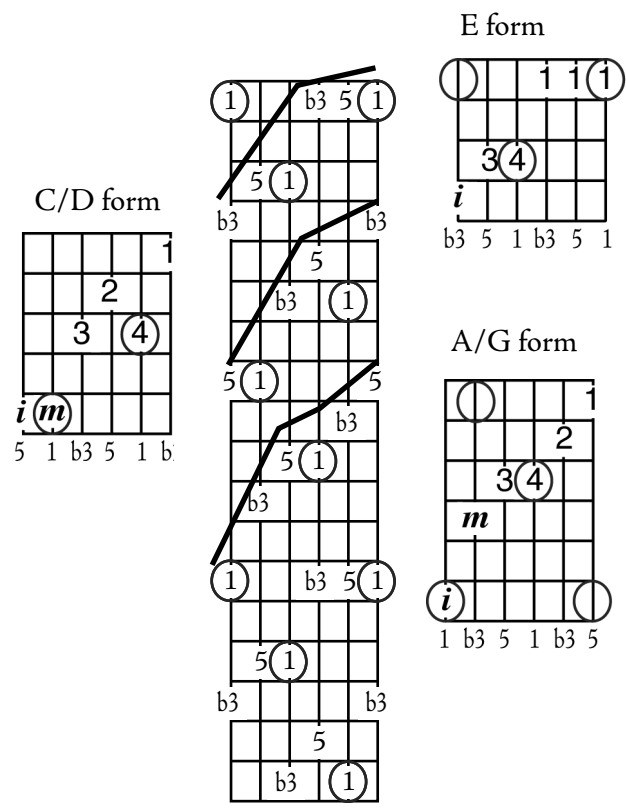
Note structures repeat on the guitar every twelve frets. Major chord tones and minor chord tones can each be conceived in terms of three groups of notes, which I call *arcs*. With some difficulty, it is possible to fret each of the three arcs. They provide a quick visualization of the basis of chords, the major triad.

By flattening the third in the major chord tone arcs, the minor chord tone arcs are created.

major chord tone arcs



minor chord tone arcs



Visualize Notes, Then Finger

Rather than jumping back and forth with your focus, visualize where the notes of a chord are, then decide on the fingers, as two separate activities. In the long run, this take much less time.

This is especially effective when fingering chord progressions such as I IV I7 no third, where the root remains and the other two notes ascend twice in tandem. Another triad progression is the “six nine” voicing: I6/9 no fifth to I9 no root/no third, which is equivalent to VI minor to V minor (a minor chord built on the sixth step of a major scale down a whole step to a minor chord on the fifth step of a major scale).

Chord Inversions

Chord inversions are named according to which note is lowest in pitch. If the root is in the bass (the lowest pitch), a chord is in *root position*. If the third is in the bass, it is *first inversion*. The fifth in the bass is *second inversion*. With four note seventh chords, which have a root, third, fifth and seventh, the inversion names are the same but adding the *third inversion*, where the seventh is in the bass.

String Sets

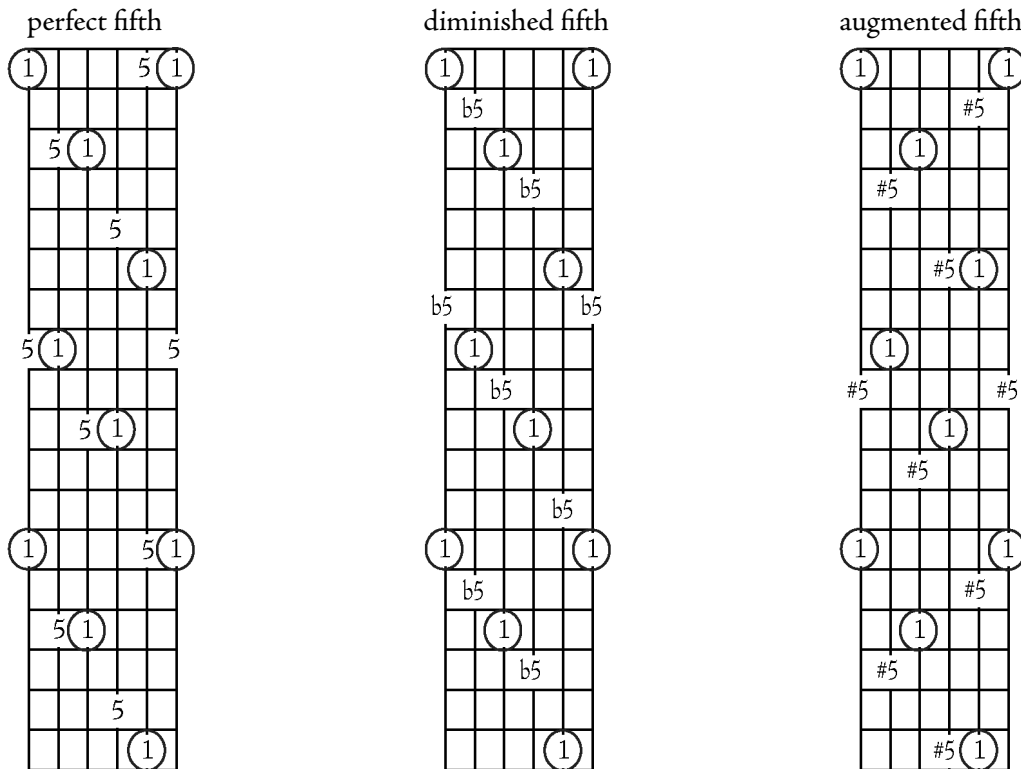
A series of chords can often be played where many consecutive chords are played on the same strings. Often a rules of harmony can keep the notes on the same strings, such as four note seventh chords descending their fifths and sevenths while their root name ascends up a fourth from each chord to the next.

Another useful sequence can facilitate practicing the five common seventh chord types by staying on the same strings and making this sequence of alterations: begin with major seventh (1 3 5 7), flat the seven (7: 1-3-5-b7), also flat the third (m7: 1-b3-5-b7), also flat the fifth (m7b5: 1-b3-b5-b7), double flat the seventh (1-b3-b5-6).

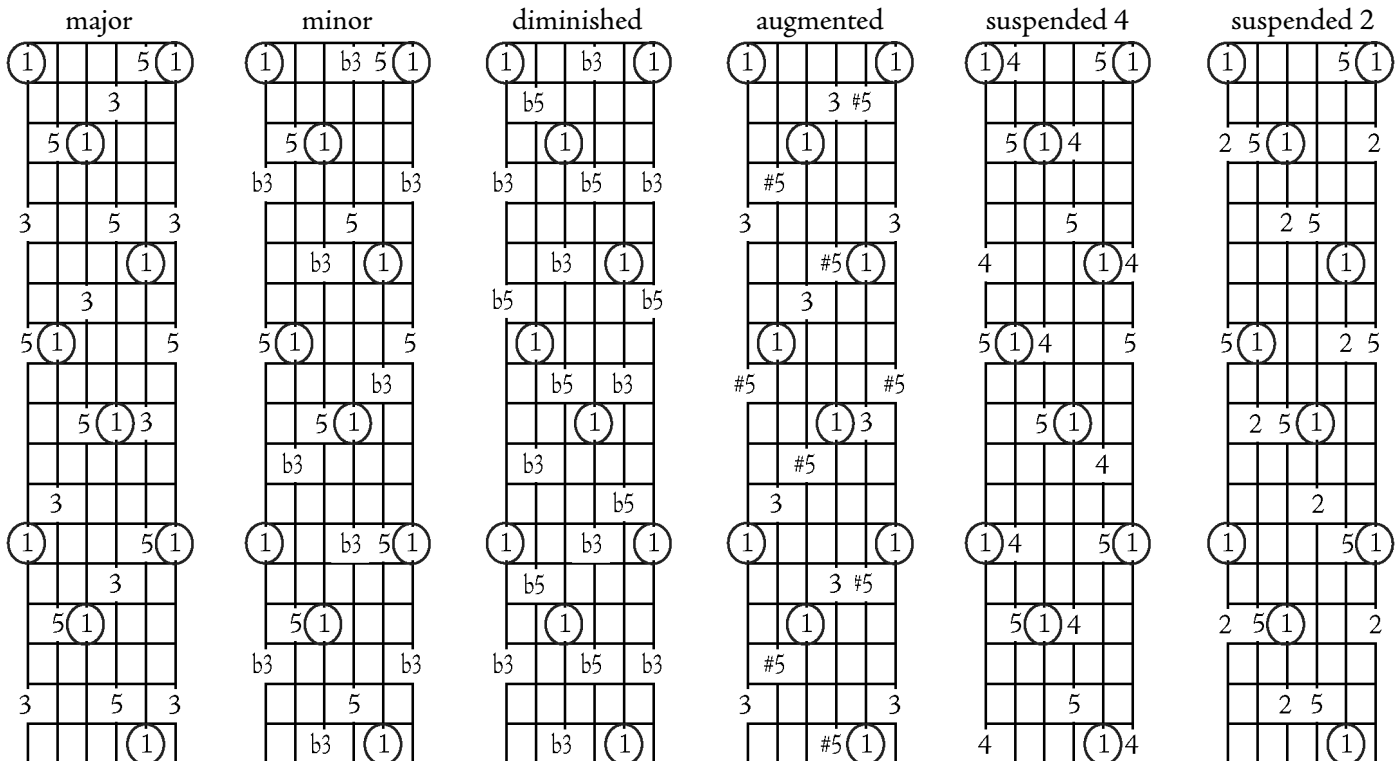
Close and Open Voicing

With close voicing, the notes are as close together as possible in pitch. With three note triads, the three possibilities are (in ascending order) 1-3-5, 3-5-1 and 5-1-3. For open voiced chords on the guitar, modify each close voiced chord by moving the middle note up or down an octave. This produces another three possibilities (the same as the close voiced ones in reverse order) 1-5-3, 3-1-5 and 5-3-1.

FIFTHS, THE FOUNDATION OF CHORDS



TRIADS

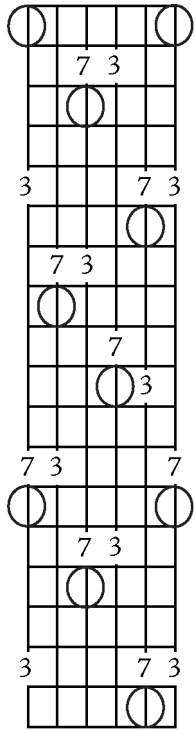


QUADRADS (includes sevenths)

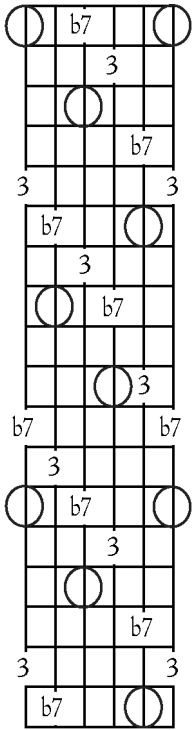
major 7	dominant 7	minor 7	minor 7b5	diminished seventh	minor (ma7)

PREFERRED CHORD TONES

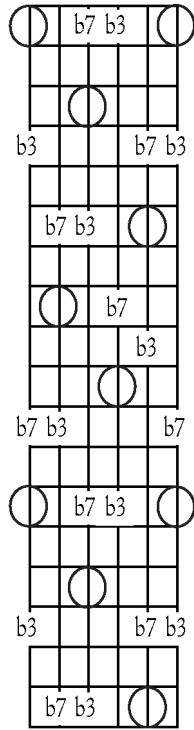
major 7
III: P5, VII: P4



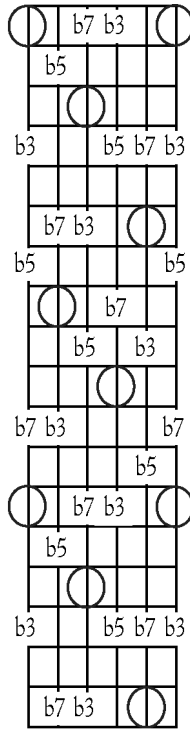
dominant 7
III: b5, bVII: #4



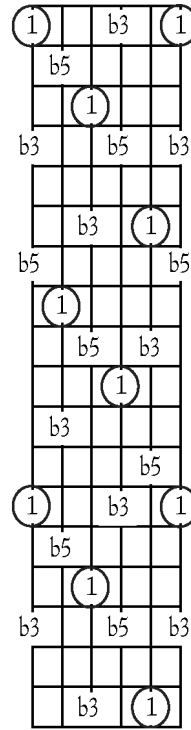
minor 7
bIII: P5, bVII: P4



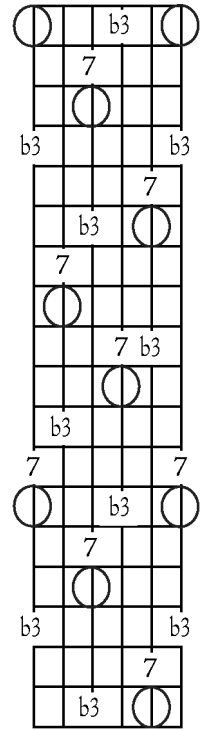
minor 7b5
= bIIIm



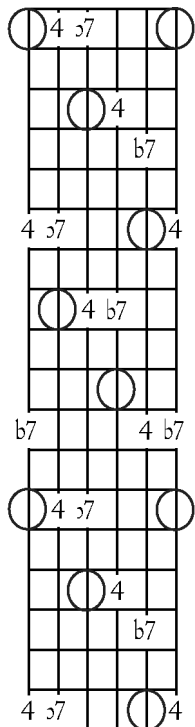
diminished seventh
= I diminished



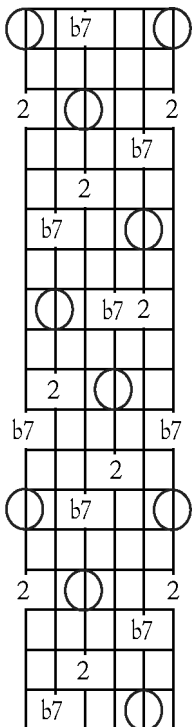
minor (ma7)
VII major third



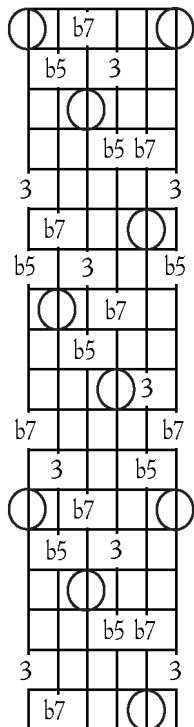
7 sus. 4
IV: P4, bVII: P5



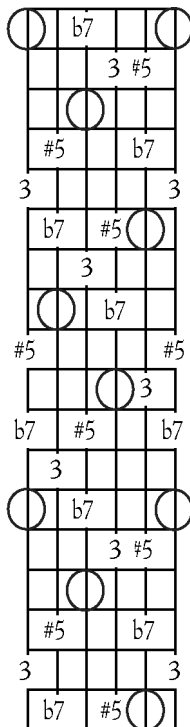
7 sus. 2
bVII maj. 3



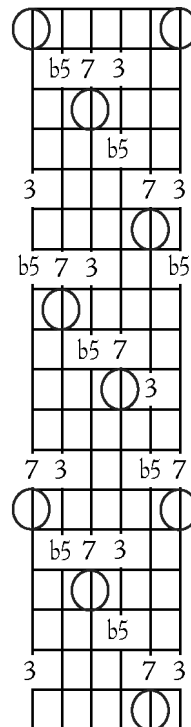
7b5
bV7 no5



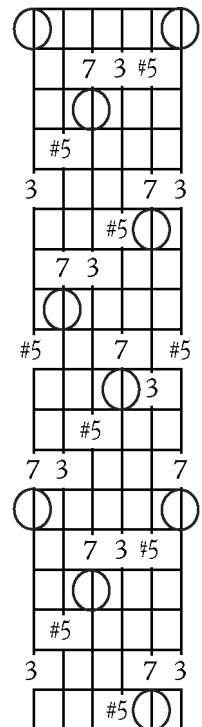
7#5
IIIImab5



ma7b5
bV: stack of 3 P4



ma7#5
III major



CLOSE-VOICED 3-NOTE TRIADS

Playing through each row below changes the string set and changes the inversion vertically on the fretboard. Playing through each column changes the inversion horizontally on the fretboard.

string set →

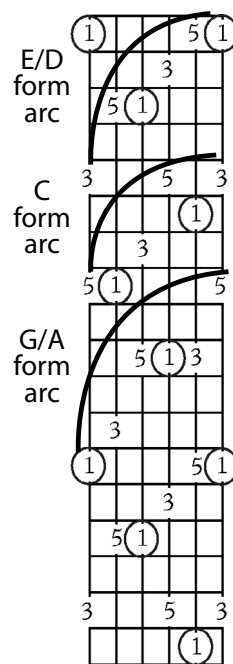
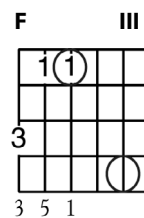
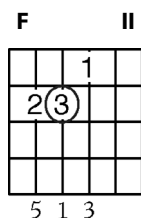
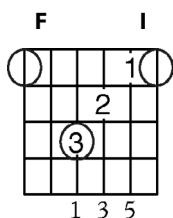
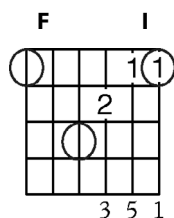
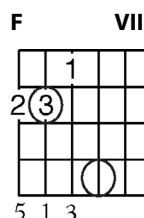
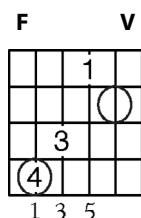
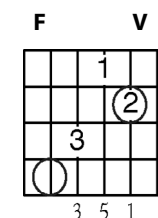
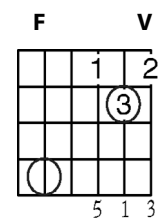
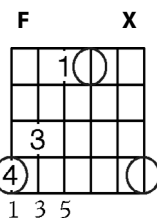
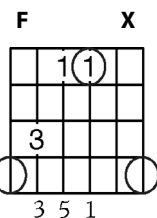
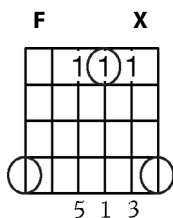
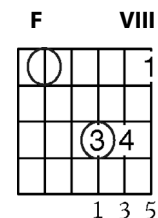
3-2-1

4-3-2

5-4-3

6-5-4

major

E/D form
arcC form
arcA/G form
arc

string set →

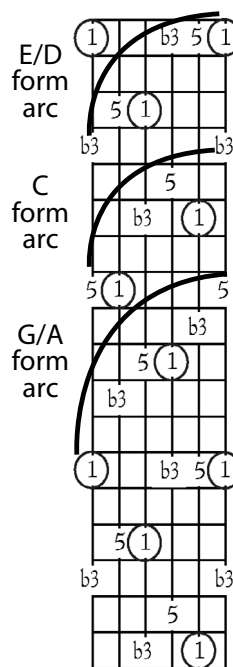
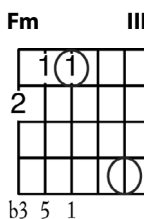
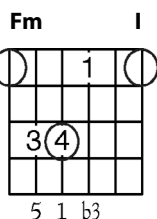
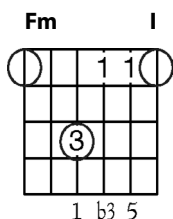
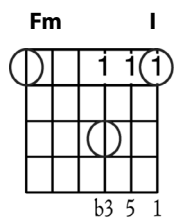
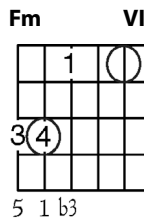
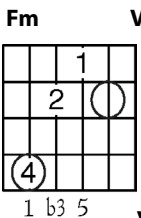
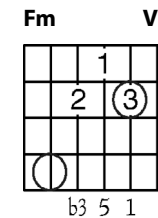
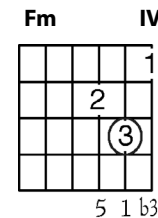
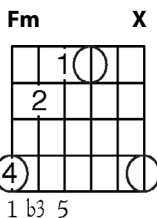
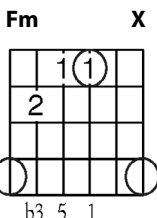
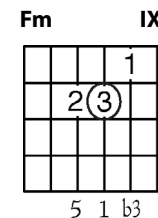
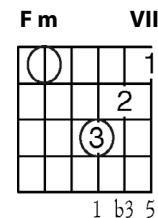
3-2-1

4-3-2

5-4-3

6-5-4

minor

E/D form
arcC form
arcA/G form
arc

CLOSE-VOICED TRIAD EXAMPLES

Good Lovin'

repeat these two bars through the verse

Chord progression for the verse: D G A G

Below the notation are fretboard diagrams for each chord, showing fingerings for the first four frets:

- D Major:**
 - Diagram 1: Fret 1, strings 1-4 (1, 3, 4, 1)
 - Diagram 2: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 3: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 4: Fret 1, strings 1-4 (1, 3, 1, 1)
- G Major:**
 - Diagram 1: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 2: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 3: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 4: Fret 2, strings 1-4 (1, 3, 1, 1)
- A Major:**
 - Diagram 1: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 2: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 3: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 4: Fret 1, strings 1-4 (1, 3, 1, 1)
- G Major:**
 - Diagram 1: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 2: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 3: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 4: Fret 2, strings 1-4 (1, 3, 1, 1)

chorus

Chord progression for the chorus: D G D G D E A

Below the notation are fretboard diagrams for each chord, showing fingerings for the first four frets:

- D Major:**
 - Diagram 1: Fret 1, strings 1-4 (1, 3, 4, 1)
 - Diagram 2: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 3: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 4: Fret 1, strings 1-4 (1, 3, 1, 1)
- G Major:**
 - Diagram 1: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 2: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 3: Fret 2, strings 1-4 (1, 3, 1, 1)
 - Diagram 4: Fret 2, strings 1-4 (1, 3, 1, 1)
- E Major:**
 - Diagram 1: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 2: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 3: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 4: Fret 1, strings 1-4 (1, 3, 1, 1)
- A Major:**
 - Diagram 1: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 2: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 3: Fret 1, strings 1-4 (1, 3, 1, 1)
 - Diagram 4: Fret 1, strings 1-4 (1, 3, 1, 1)

Summertime Blues

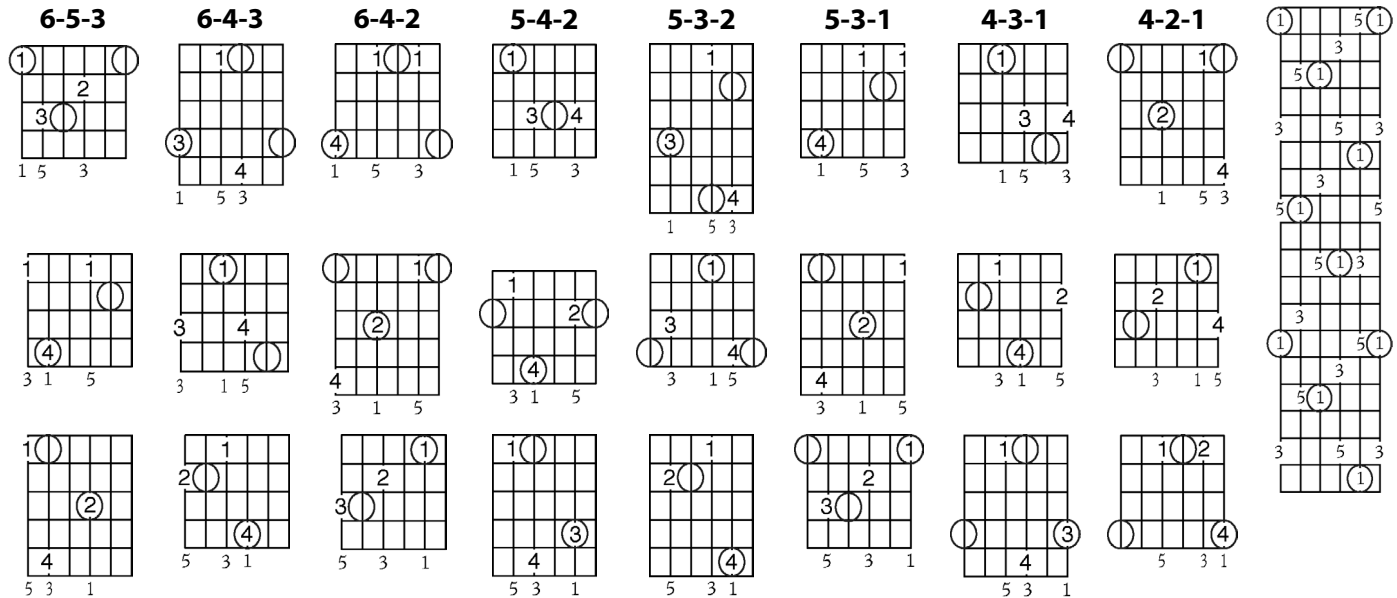
13 E A B E

The image displays a musical score for the song "Summertime Blues" in 4/4 time, featuring a key signature of one sharp (F#). The score is written on a single staff with a treble clef. The melody consists of a series of eighth and quarter notes, with rests, over a sequence of four chords: E, A, B, and E. Below the staff, there are four columns of fretboard diagrams, each corresponding to a chord. Each diagram shows a 5-fret section of a guitar fretboard with fingerings indicated by numbers in circles. The diagrams are arranged in a grid, with four rows of diagrams for each chord. The first row of diagrams for each chord shows the basic triad and dyad fingerings. The subsequent rows show more complex fingerings, including barre techniques and double stops. The diagrams are designed to be used as a reference for developing solo lines over the chords.

OPEN-VOICED THREE-NOTE TRIADS

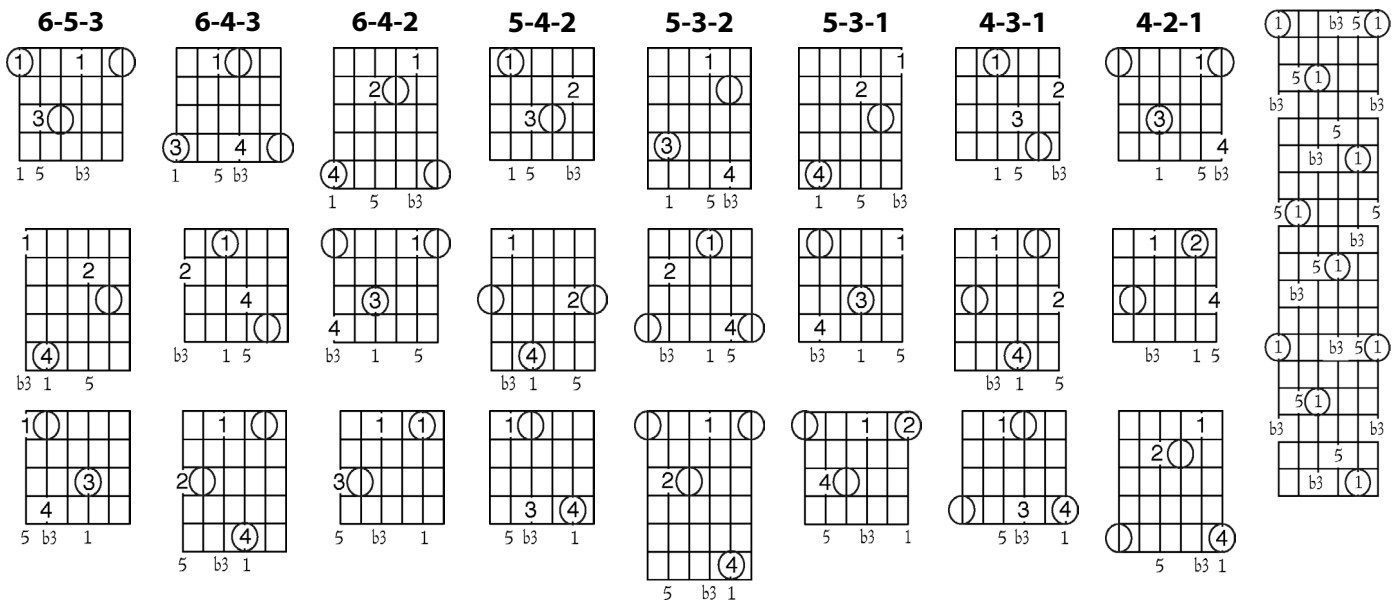
Major by String Set

Play down each column is root in bass (root position), third in bass (first inversion), then fifth in bass (second inversion).



Minor by String Set

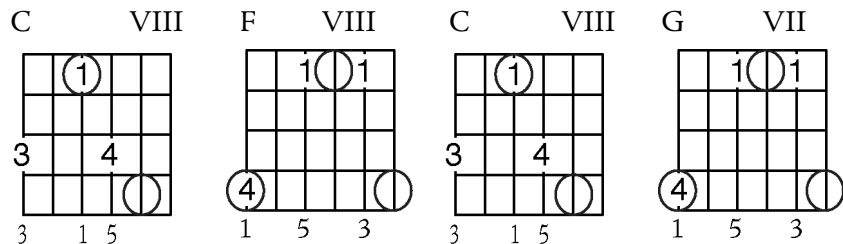
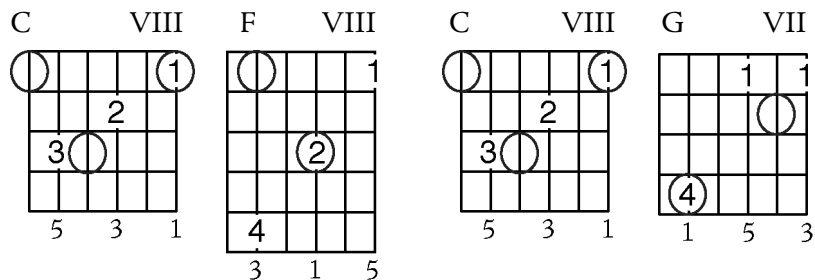
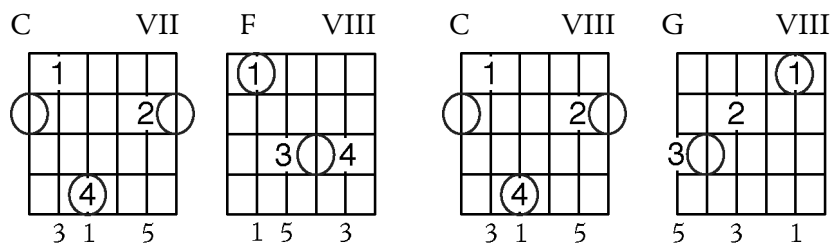
Play down each column is root in bass (root position), third in bass (first inversion), then fifth in bass (second inversion).



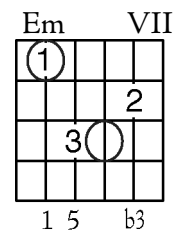
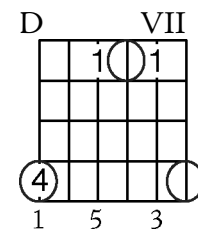
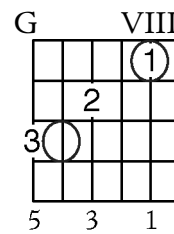
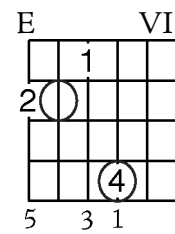
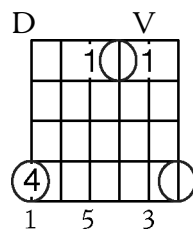
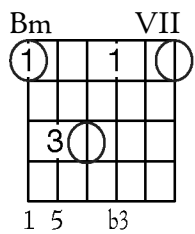
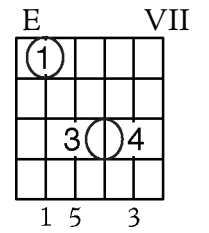
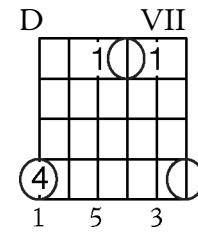
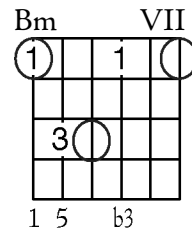
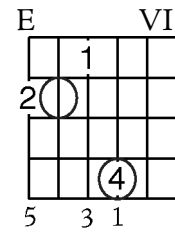
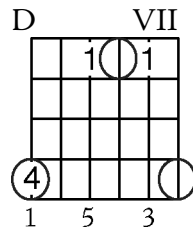
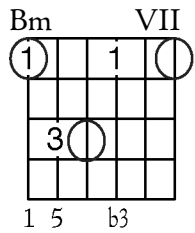
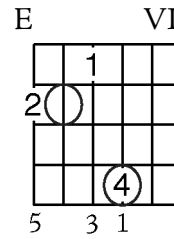
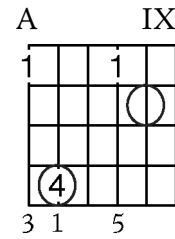
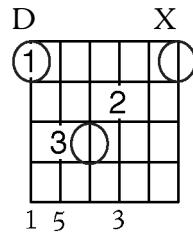
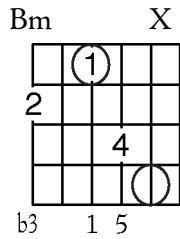
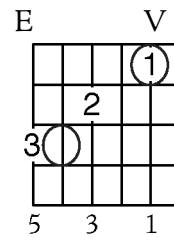
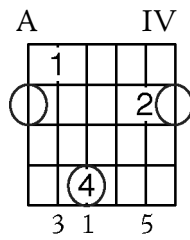
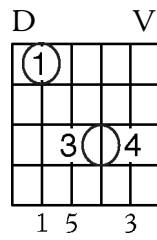
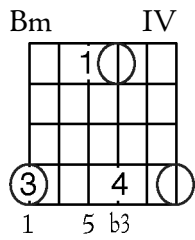
OPEN-VOICED TRIAD EXAMPLES

I IV IV

<p>C V</p>	<p>F VI</p>	<p>C G</p>	<p>G V</p>
<p>C V</p>	<p>F V</p>	<p>C V</p>	<p>G III</p>
<p>C V</p>	<p>F VI</p>	<p>C V</p>	<p>G V</p>
<p>C VIII</p>	<p>F VII</p>	<p>C V</p>	<p>G VII</p>
<p>C VIII</p>	<p>F VIII</p>	<p>C V</p>	<p>G VII</p>

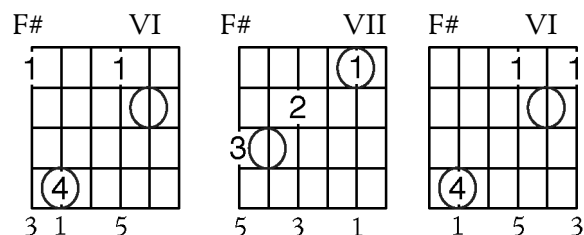
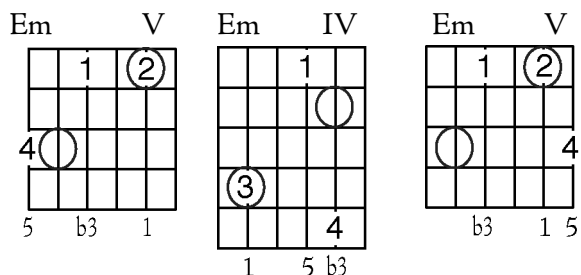
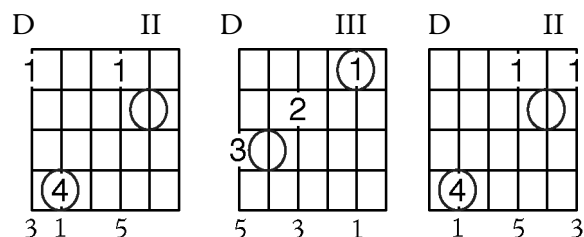
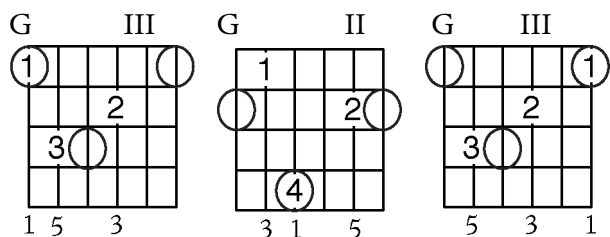
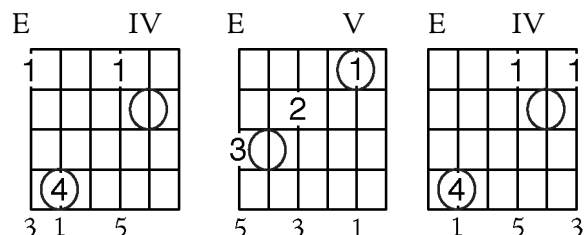
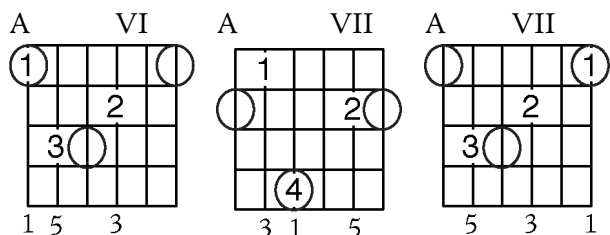
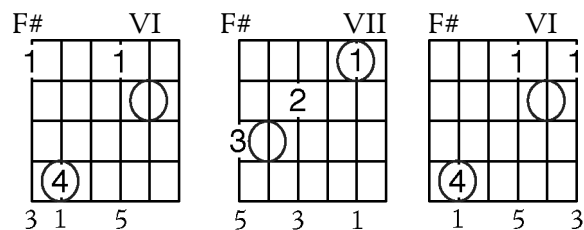
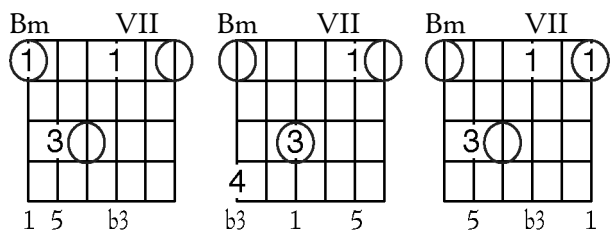


Back On Terra Firma



HOTEL CALIFORNIA

verse



chorus (copy voicings from above)

G D Em Bm G D Em F#

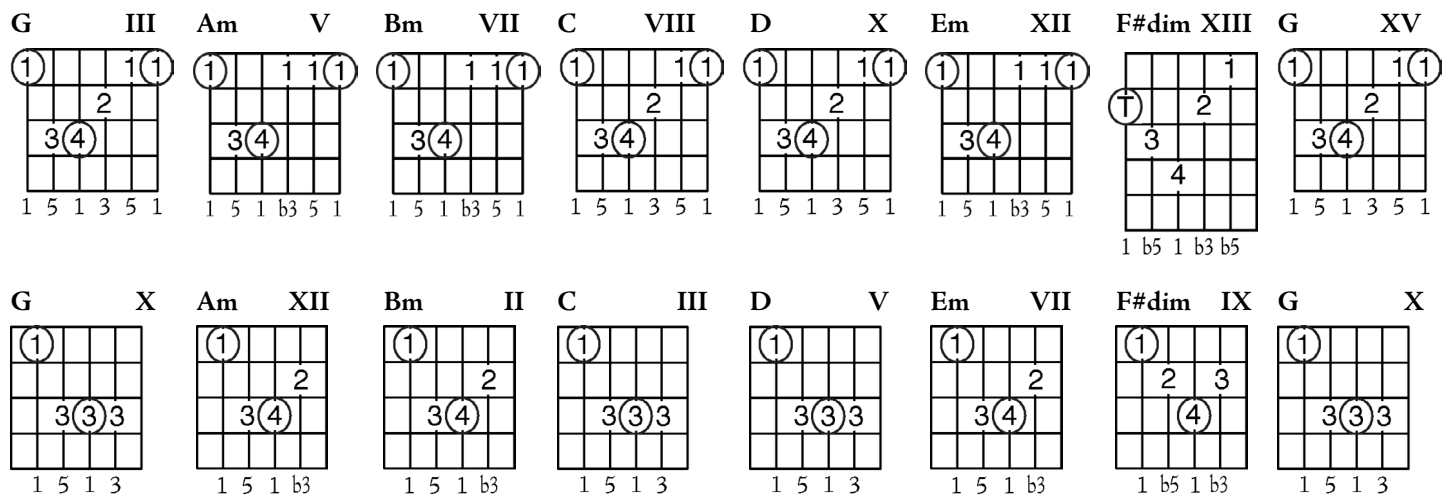
Afro Blue

<p>Fm III</p> <p>1 5 b3</p>	<p>Gm V</p> <p>1 5 b3</p>	<p>Ab VI</p> <p>1 5 3</p>	<p>Fm VI</p> <p>b3 1 5</p>	<p>Ab VI</p> <p>1 5 3</p>	<p>Gm V</p> <p>1 5 b3</p>
<p>Fm VI</p> <p>b3 1 5</p>	<p>Gm VIII</p> <p>b3 1 5</p>	<p>Ab IX</p> <p>3 1 5</p>	<p>Fm IX</p> <p>5 b3 1</p>	<p>Ab IX</p> <p>3 1 5</p>	<p>Gm VIII</p> <p>b3 1 5</p>
<p>Fm I</p> <p>5 b3 1</p>	<p>Gm III</p> <p>5 b3 1</p>	<p>Ab IV</p> <p>5 3 1</p>	<p>Fm III</p> <p>1 5 b3</p>	<p>Ab IV</p> <p>5 3 1</p>	<p>Gm III</p> <p>5 b3 1</p>
<p>Eb III</p> <p>1 3 5</p>	<p>Eb III</p> <p>3 5 1</p>	<p>Db VI</p> <p>5 1 3</p>	<p>Db I</p> <p>3 5 1</p>	<p>Eb III</p> <p>3 5 1</p>	<p>Fm V</p> <p>b3 5 1</p>
<p>Eb VIII</p> <p>3 5 1</p>	<p>Eb VIII</p> <p>5 1 3</p>	<p>Db IX</p> <p>1 3 5</p>	<p>Db VI</p> <p>5 1 3</p>	<p>Eb VIII</p> <p>5 1 3</p>	<p>Fm IX</p> <p>5 1 b3</p>
<p>Eb XI</p> <p>5 1 3</p>	<p>Eb XI</p> <p>1 3 5</p>	<p>Db XIII</p> <p>3 5 1</p>	<p>Db IX</p> <p>1 3 5</p>	<p>Eb VIII</p> <p>1 3 5</p>	<p>Fm XIII</p> <p>1 b3 5</p>

MAJOR SCALE-TONE TRIADS CONSTRUCTED IN THIRDS

As a standard practice, chords are built with an every other note pattern, using the cycle of thirds: 1 3 5 7 2 4 6 1 3 5 etc. Three note chords, called triads use the following numbers:

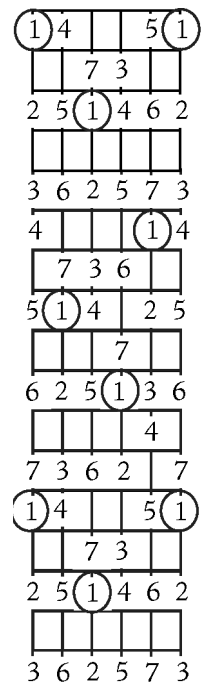
roman name	I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}
scale tones	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
letter name	G	A ^m	B ^m	C	D	E ^m	F [#] dim.



Numbers below each diagram below are in the key of the chord, not in the key of "G", except of course for the "G" chord. The numbers in the second row of the table above, labeled "scale tones" are numbers in the key of "G".

In each case, a chord has the numbers as specified above in the row labeled "scale tones". In the first diagram in the first row of diagrams above, the first chord is "G" at the third fret. Look for 1-3-5 on the diagram at the right, where the circled note on the sixth string is "1". You will find a collection of the numbered tones 1-3-5 in the same configuration. From the sixth to first string (left to right), they read "1-5-1-3-5-1".

Then find 2-4-6 as shown for A^m as in the second diagram in the first row above, rooted also on 6. You should find it on the diagram at the right where "2" is on the sixth string, reading "2-6-2-4-6-2" from left to right.



EXPANDING TRIADS INTO PROGRESSIONS

Once you establish a set of [voice leading](#) rules for a triad, you can apply it to any triad. For example, if the third and fifth of any chord are raised one scale tone, it becomes the chord up a fourth.

I is 1-3-5, IV is 4-6-1. Conservative [voice leading](#) (preferring smaller interval movement) of this root movement up a fourth (I to IV) involves the third and the fifth moving up a scale tone:

I 1-3-5

IV 1-4-6

Each of the twelve instances of close-voiced three-note major triads and each of the eighteen open-voiced three-note major triads can be expanded into the I IV I7 progression, shown below.

I IV I7: 3-5, 4-6, 5-7 thirds with Pedal Point “1”

“I IV I7” indicates a I chord, IV chord, then I chord of a seventh quality (I7). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I is 1-3-5, IV is 4-6-1 and I7 is 1-3-5-b7. It is typical in voicings (choices of notes to play) for this chord progression that the I7 chord is played without a third, making I7(no third), which can be written as I7n3.

See the chapter [Pedal Point Chord Progression/Thirds and Sixths with Pedal Point](#).

Orient the fingerings below by keeping “1” on the same note.

Three moves to four, then to five. Five moves to six, then to flat seven.

Read down the page through the sets of three chords in “root in bass versions”.

Read down the page through the sets of three chords in “third in bass versions”.

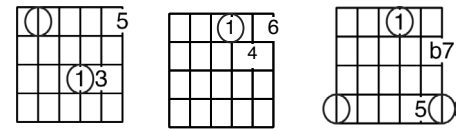
Read down the page through the sets of three chords in “fifth in bass versions”.

mixolydian I-IV-I7n3 (thirds or sixths ascend: “change-change”)

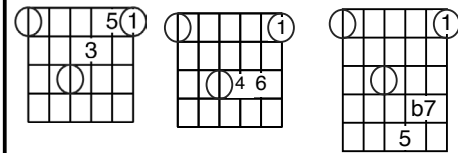
“I-IV-I7” indicates a I major chord, a IV major chord, then a I chord of a seventh quality (I7), without a third (I7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I is 1-3-5, IV is 4-6-1 and I7 no third is I-5-b7. Orient the fingerings below by keeping “1” on the same note. In I-IV-I7n3, three moves to four, then to five. Five moves to six, then to flat seven.

mixolydian I-IV-I7 no 3: close-voiced on string set 3-2-1

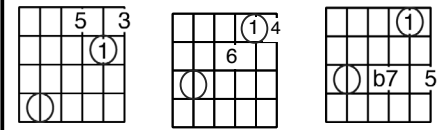
root in bass



third in bass

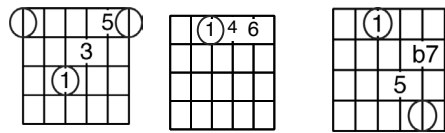


fifth in bass

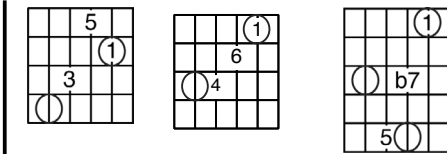


mixolydian I-V-I7 no 3: close-voiced on string set 4-3-2

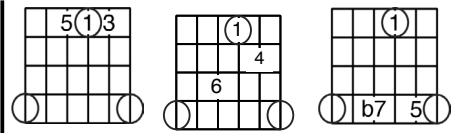
root in bass



third in bass

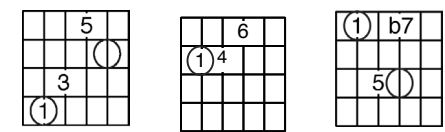


fifth in bass

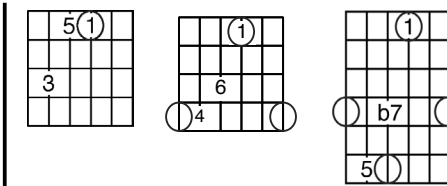


mixolydian I-IV-I7: close-voiced on string set 5-4-3 no 3

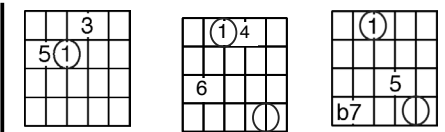
root in bass



third in bass

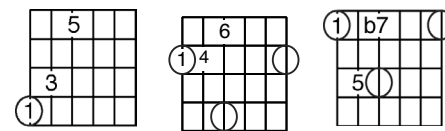


fifth in bass

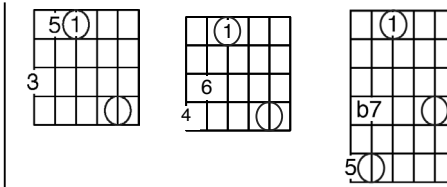


mixolydian I-IV-I7 no 3: close-voiced on string set 6-5-4

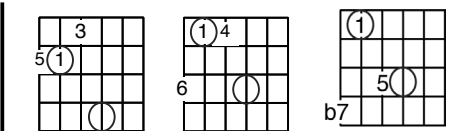
root in bass



third in bass



fifth in bass



The typical [voice leading](#) for this progression retains the root, moves the third and fifth up a step to the fourth and sixth, making a IV chord (IV is 4, 6, and 1). Next, the fourth and sixth each move up another step to the fifth and seventh, making a I7(no third) chord. The I7(no third) chord uses scale tones 1, 5 and 7.

The third and fifth are move parallel in thirds. It is effectively two notes harmonized in thirds over a pedal point. With inversions, the interval between the third and fifth may be a sixth or tenth.

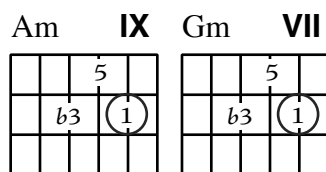
The I IV I7 progression may be based on each of many seven tone scales. Each scale may use different versions of the numbers, such as b7 for Mixolydian, but the numbers remain the same. It is very useful to note the *changes of intervals* in the I IV I7 progression particular to each scale. In Mixolydian, for example (I IV I7), the two moving notes change interval each time they ascend. They change from I to IV. They change again from IV to Im7n3. In Dorian mode, they stay the same from Im to IV, then change from IV to Im7n3. Phrygian and Aeolian are identical, since the I, IV, I7 progression does not use scale tone two. Phrygian major is commonly usable, harmonic minor is not.

<u>mode</u>	<u>progression</u>	<u>movement of thirds in parent scale</u>
major (Ionian)	I, IV, Ima7n3	3 minor, 4 major, 5 major
Dorian	Im, IV, Im7n3	4 major, 5 major, 6 minor
Phrygian (same as Aeolian)	Im, IVm, Im7n3	5 major, 6 minor, 7 minor
Lydian	I, IV diminished, Ima7n3	6 minor, 7 minor, 1 major
Mixolydian	I, IV, I7n3	7 minor, 1 major, 2 minor
Aeolian (same as Phrygian)	Im, IVm, Im7n3	1 major, 2 minor, 3 minor
Locrian	I diminished, IVm, Im7b5n3	2 minor, 3 minor, 4 major
Phrygian major	I, IVm, I7n3	5 major, b6 major, b7 major

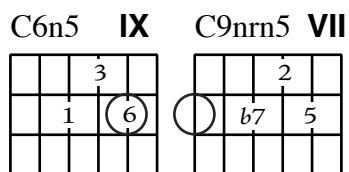
Six Nine: Vim Vm Triads with Pedal Point “1”

six nine: Vim, Vm over one

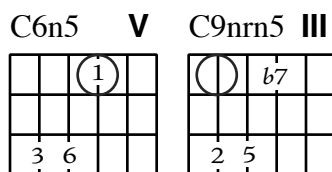
This becomes a sixth to ninth chord change, since VIm equals I6 no fifth and Vm equals I9 no root, no third. During a C7 chord, the two chord progression C6n5 to C9nrn3 can be represented by playing Am Gm.



C6n5 and C9nrn3 are respectively synonyms for Am and Gm.



Don't voice the note that is the ninth of the I9nrn3 too low. The voicing for the second chord in the example below doesn't do a good job of sounding a ninth chord.



Expressive Rhythm

- **Expressive Division of Time**
- **Rubato**
- **Ahead of the Beat, Behind the Beat , In the Pocket**
- **Degrees of Swing**
- **Loudness by Duration**
- **Tempo Fluxuations**
- **Articulations**

EXPRESSIVE DIVISION OF TIME

Division of time can be equal, by degree (percentage) of swing or on a time curve. As intervals of time, phrases, bars, beats and divisions of beats can be regularly or irregularly spaced. The bars and phrases may be of different durations.

By Section

Most commonly, songs are at the same tempo, in theory. When we depend on humans to keep the time regular, there are always at least slight deviations. Those deviations are not bad. With skilled musicians, the deviations in tempo usually have a dramatic purpose.

If a recording is made to a “click track”, it should be very consistent as to the tempo. Even click tracks, with modern software, can accelerate, decelerate or abruptly change the tempo. Most performances keep a static tempo. Some accelerate or decelerate the tempo.

Unlike classical music, pop music usually keeps a regular tempo and only makes changes at a two to one ratio. The song may double the tempo, predicting it by playing two notes per beat before the tempo change, then converting those half beats to whole beats. Conversely, a song may halve the tempo, predicting it by accenting the first of every two beats, then converting those accents to beats at half the original tempo.

By Bar

Tempos don't change much bar to bar, but gradual change of tempos sequences of bars can be gauged by noting a certain tempo at one particular bar and a gradual change to a different tempo at another particular bar. Usually such changes are linear or regular. They can be more “logarithmic” changes, where the *change* of tempo is progressively faster or slower. Changing tempo during four bars and making the change happen more toward the end of the four bars builds excitement, for example.

By Beat and Beat Division

Beats are usually evenly spaced. Exceptionally, continuous sequences of faster notes, two or more divisions per beat are often compressed in time, played faster toward the beginning of the period in which they occur, leaving a phrase gap before the next group. This is most often done when the notes are slurred together and/or played legato (“in one breath”). Eight notes during a bar, would evenly divide to 12.5% if a bar per. They might be played faster to leave a 5% “phrase break” at the end. This is done all the time, but not everyone is aware of it.

Dividing the beat into two parts is called “straight” (straight eighths when an eighth note is half a beat) when divided precisely in half. Dividing the beat to a long note of two-thirds of a beat and a short note of one-third of a beat is called “regular swing”. See [Degrees of Swing](#), below.

RUBATO

Rubato is rhythmic independence between melody and accompaniment. It can use a phrase curve, bar curve, beat curve or combinations. Curves can accelerate, decelerate or be free-form with “drawn” acceleration and/or deceleration. Imagine a tempo accelerator pedal. Based on it’s latin root *rubato* time is *stolen* time.

During a beat, the overall period of time may remain the same as other beats, yet some of the notes may conceptually accelerate or decelerate, giving or borrowing time from the remainder of the beat. You could also say part of the beat is compressed and part of the beat is expanded yet still totaling one beat.

Compressed Beat Divisions

See [By Beat and Beat Division](#) in the previous section.

Groups of Short Durations

Like slurred groups, pairs of sixteenths or other groups of short durations at the end of a beat are compressed. Again, this is done to provide a tiny break before the next beat.

“AHEAD OF THE BEAT”, “BEHIND THE BEAT” AND “IN THE POCKET”

Playing “ahead of the beat” is playing all of the notes consistently early. Playing “behind the beat” is playing all of the notes consistently late. These deviations from playing “in the pocket” (perfectly in time) are usually slight and subtle.

One or more instruments play before or after the beat established by another instrument. Like with degrees of swing, just being aware of these concepts can make you much more effective in interacting with other musicians.

Ahead of the Beat Feels Anxious

Bluegrass, up-tempo jazz, jump blues, swing blues, bebop, punk, new wave and ska are typically anxious and often played ahead of the beat.

Behind the Beat Feels Relaxed

Funk, reggae, ragtime, swing era jazz, slow and medium tempo jazz and slow blues are typically relaxed and often played behind the beat.

YouTube Examples

Look up each of these three terms on YouTube and you’ll find an explosion of examples (it makes me want to play ahead of the beat!).

DEGREES OF SWING

Most of us have heard of swing eighths. You may have “light swing” and “heavy swing”. These all refer to the division of a beat into two unequal parts. We are not machines.

We may intend on dividing each beat into one note of two-thirds of a beat and another of one-third of a beat. If we recorded the performance with that intended “regular swing” of two-thirds and one-third and viewed the waveform in a timeline from left to right on a computer screen with vertical lines showing the beginning of each beat, we would find some irregularities. If you zoomed in far enough, you would see that every note has a unique duration and that the intended two-thirds and one-third didn’t exactly happen. If most listeners would perceive the beat division as two-thirds and one-third, we did fine. That’s what matters, the listener’s perception not the scientific precision.

Swing can divide the beat into two parts with the first part anywhere from over 50% to 75% of the beat. If you are aware of this variability of swing and human imperfection, you can adjust what you play to match what bandmates are playing and what listeners expect. It is a great subject to keep in mind.

Metronomes that can express from 50% to 75% swing include Dr. Betotte, for Mac, iPhone or iPad and the swingmetronome.com website.

LOUDNESS BY DURATION

Long durations are louder, short durations softer. This strengthens the effect of the longer notes, which are more important and conversely de-emphasizes the less important shorter notes. Exceptions are staccato syncopated notes (particularly at the end of a phrase) that give the music punch. Loud staccato syncopated notes are prevalent in bebop.

[link to video](#) (“>” is an accent mark)



TEMPO FLUCTUATIONS

Sections with short note durations are often faster in tempo, with adjoining sections with long note durations slower in tempo with a pause between. Beethoven: “sensitivity has its own pulse”.

ARTICULATIONS

[link to video](#)

The image displays three staves of musical notation illustrating various articulation and phrasing techniques:

- Staff 1:** Shows four measures. The first measure is labeled "staccato" and contains four eighth notes. The second measure is labeled "tenuto" and contains four eighth notes. The third measure is labeled "legato" and contains a sixteenth-note scale. The fourth measure is labeled "portato" and contains a sixteenth-note scale.
- Staff 2:** Starts with a measure labeled "5 portato" containing a sixteenth-note scale. This is followed by three measures, each containing a single eighth note.
- Staff 3:** Starts with a measure labeled "9" containing a quarter note. This is followed by a measure labeled "fermata" containing a quarter note with a fermata symbol. This is followed by a measure labeled "short fermata" containing a quarter note with a short fermata symbol. This is followed by a measure labeled "long fermata" containing a quarter note with a long fermata symbol. This is followed by a measure labeled "accent" containing a quarter note with an accent symbol. This is followed by a measure labeled "marcato" containing a quarter note with a marcato symbol.

Duration

staccato

Notes written with a dot above or below the note head are played approximately half their written value.

tenuto

Notes written with a short horizontal line above or below the note head are played for their full value, or even longer, where a note can borrow time from the note after it and thus shorten the duration note that follows. This is what swing does, for example, it lengthens the note on the beat and shortens the note on the offbeat.

legato

Legato should not be confused with tenuto. Legato is indicated with the word, not a mark.

portato (mezzo staccato)

Is legato with the notes slightly detached. They are played one breath, but with articulation of each note. They can be:

a group of staccato notes embraced by a slur, or

marked with both tenuto (horizontal line above or below) and staccato (dot above or below)

fermata

A note with a half circle and inner dot written above or below its note heads is played for a long duration, at the discretion of the performer or conductor.

Accent

accent

Indicated with a right angle bracket (>) above or below their note heads are accented notes to be played more loudly.

marcato

A note with a wedge (^) above or below its note head has a strong accent.

Metric Phrasing

- **Meter and Phrasing**
- **Phrase Start Points**
- **Rhythmic Displacement**
- **Serial Anti-Metric Note Grouping**
- **Beat Obscuring**

METER AND PHRASING

Meter

Meter is the measurement of time. It is the conceptual division of time into regular periods, so they can be counted and so the beginnings of the periods can be predicted by groups of musicians and listeners. The periods are sections, phrases, bars, beats and the divisions of beats.

One of the cast members in Greek plays is said to have established a regular pulse by stomping his foot with a anklet of bells, loud enough so the cast could hear it to establish regular intervals in the lines of speech they were reciting in the plays. This became the “beat” in modern music. The beats are usually grouped regularly, most commonly in sets of four beats, but frequently also in three, six or twelve.

The groups of beats are called bars. Beats can be divided into regular parts, usually into two, three or four parts per beat. On the micro scale, bars are usually grouped in multiples of two, making phrases of two or four beats. On the larger scale, bars are grouped into larger sections like verses, and choruses in multiples of four beats, making eight, twelve, sixteen, twenty-four or thirty-two bar sections.

Phrasing

After establishing the mood, story and feel of a piece of music, you should divide the sections into phrases. This will help you to deliver the music to the listener in understandable parts. Rhythmically, your phrasing shows a relationship to the accompaniment, but doesn't have to match it exactly. In fact its independence from the accompaniment can give the music depth and character. See [Expressive Rhythm](#) and [Building Sections With Phrases](#).

PHRASE START POINTS

Phrases can start before, on or after the first beat of a bar. When they start before, they can be thought of as a pickup. When they start after the first beat of a bar, they usually have the effect of responding to an event on the first beat of the bar, in statement and response fashion.

Vary Phrase Start Points

A common flaw in the phrasing of a novice improviser is to start all the phrases the same way. Every phrase starting before the beat, or every phrase starting after the beat. It's understandable. If not coached on the subject, they are focusing on the other aspects of their improv and don't necessarily anticipate the monotony of starting all the phrases in the same manner.

pattern the phrase start points

Divide your sections into phrases, such as dividing a twelve-bar blues into three four bar phrases. Next, decide on a pattern of phrase start points, such as “before, before, on”, meaning start the first two four bar phrases each before the first beat of their first bar, then starting the last phrase on the first beat of its first bar.

This makes the music more interesting and can do things like bringing attention to the end of the twelve-bar section by changing the phrase start point of the last phrase.

Pickups: Starting the Phrase Before the First Beat

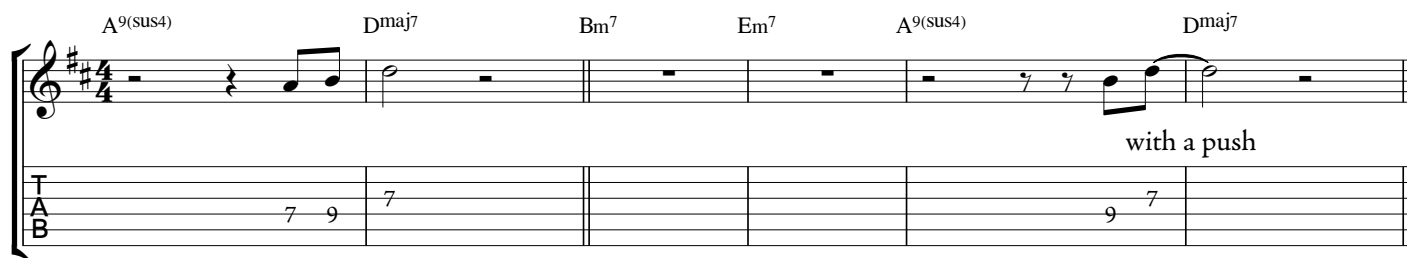
push versions

A *push* starts on the last division of the last beat before beat one, such as the “and of four”. It can also occur before other beats, or even before an upbeat with a sixteenth note on the second quarter of the beat before the third quarter. See [Rhythmic Words and Comping/Hearing Pickups and Pushes](#) and [Rhythmic Words and Comping/Comping Rhythms/Varying Rhythm/push](#).

one eighth-note pickup

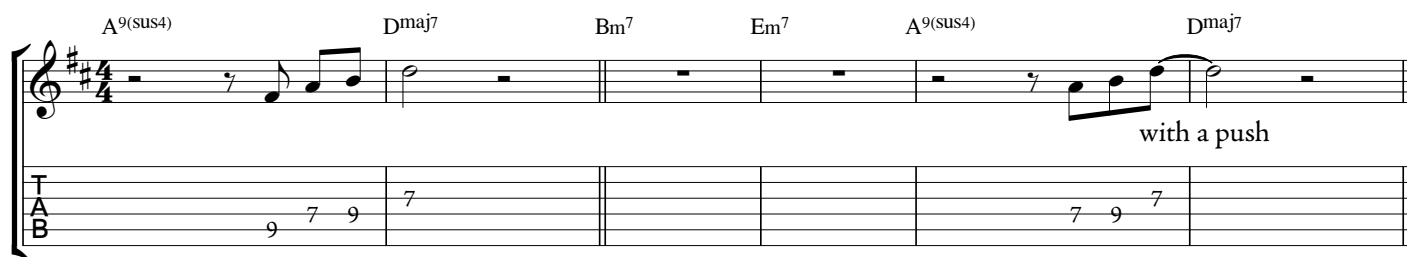
with a push

two eighth-note pickup



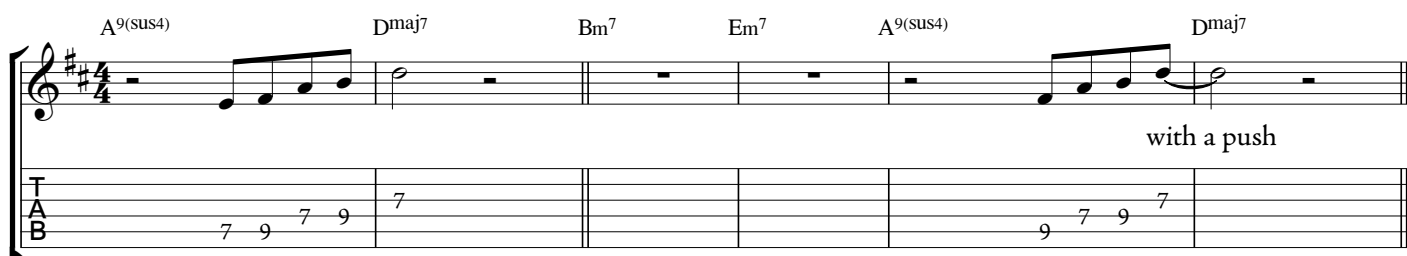
Two eighth-note pickup. The notation shows a treble staff with a key signature of one sharp (F#) and a 4/4 time signature. The first measure contains a quarter rest followed by two eighth notes (F#4 and A4). The second measure contains a half note (B4). The third and fourth measures contain whole rests. The fifth measure contains a quarter rest followed by two eighth notes (B4 and D5). The sixth measure contains a half note (E5). The seventh measure contains a whole rest. The eighth measure contains a quarter rest followed by two eighth notes (F#5 and A5). The ninth measure contains a half note (B5). The tenth measure contains a whole rest. The eleventh measure contains a quarter rest followed by two eighth notes (B5 and D6). The twelfth measure contains a half note (E6). The thirteenth measure contains a whole rest. The fourteenth measure contains a quarter rest followed by two eighth notes (F#6 and A6). The fifteenth measure contains a half note (B6). The sixteenth measure contains a whole rest. The notation is labeled with chords: A⁹(sus4) for measures 1-2, Dmaj7 for measures 3-4, Bm7 for measures 5-6, Em7 for measures 7-8, A⁹(sus4) for measures 9-10, Dmaj7 for measures 11-12, Bm7 for measures 13-14, Em7 for measures 15-16, A⁹(sus4) for measures 17-18, and Dmaj7 for measures 19-20. The text "with a push" is written below the final measure. The bass staff shows the fret positions: 7 9 for measures 1-2, 7 for measures 3-4, 9 7 for measures 17-18, and 7 for measures 19-20.

three eighth-note pickup



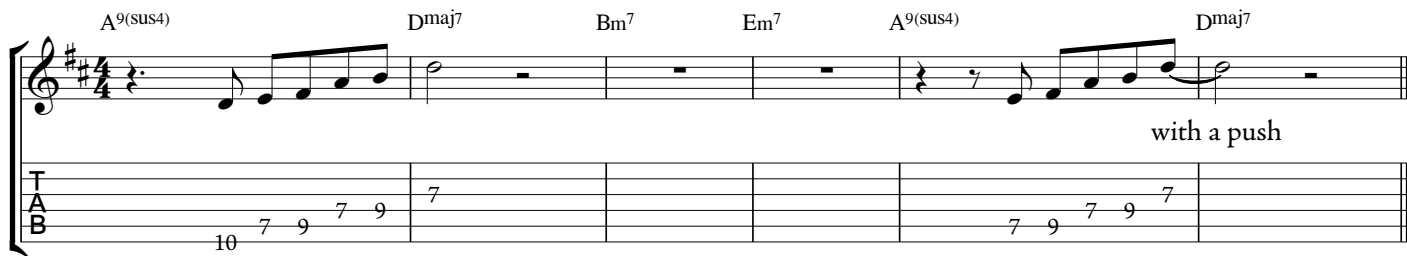
Three eighth-note pickup. The notation shows a treble staff with a key signature of one sharp (F#) and a 4/4 time signature. The first measure contains a quarter rest followed by three eighth notes (F#4, A4, and B4). The second measure contains a half note (C5). The third and fourth measures contain whole rests. The fifth measure contains a quarter rest followed by three eighth notes (C5, D5, and E5). The sixth measure contains a half note (F#5). The seventh measure contains a whole rest. The eighth measure contains a quarter rest followed by three eighth notes (F#5, G5, and A5). The ninth measure contains a half note (B5). The tenth measure contains a whole rest. The eleventh measure contains a quarter rest followed by three eighth notes (B5, C6, and D6). The twelfth measure contains a half note (E6). The thirteenth measure contains a whole rest. The fourteenth measure contains a quarter rest followed by three eighth notes (E6, F#6, and G6). The fifteenth measure contains a half note (A6). The sixteenth measure contains a whole rest. The notation is labeled with chords: A⁹(sus4) for measures 1-2, Dmaj7 for measures 3-4, Bm7 for measures 5-6, Em7 for measures 7-8, A⁹(sus4) for measures 9-10, Dmaj7 for measures 11-12, Bm7 for measures 13-14, Em7 for measures 15-16, A⁹(sus4) for measures 17-18, and Dmaj7 for measures 19-20. The text "with a push" is written below the final measure. The bass staff shows the fret positions: 9 7 9 for measures 1-2, 7 for measures 3-4, 7 9 7 for measures 17-18, and 7 for measures 19-20.

four eighth-note pickup



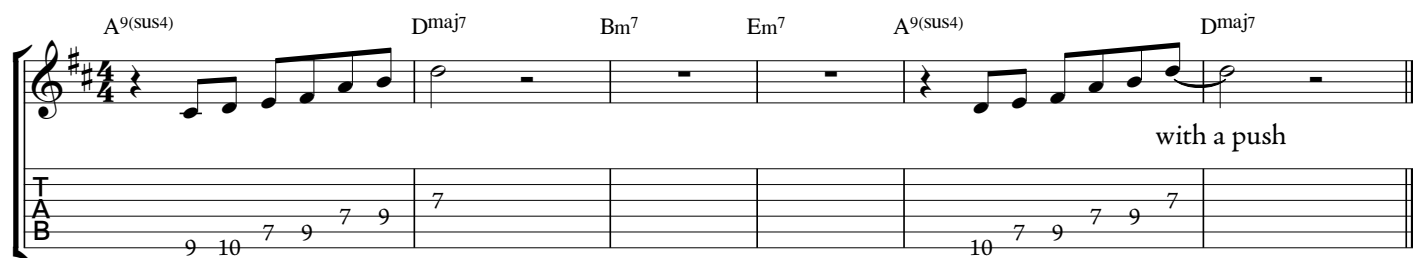
Four eighth-note pickup. The notation shows a treble staff with a key signature of one sharp (F#) and a 4/4 time signature. The first measure contains a quarter rest followed by four eighth notes (F#4, A4, B4, and C5). The second measure contains a half note (D5). The third and fourth measures contain whole rests. The fifth measure contains a quarter rest followed by four eighth notes (D5, E5, F#5, and G5). The sixth measure contains a half note (A5). The seventh measure contains a whole rest. The eighth measure contains a quarter rest followed by four eighth notes (A5, B5, C6, and D6). The ninth measure contains a half note (E6). The tenth measure contains a whole rest. The eleventh measure contains a quarter rest followed by four eighth notes (E6, F#6, G6, and A6). The twelfth measure contains a half note (B6). The thirteenth measure contains a whole rest. The fourteenth measure contains a quarter rest followed by four eighth notes (B6, C7, D7, and E7). The fifteenth measure contains a half note (F#7). The sixteenth measure contains a whole rest. The notation is labeled with chords: A⁹(sus4) for measures 1-2, Dmaj7 for measures 3-4, Bm7 for measures 5-6, Em7 for measures 7-8, A⁹(sus4) for measures 9-10, Dmaj7 for measures 11-12, Bm7 for measures 13-14, Em7 for measures 15-16, A⁹(sus4) for measures 17-18, and Dmaj7 for measures 19-20. The text "with a push" is written below the final measure. The bass staff shows the fret positions: 7 9 7 9 for measures 1-2, 7 for measures 3-4, 9 7 9 7 for measures 17-18, and 7 for measures 19-20.

five eighth-note pickup



Five eighth-note pickup. The notation shows a treble staff with a key signature of one sharp (F#) and a 4/4 time signature. The first measure contains a quarter rest followed by five eighth notes (F#4, A4, B4, C5, and D5). The second measure contains a half note (E5). The third and fourth measures contain whole rests. The fifth measure contains a quarter rest followed by five eighth notes (E5, F#5, G5, A5, and B5). The sixth measure contains a half note (C6). The seventh measure contains a whole rest. The eighth measure contains a quarter rest followed by five eighth notes (C6, D6, E6, F#6, and G6). The ninth measure contains a half note (A6). The tenth measure contains a whole rest. The eleventh measure contains a quarter rest followed by five eighth notes (A6, B6, C7, D7, and E7). The twelfth measure contains a half note (F#7). The thirteenth measure contains a whole rest. The fourteenth measure contains a quarter rest followed by five eighth notes (F#7, G7, A7, B7, and C8). The fifteenth measure contains a half note (D8). The sixteenth measure contains a whole rest. The notation is labeled with chords: A⁹(sus4) for measures 1-2, Dmaj7 for measures 3-4, Bm7 for measures 5-6, Em7 for measures 7-8, A⁹(sus4) for measures 9-10, Dmaj7 for measures 11-12, Bm7 for measures 13-14, Em7 for measures 15-16, A⁹(sus4) for measures 17-18, and Dmaj7 for measures 19-20. The text "with a push" is written below the final measure. The bass staff shows the fret positions: 10 7 9 7 9 for measures 1-2, 7 for measures 3-4, 7 9 7 9 7 for measures 17-18, and 7 for measures 19-20.

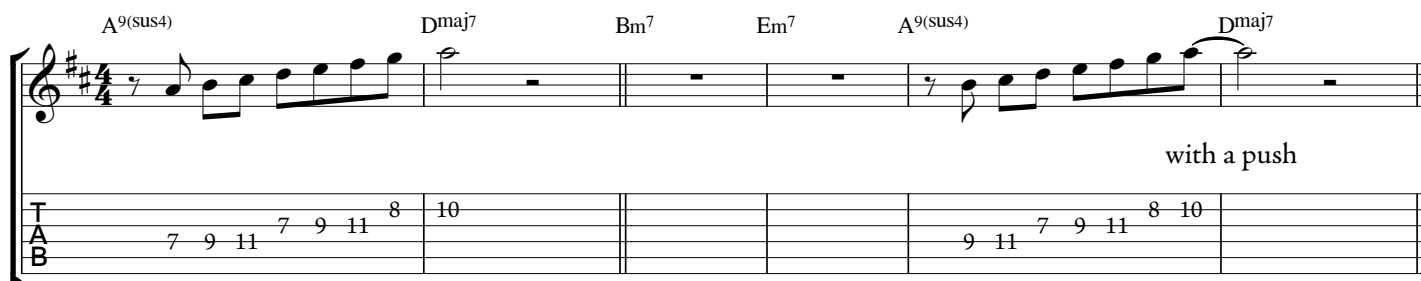
six eighth-note pickup



Chord progression: A⁹(sus4), Dmaj7, Bm7, Em7, A⁹(sus4), Dmaj7. The notation shows a six-eighth-note pickup in the first measure of the A⁹(sus4) chord, followed by a half-note pickup in the Dmaj7 chord. The final measure of the A⁹(sus4) chord is marked "with a push".

Tab: 9 10 7 9 7 9 7 10 7 9 7 9 7

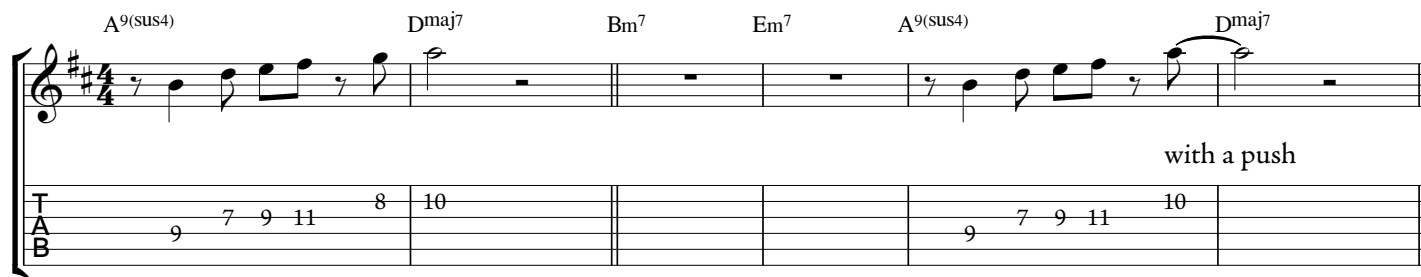
seven eighth-note pickup



Chord progression: A⁹(sus4), Dmaj7, Bm7, Em7, A⁹(sus4), Dmaj7. The notation shows a seven-eighth-note pickup in the first measure of the A⁹(sus4) chord, followed by a half-note pickup in the Dmaj7 chord. The final measure of the A⁹(sus4) chord is marked "with a push".

Tab: 7 9 11 7 9 11 8 10 9 11 7 9 11 8 10

pickups with irregular rhythm



Chord progression: A⁹(sus4), Dmaj7, Bm7, Em7, A⁹(sus4), Dmaj7. The notation shows a pickup with an irregular rhythm in the first measure of the A⁹(sus4) chord, followed by a half-note pickup in the Dmaj7 chord. The final measure of the A⁹(sus4) chord is marked "with a push".

Tab: 9 7 9 11 8 10 9 7 9 11 10

RHYTHMIC DISPLACEMENT

By conceiving a phrase with a particular start point, then moving the entire phrase earlier or later in time without changing the durations of the individual notes (nor the entire phrase), you are rhythmically displacing the phrase. Imagine a phrase written on a computer with software, where you can “cut and paste” the content. Write a phrase in the software that starts on the first beat. Copy it to the “clipboard”. Paste it to a new “blank” region on the *fourth* beat, instead. Play the phrase both ways with some clear indication of where first beat is, like an accented chord on the first beat. Usually the phrase will sound quite different.

Beat Groups

As music listeners, we are very conditioned to hear a series of continuous notes in beat groups. If we take the same group of notes and displace it so a different note is on the beat, we will hear the result as a new melody of sorts. This is fascinating to me. We have to train ourselves to hear a phrase as the same thing, regardless of its rhythmic displacement. Likewise, we have to conceive the new melody created by displacing a phrase.

When there are pauses between groups of notes, we tend to think of the beginning of each cluster of notes as the “beginning”, even when it is not on the beat.

Rhythmically Displaced Fragment Patterns

displacing a 1-2-3-4 pentatonic scale fragment pattern

A fragment pattern is a series of notes that can be expressed generically in numbers. “1-2-3-4” represents four ascending consecutive notes in a scale or arpeggio. With the A minor pentatonic scale (A-C-D-E-G-A, etc.), it would represent A-C-D-E starting on the “A” note or C-D-E-G starting on the “C” note. With an A major scale (A-B-C#-D-E-F#-G#-A, etc.), it would be A-B-C#-D starting on the “A” note or B-C#-D-E starting on the “B” note. With an A minor arpeggio (A-C-E-A-C, etc.) “1-2-3-4” would represent A-C-E-A. Whatever the note set, 1-2-3-4 would represent four consecutive notes. 1-2-3-5 would represent three consecutive notes (1-2-3), then skipping a note (4 is skipped) and going on to “5”.

original 1-2-3-4 fragment pattern

Musical notation for the original 1-2-3-4 fragment pattern in 4/4 time. The melody is written on a treble clef staff, and the guitar tablature is on a six-line staff below. The melody consists of eighth notes: G4 (beat 1), A4 (beat 2), B4 (beat 3), C5 (beat 4), D5 (beat 1), E5 (beat 2), F5 (beat 3), G5 (beat 4), A5 (beat 1), B5 (beat 2), C6 (beat 3), D6 (beat 4). The tablature shows the fret numbers: 5, 8, 5, 7, 8, 5, 7, 5, 5, 7, 5, 7, 7, 5, 7, 5.

1-2-3-4 fragment pattern displace a half beat earlier so the second note is on beat one

Musical notation for the 1-2-3-4 fragment pattern displaced by half a beat. The melody starts with a half rest on beat 1, followed by eighth notes: G4 (beat 1.5), A4 (beat 2), B4 (beat 2.5), C5 (beat 3), D5 (beat 3.5), E5 (beat 4), F5 (beat 4.5), G5 (beat 5), A5 (beat 5.5), B5 (beat 6), C6 (beat 6.5), D6 (beat 7). The tablature shows the fret numbers: 5, 8, 5, 7, 8, 5, 7, 5, 5, 7, 5, 7, 7, 5, 7, 5.

1-2-3-4 fragment pattern displace two half beats earlier so the third note is on beat one

Musical notation for the 1-2-3-4 fragment pattern displaced by one full beat. The melody starts with a whole rest on beat 1, followed by eighth notes: G4 (beat 2), A4 (beat 2.5), B4 (beat 3), C5 (beat 3.5), D5 (beat 4), E5 (beat 4.5), F5 (beat 5), G5 (beat 5.5), A5 (beat 6), B5 (beat 6.5), C6 (beat 7), D6 (beat 7.5). The tablature shows the fret numbers: 5, 8, 5, 7, 8, 5, 7, 5, 5, 7, 5, 7, 7, 5, 7, 5.

1-2-3-4 fragment pattern displace three half beats earlier so the fourth note is on beat one

Musical notation for the 1-2-3-4 fragment pattern displaced by one and a half beats. The melody starts with a whole rest on beat 1, followed by eighth notes: G4 (beat 2.5), A4 (beat 3), B4 (beat 3.5), C5 (beat 4), D5 (beat 4.5), E5 (beat 5), F5 (beat 5.5), G5 (beat 6), A5 (beat 6.5), B5 (beat 7), C6 (beat 7.5), D6 (beat 8). The tablature shows the fret numbers: 5, 8, 5, 7, 8, 5, 7, 5, 5, 7, 5, 7, 7, 5, 7, 5.

portable displacement

Once you learn a fragment pattern and its rhythmic displacement, your mind learns the *process* and can apply it to other scales or to arpeggios. We learn the displacement as a treatment that can be applied to other sets of notes. The mind is amazing in this way, as it is in creative free association, which can be very complex upon analysis. Compare the two examples below and you'll hear that they use the same treatment.

1-2-3-4 fragment pattern displace two half beats earlier so the third note is on beat one

C7 arpeggio: 1-2-3-4 fragment pattern displace two half beats earlier, third note on beat one

RHCP Style Rhythmic Displacement Example

Rhythmic Displacement on Blues in G

Swing Eighths

Music notation for "Swing Eighths" in G major, 4/4 time, featuring eighth-note patterns and triplet rhythms. The notation includes a treble clef, a key signature of one sharp (F#), and a 4/4 time signature. The melody is written in eighth notes, often beamed in groups of three (triplets). The bass line is written in eighth notes, often beamed in groups of three (triplets). The notation includes a treble clef, a key signature of one sharp (F#), and a 4/4 time signature. The melody is written in eighth notes, often beamed in groups of three (triplets). The bass line is written in eighth notes, often beamed in groups of three (triplets).

Chord progressions indicated above the staff:

- Measures 1-4: G⁷
- Measures 5-8: C⁷ (measures 5-6), G⁷ (measures 7-8)
- Measures 9-12: D⁷ (measures 9-10), C⁷ (measures 11-12), G⁷ (measures 13-14), C⁷ (measures 15-16), G⁷ (measures 17-18), D⁷ (measures 19-20)

The notation includes a treble clef, a key signature of one sharp (F#), and a 4/4 time signature. The melody is written in eighth notes, often beamed in groups of three (triplets). The bass line is written in eighth notes, often beamed in groups of three (triplets).

SERIAL ANTI-METRIC NOTE GROUPING

A repeated pattern of notes doesn't have to occur with each instance starting on a beat. In fact, it can make the music more interesting if it does not.

Dividing Time with Anti-Metric Grouping

A Three-Note Fragment Pattern in Triplets Versus Sixteenths

The image displays two musical examples in 4/4 time, illustrating the concept of serial anti-metric note grouping. Both examples use a treble clef and a key signature of one flat (Bb).

The first example shows a triplet pattern. The melody consists of three measures, each containing a triplet of eighth notes. The notes are G4, F4, and E4 in the first measure; D4, C4, and B3 in the second; and A3, G3, and F3 in the third. The bass line is a simple accompaniment of eighth notes. The triplet groupings are indicated by brackets and the number '3' above each group.

The second example shows the same 3-2-1 fragment pattern played in sixteenth notes. The melody consists of three measures, each containing a group of sixteenth notes. The notes are G4, F4, E4, D4, C4, and B3 in the first measure; A3, G3, F3, E3, D3, and C3 in the second; and B2, A2, and G2 in the third. The bass line is a simple accompaniment of eighth notes. The groupings are indicated by brackets.

The pitch grouping in the example above is by every three notes. It is a 3-2-1 fragment pattern, implying that it descends three notes in a row on any scale or arpeggio. When played in triplets, the pitch grouping matched the metric grouping. When played in sixteenths, the pitch order is exactly the same, but the listener hears a new melody of sorts by interpreting what happens on each beat.

A new pattern of twelve notes is born. Once you learn the “treatment” of playing a repeating pitch group with one scale, it is relatively easy to then apply it to another scale or arpeggio.

A Four-Note Fragment Pattern in Sixteenths Versus Triplets

The image shows two musical examples. The first example shows a four-note fragment pattern (1-2-3-4) in sixteenths, which matches the metric grouping. The second example shows the same pattern in triplets, which creates a new melody. Both examples include guitar tablature (TAB) below the staff.

The pitch grouping in the example above is the fragment pattern 1-2-3-4, a repeating pattern of four notes in a row ascending a scale or arpeggio. When played in sixteenths, the pitch grouping matched the metric grouping. When played in triplets, the listener hears a new melody, interpreting what happens on each beat. Learn the twelve-note “treatment” and apply it to another scale or arpeggio.

Anti-Metric Grouping, Chuck Berry Style

This example groups eighth notes (a half beat each) in threes, where the meter groups them in twos, with two to a beat.

The image shows a musical example in 4/4 time, labeled 'A' and 'D'. It features a sequence of eighth notes grouped in threes, which is anti-metric. The notation includes a staff with a treble clef and a key signature of two sharps (F# and C#). Below the staff, there is a detailed explanation: 'four groups of three eighth notes (twelve), plus four eighth notes makes sixteen eighths during two bars'. The guitar tablature (TAB) is shown below the staff, with fret numbers and a 'full' (f) symbol indicating a full fret.

A Triplet, One of Them a Rest, Sequentially Earlier

7 5 7 5 7 5 | 8 7 5 7 5

Metric Flexibility

high flexibility

10 10 8 10 | 8 11 8 9 10 9 8 11 8 11 10 8 10 8 | 10 10 10 8 11 8 9 10 9 8 11 8 11 10 8 10

low flexibility

Some of these notes don't work against the chord when they're on the beat, so this rhythmic displacement is not desirable. To be safe, use melodic figures that allow any note on the beat.

flat six on the beat:
not good for a minor chord

natural 3 on the beat:
not good for a minor chord

11 10 8 7 9 | 11 8 10 9 8 11 10 9 8 10 10 | 11 10 8 7 9 11 8 10 9 8 11 10 9 8 10 10

BEAT OBSCURING

anti-metric seven-note group

Example of an anti-metric seven-note group in 4/4 time. The notation shows a treble staff with a melodic line and a bass staff with a guitar tablature (TAB). The tablature includes fret numbers (8, 10, 11) and a 'full' (f) symbol indicating a full fret. The group consists of seven notes, with the final note being a half note.

anti-metric six-note group

Example of an anti-metric six-note group in 4/4 time. The notation shows a treble staff with a melodic line and a bass staff with a guitar tablature (TAB). The tablature includes fret numbers (11, 8, 10) and a 'full' (f) symbol indicating a full fret. The group consists of six notes, with the final note being a half note.

anti-metric five-note group

Example of an anti-metric five-note group in 4/4 time. The notation shows a treble staff with a melodic line and a bass staff with a guitar tablature (TAB). The tablature includes fret numbers (11, 8, 10) and a 'full' (f) symbol indicating a full fret. The group consists of five notes, with the final note being a half note.

anti-metric four-note group

chromaticized arpeggios in anti-metric five-note groups

triads with two chromatics below their third or fifth

Where the cells below don't start on the beat, it causes "beat obscuring", which is useful in abstract improvisation.

triads with two chromatics below their third or fifth

triads with two chromatics below their third or fifth

Where the cells below don't start on the beat, it causes "beat obscuring", which is useful in abstract improvisation.

triads with two chromatics below their third or fifth

Also see [Beat Obscuring Blues Example](#) and [Johnson-Bonamassa Style Blues Example](#) in Level 2 Improv.

Setup and Target Phrases

- **Three Steps to Virtuoso Improv**
- **Resonating a Single Chord**
- **Melodically Super-Imposed Cadences**
- **Setup Tones and Target Tones**
- **Improvising with Pickups**
- **Setup and Target Phrase Examples**
- **Modal Globalization of Phrases**
- **Rhythmic Globalization of Phrases**
- **Setup Phrase Examples**
- **Target Phrase Examples**

THREE STEPS TO VIRTUOSIC IMPROV

1. Make a Phrase Deliverable

Have a clear auditory image of each phrase and practice its components until you can deliver it clearly.

2. Globalize the Phrase

See the section on [Globalizing Musical Structure And Design](#). Globalize the phrases modally, rhythmically and in other ways. With every instance, make it as deliverable as the original phrase. The more you practice globalizing, the faster you will get at it. It will start taking much less time to globalize a new phrase.

3. Live Globalizing

When you get expert at globalizing you can actually start doing it *while improvising*, which is what all the great improvisers can (could) do: Bach, Mozart, Beethoven, Bartok, Chopin, Art Tatum, Charlie Parker, Charlie Christian, Wes Montgomery, Pat Martino, Joe Pass, Pat Metheny and so on.

Don't learn more than a few phrases before going on to learn to globalize them in the next step. Learn on which chords and in which styles you can use it. Incorporate it into your improvisation so you'll remember it. Periodically review it.

Three or More Design Elements

As you study these exercises, don't think of them as the finished melody. They are a concrete beginning that will be abstracted with various harmonic and melodic designs until accumulatively you have a great melody. Typically that will take four, five or more design elements. The design elements may include theme and variation, rhythmic displacement, beat-obscuring, chromaticizing, melodic cells, and so on.

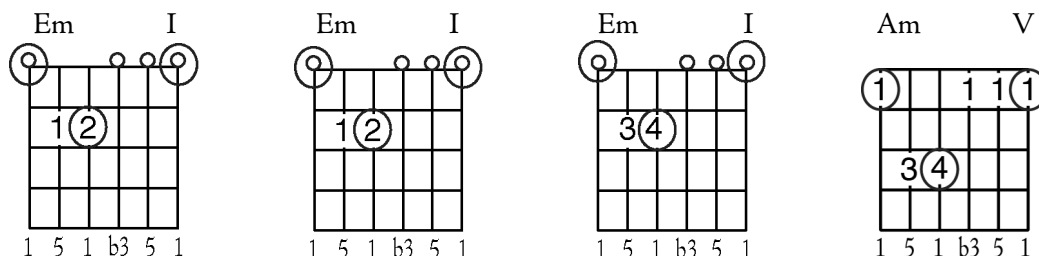
RESONATING A SINGLE CHORD

Learn the First Arpeggio and Scale

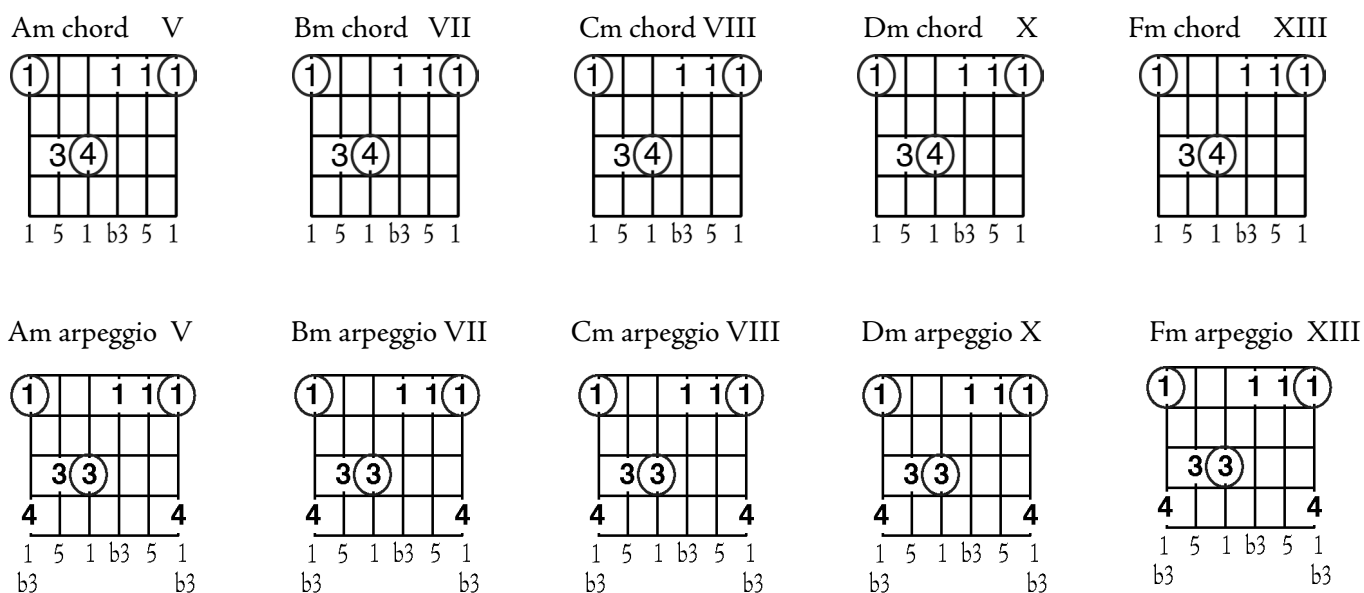
learn the E minor form barre chord

The first two Em chord fingering below use one of the standard fingerings. The third one, fretted with the third and fourth fingers, is intended to prepare you for the fourth and last chord, the Am ("A" minor). The Am chord uses a six string barre with the first (index) finger.

The Am barre chord below is said to be in "Em form" because it is based on the open Em chord shown in the first three diagrams.



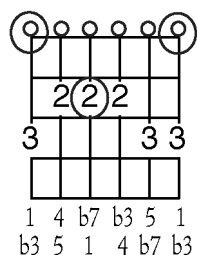
elaborate the E minor form barre chord into an arpeggio



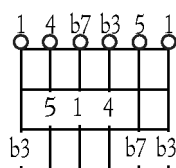
learn the E minor form pentatonic scale, called “pentatonic fingering 1”

The diagrams below show the open position Em pentatonic scale. Open position implies that a fingering includes open strings. I give it the full name “Em7/11 pentatonic” scale, which exactly specifies the notes using generally accepted chord-naming conventions. In its movable form the key is named after the note fretted with the index finger on the sixth string.

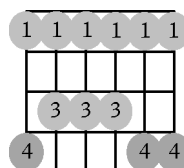
Em7/11 pent. I
fingers



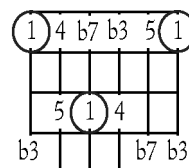
Em7/11 pent. I
formula



movable m7/11 pent.
fingers



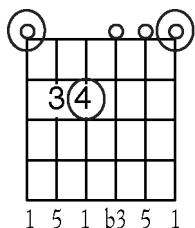
movable m7/11 pent.
formula



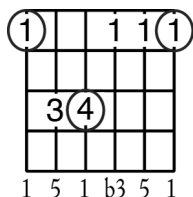
transposing the Em7/11 pentatonic fingering

Each arpeggio adds notes to the chord shown above it. The notes are added on the first and sixth string. The arpeggio plays every “1, b3 and 5” tone within reach, while the chord plays only one note per string. The minor 7/11 pentatonic scale adds “4” and “b7” to the arpeggio, in every octave (throughout).

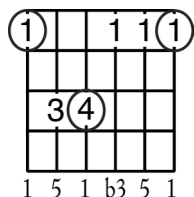
Em chord I



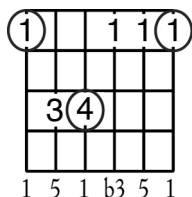
Am chord V



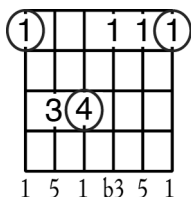
Bm chord VII



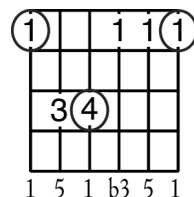
Cm chord VIII



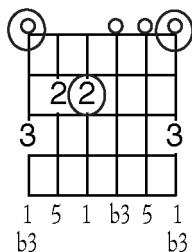
Dm chord X



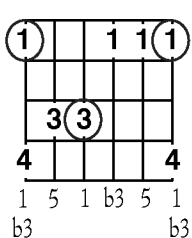
Fm chord XIII



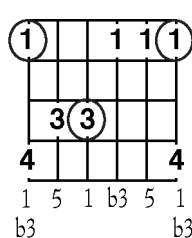
Em arpeggio I



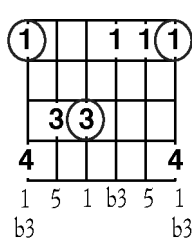
Am arpeggio V



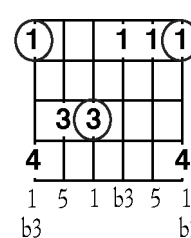
Bm arpeggio VII



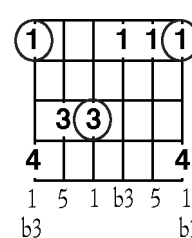
Cm arpeggio VIII



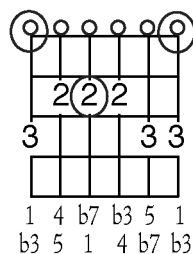
Dm arpeggio X



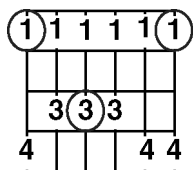
Fm arpeggio XIII



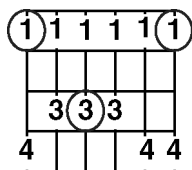
Em7/11 pent. I



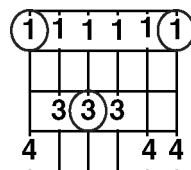
Am7/11 pent. V



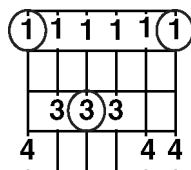
Bm7/11 pent.VII



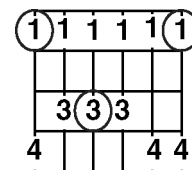
Cm7/11 pent. VIII



Dm7/11 pent. X



Fm7/11 pent. XIII



Minor Chord Tone Melodic Examples

First improvise on a single minor chord or a chord progression that would be compatible with a minor chord. Improvise with another musician or with a rhythm track. You can use a recording of a popular song, but that is not ideal, since other melody is likely to be played while you are improvising.

Play each individual tone of the minor chord against the rhythm track. The tones of the minor chord are "1, b3 and 5" of the pentatonic scale named after it.

Bob Marley style example in Em

Em

Bob Marley style example in Em with slide options

Em

Jeff Beck style example in Am

Musical notation for a Jeff Beck style example in Am, 4/4 time. The notation includes a treble clef, a key signature of one flat (Bb), and a 4/4 time signature. The melody is written in a single staff, featuring a series of eighth and sixteenth notes, with several triplets and a final quarter note. The fretboard diagram below the staff shows the corresponding fingerings for the guitar, with strings labeled T (Treble), A (4th), and B (5th). The diagram includes fret numbers (5, 7) and indicates the use of a capo (A5).

Jeff Beck style example in Am with bend options

Musical notation for a Jeff Beck style example in Am, 4/4 time, with bend options. The notation includes a treble clef, a key signature of one flat (Bb), and a 4/4 time signature. The melody is written in a single staff, featuring a series of eighth and sixteenth notes, with several triplets and a final quarter note. The fretboard diagram below the staff shows the corresponding fingerings for the guitar, with strings labeled T (Treble), A (4th), and B (5th). The diagram includes fret numbers (5, 7) and indicates the use of a capo (A5). Arrows labeled "full" indicate where a full bend should be applied to the notes.

MELODICALLY SUPERIMPOSED CADENCES

The accompaniment is a harmonic (chordal) backdrop for the melody. Accompaniment and melody don't have to consistently agree harmonically. I use a two-second rule that states the melody and accompaniment can disagree for up to two seconds, with out the listener having a problem with it. After two seconds, the listener may become aware of harmonic mis-matching of the melody and harmony.

In under two seconds, the melody and accompaniment may each progress to an upcoming target chord with a different chord progression. When the melody is out of context briefly, it is said to be "outside". We commonly hear this in music, where the various music parts periodically get a little chaotic and out of context, then join back together, "singing on the same chords". See [Melodically Superimposed Cadences](#).

SETUP TONES AND TARGET TONES

Chord Tones Are Target Tones

The backbone of melody is chord tones. Prepare for improvising by learning where the chord tones are for each chord in the fretboard area where you are planning to improvise. Play many versions of the chords in the area, then arpeggios. Develop exercises that play the arpeggios rhythmically.

melodic and harmonic agreement

Melody suggests chords. Usually, a melody does so by emphasizing one or more of the notes in the chord played in the accompaniment. The chords suggested by the accompaniment and the chords suggested by the melody don't have to match exactly. Either the melody or the accompaniment may express incidental chords that the other doesn't represent. However, the chords suggested by melody and accompaniment usually show a strong correspondence.

target tones common to the scale and the chord

Generally, the more chord tones that are common with the scale you are using it on, the better the scale works melodically. However, it is also preferred to use certain scales more appropriate to the style you are playing. If, for example, you are playing to a traditional blues audience, they may prefer hearing key minor pentatonic during a IV9 chord, even though minor 6/11 pentatonic (minor pentatonic with a "6" instead of a "b7") has the exact same notes as a IV9 chord.

cell, motif and phrase

A *phrase* is what someone might sing or blow on a mouthpiece instrument in one breath. In spoken language, phrases of words are separated by commas and periods. Similarly in music, phrases are separated by a lack of activity in the form of a silence or sustain.

Rhythmic words are derived from groups of three, four or six regular pulses. Four pulse rhythmic words, for example can choose attacks on any combination of four regular pulses during a period of time. A phrase designed with many rhythmic words.

A *motif* is a single idea within a phrase. It has enough design element that it is thematic. Therefore, motifs commonly repeat, with or without variation.

A *cell* is the smallest melodic unit. They don't have enough detail to constitute a notable idea, such as a motif would. Cells would commonly have few notes, say four notes or less. To have more than four notes and not be a motif, they would have to be of an incidental design such as consecutive scale tones or a regular sequence of every other scale tone.

metric emphasis

Exercises in this chapter train you to target a chord tone on the first beat of the bar. Preceding the target tone, one two or three consecutive scale tones will lead up or down to the target. To spice it up a bit, we'll also abstractly back up the notes in the cell so the target tone is "pushed" and comes in a half beat early. This creates a cool syncopated rhythm, where the focus is intentionally on the offbeat (the last half of the beat), instead of on the beat.

Once you develop a facility to emphasize chord tones on the first beat of a bar, you can apply the same principle to the beat halfway through the bar, typically the third beat in four beat bars or the fourth beat in six beat bars.

upper and lower neighboring tones

Neighboring tones are one scale tone above or below a chord tone. In seven tone scales (heptatonic scales) such as the major scale, these notes are a whole step (two frets) or a half step (one fret) away from the chord tone. With common pentatonic scales, neighboring tones are a whole step or a step and a half (three frets) away from chord tones.

scalar setup tones

With scalar setup tones, one or more consecutive scale tones is (are) played immediately before a chord tone. The movement to the chord tone following the consecutive scale tones can be in the same direction they were moving or can change direction.

IMPROVISING WITH PICKUPS

Chromatic Pickups with Triplets

Combining the diminished seventh arpeggio fingerings in black below with chromatic scale fingering, you can build chromatics in triplets and use the diminished seventh arpeggios to keep track of where you are rhythmically.

chromatic scale fingering with diminished seventh tones in black

fingering 1 ascending	fingering 1 descending	fingering 2 ascending	fingering 2 descending	fingering 3 ascending	fingering 3 descending

diminished seventh arpeggio framework for triplet chromatics

fingering 1	fingering 2	fingering 3

triplet chromatic pickup examples on Cmaj9

[click to play](#)

♩ = 100

diminished seventh arpeggio Cmaj9 target

twelve-note chromatic pickup Cmaj9

eleven-note chromatic triplet pickup Cmaj9

ten-note chromatic pickup Cmaj9

nine-note chromatic pickup Cmaj9

eight-note chromatic pickup Cmaj9

seven-note chromatic pickup Cmaj9

six-note chromatic pickup Cmaj9

five-note chromatic pickup Cmaj9

four-note chromatic pickup Cmaj9

three-note chromatic pickup Cmaj9

Chromatic Pickups with Groups of Fourth Eighths or Four Sixteenths

Combining the augmented arpeggio fingerings in black below with chromatic scale fingering, you can build chromatics in four-note groups and use the augmented arpeggios to keep track of where you are rhythmically.

chromatic scale fingering with augmented arpeggio tones in black

fingering 1 ascending	fingering 1 descending	fingering 2 ascending	fingering 2 descending	fingering 3 ascending	fingering 3 descending

don't use these standard augmented arpeggios

Don't use these standard augmented arpeggio fingerings, but, they do show the logic to numbering fingerings 1, 2 and 3 according to the lowest pitch on the sixth string.

fingering 1	fingering 2	fingering 3

groups of four eighths or sixteenths in chromatic pickup examples on Cma9

[click to play](#)

♩ = 100

augmented arpeggio Cmaj9 target 12-note sixteenth pickup Cmaj9

11-note sixteenth pickup Cmaj9 10-note sixteenth pickup Cmaj9

nine-note sixteenth pickup Cmaj9 eight-note sixteenth pickup Cmaj9

seven-note sixteenth pickup Cmaj9 six-note sixteenth pickup Cmaj9

five-note sixteenth pickup Cmaj9 four-note sixteenth pickup Cmaj9 three-note sixteenth pickup Cmaj9

♩ = 200

augmented arpeggio 12-note eighth-note pickup

The exercises are presented in a series of staves, each with a treble clef and a key signature of one sharp (F#). The exercises are as follows:

- Exercise 1:** Augmented arpeggio (Cmaj9 target) followed by a 12-note sixteenth pickup. Fingering: 1, 2, 2, 1, 4, 2, 3, 4, 1, 2, 3, 4, 1, 1, 2, 3, 4, 4. Target note: C5.
- Exercise 2:** 11-note sixteenth pickup followed by a Cmaj9 target. Fingering: 3, 4, 1, 2, 3, 4, 1, 1, 2, 3, 4, 4. Target note: C5.
- Exercise 3:** 10-note sixteenth pickup followed by a Cmaj9 target. Fingering: 4, 1, 2, 3, 4, 1, 1, 2, 3, 4, 4. Target note: C5.
- Exercise 4:** 9-note sixteenth pickup followed by a Cmaj9 target. Fingering: 1, 2, 3, 4, 1, 1, 2, 3, 4, 4. Target note: C5.
- Exercise 5:** 8-note sixteenth pickup followed by a Cmaj9 target. Fingering: 2, 3, 4, 1, 1, 2, 3, 4, 4. Target note: C5.
- Exercise 6:** 7-note sixteenth pickup followed by a Cmaj9 target. Fingering: 3, 4, 1, 1, 2, 3, 4, 4. Target note: C5.
- Exercise 7:** 6-note sixteenth pickup followed by a Cmaj9 target. Fingering: 4, 1, 1, 2, 3, 4, 4. Target note: C5.
- Exercise 8:** 5-note sixteenth pickup followed by a Cmaj9 target. Fingering: 1, 1, 2, 3, 4, 4. Target note: C5.
- Exercise 9:** 4-note sixteenth pickup followed by a Cmaj9 target. Fingering: 1, 2, 3, 4, 4. Target note: C5.
- Exercise 10:** 3-note sixteenth pickup followed by a Cmaj9 target. Fingering: 2, 3, 4, 4. Target note: C5.
- Exercise 11:** Augmented arpeggio (Cmaj9 target) followed by a 12-note eighth-note pickup. Fingering: 2, 2, 1, 4, 2, 3, 4, 1, 2, 3, 4, 4. Target note: C5.

11-note eighth-note pickup

10-note eighth-note pickup

3 4 1 2 3 4 1 1 2 3 4 4

4 1 2 3 4 1 1 2 3 4 4

TAB

nine-note eighth-note pickup

eight-note eighth-note pickup

1 2 3 4 1 1 2 3 4 4

2 3 4 1 1 2 3 4 4

TAB

seven-note eighth-note pickup

six-note eighth-note pickup

3 4 1 1 2 3 4 4

4 1 1 2 3 4 4

TAB

five-note eighth-note pickup

four-note eighth-note pickup

three-note eighth-note pickup

1 1 2 3 4 4

1 2 3 4 4

2 3 4 4

TAB

Fingering Diatonic One Through Eight-Note Pickups by Interval

diatonic pickups with regular subdivisions of the beat

To predict the starting note for regular subdivisions of the beat, use a knowledge of interval fingerings. The scale tones will lead up or down to a target. The total number of notes involved is the number up notes in the pickup plus one for the target. If playing a four-note pickup, the total number of notes would be five.

number of pickup tones	interval
two	third
three	fourth
four	fifth
five	sixth
six	seventh
seven	octave
eight	ninth

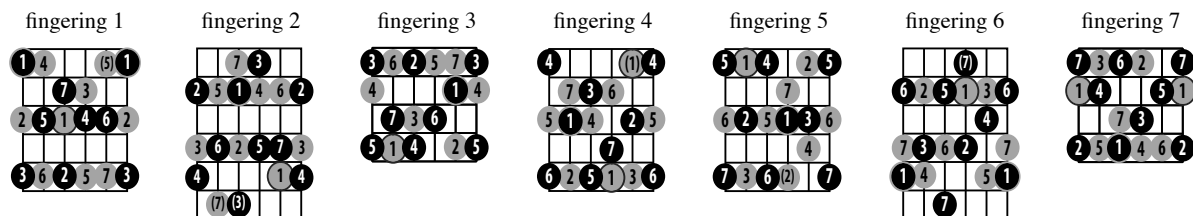
Identifying the Intervals

thirds, fifths, sevenths and ninths

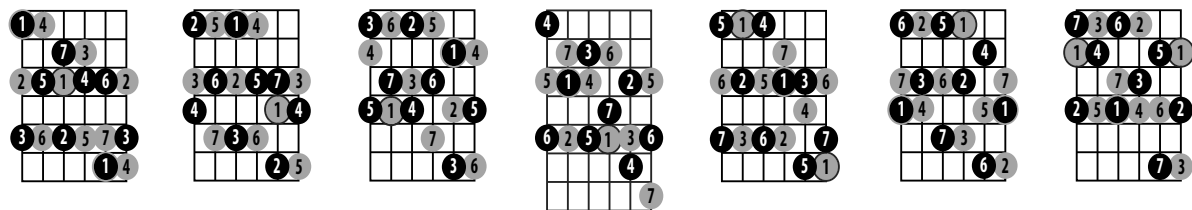
Memorize the full tertian fingering for the major scale for the target note in [Prime Scales, Chords and Arpeggios/Seven-Tone Scales in Seven Areas with Tertian Fingerings in Black and Gray](#). The rows of fingerings with black and gray circled backgrounds show full tertian fingerings. The numbered tones in black are every other scale tone. The numbered tones in gray are the second set of every other scale tone. The ascending series of numbered tones are for each color are 1-3-5-7-2-4-6 (repeat). Each numbered tone ascending or descending to the next within the same color (all black or all gray), such as “1” to “3” or “1” to “6”, is a scale-tone interval of a third. A numbered tone to another two scales tones higher or lower in the same color (all black or all gray) is a fifth.

tones higher in the same color (black or gray), not counting the starting tone	interval
one	third
two	fifth
three	seventh
four	ninth
five	ninth

major scale, in-position fingerings with tertian arpeggios



major scale, three-note-per-string fingerings with tertian arpeggios



fourths in the major scale

Major scale fourths can be memorized with the fourths diagrams below. The “stacks” or sequences of fourths are connected with lines. Note that each pair of notes in the series of fourths “7-3-6-2-5-1-4” are on the same fret, except from the third to second string, the note on the second string is one fret closer to the guitar body. Also note that the interval from “4” to “7” is an augmented fourth, making “7” one fret higher on the next smaller string. When “4” is on the third string, both of these exceptions come into play and “7” is *two* frets toward the body of the guitar from “4”.

fourths in major scale sharp five

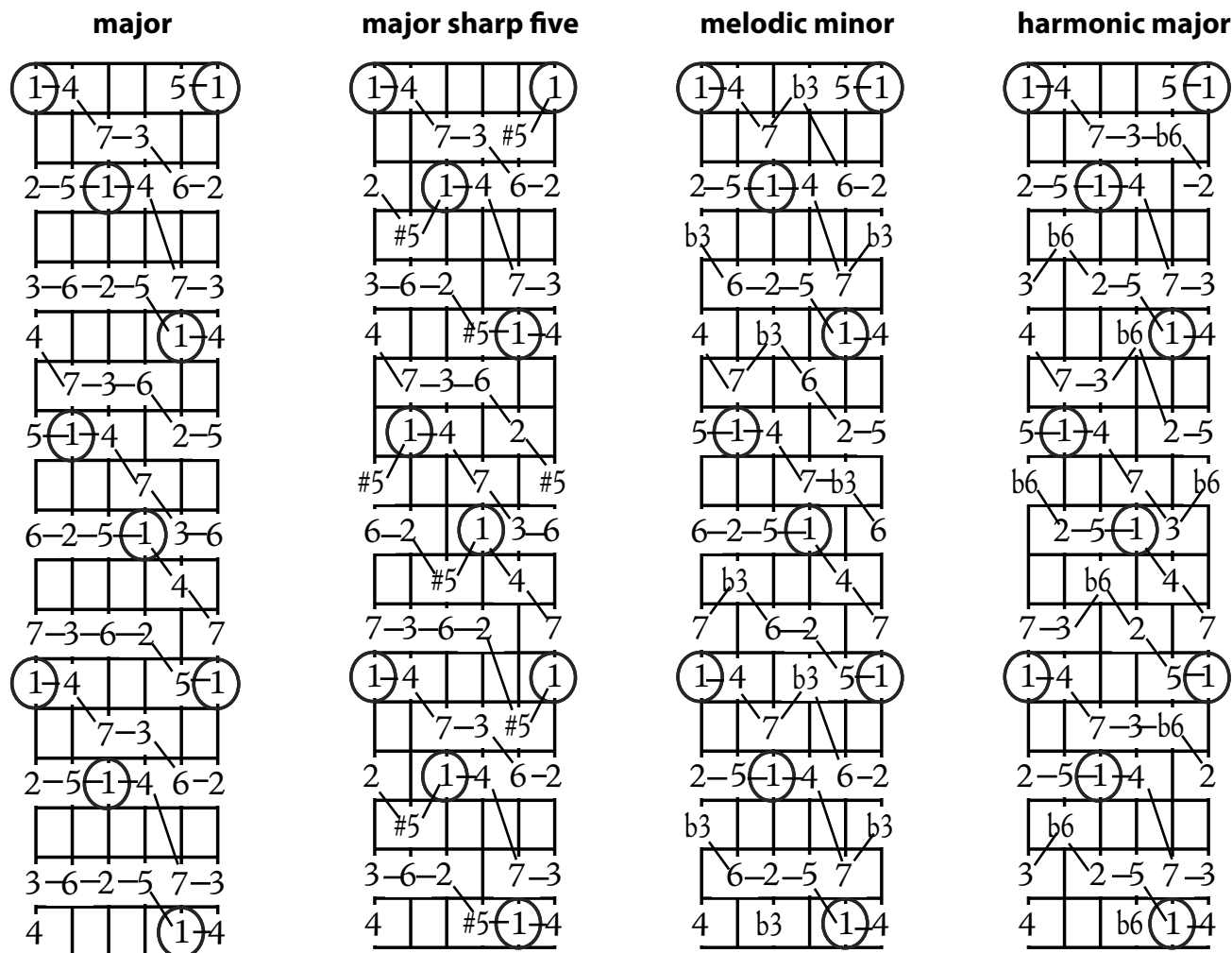
Fingerings for fourths in major sharp five are a modification of [fourths in the major scale](#). The “stacks” or sequences of fourths are connected with lines. Placing the tone center on “6” of major sharp five scale makes harmonic minor in the key of “6”. Note that it is *diminished fourth* from “#5” up a scale tone fourth to “1”, making a major third. Also note that “2” to “#5” is an augmented fourth, as is “4” to “7”. Note the diagonal shapes on most of the fourths with “#5”.

fourths in melodic minor

Fingerings for fourths in melodic minor are a modification of [fourths in the major scale](#). Note that it is *diminished fourth* from “7” up a scale tone fourth to “b3”, making a major third. Also note that “b3” to “6” is an augmented fourth, as is “4” to “7”. Note the diagonal shapes on most of the fourths with “b3”.

fourths in harmonic major

Fingerings for fourths harmonic major are a modification of [fourths in the major scale](#). The “stacks” or sequences of fourths are connected with lines. Note that it is *diminished fourth* from “3” up a scale tone fourth to “b6”, making a major third. Also note that “b6” to “2” is an augmented fourth, as is “4” to “7”. Note the diagonal shapes on most of the fourths with “b6”.



sixths

Memorize sixth fingerings by studying the chapter [Thirds and Sixths](#).

octaves

Memorize octave fingerings by studying [Note Sets, Structures and Design/Octave Shapes](#).

SETUP AND TARGET PHRASE EXAMPLES

See [Rhythmic Globalization Of Phrases](#).

example 1 - modal globalization of ex. 1, abbreviate the beginning of setup phrase,

Example 1: Modal globalization of ex. 1, abbreviate the beginning of setup phrase.

Chord: Cm7

Setup phrase: flipping tertian (11 10 8 11)

Target phrase: beat-obscuring pentatonic (8 11 8 10 8 11 8 10)

example 2 - modal globalization of ex. 2, abbreviate the beginning of setup phrase, displace setup earlier

Example 2: Modal globalization of ex. 2, abbreviate the beginning of setup phrase, displace setup earlier.

Chord: Cm7

Setup phrase: flipping tertian (10 10 8 10)

Target phrase: every-other tertian chromatics (8 11 8 9 10 9 8 11)

example 3 - setup with irregular rhythm, target with pivot tone, target with triplet pivot tones

Example 3: Setup with irregular rhythm, target with pivot tone, target with triplet pivot tones.

Chord: Cm7

Setup phrase: flipping tertian (7 10 8 7)

Target phrase: third pivot tone with heptatonic scale (8 8 10 8 8 10 8)

example 4

Example 4:

Chord: Cm7

Setup phrase: dim 7 (7 10 9 7)

Target phrase: root (8), fifth (11), two passing chromatics (10 9 8 11 10 9)

example 5

Example 5 shows a melodic line in G minor (one flat) with a key signature of one flat. The fretboard diagram below the staff shows the following fret numbers for the strings (from top to bottom):

- String 1: 11, 10, 8, 7, 9
- String 2: 11, 8, 10, 9, 8, 11, 10, 9
- String 3: 8, 10, 10

Annotations above the staff include "half-whole-half & dim 7" and "seventh linear chromatics".

example 6

Example 6 shows a melodic line in G minor with a key signature of one flat. The fretboard diagram below the staff shows the following fret numbers for the strings (from top to bottom):

- String 1: 9, 10, 9, 7, 11
- String 2: 10, 9, 8, 12, 11, 8, 10, 9
- String 3: 8, 10, 8, 10, 8, 8, 10, 8

Annotations above the staff include "G7(b9)", "Cm9", "LC", "UN", "ninth", "seventh", "fifth", "half-whole-half & dim 7", "linear chromatics", and "beat obscuring pentatonic".

example 7

Example 7 shows a melodic line in G minor with a key signature of one flat. The fretboard diagram below the staff shows the following fret numbers for the strings (from top to bottom):

- String 1: 8, 9, 8, 9, 8, 10, 7, 9, 10, 7
- String 2: 8, 9, 10, 11, 8, 11, 8, 9
- String 3: 10, 8, 11, 8, 10, 8, 10

Annotations above the staff include "Dm7(b5)", "G7(b9)", "Cm9", "third", "fifth", "ninth", "harmonic minor II V arpeggio cadence", "linear chromatics", "every-other tertian chromatics", and "pentatonic scale".

example 8

Example 8 shows a melodic line in G minor with a key signature of one flat. The fretboard diagram below the staff shows the following fret numbers for the strings (from top to bottom):

- String 1: 11, 8, 9, 8, 11, 8, 10, 9
- String 2: 8, 8, 10, 11, 10, 8, 8
- String 3: 8, 10

Annotations above the staff include "Abm(maj7)", "Db7", "Cm", "fifth", "I minor 9 arpeggio", and "melodic minor I-IV arpeggio cadence".

example 9

Example 9 musical notation and fretboard diagram. The melodic line is in G minor (one flat) and consists of three measures. The first measure is labeled $A\flat m(maj7)$ and contains a triplet of eighth notes (G, F, E) followed by a quarter note (D). The second measure is labeled $D\flat 7$ and contains a quarter note (G), an eighth note (F), and a quarter note (E). The third measure is labeled Cm^9 and contains a quarter note (G), an eighth note (F), and a quarter note (E). The fretboard diagram shows the first three measures of a guitar fretboard in G minor. The first measure is labeled "melodic minor I-IV arpeggio cadence" and shows the notes 11, 7, 9, 7. The second measure is labeled "root" and shows the notes 11, 9, 9, 11, 9, 10. The third measure is labeled "I minor 9 arpeggio" and shows the notes 8, 8, 8, 10, 8, 7, 8, 10, 10, 8, 10, 11, 8.

example 10

Example 10 musical notation and fretboard diagram. The melodic line is in G minor (one flat) and consists of three measures. The first measure is labeled $Fm^7(b5)$ and contains a quarter note (G), an eighth note (F), and a quarter note (E). The second measure is labeled $B\flat m^7$ and contains a quarter note (G), an eighth note (F), and a quarter note (E). The third measure is labeled Cm^9 and contains a quarter note (G), an eighth note (F), and a quarter note (E). The fretboard diagram shows the first three measures of a guitar fretboard in G minor. The first measure is labeled "Aeolian b5" and shows the notes 8, 10, 11, 9, 8, 9, 11, 10. The second measure is labeled "Dorian b2" and shows the notes 8, 9, 10, 11, 8, 11, 9, 10. The third measure is labeled "I minor 9 arpeggio" and shows the notes 11, 10, 11, 8, 8, 10, 7, 10.

MODAL GLOBALIZATION OF PHRASES

Jazz Blues Rules

Jazz blues is a great chord progression to study for improv. It has I, IV, V, like the standard twelve-bar blues progression, but it also has I, VI, IIm V, the most common four-chord progression in jazz. I-VI-II-V is often called “rhythm changes” both because it is in many connecting sections (vamps) or turn-arounds (ending cadences) in jazz and because it is the basis of the chord progression for George Gershwin’s *I Got Rhythm* from his musical score *Porgy And Bess*.

Follow the rules below for improvising on a jazz blues and you’ll learn a lot about improv in general, harmonically (what notes to play on each chord).

- **pentatonic and arpeggio** Base your themes on pentatonic scales and arpeggios. Find pentatonic scales and arpeggios that work on a number of consecutive chords.
- **three versus flat three** Play major or minor pentatonic and arpeggios throughout with both key scale natural three and flat three. Use more flat three to keep it bluesy. In bars two, five and six, during the IV7 type chords, you must play flat three.
- **play key scale 4, 5 and b7 during V7** Use minor pentatonic tones that are in versions of the V chord. “4” and “5” are in the V7 chord (key scale 5-7-2-4). “b7” of the key is the sharp nine in a V7#9 chord.
- **reinforce IV with “6”** Reinforce the IV chord by sometimes changing a flat seven or five to a key scale six, or by inserting a key scale six. The triad basis of the IV chord is 4-6-1, so six strengthens the relationship to IV. Key scale four is good also, but the good thing about six is that it is ambiguous: key scale six can be an added harmony to *every* chord in a jazz blues.
- **assign tones** Assign associations of certain key scale tones to certain chords. For example, establish in your melody that six refers to the IV chord by using it more on IV and less on other chords. Or assign the flat third to the I and V chords and the natural third to the II and V chords. This is arbitrary. You could assign six to the IV chord in one improvised section and assign it to the I chord in another.
- **play IIm on II V** Bars 9, 10, 12 as IIm. In bars nine, ten and twelve, treat the IIm V progression as IIm by playing the same kind of melody you would play on the IV chord with key scale I minor (Dorian), but play in II minor with II minor pentatonic, IIm69 pentatonic (major pentatonic with a flat three), elaborating either of those to II Dorian (Dorian in the key of II).
- **play V on II V** Bars 9, 10, 12 as V. As stated above, you play key scales natural three and flat three throughout, except on the IV chord and generously use the flat third to keep it bluesy.

Likewise, play in the key of V with natural and flat third

- **key flat five on I dim7 (=IVdim7)** Use the option of flattening the fifth of the key in bar six. Minor pentatonic with a flat five and key scale Dorian flat five work well for this.
- **key sharp one on VI7** Use the option of sharpening key scale one in bar eight. This is very effective with key scale Mixolydian sharp one, by establishing a key scale Mixolydian phrase earlier in the progression (ideally in bar seven), then restating the theme with key scale sharp one in bar eight. This creates II harmonic minor and gives the impression that you are going to the key of II minor in bar nine. With an [Escherian cadence](#), you actually will go to II Dorian in bar nine. See [Melodically Superimposed Cadences/Escherian Cadence](#).

With each of many simple one or two bar phrases, repeat it through the jazz blues progression and adapt it according to the rules below.

Twelve-Bar Jazz Blues (parenthesis example in Bb)

bar 1 I 7(Bb7, 9, 6 or 13) key scales with 3 or b3	bar 2 IV7 (Eb7, 9, 6 or 13) key scales with b3	bar 3 I 7(Bb7, 9, 6 or 13) key scales with 3 or b3	bar 4
bar 5 IV7 (Eb7, 9, 6 or 13) key scales with b3	bar 6 #IV diminished 7 key scales with b3, b5 option	bar 7 I 7(Bb7, 9, 6 or 13) key scales with 3 or b3	bar 8 VI7 (G7b9) key 3 or b3, #1 option
bar 9 IIIm7 key scales featuring key scale tones 4, 5 and b7 II Dorian with IIIm711 or IIIm69 pentatonic subsets or V Mixolydian with I711 or Ima69 pentatonic subsets or V Dorian with Vm711 or Vm69 pentatonic subsets	bar 10 V7 (F7, 9, 13 or 7#9)	bar 11 I7 (Bb7) same as bar 1 VI7 (G7) same as bar 1. Get in key scale #1, if you can	bar 12 IIIm7 (Cm7) | V7 (F7) same as bars 9 and 10

Basics: Adapting a Phase for I7, IV7, V9, IIIm7, III7, VI7 and Chords

In a jazz blues setting, modal adaptation is not too detailed. In summary, the IV7 has a flat three, the I7 has a natural three and the VI7 has a natural three and a sharp one (all in terms of the key scale). In jazz blues, all of these would have a key scale flat seven.

I typically write a theme for minor seventh or dominant seventh first. The minor seventh would have a flattened third and the dominant seven a major third.

I minor and IV: flat third

For a I minor or a IV chord, the phrase should have a flatted third and a flatted seventh. A flatted seventh in the original phrase for a I7 chord could optionally be changed to a six, to correspond with the key scale 4-6-1-b3 tones that makeup the IV7.

I major: natural third

For a I chord, the phrase can have a natural third or a bluesy flatted third (and a flatted seventh). Authentic blues melodic sensibility doesn't overuse the major third. It's supposed to be sad (minor). So, typically include many flatted thirds in your phrases.

IIm7 or V9: flat third in the key of II

For a IIm7 chord or for a V9 chord, play the phrase should have a flatted third and a flatted seventh in the key of II.

V7 and Vm7

Most of a melody is usually in the overall key, sometimes using many types of key scales (I Mixolydian, I Dorian, etc.). The most common second key is V. The five chord can be played in the key of V, but don't overdo it. Like with the I major in blues, a phrase on a V major chord should usually include flatted thirds. If the V chord is minor, you must use only flatted third in the key of five, no natural thirds.

VI major (or VI7): natural third and sharp one

For a VI7 chord (chord scale 1-3-5-b7, key scale 6-#1-3-5), the phrase should have a key scale sharp one or a natural one for a bluesy flatted third in the key of the chord root. On a VI7 chord, key scale one can be played with a microtonal bend, typically about 25% of a half step (fret) toward the key scale #1.

It is usually important to not use the I7 (C7) with #1 (C7 with C# is C#dim7) for the entire duration of the VI7 chord (A7), but to mix it with playing bluesy licks in the key of VI.

Songs with two or more bars of VI major are: Monkey Man (bars 3-4 and 7-8 of verse), Scrapple From the Apple (section B, bars three and four), I Got Rhythm (section B, bars three and four), Sweet Georgia Brown (first four bars), Flintstones (section B, bars three and four), Stella By Starlight (first two bars of section B), Caravan section B (4 bars of VI), Brazil (the first 12 bars of section B).

Songs with one bar of VI are: jazz blues (bar eight), Yardbird Suite (bar four), Days of Wine and Roses (bar four), Try a Little Tenderness, Donna Lee (bar two), Fly Me to the Moon (section B, bar 12), Autumn Leaves (last bar of section C), Lullaby Of Birdland (section B, bars one and five), Wave (section A, bar eight), Alice's Restaurant, Dock of the Bay, Kodachrome (section B, bar 2).

III7

Songs with two bars of III7 (E7, V of Am with C major [parent scale](#)) are: Spain (bars 5-8 and 19-20), Sumertime (bars seven and eight), I Got Rhythm (section B, bars one and two), Scrapple from the Apple (section B, bars one and two), Sugar (bars seven and eight), Flintstones (section B, bars one and two), Sultans of Swing (verse bars three and four), Santeria (verse bars three and four), Cocaine Blues (section B, bars one and two), How Insensitive (bars three and four), Road Song (section A bars 3-4 and section B, bar 8), Nature Boy (section B, bars 1-2 and 7-8), I Want You (the last four bars of the verse), Paint It Black (verse bars 3-4 and 7-8), You've Got a Friend (section A bars 6, 15-16; section B bars 7-8 and 14).

Songs with one bar of III7 (E7, V of Am with C major [parent scale](#)) are: Georgia on My Mind (bar two), Sunny (bars 4, 8, 14 and 16), The Way You Look Tonight (section A bar five and section B bars two and ten), Equinox (bar ten), Mr. P.C. (bar ten), Black Orpheus (E7 is III7 of C and V7 of the key of Am), Blue Bossa (bar seven), Donna Lee (bars six, eight and ten), Killing Me Softly (bar 12), Moanin' (section B, bar eight), The Preacher (bar 12), 'Round Midnight (section A bar eight and section B bars two and four), Song for My Father (section A bar seven and section B bar 7), Wave (section A, bar seven), Hotel California (verse bars two and eight), House of the Rising Sun (bar four), Angie (verse bar two), Hurricane (the last bar), Superstition (section B bar four), While My Guitar Gently Weeps (bar eight).

IIIIm7

In many situations, IIIIm7 can be treated as a I chord. For example, the IIIIm-VI-IIIm-V progression often replaces I-VI-IIIm-V. The listener can usually imagine the IIIIm as I with its third in the bass.

Frequently also, IIIIm7 can be treated as III7 (see above), when it progresses to VIIm or is expected to progress to VIIm). See [Melodically Superimposed Cadences/Escherian Cadence](#).

7217, m711 5 down, 7 down - phrases for IV7, I7, V7 and IIIm7 - video tab

Swing Eighth

same pickup for IV7, I7, VI7

phrase for IV7

same pickup for IV7, I7, VI7

phrase for I7

same pickup for IV7, I7, VI7

phrase for VI7

pickup for IIIm7

phrase for IIIm7

7217, m711 5 down, 7 down blues no. 1 - video tab

Swing Eighths

7217, m711 5 down, 7 down blues no. 2 - video tab

Swing Eighth

dim. 7 setup, bluesy 7, chromaticized m9 - phrases for I7, IV7, VI7, IIIm7 -videotab

Swing Eighth

Three systems of guitar tablature for the song "The Sound of Silence" by Simon & Garfunkel. Each system includes a treble clef staff with a key signature of one flat (Bb) and a time signature of 4/4. The first system is for the Bb7 chord, the second for G7, and the third for Cm7. Each system shows a melodic line with triplets and a bass line with fingerings. The tablature includes fret numbers and pickup instructions for VI7 and IIIm7.

dim. 7 setup, bluesy 7, chromaticized m9 blues no. 1 - [video tab](#)

Swing Eighths

The image displays a musical score for the song "The Sound of Silence" by Simon & Garfunkel. It includes a guitar part and a bass part, both with standard notation and tablature. The guitar part is in the key of B-flat major and 4/4 time. The bass part is in the key of B-flat major and 4/4 time. The score is divided into three systems. The first system shows the beginning of the song, with the guitar playing a series of chords and the bass playing a simple line. The second system shows the main melody of the song, with the guitar playing a series of chords and the bass playing a simple line. The third system shows the end of the song, with the guitar playing a series of chords and the bass playing a simple line. The score is written for a guitar and a bass, with the guitar part in the upper staff and the bass part in the lower staff. The guitar part is written in standard notation with a key signature of two flats (B-flat major) and a 4/4 time signature. The bass part is written in standard notation with a key signature of two flats (B-flat major) and a 4/4 time signature. The score includes a variety of musical notations, including chords, scales, and fingerings. The guitar part features a series of chords, including B-flat major, E-flat major, and B-flat major. The bass part features a series of scales, including the B-flat major scale and the E-flat major scale. The score is a comprehensive musical score for the song "The Sound of Silence" by Simon & Garfunkel, featuring guitar and bass tabs.

First system: Cm7, Bb7, G7, C7, F7. Fingerings: 1 1 1 4 1 3 3 1 1/4 1 2 2 3 2 1 4 1 3 1 2 1 3 1. Bass line: 8 8 8 11 8 10 13 11 12 9 10 9 8 11 8 10 9 8 10 7. Chords: 7/6 8 8 6 7 5 8 6.

Second system: Bb7, B7, Bb7. Bass line: 7 8 8 7 6 7 6 9 6 8 6 7 6 8 5. Chords: 7/6 8 7/6 6 7 6 6 7 6.

dim. 7 setup, bluesy 7, chromaticized m9 blues no. 2 - [video tab](#)

Swing Eighth

First system: Bb7, Eb9, Bb7, B7, Bb7, G7. Fingerings: 1 2 1 3 1. Bass line: 6 7 5 8 6.

Second system: Bb7, Eb9, Bb7, B7, Bb7, G7. Fingerings: 2 1 1 4 1 3 3 1 2 3 1 2 2 3 2 1 4 1 3 1 2 1 3 1. Bass line: 7 6 6 9 6 8 11 9 10 11 9 10 7 8 7 6 9 6 8 6 7 6 8 5. Chords: 7/6 8 7/6 6 7 6 6 7 6 6 7 6.

Third system: Bb7, Eb9, Eo7, Bb7, B7, Bb7, G7. Fingerings: 1 1 1 4 1 3 3 1 1/4 3 1 2 2 3 2 1 3 4 3 1 2 1 3 1. Bass line: 6 6 9 6 8 11 9 10 7 8 7 6 8 9 8 6 7 6 8 5. Chords: 8 8 7/6 6 7 6 6 7 6 6 7 6.

Fourth system: Cm7, F7, Bb13, G7, C7, F7. Fingerings: 2 3 2 1 4 1 3 1 2 1 3 1. Bass line: 7 8 7 6 9 6 8 6 7 6 8 5 7 5 8 8 10 8 9 8 6 8 6 6. Chords: 8 8 7/6 6 7 6 6 7 6 6 7 6.

Fifth system: Bb7, B7, Bb7. Bass line: 7 8 8 7 6 7 6 9 6 8 6 7 6 8 5. Chords: 7/6 8 7/6 6 7 6 6 7 6.

Chuck Berry IV I cadence with thirds - phrases for I7, IV7, V7, VI7 - videotab

Swing Eighths

pickup for IV7

pickup for I7

pickup for VI7

pickup for IIIm7 or V9

IIIm7 or V9

Chuck Berry blues with m6/11 pentatonic - video tab

♩ = 90 Swing Eighths

pickup for I7

1 original theme with natural three

5 original theme with flat three

9 original theme with flat three, in the key of IIm

11 original theme in Im with flat three

Adapating Ima7, IVma7

Both Ima7 and IVma7 need the natural seventh of the key. It's the seventh of the Ima7 and the third of the IVma7. The flatted seventh could be used for a blues expression on either Ima7 or IVma7. Where possible, the key scale seventh in a phrase should be changed to key scale six (unless there is already a six) to correspond more to the tones of the IVma7 chord (key scale 4-6-1-3).

Both Ima7 and IVma7 need the natural seventh of the key. It's the seventh of the Ima7 and the third of the IVma7. The flatted seventh could be used for a blues expression on either Ima7 or IVma7. Where possible, the key scale seventh in a phrase can be changed to key scale six (unless there is already a six) to correspond with the major pentatonic and sixth chord basis of the major and Lydian modes. See the chapter on [Modes](#).

Substitution and Modal Globalizing

Globalize each phrase modally by converting and adapting it to every usable mode of major, harmonic minor and melodic minor. Start with the three minor modes of major: Dorian, Aeolian and Phrygian.

the categories of substitution are:

[shared thirds](#) (secondary roots on 6, 1, 3 or 5)

[darkening](#) (substituting a chord that has b7, b7-b3, or b7-b3-b5)

secondary dominants (see [Secondary Dominant](#), Modal II-V-I Cadences and Turnarounds/[Secondary Dominant](#) and Melodically Superimposed Cadences/[Secondary Dominants](#))

[flat five \(tritone\) substitute](#), using bII instead of V

[interchangeable II and V](#)

practice this short list on Autumn Leaves section A:

Use Cm7 on Ebma7, F7 (high). Use Cm6 on Am7b5

Use Dm7 on Fma7, Bbma7 or Gm7 (high)

Use Gm7 on Bbma7, Ebma7 or Cm7.

in Bb, these are the substitutes for each chord:

For Bbma7, use Gm7, Dm7 or (high range) F6

For Cm7, use Am7b5, Ebma7 or Gm7 (high). If immediately followed by F7, substitute F7.

For Dm7, use F6

For Ebma7, use Cm7, Gm7 or Bbma7

For F7, use Dm7, Am7b5, Cm7 or Fm7 (F Dorian, Eb major parent scale)

For Gm7, use Bbma7 or Dm7 (high)

For Am7b5, use Cm6. If immediately followed by D7, substitute D7.

in Bb, these show the application of each chord:

Use Bbma7 on Gm7 or Ebma7 (high)

Use Cm7 on Ebma7, F7 (high). Use Cm6 on Am7b5

Use Dm7 on Fma7, Bbma7 or Gm7 (high)

Use Ebma7 on Cm7, Abm7b5 (de-emphasize Bb note)

Use F6 on Dm7 or Bbma7. If immediately preceded by Cm7, use on Cm7.

Use Gm7 on Bbma7, Ebma7 or Cm7.

Use Am7b5 on Cm7, Ebma7 (de-emphasize Bb note)

Modal Globalization, Example 1 - E form

C Dorian

Cm⁷

flipping tertian-----

root

beat-obscuring C minor pentatonic-----

T 11 10 8 11

A 8 11 8 10 8 11 8 10

B 8 10 8 10

G Aeolian

Gm⁷

flipping tertian-----

root

beat-obscuring G minor pentatonic-----

T 6 5 3 6

A 3 6 3 5 3 6 3 5

B 3 5 3 5

D Phrygian

Dm⁷

flipping tertian-----

root

beat-obscuring D minor pentatonic-----

T 13 11 10 13

A 10 13 10 12 10 13 10 12

B 10 12 10 12

D Phrygian on D7

D⁷

flipping tertian-----

root

bluesy b3

F# suggests G harmonic minor

beat-obscuring D minor pentatonic-----

T 13 11 10 13

A 10 13 10 12 10 13 10 12

B 11 12 10 12

Bb major (Ionian)

Bb^{maj7}

flipping tertian-----

root

beat-obscuring Bb major pentatonic-----

T 5 8 6 5

A 6 8 6 7 5 8 6 7

B 5 8 5 8

Eb Lydian

[illegible]

F Mixolydian

F Mixolydian

flipping tertian-----

beat obscuring F major pentatonic-----

root

F7

Flipping Tertian

16 15 13 16 13 16 13 15 14 16 13 15 14 15 13 15

A Locrian

A Locrian

Am^{7(b5)}

flipping tertian-----

beat obscuring A minor 7/11b5 pentatonic-----

3 6 5 3

5 8 8 7 5 8 8 7

5 7 5 6

Modal Globalization, Example 2 - E Form

C Dorian

Cm⁷

fifth

flipping tertian-----

every-other tertian chromatics-----

T 10 10 8 10

A 8 11 8 9 10 9 8 11

B 8 11 10 8 10

G Aeolian

Gm⁷

fifth

flipping tertian-----

every-other tertian chromatics-----

T 5 4 3 5

A 3 6 3 4 5 4 3 6

B 3 6 5 3 5

D Phrygian

Dm⁷

fifth

replace #2-3-b3 with b3-4-b3

flipping tertian-----

every-other tertian chromatics-----

T 12 11 10 12

A 10 13 10 11 13 11 10 13

B 10 13 12 10 12

D Phrygian on D7

D⁷

fifth

replace #2-3-b3 with b3-4-b3 for a bluesy b3

F# suggests G harmonic minor

flipping tertian-----

every-other tertian chromatics-----

T 12 11 13 12

A 10 13 10 11 13 11 10 13

B 10 13 12 11 12

Bb major (Ionian)

Bbm⁷

fifth

flipping tertian-----

every-other tertian chromatics-----

this lower chromatic embellishment is preferred to descending 3 to 1

T 8 8 10 8

A 6 10 6 7 8 7 6 10

B 10 9 8 6 7

Eb Lydian

flipping tertian----- fifth
every-other tertian chromatics----- this lower chromatic embellishment is preferred to descending 3 to 1

T 14 13 15 14 15 15 11 12 13 12 11 15 15 14 13 11 12
A
B

F Mixolydian

flipping tertian----- fifth
every-other tertian chromatics----- this lower chromatic embellishment is preferred to descending 3 to 1

T 15 15 13 15 13 11 13 14 15 14 13 11 13 12 15 13 14
A
B

A Locrian

globalizing to this mode is often so problematic that you should not use its version

flipping tertian----- fifth
every-other tertian chromatics----- replace #2-3-b3 with b3-4-b3 for a bluesy b3 replace 5-b5-4-b3 with scalar 5-4-b3-b2

T 7 6 4 7 4 8 5 6 8 6 5 8 4 7 5 8 7
A
B

RHYTHMIC GLOBALIZATION OF PHRASES

Generally you shouldn't elaborate nor abbreviate the region from the end of a setup phrase through the beginning of the target phrase.

Metric Flexibility

Metric flexibility of a phrases regards the success of placing any of the notes on the beat. Some notes should not be emphasized and should not be placed on the beat. Some common note sets for a metrically flexible phrase are a minor pentatonic scale with a chromatic between four and five ($\#4/b5$) and a major pentatonic with a chromatic between two and three ($\#2/b3$). In either of those cases, the chromatic tone ($\#4/b5$ or $\#2/b3$) can work on the beat as a blue note. Also, a lower chromatic embellishment can work on the beat as an [appoggiatura](#).

Setup Phrases

You generally wouldn't elaborate nor abbreviate the end of a setup phrase because it needs to connect to the target phrase. Globalize setup phrases rhythmically by abbreviating or elaborating the beginning of the setup phrase with pickups before it, progressively one, two and more pickups of equal duration. Keep these elaborations simple, so you can think and employ them "on the fly".

abbreviate the beginning of the setup phrase

Globalize each setup phrase rhythmically by omitting notes from their beginning. This abbreviation works, unless the first remaining note is dependent on the note before it (that you've omitted). For example, if the original was 9-b9-1-b7, omitting the "9" wouldn't show the function of "b9" as a passing chromatic between 9 and 1.

Example 1 in C Dorian - original

Example 1 in C Dorian - abbreviate the beginning of the setup phrase

Example 2 in C Dorian - original

flipping tertian----- fifth every-other tertian chromatics-----

10 8 10 8 11 8 9 10 9 8 11 8 11 10 8 10

Example 2 in C Dorian - abbreviate the beginning of the setup phrase

flipping tertian----- fifth every-other tertian chromatics-----

10 10 8 10 8 11 8 9 10 9 8 11 8 11 10 8 10

elaborate the beginning of the setup phrase

We can add notes before the beginning of a setup phrase, leaving it intact. Since the setup phrase itself is usually a pickup to the target phrase, additional notes make it a longer pickup. In the 12 bar blues example below, imagine the original setup was conceived as a four-note pickup. By adding a note before it each four-note setup phrase, each becomes a five-note pickup.

Blues With Five-Note Setup Phrases - video tab: [single note, with chords](#)

Swing Eighths F7(#9) Bb13 Eb7 Bb7 Eb7 Eo7 Bb13 G7 Cm7 F7 Bb13 G7 Cm7 F7(#9)

6 9 8 6 9 6 9 6 8 6 7 9 6 8 6 8 6 8 7 6 6 6 8 6 9 8 6 9 6 9 6 8 6 4 6 4 6 4 6 4 6 5 8 10 6 9 6 8 6 7 8 8 6 9 8 6 9

rhythmically displace the setup phrase

If the setup phrase is metrically flexible (meaning any of its notes could be on the beat), rhythmically displace the pickup phrase one beat division (eighths if its made of eighths) earlier and play the first note of the target phrase early. This “**pushes**” the first beat of the target chord, creating an interesting syncopation.

Example 2 in C Dorian - original

flipping tertian----- fifth
every-other tertian chromatics-----

TAB: 10 10 8 10 | 11 8 9 10 9 8 11 | 8 11 10 8 10

Example 2 in C Dorian - rhythmically displace the setup phrase earlier

flipping tertian----- fifth
every-other tertian chromatics-----

TAB: 10 10 8 10 8 | 11 8 9 10 9 8 11 | 8 11 10 8 10

setup phrases with irregular rhythm

Later, add pickups of irregular rhythm before the setup phrase. Like rhythmic displacement above, this can add syncopation.

Example 3 in C Dorian - original

flipping tertian----- third
pivot tone with heptatonic scale-----

TAB: 7 10 8 7 | 8 8 10 8 8 10 8 | 11 8 8 10

Example 3 in C Dorian - using a setup phrase with irregular rhythm

flipping tertian----- third
pivot tone with heptatonic scale-----

TAB: 7 10 8 7 | 8 8 10 8 8 10 8 | 11 8 8 10

Target Phrases

If you are using a setup phrase before the target phrase, you would usually not abbreviate the beginning of the target phrase. Elaborate the end of the target phrase by continuing the last structure or adding something to the end.

elaborate or abbreviate the end of the target phrase

In the target phrase, make the rhythm irregular, where the examples are usually first given here with all notes of the same duration (all eighth notes or all sixteenths). Move a note intended to be on a beat, earlier in time to replace the note off the beat before it (don't change the rest of the phrase). For a funky aggressive feeling, leave a rest on the beat to produce a rest push. For a smoother syncopation, like bossa nova sustain the note onto its original place on the beat.

use anti-metric note grouping

In Setup And Target Phrase Example 3 - Pivot Target, a **pivot tone** was used in the target phrase. **Anti-metric note grouping** is a form of **beat-obscuring**. Pivot tone figures commonly occur in pairs of notes, with every other note staying on the same note (the "pivot") and the alternate (every-other) notes go up or down a scale or arpeggio. In Example 3 - Pivot Target, the changing notes in the target phrase were on the beats and the repeating pivot tone was on the offbeats. By playing the changing notes to the offbeat in the example below, the emphasis is reversed and the phrase sounds syncopated. This is anti-metric.

By changing the rhythm from sixteenths to triplets, the changing notes are obscure the beat in a different way. Now there are three notes every beat, but every other note is emphasized, making a three against two rhythm.

Example 3 in C Dorian - original

Example 3 in C Dorian - Target Ascending Pivot Tones On The Beat, Descending Off The Beat

Example 3 in C Dorian - Pivot Tones In Triplets

flipping tertian----- pivot tone with changing notes on the beat-----

7 10 8 7 | 8 8 10 8 8 11 8 8 11 | 10 8 10

delay a note within the target phrase

By delaying a note in the target phrase, without omitting notes, the phrase becomes longer in time. This is okay, unless that places unwanted notes on the beat. To be safe, do this with [metrically flexible](#) phrases.

A lower chromatic embellishment usually works better in the last beat division before the beat, (the last half, third or quarter of the beat), leading into a note on the beat following it that it strengthens. A lower chromatic embellishment also works on the second quarter of the beat to strengthen the note on the third quarter of the beat. Likewise, passing chromatics work better if they are inconspicuously *not* on the beat.

If the target phrase is [metrically flexible](#), use rests or sustains in some places, without omitting notes. If you leave a rest or silence at the beginning of the beat, it creates a syncopation. These syncopations have been called “pushes”. When a note at the end of a beat is followed by a silence (rest) on the beat, a “rest push” occurs and the rhythmic feel is funky and punchy. Sustaining a note at the end of the beat onto the next creates a “sustain push” and produces a softer, cooler, samba-like rhythmic feel.

Be aware of the metric flexibility of the notes in the target phrase and don't use a push in such a way that an unwanted note is on the beat. To some degree, a note on the beat implies it is part of a chord. If that implied chord sound is not acceptable, you should de-emphasize the note by avoiding putting it on the beat.

SETUP PHRASE EXAMPLES

Flipping Tertian Melodic Cells

These four-note melodic cells change the first note on one beat to a note beginning the next beat that is up or down one heptatonic (seven-tone) scale tone. Movement to the target from the last setup tone can be up to a minor third interval. You need to visualize the arpeggio you are progressing to.

1321 and 1231

1321 Cm root

1231 Cm root

1321 Cm third

1231 Cm third

1321 Cm fifth

1231 Cm fifth

1321 Cm⁷ seventh

1231 Cm⁷ seventh

1321 Cm⁹ ninth

1231 Cm⁹ ninth

1671 and 1761

1671 Cm root 1671 Cm root

TAB 10 11 8 10 8 10 11 8 10 8

1671 Cm third 1761 Cm third

TAB 7 8 10 7 8 7 10 8 7 8

1671 Cm fifth 1761 Cm fifth

TAB 10 7 8 10 8 10 8 7 10 8

1671 Cm seventh 1761 Cm seventh

TAB 8 10 11 8 11 8 11 10 8 11

1671 Cm ninth 1761 Cm ninth

TAB 8 10 11 8 10 8 11 10 8 10

12167 and 12132

12167 ("7" shows that it resolves down from "1")

12132 ("2" shows that it resolves up from "1")

Cm Cm

root root

TAB 7 8 7 8 10 8 10 8 7 10

12167 Cm 12132 Cm

third third

TAB 10 8 10 7 8 7 8 7 10 8

12167 Cm 12132 Cm

fifth fifth

TAB 10 11 10 10 8 10 8 10 10 8

12167 Cm 12132 Cm

seventh seventh

TAB 8 10 8 10 11 10 11 10 8 11

12167 Cm 12132 Cm

ninth ninth

TAB 11 8 11 10 11 8 10 8 11 10

17167 and 17132

17167 ("7" shows that it resolves down from "1")

17132 ("2" shows that it resolves up from "1")

First system of musical notation. The top staff is in C minor (one flat). The first measure of each phrase shows a descending eighth-note scale: 10, 8, 10, 11. The second measure shows the root of the Cm chord (C) on a whole note. The fretboard diagram below shows the root notes: 10, 8, 10, 11 for the first phrase and 11, 10, 11, 10 for the second phrase.

Second system of musical notation. The top staff shows the third of the Cm chord (Eb) on a whole note. The fretboard diagram below shows the third notes: 10, 8, 10, 7 for the first phrase and 7, 10, 7, 10 for the second phrase.

Third system of musical notation. The top staff shows the fifth of the Cm chord (G) on a whole note. The fretboard diagram below shows the fifth notes: 10, 8, 10, 10 for the first phrase and 10, 8, 10, 10 for the second phrase.

Fourth system of musical notation. The top staff shows the seventh of the Cm chord (Bb) on a whole note. The fretboard diagram below shows the seventh notes: 8, 11, 8, 10 for the first phrase and 10, 8, 10, 8 for the second phrase.

Fifth system of musical notation. The top staff shows the ninth of the Cm chord (Db) on a whole note. The fretboard diagram below shows the ninth notes: 11, 10, 11, 8 for the first phrase and 8, 11, 8, 11 for the second phrase.

Half-Whole-Half Melodic Cells

see the chapter [Half-Whole-Half Cells and Diminished Scale](#)

(LC = lower chromatic, UC = upper chromatic, UN = upper neighbor)

(G7b9 no root = Bdim7) Cm

root UC root

TAB 7 10 9 7 8 9 10 8 7 9 10

(G7b9 no root = Bdim7) Cm

LC LC third third

TAB 10 11 9 7 10 8 7 10 11 10 7 8

(G7b9 no root = Bdim7) Cm

LC fifth UC UC fifth

TAB 8 9 7 10 9 8 11 10 8 7 9 8

(G7b9 no root = Bdim7) Cm

LC LC UN seventh UC UC seventh

TAB 9 10 8 9 8 11 11 10 8 7 9 11

(G7b9 no root = Bdim7) Cm

LC UN ninth

TAB 9 10 9 7 11 10

Harmonic Minor II V Type Setup Phrases

(UN = upper neighbor)

First system of musical notation for the Harmonic Minor II V Type Setup Phrases. It shows a sequence of chords: Dm7(b5), G7(b9), and Cm. The first measure is labeled "root" and the second measure is labeled "root". The notation includes a treble clef, a key signature of two flats (Bb and Eb), and a bass line with fret numbers (7, 10, 9, 8, 7, 9, 10, 7, 8, 8, 9, 10, 7, 9, 10, 7, 9, 10).

Second system of musical notation. It shows a sequence of chords: Dm7(b5), G7(b9), and Cm. The first measure is labeled "third" and the second measure is labeled "third". The notation includes a treble clef, a key signature of two flats (Bb and Eb), and a bass line with fret numbers (10, 8, 9, 8, 7, 9, 7, 10, 11, 8, 9, 8, 9, 8, 7, 9, 10, 7, 8).

Third system of musical notation. It shows a sequence of chords: Dm7(b5), G7(b9), and Cm. The first measure is labeled "fifth" and the second measure is labeled "fifth". The notation includes a treble clef, a key signature of two flats (Bb and Eb), and a bass line with fret numbers (8, 9, 8, 10, 7, 10, 9, 7, 10, 9, 8, 9, 10, 7, 8, 7, 10, 7, 9, 11, 8, 10).

Fourth system of musical notation. It shows a sequence of chords: Dm7(b5), G7(b9), and Cm. The first measure is labeled "seventh" and the second measure is labeled "seventh". The notation includes a treble clef, a key signature of two flats (Bb and Eb), and a bass line with fret numbers (10, 7, 10, 7, 10, 7, 9, 7, 10, 9, 11, 10, 8, 10, 8, 9, 10, 7, 10, 9, 7, 11).

Fifth system of musical notation. It shows a sequence of chords: Dm7(b5), G7(b9), and Cm. The first measure is labeled "UN ninth" and the second measure is labeled "UN ninth". The notation includes a treble clef, a key signature of two flats (Bb and Eb), and a bass line with fret numbers (10, 8, 9, 8, 9, 8, 10, 9, 7, 11, 10).

Melodic Minor bVI Setup Phrases

bVI bII of target with V super Locrian of target
(LN = lower neighbor, UN = upper neighbor)

Abm(maj7) Db7 Cm Abm(maj7) Db7 Cm

1235 (reverse) root V Super Locrian root

Abm(maj7) Db7 Cm Abm(maj7) Db7 Cm

V Super Locrian third third

Abm(maj7) Db7 Cm Abm(maj7) Db7 Cm

fifth fifth

Abm(maj7) Db7 Cm Abm(maj7) Db7 Cm

seventh seventh

Abm(maj7) Db7 Cm

TARGET PHRASE EXAMPLES

Beat-Obscuring

C minor pentatonic from root

C minor pentatonic from third

C minor pentatonic from fifth

from the fifth of Cm

Cm⁷

Every-Other Tertian Chromatics

Four-Note Linear Chromatics

Musical notation for the Cm9 scale in standard and tablature. The scale is shown in a single staff with a treble clef and a key signature of one flat (Bb). The notes are: C (root), Eb (third), F (fifth), Gb (seventh), Ab (ninth), Gb (seventh), F (fifth), Eb (third), and C (root). The tablature below the staff shows the fret numbers for each note: 10, 8, 11, 7, 8, 9, 10, 11, 8, 11, 9, 10, 11, 7, 8, 9, 10, 9, 8, 12, 11, 8, 10, 9, 8, 11, 10, 9, 8, 10, 7, 11, 10.

Encircling Chromatics

[illegible]

Pivot Tone

[illegible]

from the fifth of Cm9 changing notes off the beat from the root of Cm9

T
A
B

Harmonic Theme and Variation by Melodic Curve

[illegible]

Rhythmic Themes and Layers

- **Rhythmic Layers**
- **Components of Rhythm**
- **Rhythmic Theme and Variation**
- **Rhythmic Composites and Ensemble Rhythms**

RHYTHMIC LAYERS

Rhythmic Levels

simple relationships

In two or more musical parts, each part can be at a different rhythmic level, twice as fast as another, three times as fast as another. The parts may have a more complex fractional relationship than two to one, three to one or four to one.

polytonal rhythm

The beat (or other time period) may be simultaneously divided into three parts and into two parts. It may be simultaneously divided into four parts and into three parts.

two or more parts is conceptual: they can be on a single instrument

Polytonal instruments like the guitar or piano can simultaneously sound two or more notes at once. Music is commonly played on polytonal instruments that has two or more parts.

harmonic types of music

Monophonic music has a single melody line. Homophonic music has two or more melody lines, with all of the lines moving in parallel rhythmically, that is with no rhythmic individuality. Each part in homophonic music has the same number of notes as another part, each note occurring at the same time as a note in each of the other parts. Polyphonic music has rhythmic individuality for each of the parts, with some occurrences of a note in one part not accompanied by notes in all of the other parts.

counterpoint

Counterpoint is the study of note against note in a multi-voiced arrangement. The term comes from the Latin expression *punctus contra punctus*, which means point against point. Think of each note head in music notation as a point. The five species of counterpoint:

1. first species counterpoint: note against note.
2. second species counterpoint: two or three notes to one.
3. third species counterpoint: four or six notes to one.
4. fourth species counterpoint: two notes per melody note with syncopation.
5. fifth species (also called free or “florid” counterpoint): combination of the other species.

Themes in Rhythmic Layers

As with the tonal aspect of music, rhythm is layered. Think of each rhythmic level as a layer, usually with the slowest level conceptually closest to you. Not only is each rhythmic level at a different ratio to another, but each level has its own thematic character.

Each section of music uses rhythmic themes. The simplest thematic rhythms involve the fewest accents during a bar or two, while the more complex layers add more to the simple layers.

For each bar of three or four beats, there are usually two or three main accents. These are the primary layer. Simultaneously, there are more layers. The next layer adds less important accents. A third layer can add still less important accents (usually at a faster rhythmic level), and/or adds more detail through variation during multiple bars.

Two or Three Significant Parts

The listener can only process two or three significant musical parts at once. If you overburden the listener with too many different rhythmic or harmonic ideas at once, they won't understand your music and probably won't like it. See also [Theme And Variation](#).

some parts are just background

Some musical parts don't require the attention of the listener and are part of the textural background. These parts tend to be more regular and just "keep time".

notable parts need to be distinctly the same or distinctly different

Musical parts that stand out to the listener should be few in number. If there are more than two or three notable parts, some of them should be made similar enough to be considered a single idea to lessen the number of different notable ideas.

Compatibility of Parts

Musical parts need to be rhythmically compatible. Each added part needs to be discernible to the listener as one of three things:

- ♦ [Theme and variation](#): a duplication, elaboration or abbreviation of an existing part.
- ♦ An [ensemble part](#) which can be combined in a "gear-like" or "dovetail" manner to create an ensemble.
- ♦ A part at a faster or slower [rhythmic level](#) (by a simple ratio such as doubling, halving or tripling) that is comprehensible at the same time as the other parts. The relationship between the parts shouldn't be too complex. Four parts per beat in one part and three in another are challenging to hear at once, but can work if simple enough otherwise.

COMPONENTS OF RHYTHM

Pulse and Subdivision

the rhythmic grid

Musical rhythm is performed in relation to continuous pulses or clicks. The novice musician should develop accuracy in playing rhythm by playing with a metronome or drum machine. These devices sound an evenly-spaced, repeating click or percussion sound. These metronomic sounds can be thought of in groups of twos, threes or fours.

rhythmic selection from a continuous pulse

Fundamental pieces of music are based on two, three or four parts per beat. If a piece of music is based on two parts per beat, every note would begin precisely on either the first half or the second half of the beat. Similarly, pieces of music based on three or four parts per beat can be accurately performed by thinking of the correct number of subdivisions per beat, being relaxed and well-practiced on the techniques involved in performing the notes and executing each note precisely on the correct subdivision of the beat.

This may be harder than it sounds. It is very important that you use economical movement with the tip of the pick, choice of direction in picking, economical movement with the fretting fingers and good form. Any distraction caused by wasted motion can throw your rhythm off. You have to not only imagine the note being performed on the right part of the beat, you have to make it sound at the right time.

rhythmic selection applied as metronomic strumming

When rhythms are generally continuous, they can usually be strummed with a continuous down-up motion. The strings are contacted necessary to sound a chord and missed when a rest (silence) is desired.

duple rhythm (also see [Rhythmic Words and Comping](#) / [Rhythmic Words](#))

Duple rhythm subdivides the beat into two equal parts. The two parts can be counted with a number and the syllable “and,” like this: [“one, and, two and, three and, four, and.”](#) Practice strumming the combinations below of two parts per beat. [click to play video](#)

♩ = 80

quarter notes play 4 times

eighth notes play 4 times

gallop play 4 times

jingle bells play 4 times

Creedence play 4 times

"2-3-4 of each four" play 4 times

"miss 3 and 4" play 4 times

"miss 2, 3 and 4" play 4 times

triple rhythm

Triple rhythm subdivides the beat into three equal parts. The three parts can be counted with a number and the syllables “trip” and “let,” like this: [“one-trip-let, two-trip-let, three-trip-let, four-trip-let.”](#) Practice strumming these combinations of three parts per beat. [click to play video](#)

♩ = 80

eighth note triplets play 4 times

swing eighths play 4 times

Afro Cuban play 4 times

waltz play 4 times

triplet/swing eighth play 4 times

swing eighth/triplet play 4 times

swing eighth/Afro Cuban play 4 times

Afro Cuban/swing eighth play 4 times

Afro Cuban/triplet play 4 times

sixteenth notes: four parts per beat

Four parts per beat can be considered duple time, since it is subdividing the halves of the beat into quarters (by a divisor of two). Four parts can be counted with a number and the syllables “e,” “and” “uh,” like this: “one, e, and, a, two, e, and, a” and so on. These syllables are symbolized with 1e+a2e+a.” Practice strumming these combinations of four parts per beat. [click to play](#)

♩ = 80

all four **gallop**

1 play 4 times play 4 times

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

jingle bells **Creedence**

4 play 4 times play 4 times

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

gallop/jingle bells **jingle bells/gallop**

8 play 4 times play 4 times

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

gallop/Creedence **Creedence/gallop**

12 play 4 times play 4 times

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

all ups ("e" and "a") after 1 and 3 **all ups ("e" and "a") after 1**

16 play 4 times play 4 times

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

Accents

Greek plays

In performing plays on stage in ancient Greece, one cast member would gently stomp his foot at a regular frequency, sporting an anklet with bells. This would provide a regular meter for the players to speak their lines, such as became the tradition for poetry in the millennia to follow.

Here's an example from Aristophanes' *The Acharnians*. Imagine how the bell anklet helped to coordinate the chorus (multiple cast members) speaking lines together.

[Greek play](#)

Ode To Joy

The metering of rhythm in Greek plays became a model for music in Europe. By the time Beethoven wrote his ninth symphony in 1824, the sense of rhythm in European music had become very regimented. There has since been talk of the "tyranny of the bar line", where the bars which divide music into equal numbers of beats had made the music too regular and too predictable.

The standard accents in bars of four beats are on beats one and three. Beat one is the beginning of the bar and beat three begins the last half. You can hear this in *Ode To Joy*, from Beethoven's ninth symphony:

[Ode To Joy](#)

African influence

African music is sophisticated rhythmically. It contradicts the implied accents with ones on normally unaccented beats (or normally unaccented parts of beats). This contradiction is called syncopation.

In counting two subdivisions (parts) per beat verbally, the traditional counting syllables is "and" after each number: "1, and, 2, and, 3, and, 4, and". This is usually written in an abbreviated form: "1 + 2 + 3 + 4 +".

[counting 2 parts per beat](#)

[straight, march-like rhythm](#)

[syncopated rhythm](#)

backbeat

When the standard accent in four beat bars on beats one and three is contradicted by accenting beats two and four, it is nicknamed the backbeat.

[accents on beats 1 and 3](#)

[backbeat on beats 2 and 4](#)

push and pickup

When a note or chord is played a half beat early, on the “and” before the numbered beat, it is called a push. This is where, for example, a chord would be played on the “and” of 2 before three, instead of on “3”, not additionally on “3”. If the chord was played on the “and” of 2 and on “3” as well, it would be called a pickup. So a pickup for beat “2” would play on the “and” of 1 and also on “2”, while a “push” for beat two would only play on the “and” of 1 and not on “2”.

[accent on 3](#)

[push 3](#)

[pickup to three](#)

[pickup to one](#)

[backbeat accent on 2 and 4](#)

[backbeat, with a push to 4](#)

[common eighth accents](#)

Accent is emphasis of a note or chord. Periodic accented notes can form a secondary melody. There are four common types of accent: dynamic, tonic, timbrel and agogic. Other types can be created by using another device to emphasize notes, such as a light flashing simultaneously with the playing of a note.

dynamic accent

Dynamic accent is performed by playing a note or chord louder than the ones surrounding it (Examples 1 and 2).

Example 1 employs accents on the beat (on 1, 2, 3 and 4). The accented notes in Example 2 are syncopated, since they are on the offbeat (on the “&”s after each beat). The accented notes in Example 4 are also syncopated, since they are on the second or third of three parts per beat.

The first part of each beat is counted with a whole number (1, 2, 3, 4, etc.). *Syncopated* notes are those *not* on the first part of the beat. If there are no notes on the beat, any notes on the offbeat would have the effect of being accented (*Example 3*).

this accent mark indicates the notes should be played louder

Ex. 1 Ex. 2 Ex. 3

1 & 2 & 3 & 4 & 1 & 2 & 3 & 4 & 1 & 2 & 3 & 4 &

this accent mark indicates the notes should be played louder

Ex. 4

Ex. 5

1 trip let 2 trip let 3 trip let 4 trip let 1 trip let 2 trip let 3 trip let 4 trip let

tonic accent

Tonic accent is performed by playing a periodic series of notes higher or lower in pitch, by periodic repetition of a particular note, or periodic repetition of a group of notes. In tonic accent, some of the notes in the secondary melodies may not be syncopated (on the "&" part of the beat).

timbrel accent

Timbrel accent is performed by playing a note with a noticeably different tone quality.

* = down on wah pedal

agogic accent

Agogic accent is performed by increasing the duration of a note or chord.

- ← This staccato mark indicates notes played half as long as written, with the remainder of the note value silent
- ← This legato mark indicates notes played as long as possible within their time value, minimizing the pause before the next note.

This melody was implied by the legato notes above

this study will primarily involve dynamic accent

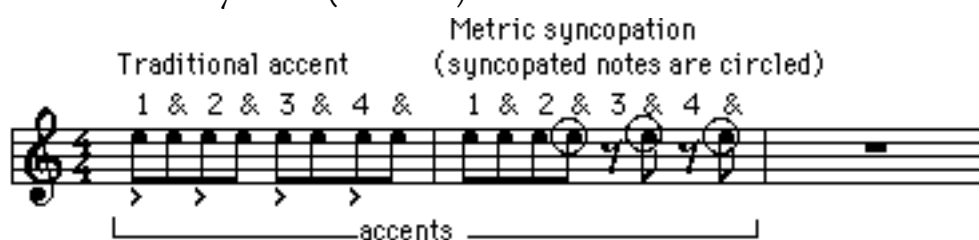
Syncopation

Traditionally, the accent is on the beat. Previous to Blues, Jazz and Rock, notes were normally played stronger on the beat. Notes on the beat were usually played slightly louder and slightly accented.

Metric syncopation is the accenting of offbeat notes. When notes are played on subdivisions of the beat other than the beginning, they are called syncopated notes, since they are synchronized, but not on the beat. Accenting the offbeats can be done three ways (this symbol ">" indicates accent):

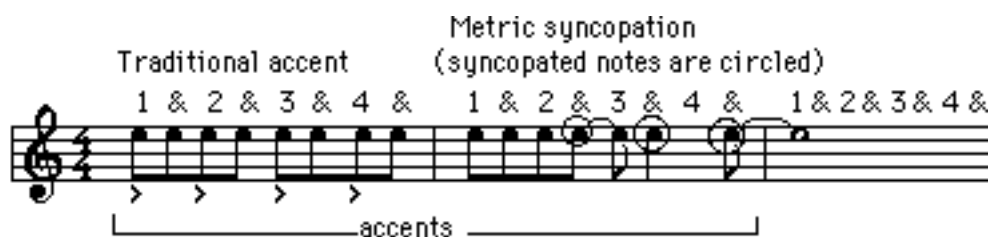
rest syncopation

When an offbeat note is followed by a rest (a silence):



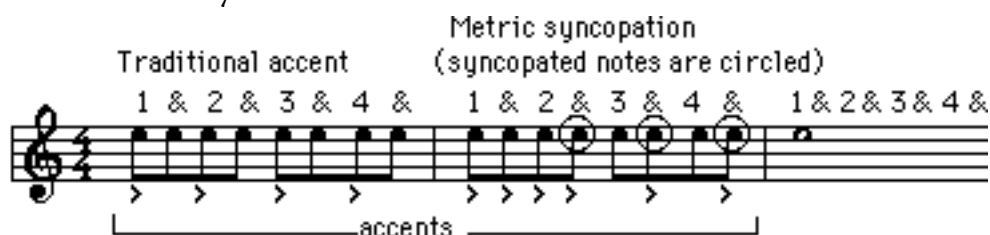
sustain syncopation

When an offbeat note is sustained onto the next beat:



dynamic syncopation

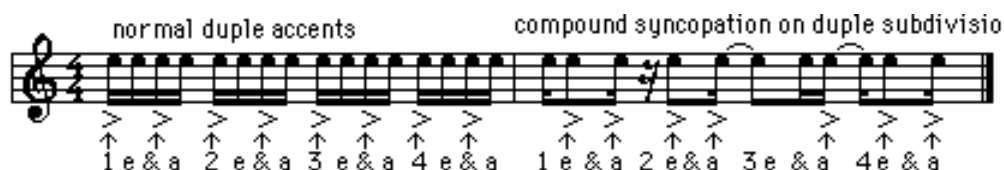
When an offbeat note is followed by a lesser accent on the next beat:



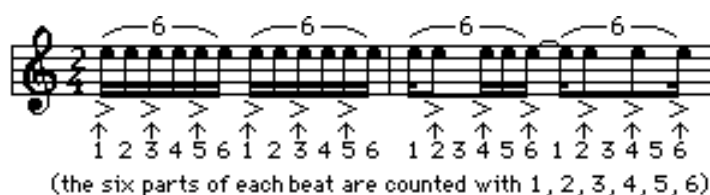
compound syncopation

Compound syncopation employs accents on parts of the beat other than at the beginning of a compound subdivision. Compound syncopation occurs *only* in compound subdivision, where the normal dynamic accents are on each subdivision.

- In *duple subdivision*, there are two equally spaced dynamic accents. Here is an example of compound syncopation on duple subdivision:



- In *triple subdivision*, there are three equally spaced dynamic accents. Here is an example of compound syncopation on triple subdivision:



Rhythmic Displacement

A *theme* (or *hook*) is a musical idea that is a main subject in a composition. Themes usually repeat throughout a piece of music and can be used with variations.

An *accompaniment part* is the musical background for a vocalist, instrumental soloist or group of instrumental soloists. A rhythm guitar part, for example, is an accompaniment part.

A *rhythmic theme* is solely the rhythmic element in a theme or accompaniment part. It does not involve pitch. See the examples below:

<p>(a) Theme (with pitch)</p>	<p>Rhythmic theme (without pitch)</p>
<p>(b) Accompaniment part</p>	<p>Rhythmic theme (without pitch)</p>

Each note in a rhythmic theme is a *thematic accent*. Thematic accents do not necessarily occur on the beat. They express the characteristic rhythmic themes of a song (without pitch).

Rhythmic displacement is where a note or series of notes is moved in time so it starts earlier or later than the original version. In rhythmic displacement, note values are not changed.



Musical time is divided into regular segments called *beats*. Each beat is indicated by (1) the regular “pulsing” heard within a piece of music, (2) the downward movement of the foot in keeping time to a piece of music, or (3) the downward movement of a conductor’s hand. Beats are usually counted with whole numbers: “one-two-three”, “one-two-three-four”, or “one-two”, etc., depending on the grouping.

Offbeat notes are those not played on the beat. In European Classical (or “Art”) music offbeat notes are generally played weaker (slightly softer, unaccented or both) than notes on the beat. Offbeat notes played with stronger emphasis are **syncopated**. Rock music incorporates much syncopation.

Phrasing

phrase defined

A *phrase* is a section of a melody. Poetry and speech are given form by subdivisions. When someone speaks without pauses and punctuation, it sounds like babbling. Melody also must have form. Just as letters make syllables and syllables make words in speech, notes make motifs (“riffs” or “licks”), and motifs make phrases.

There is usually a pause between phrases, either a rest or a sustained note. A phrase can start on any part of a measure. To sound resolved, a phrase often ends on a note of the current chord. If it does not, it can suggest a need for resolution.

beginning the phrase on, before or after the first beat

Each phrase of a melody begins in relation to the rhythm of the accompaniment. The melodic phrase may begin on the first beat of a chord, before, or after. This diversity gives the music texture and makes it more interesting for the listener.

On the first beat of the chord. In this case, the first note is most often a chord tone. If the first note is not a chord tone, it is almost always short and resolves by playing a chord tone of equal or longer length immediately afterwards.

Anticipated: before the first beat of the chord. When a phrase begins before the first beat of a chord, it anticipates (or leads into) the chord. The anticipated phrase may either (a) introduce the sound of the chord immediately before the chord actually begins or (b) play tones that create a dissonance (not in the upcoming chord) to be resolved in consonance when the chord begins.

Delayed: after the first beat of the chord. When a phrase starts after the chord has already begun, it usually produces an effect of *statement and response*; the chord makes a statement when it begins and the phrase follows by answering. This melodic pause on the first beat of the chord could be thought of as an *accented rest*: melody conspicuous in its absence.

To reinforce the statement and response effect, the chord may be played with a particular rhythmic theme followed by the same rhythmic theme (or a variation in the same rhythmic theme) played at the beginning of the delayed phrase.

ending the phrase and connecting phrases

Phrases also end in relation to the chord in the accompaniment. It may end on a chord tone, an added chord tone, or a non-chordal tone. This diversity gives the music color.

On a chord tone. Ending the phrase on a chord tone produces the most resolved sound.

On a non-chordal tone. A non-chordal tone is a melody note which is not one of the chord tones being played by the accompaniment.

- ♦ *Ending on a dissonant non-chordal tone* produces the feeling of irresolution and calls for an immediate chordal tone.
- ♦ *Ending on an added harmony of the chord.* Some ending notes harmonize (sound consonant or resolved) when added to a chord, even though they are not actually played by the accompanying instruments. These ending notes are colorful. Different added harmonies are appropriate to each style in which they are used. Heavy Metal tends to use simple added harmonies, (like adding a 9th to a major or minor chord), while Jazz uses added upper harmonies such as, 11ths, 13ths and uncommon altered tones.

Phrase-end concealment. You can conceal the end of a phrase by playing a short motif (riff) to connect the end of one phrase to the beginning of another, leaving no break between them. This short connecting motif may be employed in three ways:

- ♦ *Destroying the end of the first phrase* by changing the melodic structure (somewhat drastically) and leading into the next phrase. In this case, the connecting motif is not part of the next phrase. The end of the first phrase should sound as if it were abandoned before it could finish, then the second phrase should start immediately so as to not lose the melodic continuity.
- ♦ *By phrase linkage*, where the boundary between phrases is bridged with a note or motif that is relevant to the melodic structure of both phrases. To bridge the boundary in this manner, the end of the former phrase and the beginning of the next phrase must have similar melodic structure. The connecting note or motif should sound like it could belong to either phrase.

- ♦ *By phrase overlapping*, where a different instrument picks up the melody at the second phrase. The second soloist would simultaneously play the last few notes of the first soloists phrase and use those notes as the beginning of a new phrase. Thus, both soloists play the overlapping notes. The overlapping notes should sound like they belong to either phrase.

melodic contour and drive

If you were to write a melody down on the staff and connect the note heads with a continuous line, you would recognize what is referred to as the “melodic line” or “melodic curve”. This line has an architecture, or contour.

Horizontal and vertical basis. Horizontally (in time), melody tends to use rhythms based on the accompaniment but at a faster level. Therefore, it is good to study the rhythmic activity in the accompaniment parts.

Vertically (in reference to pitch), melody elaborates on the chordal structure of the accompaniment. It is very useful to study arpeggios representing the chord progression in each area of the fretboard you wish to solo.

Primary melodic tones. If a melody were reduced to its most basic component, this would be the sustained and/or emphasized chord tones. They are the “backbone” of any melody in homophonic music (melody with a chordal accompaniment).

Connecting tones. The second most basic components in a melody are the non-chordal tones which connect the chordal tones.

Repetition of single notes or motifs (riffs or themes). Repeated notes are similar in effect to sustained notes. The primary difference between repeating a note and sustaining it is in the rhythmic effect.

Association (artistic expression regarding the rest of life) is a basic component of art, especially since the age of perspective born in the Renaissance. Since music is not very capable of relating to the rest of the world (except by lyrics, which are only associated with the music), repeating a motif is one of the most common musical solutions.

Music without repetition is extremely rare and generally unliked. Music with little repetition is very hard for most people to listen to. In homophonic music, repetition is achieved through theme and variations. In Polyphony (including Counterpoint), repetition is derived through imitation. A common form of imitation in improvised solos is theme and variations, where a theme is introduced and then elaborated upon.

Ornamentation is improvised combination of the other three components. It generally decorates a melody with quick notes, whereas the other components are the melody. Once the main scheme of the melody has been established by the three components above, ornamentation may be added which goes

beyond what is necessary to connect the chord tones and provide enough repetition to sustain interest for the listener.

elements of tension and their effect on the melodic line or curve

Tension is a fundamental force in the “drive” or lifeblood of a melody. Like a great wave, a melody moves toward a goal, attains the goal in a climax and recedes. Increase the tension to build the emotive effect of the melody, climax it to drive the point of the melody home and decrease the tension at the end to provide contrast to the climax.

Melodies are not always culminated. Sometimes they are intentionally interrupted by the entry of another melody or section. At other times they begin half way through, as they interrupt another melody or section of music.

A simple melody tends to have a visually simple curve and a complex melody a complex curve. A single melodic curve can continue through two or more sections of accompaniment, but is less likely to do so if the accompaniment sections are vastly different.

Certain notes may be very effective in the melody, particularly the highest note to be used. Overuse of any note, however, can bore the listener and render the note impotent.

Ascent and descent. Generally, upward movement in the pitch of a melody increases tension and downward movement decreases tension. The lower range of an instrument can increase tension in special cases where the instrument is very noticeable due to a conspicuously different timbre in that range or the lack of other instruments in the same range.

The ascent and descent usually occur with a curve or curves involving scale runs. Connecting the note heads on the staff, as suggested previously, would make these curves apparent.

Filling in involves an ascending skip followed by a descent or a descending skip followed by an ascent. When higher or lower range is desired with few notes, skips are not filled in. Running up or down an arpeggio will produce a series of skips.

If a melody begins too high, it has no room to develop unless the instrument is capable of tension in the low range. A melody usually doesn't end on its highest note, unless the melody was intentionally interrupted. It should climax, then drop off at the end.

Change of rhythm can also increase tension. Diversity of rhythms is generally good: changing from eighth notes to eighth note triplets to dotted eighths, etc. However, too much diversity can disrupt the rhythmic continuity of the solo. Generally, less diversity of rhythms is used at faster tempos and more at slower tempos.

The rhythmic element in a solo is the heart of a solo and unifies the other elements, but it should not be expected to stand alone; the other elements must also have content.

Change of timbre or dynamics can increase tension, especially in Rock guitar music. Bright, harsh timbre and high volume are characteristic of Rock music, but are useless unless they are presented in contrast to soft timbre and low volume. Don't start your solo with screeching treble and with the volume "cranked to the max" or you won't have any room for contrast.

Longer phrases or less separation between phrases can intensify the solo if not overused. Longer phrases must have interesting phrasing, rhythmic vitality, and fresh ideas to sustain the listener's attention. Less separation between phrases can be effective only if each phrase is creating enough excitement that the listener is anxious to hear the next one.

More dissonant skips, chord sounds or scale sounds can all be effective in building tension in the solo, but they must be appropriate to the style and played in such a way that they contribute to the movement of the melodic line.

Change of accompaniment. The following changes in the accompaniment parts can, by contrast, build tension in the solo.

- ♦ **Faster tempo builds tension**, but slower tempo can build tension if the dynamics become stronger through louder and/or more accented accompaniment.
- ♦ **Thickness of the harmonic texture builds tension** if it doesn't overpower the melody. Thicker texture is created by the accompaniment when it employs more notes and/or dissonance. Thinner harmonic texture can build tension if the dynamics become stronger.
- ♦ **The relationship between melodic rhythm, harmonic rhythm and meter** can also build tension.

Meter is the basic pulse (or beat) of the music. It refers to the grouping of beats as indicated by the time signature, such as four quarter notes per measure in 4/4 time.

Melodic rhythm is the character of the rhythm set down by the soloist in relation to the meter. *Harmonic rhythm* is the character of the rhythm set down by the accompanists in relation to the meter.

Melodic rhythm, harmonic rhythm and meter in rhythmic unison is usually used for special emphasis in expressing a short rhythmic theme. Overuse of this can be boring.

When the harmonic rhythm and the meter are the same and the melodic rhythm is different, the melody is freer to express without distraction. This is the most common configuration of these three rhythmic elements.

Melodic and harmonic rhythm are sometimes joined together against the meter to play a short syncopated (or otherwise rhythmically abnormal) theme.

Melodic rhythm and meter are occasionally the same, while a different rhythm in the accompaniment is used. In this case, the melody “takes the back seat” rhythmically, allowing the accompaniment to make a rhythmic statement. This technique of arrangement is often overlooked, but very useful for diversity.

Internal Accent and Secondary Meter

In duple time, where notes of equal time value are metrically (according to the beat) grouped by twos and fours, play three-note groups. If you start a sequence of three note groups on the beat in duple time, the three note group will begin on the beat every twelve notes. In a sense, this creates a secondary meter.

In triple time, where the notes of equal time value are metrically (according to the beat) grouped by threes, play four-note groups. If you start a sequence of four-note groups on the beat in triple time, the four note group will begin on the beat every twelve notes.

Similarly, a five-note group (of equal time value) in triple time will start on the same part of the beat every fifteen notes. A seven-note group in triple time, every twenty-one notes. The formula is: multiply the parts per beat by the notes in the group.

Internal accent may also be applied by playing short themes of equal length. Each repeated theme needs to be two and one half beats long or three beats long, etc. It helps greatly if the repeated themes are identical rhythmically.

Polyrhythm

secondary meter by internal accent

Polyrhythms can be simultaneous different subdivisions which are not multiples of one another, such as two subdivisions per beat for one instrument and three subdivisions for another. These create ratios like “three against two” and “three against four.”

Look at the second bar below. The instrument on the top staff plays three notes during every two beats, while the instrument on the bottom staff plays two notes every two beats. This creates a three against two ratio.



simultaneous multiple time signatures

Polyrhythm can be multiple time signatures with commonality in pulse.

RHYTHMIC THEME AND VARIATION

See the chapter [Theme and Variation/Rhythmic Theme and Variation](#).

Rhythmic Selection From A Regular Pulse

Rhythms are traditionally selected from a regular pulse that represents the beat.

Syncopation

Syncopation is the emphasis of notes not on the beat, followed by either a sustain onto the next beat (most often written with a tie), or a silence on the next beat (a rest). Sustain syncopation sustains onto the next beat, while rest syncopation is followed by a rest on the next beat.

Rhythmic Words

Conceived primarily in terms of three or four pulses per beat, rhythmic words constitute all of the possible selections from those parts of the beat. All of these should be progressively memorized, beginning with those rhythmic words that have no rests (silences). There are eight four pulse rhythmic words without silences and four three-pulse rhythmic words without silences. See [Rhythmic Words and Comping](#)

The Rhythmic Theme

While a melodic curve has the two components of pitch and time. Rhythmic themes may seem simpler, but they have many subtle components. Rhythmic themes have a relation to the meter (beat). They involve selection from a regular pulse, rhythmic words and rhythmic concepts, such as syncopation, pickups and polyrhythm. See [Rhythmic Words and Comping/Melodic Rhythms Contents, Building Melodic Rhythms](#) and [Comping Rhythms Contents](#).

Metric Placement And Beat Subdivision

Rhythmic themes are placed in time in relation to the beat. Meter is the regular structure of beats in units, such as four beats to the measure (bar and measure mean the same thing). You, the other musicians and the audience all need to be imagining the same regular pulse and its subdivisions. In duple time, beats are subdivided into two parts: there are two equally spaced pulses on each beat called the downbeat and upbeat. In triple time, beats are subdivided into three parts: there are three equally spaced pulses on each beat. In swing time, there are three parts per beat conceptually, but you focus on hearing the first and third parts of each beat.

Pickups

Pickups involve groups of notes rhythmically located immediately before the first beat of a chord (most commonly where the first beat of the chord is on the first beat of the bar). They can be regular, such as four sixteenth notes, or irregular, such as a combination of eighth and sixteenth notes. In common time (4/4), sixteenth notes are a quarter beat each and eighth notes are a half beat each.

Polyrhythm

Polyrhythm is two or more simultaneous subdivisions of the beat. It is common to African and Afro-Latin music.

Rhythmic Displacement

Rhythmic displacement retains the relative spacing between notes in a rhythmic theme, but moves in forward or backward in time.

RHYTHMIC COMPOSITES AND ENSEMBLE RHYTHMS

Rhythmic composites and ensemble rhythms both combine parts. Rhythmic composites combine existing rhythms, while ensemble rhythms are composed or improvised, intentionally planning the parts to go together.

Rhythmic Composites

When you take the existing parts of an arrangement and figure out how to put them together, such as listening to the snare and kick drums on a song and representing them on you guitar (with thumb bass and index strum, for example), you are compositing the rhythms together.

Ensemble Rhythms

When you thoughtfully compose parts so they fit together, some of the beats or parts of beats designated to one part (or one instrument) and other beats or parts of beats designated to another instrument, you are creating ensemble rhythms.

An Afro-Latin percussion ensemble is a great example of this.

Improv Level 3: Pentatonics and Modes

- **Progressive Improv Study**
- **One Pentatonic Type in a Single Key**
- **Learn To Play in Five Octave Shapes**
- **Mixed Pentatonic Types in a Phrase**
- **Blues Lick Elements**
- **“Rock a Berry”**
- **Minor Pentatonic Add Two**
- **Major Pentatonic Add Four**
- **Major Scale Modes**
- **Harmonic Minor Modes**
- **Melodic Minor Modes**
- **Major Flat Six Modes**
- **Solo Examples**

PROGRESSIVE IMPROV STUDY

Decide which scale, arpeggio or melodic cell you want to use. Those can be called note sets.

Determine the available time, usually in beats.

Anticipate the number of notes you can play, given how many notes per beat are practical.

Determine a melodic rhythm, usually starting with a regular pulse.

As you progress, you usually want to make the rhythm and starting point for the note set more abstract, such as not starting on the beat and not starting on the root.

Work with pickups of one or more notes. Pickups should be of equal value first (or swing eighths), then more complex, using rhythmic words. Pickups don't have to lead into the first beat. They can lead into any beat, though it's usually best to start studying them in relation to the first beat.

Work with starting notes (notes that start the phrase). Starting on a non-chordal tone creates tension and is usually effective. For example, start with a one note pickup to beat two (starting on the "and" of one, which is the "and" after one) with a lower chromatic embellishment to a chord tone. On a Cma7 chord, start on the "and" of one with a D#, a half step below the "E" chord tone.

Start with one element like a scale, arpeggio or a single type of melodic cell before progressively mixing them.

Usually end your phrase on a chord tone. So, learn which current chord tones are in the scale (or note set).

ONE PENTATONIC TYPE IN A SINGLE KEY

The most common approach to using scales in blues and rock is to use a single pentatonic scale type in a single key. We need to represent the sound of the key and the sound of most chords. Many chords can be represented with the key major or key minor pentatonic.

Music Happens over Time

The melody does not have to harmonize perfectly with the chords on every beat. It would be too predictable and boring if it did. Music just has to make sense over time. If you were to take an audio "snapshot" of certain beats during a melody, there might be an awful dissonance. But, this is not a problem if you hear where the melody is going. Where a chord does not harmonize, it may be predicting the sound of the *next* chord.

The Key Major or Minor Triad Added to Other Chords

The major or minor triad that is the basis of the pentatonic scale can sound along with many of the chords in the progression to suggest a more colorful version of each chord.

an A minor triad as part of three other chords

The image displays a musical score for the song "The Sound of Silence" by Simon & Garfunkel. The score is written for guitar and bass, with a key signature of one sharp (F#) and a 4/4 time signature. The guitar part is in the treble clef, and the bass part is in the bass clef. The score is divided into four measures, each with a specific chord diagram and a corresponding tablature line.

Measure 1: The chord diagram shows an A minor (Am) chord with a V (5th) position. The guitar part starts with a treble rest and a bass eighth-note pattern: G4, A4, B4, C5, B4, A4, G4. The bass part has a treble rest and a bass line: G2, A2, B2, C3, B2, A2, G2. The tablature for the guitar shows a sequence of 5s, and the bass tablature shows a sequence of 7s.

Measure 2: The chord diagram shows a C6 chord with a III (3rd) position. The guitar part has a treble rest and a bass eighth-note pattern: G4, A4, B4, C5, B4, A4, G4. The bass part has a treble rest and a bass line: G2, A2, B2, C3, B2, A2, G2. The tablature for the guitar shows a sequence of 5s, and the bass tablature shows a sequence of 3s.

Measure 3: The chord diagram shows an F major 7 (Fmaj7) chord with a V (5th) position. The guitar part has a treble rest and a bass eighth-note pattern: G4, A4, B4, C5, B4, A4, G4. The bass part has a treble rest and a bass line: G2, A2, B2, C3, B2, A2, G2. The tablature for the guitar shows a sequence of 5s, and the bass tablature shows a sequence of 8s.

Measure 4: The chord diagram shows a D minor 9 (Dm9) chord with a III (3rd) position. The guitar part has a treble rest and a bass eighth-note pattern: G4, A4, B4, C5, B4, A4, G4. The bass part has a treble rest and a bass line: G2, A2, B2, C3, B2, A2, G2. The tablature for the guitar shows a sequence of 5s, and the bass tablature shows a sequence of 5s.

Transitional Chords Not Represented

Some chords in a progression can be ignored and can function as connecting chords. For example, in the chord progression Cm Bb Ab Bb (two beats each), the Cm chord can be sounded during the Ab to suggest Ab major 7 (which includes the notes of Cm). The “Bb” chord can be ignored and considered to connect the other chords. In the Hendrix style solo example linked below, the main source of notes is the C minor pentatonic scale. The notes of the Bb chord are played as a group only in bars 37, 39 and 41.

Hendrix style solo example (in the last section of this chapter)

LEARN TO PLAY IN FIVE OCTAVE SHAPES

Why Study Pentatonic in Five Octave Shapes?

Links To Video Examples

[Why Study Pentatonic in Five Octave Shapes](#)

[A minor Pentatonic: Open Position and Five Fingerings](#)

[C major Pentatonic: Open Position and Five Fingerings](#)

To be able to play fluently in one key all over the fretboard and to play fluently in multiple keys in one position, you need to know pentatonic scale fingerings and be able to improvise with them in all five octave shapes. See [Pentatonic Scales and Octave Shapes](#).

Video Preview Blues Improv In A By Octave Shape (form)

[Am711 Blues Improv, E form](#)

[Ama69 Blues Improv, E form](#)

[A711 Blues Improv, Eform](#)

[Am69 BluesImprov, E form](#)

[Am711 Blues Improv, A form](#)

[Ama69 Blues Improv, A form](#)

[A711 Blues Improv, A form](#)

[Am69 Blues Improv, A form](#)

Learn To Play Different Pentatonic Types

The focus should be on key scale improv, but the type of key scale can change to make your improv more colorful. Buy Ireal Pro, if you don't already have it. It is an essential study tool that shows chord progression and plays an accompaniment to jam to with variable tempo and variable key. I especially like turning off the bass and chording instruments, just using the drums and the real time chord chart along with live rhythm guitar. See [Pentatonic Scales](#) (in the [Primary Scales, Chords And Arpeggios](#) chapter).

MIXED PENTATONIC TYPES IN A PHRASE

Blues and rock melody commonly mixes major and minor pentatonic, add their variants. This is the basis of T-Bone Walker's and of B.B. King's melodic style which was passed on to Eric Clapton, Mike Bloomfield, Peter Green Duke Robillard and then to Neal Schon, Angus Young, Brian Setzer. It also developed in sax improv, like Shotgun and in blues rock and R & B vocals like Purple Haze, Duke Robillard calls the B.B. King variety "uptown blues".

Its interesting that some guitarists rarely mixed major and minor pentatonic. Albert King only used minor pentatonic in his guitar solos. Hendrix used minor pentatonic most of the time in his guitar solos, and occasionally used major pentatonic (Wind Cries Mary, May This Be Love). Jimi mixed them on Red House, probably channeling some B.B. King and T.Bone Walker.

major and minor pentatonic blues example in C

Swing Eighthths

The musical score is written for guitar in 4/4 time, featuring a mix of major and minor pentatonic scales in C major. The score is divided into three systems, each with a treble clef staff and a tablature staff. The first system (measures 1-4) starts with a C7 chord and includes a triplet of eighth notes (8, 10, 8) and various bends (full, 1/2). The second system (measures 5-8) includes an F chord and continues with bends and scale runs. The third system (measures 9-12) includes G7 and F7 chords, ending with a triplet of eighth notes (10, 10, 8).

MINOR PENTATONIC ADD TWO

In the first complete bar of the [Hendrix style solo example](#) (in the solo examples section at the end of this chapter), a note is bent four times. The example is primarily using the C minor pentatonic scale, but adds “D”, the second tone of a D major scale to the pentatonic. Minor pentatonic has tones 1-b3-4-5-b7. Colorful blues rock artists like Hendrix and Santana have heard the added second in jazz and adapted it to their music.

Melody in popular songs typically adds the second to a minor pentatonic scale, in the Red Hot Chili Pepper’s songs, for example.

[link to video](#)

1

Am⁷ Fmaj⁷ E⁷

5 1 2 b3 2 1 1 full b7 5 b3 2 b3 2 1 b3 2 b7 5 b3 5

5 5 7 8 7 5 8 8 5 5 8 7 8 7 5 8 7 8 5 5 8 7

TAB

MAJOR PENTATONIC ADD FOUR

As with adding two to minor pentatonic, when four is added to major pentatonic it is usually not treated as a scale tone, but four is used as a neighboring to the adjacent tones five or three. If a scale is ascended or descended quickly, it does not include “four”. Here is a swing blues example, with the scale tones numbered below the notes:

[link to video](#)

Swing Eighths

A⁷ A⁹/C[#] D⁹ D^{#o7} A⁷ A⁹/C[#] D⁹ A⁷/E D⁹

6 3 5 2 1 4 1 b3 2 1 4 3 5 4 3 5 7 6 5 4 7 4 7 5 4 7 7 6 5 7 6 7

TAB

BLUES LICK ELEMENTS

In preparing to write an introduction to blues phrases, it was difficult to find a way to summarize them. There are so many blues licks. How does a guitarist build their improv with meaningful phrases that aren't just fast scales or the same worn-out licks? It occurred to me that there are archetypal elements to blues phrases. What are the categories?

I created this list by listening to classic blues rock guitar solos and describing categories of what I heard. Once I got up to eight elements, phrases of every additional solo. I listened to could be described with one of these elements.

1. [interesting rhythm and phrasing](#)
2. [major and minor arpeggio tones with bends](#) (also chords with b7)
3. [pentatonic scales with bends, resolving to chord tones](#)
4. [elaborating pentatonic scales with chromatics or heptatonic tones](#)
5. [cadences \(IV-I, V-I, bVI-V\)](#)
6. [slurred minor third](#): slur to b3 or three while sounding 5, slur 4 to 5 while sounding b7
7. [pivot tone](#) (usually a chord tone with a well-chosen "anchor" finger)
8. [turn with bend](#) (bend, release, pull off hammer between two fretted notes)

Interesting Rhythm and Phrasing

rhythm is more important than pitch

In American improvisational music (blues, folk, jazz, rock), rhythm is more important than pitch. It is a good strategy to think a good melodic rhythm first, then fill it with an appropriate pitch structure.

using rhythmic strumming to conceive melodic rhythm

Study the chapter on [Rhythmic Words and Comping](#) and these melodic rhythms: [triplet & 16th, 2-5 note, 6 note](#). Develop the ability to strum a rhythm on a chord or muted chord, then progressively narrow your strumming stroke until you are applying it to a single string. Finally move the rhythmic through the notes of a scale or arpeggio.

rhythmic displacement

Learn a phrase of regularly-pulsed notes like all eighth notes (two per beat), all triplets (three per beat) or sixteenths (four per beat). Then re-learn the phrase played earlier in time so the second note is on

the first beat. Then again so the third note is on the first beat, then the fourth note. This will develop your ability to play phrases with *pickups*, notes before the first beat.

Also practice playing phrases of regularly-pulsed notes where the first note is on the second division of the first beat of a bar, then on the third division, and so on.

The listener tends to hear what the groups that happen on each beat, so rhythmic displacement creates a melodic variation, a new melody of sorts.

pitch grouping versus metric grouping

Pitch grouping can be defined by groups of notes that linearly ascend or descend, like a “1-2-3-4” fragment pattern played from each ascending scale tone or a “4-3-2-1” fragment played from each descending scale tone. If a four-note fragment like 1-2-3-4 is played on each beat with four divisions per beat, it is very predictable and potentially not stimulating to hear. If instead to play the four note fragment (like 1-2-3-4) in triplets, where each beat is divided into three parts, it will create a new melody for the listener. As with rhythmic displacement, the listener tends to hear what the groups that happen on each beat.

Major And Minor Arpeggio Tones with Bends

archetypal blues licks are based on chord tones

The most fundamental blues licks heavily use five and one, sometimes flat three or three. These are understandable to the widest audience and you must know them. Be inventive rhythmically to compensate for the simple pitch basis.

With minor pentatonic on minor chords, bend flat seven to one, one to flat three and four to five. With major pentatonic on major chords, bend two to three, four to five, flat seven to one. To retain the major pentatonic scale, play the four or flat seven as a grace note, playing each briefly and immediately bending up to the respective chord tone five or one above it. Four is commonly added to the major pentatonic as a neighboring tone.

bends to chord tones with pentatonic scales - video tab

1 A minor pentatonic scale, fingering 1

1 b3 5 5 1 1 b3 1 1 5 5 b3 1

1/4 full full full 1/4

TAB

5 A minor pentatonic scale, fingering 2

1 b3 5 5 1 1 b3 b3 5 5 b3 b3 1 1 5 5 b3 1

1/4 full full 1 1/2 full 1 1/2 full 1/4

TAB

9 A minor pentatonic scale, fingering 4

1 b3 4 5 b7 1 1 b3 b3 5 5 1 1 5 5 b3 b3 1 1 b7 5 4 b3 1

full 1 1/2 full full 1 1/2 full

TAB

13 A major pentatonic scale, fingering 1 (uses b7 only to bend to 1; uses 4 to bend to 5; 4 is commonly used as a neighboring tone)

1 3 3 5 5 1 1 1 1 5 5 3 3 1

full full full full full full

TAB

17 A major pentatonic scale, fingering 2 (uses b7 only to bend to 1; uses 4 to bend to 5; 4 is commonly used as a neighboring tone)

1 3 3 5 5 1 1 3 3 1 1 5 5 3 3 1

full full full full full full full

TAB

21 A major pentatonic scale, fingering 4 (uses b7 only to bend to 1; uses 4 to bend to 5; 4 is commonly used as a neighboring tone)

1 2 3 3 5 5 1 1 3 3 5 5 3 3 1 1 5 5 3 3 1

full full full full full full full full

TAB

the howl or cry of a minor third

Dominant seventh and minor seventh chords are often used in blues, each having a flat seven. Use the fifth of the minor pentatonic to bend to the flattened seventh. The large minor third interval emotes a cry or howl. Likewise, bending one to flat three is a crying minor third.

Pentatonic Scales with Bends Resolving to Chord Tones

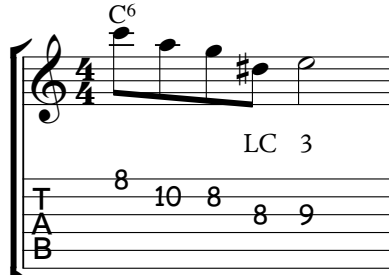
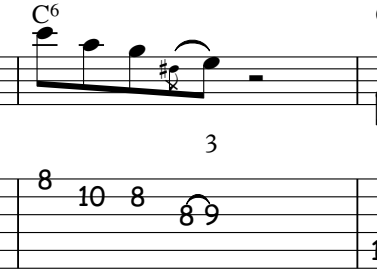
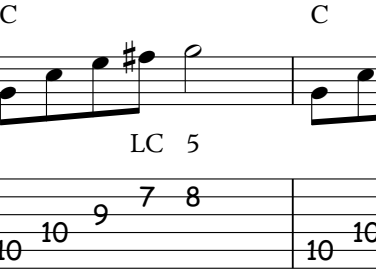
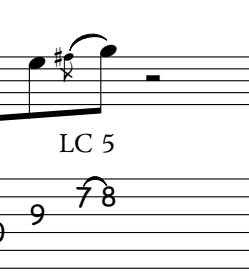
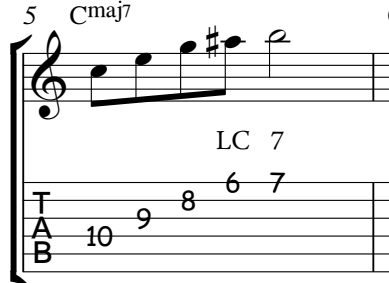
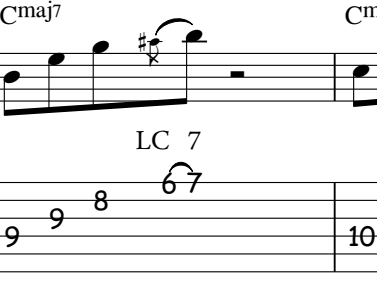
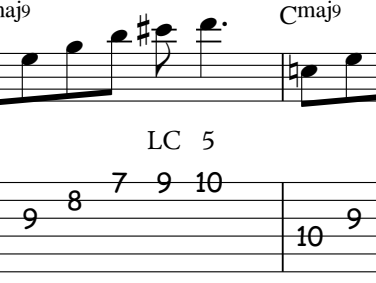
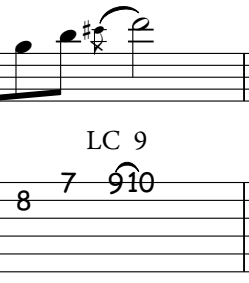
Scale runs are used in blues with bends to the same chord tones discussed in the previous section [Minor and Major Arpeggios with Bends](#). Bends can also be made to any scale tone, but non-chordal scale tones should generally be given a short duration and be otherwise un-emphasized.

Elaborating Pentatonic Scales with Chromatics and Heptatonic

lower chromatic embellishment of 3, 5, 6 and 9 (2)

Precede 3, 5, 6 or 9 with a note a half step below it, called a lower chromatic embellishment. In the ragtime era, the lower chromatic was commonly given a duration to the note it preceded. It has become more fashionable in modern blues to play the lower chromatic briefly, also (for guitarists) to slur it to the note by hammering or bending.

[link to video](#)

sharp two ragtime lower chromatic of 3	sharp two modern lower chromatic of 3	sharp five modern lower chromatic of 5	sharp five modern lower chromatic of 5
			
sharp two ragtime lower chromatic of 3	sharp two modern lower chromatic of 3	sharp five modern lower chromatic of 5	sharp five modern lower chromatic of 5
			

a single passing chromatic

These include “#1/b2” between one and two (or the octave root and nine), “#2/b3” between two and three, “#4/b5” between four and five, “#5/b6” between five and six, “7” between flat seven and one. These are generally not used with grace notes (see the next paragraph).

[link to video](#)

<p>C⁹ #1 passing chromatic</p> <p>1 #1 2 (9) b7 5 3</p> <p>5 6 7 8 5 7</p>		<p>C⁹ b2 passing chromatic</p> <p>2 b2 1 (8) b7 5 3</p> <p>7 6 5 8 5 7</p>	
<p>C⁹ #2 passing chromatic</p> <p>1 2 #2 3</p> <p>5 7 8 5</p>		<p>C⁹ b3 passing chromatic</p> <p>5 3 b3 2 13</p> <p>8 9 8 7 5</p>	
<p>Cm⁹ #4 passing chromatic</p> <p>b3 4 #4 5</p> <p>8 10 11 8</p>		<p>Cm⁹ b5 passing chromatic</p> <p>b7 5 b5 4 b3</p> <p>11 8 11 10 8</p>	
<p>C⁶ #5 passing chromatic</p> <p>3 5 #5 6</p> <p>9 8 9 10</p>		<p>C⁶ b6 passing chromatic</p> <p>1 6 b6 5 3</p> <p>8 10 9 8 9</p>	
<p>Cm⁷</p> <p>5 b7 7 1</p> <p>8 11 7 8</p>		<p>Cm⁷</p> <p>1 7 b7 5 b3</p> <p>8 12 11 8 8</p>	

A grace note duration for a note chromatically between a whole step would not be a passing chromatic, but rather a lower or upper chromatic embellishment. With grace note durations, chromatics between a whole step would be used in ascending, unless for a diminished seventh. In descending chromatically, diminished seventh is the only chord (so far) which the listener can understand an “upper chromatic embellishment”.

two or three passing chromatics

These include three to five (3-4-#4-5 or 5-b5-4-3), flat three to five (#2-3-4-#4-5 or 5-b5-4-#2-3), five to flat seven (5-#5-6-b7 or b7-6-b6-5) and rarely six to one (6-#6-7-1 or 2-7-b7-6). Traditionally, when descending chromatically from five to three, it is preferred to play sharp two before three.

[link to video](#)

Swing Eighths

		Cm ⁷ passing chromatics b3 to 5					C ⁷ passing chromatics #2 to 5				
		b3 3 4 #4 5					#2 3 4 #4 5				
T		8 9 10 11 8					8 9 10 11 8				
A											
B											

		C ⁷ passing chromatics 5 to 3					C ⁷ passing chromatics 5 to 3, #2 before 3				
		5 b5 4 3					5 b5 4 #2 3				
T		8 11 10 9					8 11 10 8 9				
A											
B											

chromatically lowered tones

In addition to being a passing chromatic between three and two, flat three can also be used in place of three to darken the mood. Usually by changes the chord sound from major to minor. Flat five can be a darkened version of five. Flat five is usually part of a minor seventh flat five or diminished chord, but is sometimes a major seventh flat five.

chromatically lowered tones [link to video](#)

Swing Eighths

C bright mood with 3

C darkened mood with b3

Cm⁷ sad mood with b3 and 5

Cm⁷ sadder mood with b3 and b5

add tones to complete Dorian or Mixolydian

Based primarily on pentatonic scales, blues and blues rock guitar improvisation, sometimes uses three or four-note heptatonic (seven tone scale) passages, adding tones to pentatonic scales.

In the blue and rock use of minor pentatonic, the most common added tone is two. Six or flat six can also be added to minor pentatonic scale melody. In the blues, rock and country use of major pentatonic, the most common added tone is four. Flat seven or seven can also be added to major pentatonic scale melody.

[link to video](#)

Am minor pentatonic only

Am adding two

Am minor pent. only

adding flat six

C major pent. only

C adding four

C major pentatonic only

C adding flat seven

Cadences Emulated with Pentatonic Scales

IV I - video tab

This melody emulates a IV I chord cadence (chord progression from IV to I in C.

original chord

ff *full*

11 10 8 10 8 10 8 10 10 10 8 7

emulated chords

pp

10 8 10 8 10 8 10 8 10 8 10 8

V I with all I minor pentatonic - video tab

The best tones to emulate the V7 chord (G7) with I minor pentatonic (C minor pentatonic) are 4, 5 and b7. They are part of the V7#9 chord (G7#9).

Swing Eighths

5 b7 5 4 b3 1 5 b7 1 5 b3 1

8 11 10 12 10 8 10 10 8 10 10 11 13

bVI V (to Im) - video tab

9 8 10 8 | 10 8 7 8 7 | 10 8 5 7 | 5 5 5 5

Slurred Minor Third

Two common slurred minor thirds four to five while sustaining flat seven and flat seven to one while sustaining flat three.

[video tab](#)

8 | 8 | 8 | 8

Pivot Tone

Pivot tone involves the repeated return to a particular note. See [Melodic Cells/Pivot Tone with Scalar or Chromatic Movement to Chord Tones](#).

[video tab](#)

5 | 8 5 7 5 5 5 | 7

Turn with Bend

This common ornamentation involves in this order: bend, release, pull off hammer between two fretted notes.

[link to video](#)

Swing Eighths

The musical notation for "Swing Eighths" is presented in 4/4 time. The guitar staff shows a sequence of notes: a whole rest in the first measure, followed by eighth notes in the second measure (fretted at 10, 10, 8, 10, 8, 5), eighth notes in the third measure (fretted at 8, 8, 5, 8, 5, 5), and eighth notes in the fourth measure (fretted at 8, 8, 5, 8, 5, 5). The tablature staff shows the corresponding fret numbers: 10, (10), 8, 10, 8, 5, 8, (8), 5, 8, 5, 5, 8, (8), 5, 8, 5, 5, 5. The notation includes bends (indicated by a 'b' and a curved arrow) and triplets (indicated by a '3' and a bracket). The bends are labeled 'full' and the triplets are labeled '1/4'.

"ROCK A BERRY"

Categories of Chuck Berry Licks

IV I cadence in thirds with lower chromatic embellishments - [video tab](#)

Swing Eighths

5 6 5 5 5 7 5 6 7 5 5 7 5 6

Im6/11 licks - [video tab](#)

8 5 7 5 6 7 5 5 7 5 5 6 7 7 4 5

8 7 5 7 5 8 7 5 7 5 7 7

5 7 (7) 5 7 (7) 5 8 5 7 5 6 7 5 8 10 9 5 7 5 6 7

7 (7) 5 7 (7) 5 10 8 (8) 7 5 6 5

descending scalar sixths - video tab

Two musical systems for descending scalar sixths. The first system is for A7 (three sharps) and the second is for D7 (two sharps). Each system includes a treble clef staff with notes and a guitar tab staff with fret numbers. The A7 system has four measures, and the D7 system has four measures. The tab staff for A7 shows fret numbers: 5, 7, 9, 9, 7, 6, 6, 7, 6, 6, 8, 7, 7, 5. The D7 system shows fret numbers: 5, 7, 9, 8, 5, 7, 5, 7, 5, 5, 7, 10, 10, 8, 7, 7, 5.

1 b7 6 5 - video tab

A musical system for the 1 b7 6 5 scale. It includes a treble clef staff with notes and a guitar tab staff with fret numbers. The system is divided into two parts: A7 (three sharps) and D7 (two sharps). The A7 part has two measures, and the D7 part has two measures. The tab staff for A7 shows fret numbers: 5, 6, 5, 5, 8, 7, 5, 7, 5. The D7 part shows fret numbers: 6, 7, 7, 5, 7, 5, 7, 5, 7, 5, 7, 5, 7.

#2 3 4 #4 5 - video tab

A musical system for the #2 3 4 #4 5 scale. It includes a treble clef staff with notes and a guitar tab staff with fret numbers. The system has two measures. The tab staff shows fret numbers: 5, 6, 7, 8, 5, 5, 5, 8, 7, 8, 5, 7, 5, 6.

big ending - video tab

The image displays a musical score for a guitar solo, consisting of two systems of music. Each system includes a standard musical staff with a treble clef and a key signature of two sharps (F# and C#), and a corresponding guitar tablature staff below it. The tablature staff is labeled with 'T' for Treble and 'B' for Bass. The first system spans four measures, and the second system spans five measures. The notation includes various musical symbols such as notes, rests, and accidentals, as well as guitar-specific symbols like fret numbers (e.g., 5, 8, 10, 12, 13, 14) and techniques like bends (indicated by a '1/2' or '1/4' with a curved arrow) and slides (indicated by a horizontal line with a diagonal slash). The piece concludes with a double bar line.

MAJOR SCALE MODES

Four Common Modes

Major, Dorian, Mixolydian and Aeolian are the four commonly used modes of the major scale. Major is the major scale with the tone center on “1”, and is also called Ionian.

Mixolydian can be produced by playing the major scale from “5” to “5”, so “G” to “G” in a C major scale produces G Mixolydian. G Mixolydian can also be produced by flattening the seventh of a G major scale.

Dorian can be produced by playing the major scale from “2” to “2”, so “D” to “D” in a C major scale produces D Dorian. D Dorian is also a D major scale with flat three and flat seven. Rather than a true minor mode, Dorian is used more commonly as a darkening of the major triad based Mixolydian mode, using the bluesy flattened third as well as the flattened seventh.

Aeolian is a true minor mode, also called natural minor. It is freely interchanged with harmonic minor which only differs with its natural seventh. Aeolian can be produced by playing the major scale from “6” to “6”, so “A” to “A” in a C major scale produces A Aeolian. A Aeolian is also an A major scale with flat three, flat six and flat seven.

Modes as Chord Scales

Without distracting too much from the key scale, briefly play a scale named after the current chord, such as a D Dorian scale on a Dm chord while in the key of A minor. It's great when the chord scale is ambiguously the same notes as the key scale, suggesting the chord scale by incorporating an arpeggio of the current chord.

The Major Modes

major - [link to video](#)

Swing Eighths

Chord progression: Cmaj7, Am7, Dm7, G9

Scale runs (fingerings):

- Cmaj7: 9 6 8
- Am7: 8 7 10 8 10 6 8
- Dm7: 7 5 6
- G9: 5 7 5 6 5 5 8
- Final: 7

Mixolydian - [link to video](#) This is an ostinato (repeating) bass theme.

Swing Eighths

G fingering 7

1 4 3 4 1 3 1 4 4 1 3 1m 4 2 1 4 3 4

7 10 9 7 9 7 10 10 7 9 7 10 8 7 10 9 10

Lydian - [link to video](#)

F⁶ Fadd#11 Dm⁷/A C/G Fmaj7(sus2)

4 5 5 8 6 5 7 8 5 7 7 8 7 5 5 3 1

The Minor Modes

Aeolian - [link to video](#)

Am Em⁷ Dm⁹ G⁶ Am Em⁷ Dm⁹ G⁶

5 5 6 5 7 5 6 8 4 5 7 4 5 7 8 5

Dorian - [link to video](#)

1 Am Am/G D⁹ Am⁷ D⁹ Am Am/G D⁹ Am⁷ D⁹

7 5 5 7 4 4 7 4 5 4 7 5 7 5 4 8 7 5 4

Phrygian - [link to video](#)

Em7/11 Fmaj7 Bm7(b5) Em Bm7(b5)

TAB: 0 1 0 3 0 0 3 5 3 3 1 3 0 3 0 3 1 5

Locrian, the Diminished Mode - [link to video](#)

Locrian is rarely a key scale. It is very dark emotively.

Bm7(b5)

TAB: 7 8 7 7 7 8 7 7 9 10 8 5 7 8 7 7 7 8 7 7 9 10 7 9 7 5 7 8

HARMONIC MINOR MODES

Harmonic Minor - [link to video](#)

“A” harmonic minor is built on the sixth step of its parent C major scale, but with the fifth step of the C major scale sharpened. Compared to Aeolian, harmonic minor has a natural seven. Aeolian mode has flat three, flat six and flat seven, while harmonic minor has only flat three and flat six.

5 7 8 5 4 6 5 5 7 5 5 7 8 5 4 6 5 7 4

Phrygian Major- [link to video](#)

Phrygian major is the mode on the fifth step of harmonic minor. E Phrygian major is built on the fifth step of A harmonic minor, which uses the C major parent scale with a sharp five. In terms of its parent major scale, E Phrygian major is the mode on the third step of C major sharp five. E Phrygian major mode has a major third as opposed to the minor third in E Phrygian mode.

♩ = 125

5 4 7 5 4 7 8 7 5 7 5 6 5 6 7 5

MELODIC MINOR MODES

Melodic Minor

Melodic minor is occasionally used as a key scale. It has ascending (upward in pitch) and descending (downward in pitch) versions. In J.S. Bach's Bouree in Em it is used in its ascending and descending versions.

In jazz, melodic minor is used in its ascending form. What would be the descending form is thought of as Aeolian (natural minor), which is the same thing.

E melodic minor

numbered tones in relation to E major scale

ascending version

descending version

TAB

Bouree in E minor

ascending version

descending version

TAB

Melodic Minor in Jazz

In jazz, melodic minor is used in the key of flat six. It is used to setup a chord progression to a target chord, where it is a V of the target chord (G7 is V7 of C). As the V of target, melodic minor makes a very dissonant V chord. I call it the "Swiss Army" seventh chord, since it has *all* the alterations of its fifth and ninth. It has sharp five, flat five, sharp nine and flat nine. The complete, seven-note V chord is V7b9#9b5#5.

To make the Swiss Army seventh chord (V7b9#9b5#5), we use the mode on the seventh step of melodic minor.

chord synonyms

Chord synonyms are two or more chord names for the same notes, each using a different note as a root. The [flat five substitute](#) is a harmonic basis of bebop and modern jazz. It uses the synonyms V7b9#9b5#5 and bII13#11. The basis of these synonyms are V7b5 (of target) and bII7b5 (of target). V7b5 is part of V7b9#9b5#5 and bII7b5 is part of bII13#11.

In the key of C, V7b5 is G7b5, spelled G-B-Db-F. "G, B, Db, F" are 1-3-b5-b7 in the key of "G", the chord root. Also in the key of C, bII7 Db7b5, spelled Db-F-Ab-Cb ("Cb" is the same note as "B").

G7 III	Db7 II	G7b5	Db7b5 II
1 b7 3 5	5 3 b7 1	1 b7 3 b5	b5 3 b7 1
G-B-D-F	Ab-F-Cb-Db	G-B-Db-F	G (Abb)-F-B (Cb)-Db

other synonyms that are subsets of G7b9#9b5#5 and Db13#11

G7#9#5 IX	Db13#11 IX	G7b9#5 III	Db9#11 III
1 3 b7 #2 #5	b5 b7 3 6 2	1 b7 3 #5 b9	#4 3 b7 2 5
G-B-D-A#-D#	G (Abb)-F-Cb-Db	G-F-B-D#-Ab	G -F-Cb-Eb-Ab

Lydian Dominant (Melodic Minor Mode IV)

This mode is built on bII of a target chord. So, Db7 (or any part of Db13#11) can be used immediately before a C major or C minor type chord, to “set it up” and lead into it. Charlie Parker, Dizzy Gillespie and Thelonius Monk (especially Charlie) figured this out in the 1940’s when they were playing at Minton’s Playhouse (and Monroe’s Uptown House) in Harlem, New York. Charlie Christian was a very influential guitar player at Minton’s and was an important musician responsible for the forming of the bebop style.

Minton’s Lingo, below uses melodic minor in the BeBop Style.. It features B melodic minor before Eb7, which is E Lydian dominant (E is bII of the Eb target). Also, it features F# melodic minor before Bb7, which is B Lydian dominant (B is bII of the Bb target).

Minton’s Lingo - [link to video](#)

Swing Eighths

B melodic minor on bVI of Eb

F# melodic minor
on bVI of Bb

13 Cm7

F7

Bb7

G7

Cm7 F7(#9)

Mixolydian Flat Six (Melodic Minor Mode V) - [link to video](#)

This mode on the fifth step of melodic minor has a flat seven like Mixolydian, but also has a flatted six.

Swing Eighths

TAB

5 | 3 4 2 3 6 5 2 3 4 | 4 5 4 5 6 4 5 3 2 3 4 | 3 4

Aeolian Flat Five (Melodic Minor Mode VI) - [link to video](#)

Built on the sixth step of melodic minor, this mode has four flatted numbers in its formula: flat three, flat five, flat six and flat seven. Its great for a bVI7 chord in a minor key, like F7 in the key of A minor.

Swing Eighths

Am7(b5) G7(#5) F13 Am7(b5)

TAB

5 | 8 8 5 7 | 4 3 3 1 | 1 0 1 0

Super Locrian (Melodic Minor Mode VII) - [link to video](#)

Built on the seventh step of melodic minor, this is a super-altered five chord of target, like G7#9b9#5b5 progressing to a C target chord. It is a synonym of bII13#11 on bII of the target (Db13#11 to C).

Swing Eighths

G7(#9) C13

G super Locrian C Mixolydian

TAB

5 | 4 4 3 6 4 3 4 3 6 4 3 5 4 | 5 5

MAJOR FLAT SIX MODES

Major Flat Six - [link to video](#)

This is the “Sleepwalk” mode. It can be used during the IVm chord in Sleepwalk (Fm in the key of C).

Chords: Cmaj7, Am7, Fm(maj7), G13

Scale: C major flat six

Diagram showing the scale on a staff and a fretboard diagram below it. The fretboard diagram shows the scale notes on the strings: 8, 9, 10, 5, 5, 8, 6, 5, 5, 8, 9, 10, 6, 7.

Dorian Flat Five (Major Flat Six Mode II) - [link to video](#)

A great elaboration of a I diminished seventh. For example, bar six of a jazz blues is often #IV diminished seventh, which is a synonym of I diminished seventh. The key scale I Dorian flat five works well in this situation.

Chords: D9, D#o7, A9

Scale: A Dorian flat five

Diagram showing the scale on a staff and a fretboard diagram below it. The fretboard diagram shows the scale notes on the strings: 5, 5, 7, 8, 7, 7, 8, 7, 5, 8, 7, 8, 7, 7, 8, 8, 7, 5, 5, 5, 10, 8, 10, 9, 10.

Super Phrygian (Major Flat Six Mode III) - [link to video](#)

This is an amazing mode. I'm surprised it is not used more in jazz. It's like Phrygian mode, but has a "proxy" natural three in the form of a flat four. Phrygian major has the tones of a seventh chord with a half step above the root, third and fifth. By comparison, this mode has the notes of a minor seventh with half steps above the root third and fifth.

Swing Sixteenths

Am7

E7(#5)

E super Phrygian

E7(#5)

Mixolydian Flat Two (Major Flat Six Mode V) - [link to video](#)

For 13b9 chords, which are often mis-named as diminished seventh with the flat nine is in the bass. The only common situation where a ninth can be in the bass.

G13(b9)/Ab

C%

G Mixolydian flat two

SOLO EXAMPLES

Let the Good Times Roll, B.B. King style solo example - [play video](#)

Swing Eighths

1 G⁶

C⁷

G major pent. fing. 4 pent., the first note is flat 3

G minor pentatonic fingering 3

5

C⁷

G major pentatonic fingering (Bb notes are flat three)

Gm pent. fing. 2

9

D⁷

C⁷

G⁷

Gm pent. fing. 2

G ma pent. fing. 4

Gm pent. fing. 4

G major pent. fing. 4 (Bb note is flat three)

13

G⁶

C⁷

G⁷

G ma. pent. fing. 4 (Bb note is flat three)

Dm9

Gm pent. add 6

G ma. pent. fing. 4 (Bb is flat three)

17

C⁷

G⁶

G ma pent. fing. 4

Gm pent. fing. 3

G ma pent. fing. 4, add "4" ("C") neighbor tone

G major arpeggio

21 D7 C7 G7

Am9 arpeggio
1 3 3 1 3 3

G major pentatonic fingering 2

full full

TAB

25 G6 C7 G6

grad. bend, grad. release

full full

1/2 1/4

TAB

29 C7 G6

3 1 3 2 1 2 3 2 3 2 1 3 1 2 3

full

changed

TAB

33 D7 C7 G7

3 1 3 3 3 1 1/2 3 3 3 1 3 full

TAB

B.B. King style Jump Blues in Bb - [click to play](#)

♩ = 140

4 3 full 1 2 1 2 3 2 1 4 1/4 2 1 3 2 1 3 1 1/2 3 2 1

18 13 (13) 11 12 10 11 13 12 11 14 12 11 13 12 11 13 12 11

6 Eb7 Bb7

4 1 2 1 3 2 2 2 1 2 1 2 3 full 2 1 2 3 full 1 2 3

14 11 12 11 13 12 11 12 13 12 11 12 13 11 12 13

10 F7 Eb7 Bb7 F7

4 1 1/2 4 1 2 3 2 2 2 1 2 1 3 4 3 full 1 4 2

16 11 (11) 14 11 12 13 12 11 12 10 12 11 13 14 13 12 15 13

14 Bb7

4 1 1 3 4 1 4 1 1 3 4 1 2 full 2 1/2 2 1 1/2 1 2 1 1 1 3

18 15 15 17 18 15 15 15 17 18 15 16 16 16 14 15 14 15 15 15 17

18 Eb7 Bb7

4 1 1 4 2 4 4 4 2 3 2 3 full 4 full 3 1 3 1 1 3 3

18 15 15 18 16 18 18 16 17 16 16 16 16 (16) 14 16 14 15 17 17

22 F7 Eb7 Bb7 F7

3 full 1 4 3 full 1 2 1 3 4 1 3 3 full 1 2 1 3 2 2 2 2 1 1 3 full 1 2 4 1

16 13 16 16 (16) 14 14 16 18 14 16 16 (16) 14 14 16 15 15 15 15 13 12 14 10 11 13 10

26 Bb7

4 3 2 1 1 1 3 1 4 3 1 2 3 1 2 1 3 1 2 2 3 3 3 1 1 4 1 3 2 1 2 1 4 1 3 1 2 1 4

13 12 11 9 10 6 8 6 9 8 6 7 8 6 7 6 8 6 6/7 8 8 6 6 9 6 8 7 6 7 6 9 6 8 5 6 5 8

30 Eb7 Bb7

1 1 1 1 1 3 1 3 1 3 1 2 3 full 1 3 1 1 1 4 1 3 full 3 1 1/4 3 1 1/2 1 1 3 3 1 2 1 3 1 3 3

5 6 6 6 6 9 6 9 6 9 6 8 9 6 9 6 6 6 9 6 8 6 10 (10) 8 6 8 8 6 7 6 17 15 17 18

2 34 8ma

F7 Eb7 Bb7

1 3 1 2 3 1 3 1 3 3 3 2 1 3 1 3 3 1 1 1 4 3 1 3 1 3 1 3

T 16 18 16 17 18 16 18 14 16 17 16 14 15 13 15 13 15 17 15 15 15 18 17 15 15 17 15 18

A

B

tag" ending F7 Eb7 Bb7

38 8va

1 3 1 2 3 1 3 2 1/4

4 1 2 3 1 2 3 3 3 2

1 1 1 4 3 1 3 1 3 3 1 3

16 18 16 17 18 18

18 15 16 17 15 16 17 17 16 15 15 15 18 17 15 17 15 18

[illegible]

Rock Me Baby solo example - [click to play](#)

Rock Me Baby solo example - [click to play](#)

Score for Rock Me Baby solo example, featuring guitar notation and fingerings.

Key signature: One flat (Bb). Tempo: 90.

The score is divided into six systems, each with a treble staff and a bass staff. The treble staff contains the melodic line with various musical notations including eighth notes, quarter notes, and triplets. The bass staff contains the bass line with fingerings and accidentals. Chord symbols (C7, F7, G7) are placed above the staffs to indicate the harmonic context.

The solo begins with a C7 chord and ends with a G7 chord. The bass line is primarily composed of eighth and quarter notes, often with a steady eighth-note pulse. The treble line is more melodic, featuring many triplets and slurs.

All Along the Watchtower improv - [click to play](#)

♩ = 110

intro

Cm B♭ A♭ B♭ Cm B♭ A♭ B♭

2 2 1 3 full 3 full 3 full 3 full 3 full 1 3 full 3 3 3 3 3 1 3 3 full 3 3 full 3 full 1 3 1 3 1 1 3 full 3 full

10-12 11 13 13 13 13 13 13 11 10 10 10 10 8 10 10 10 10 10 10 8 10 8 10 8 11 11

solo 1

Cm B♭ A♭ B♭ Cm B♭ A♭ B♭

3 full 3 full 3 full 1 1 3 3 full 3 1 2 2 1 3 full 3 full 1 3 full 3 full 3 1/2 1 1/2

11 11 11 11 8 8 10 10 10 8 10 12 11 13 13 13 11 13 13 13 1/2 1/2

10

Cm B♭ A♭ B♭ Cm A♭

3 1 1/2 3 1 1/2 1 3 3 full 1 3 3 1 3 full 1 1 3 full 1 4 1 3 full 1 1 4 1 3 full 3 1 3 3 full 1

13 13 13 11 13 11 8 10 8 10 8 11 8 11 8 10 10 8 10 10 8 17

economy picking: in the direction of the next string

solo 2

B♭ A♭ Cm B♭ A♭ B♭

3 3 3 3 3 3 full 1 3 full 3 full 3 full 3 full 3 full 3 full 3 full 1 3 1 3 full 3 full 3 full 3 1 3 full 1

8 8 8 8 10 10 10 10 11 11 11 11 11 11 11 11 11 11 11 11 8 10 8 10 10 10 10 10 8 10 10

19

1 3 1 3 3 full 3 full 1 3 full 3 2 full 2 3 1 3 full 3 full 3 full 3 3 full 3 full 3 3 1

8 11 13 13 13 13 11 13 13 11 11 13 11 13 13 13 13 13 13 13 13 13 10 12

solo 3

Cm B♭ A♭ B♭ Cm B♭ A♭ B♭ Cm B♭ A♭ B♭ Cm B♭ A♭ B♭

13 7 8 13 11 13 16 16 18 16 13 13 16 16 18 18 20 18 16 18

13 4 5 10 8 10 13 13 15 13 10 13 13 15 15 17 15 13 15

32 solo 4 Cm Bb Ab Bb Cm Bb Ab Bb

with wah-wah

37 Cm Bb Ab Bb Cm Bb Ab Bb

41 Cm Bb Ab Bb Cm Bb Ab Bb

45 Cm Bb Ab Bb Cm Bb Ab Bb

Full- Fretboard Blues Example

6

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999

1000

Clapton Style Blues Example

25

25 A7 D7 A7

3 e + a 4e + a 1+ 2 e+a 3 + 4+ full 1e + a 2 e + a 3+4e + a 1 + 2e + a 3 + 4 + 1 + 2 + 3+ 4 e+a

29 D7 A7

full 3 1/4

33 E7 D7 A7 E7

1/4 1/4

37 A7

1/2 1/4 1/2 1/2 1/4

41 D7 A7

1/4 full full full full 1/2 full 1/2

45 E7 D7 A7 8va

full full full full

[illegible]

73

8va

A⁷

TAB

17 17 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19 19

75

(8)

T
A
B

18 19 19 17 19 17 19 19 18 18 18 17 19 19 18 19 20 17 19 20

[illegible]

79 (8)

full full

TAB

[illegible]

Clapton Style Continuous Sixteenths

♩ = 130

3 2 3 2 3 3 1 1 3 1 1/4 3 full 3 1 3 1 1 1/4 3 1 3 1

3 1 3 1 1 3 1 3 1 3 1 3 1 3 1 3 1 1 1 3 full 1 3 1

3 3 1 1 3 1 1 3 1 3 1 3 full 1 3 1 3 full 3 1 1 3 1 3 1

3 3 2 3 1 1 4 1 3 1/2 1 3 3 3

3 3 2 4 2 3 2 4 2 3 2 3 1/2 1 3 1 1

3 1 1 3 1 1 1 3 full 1 2 3 2 1 2 1 1 1 4 1 3 3 3

13

E

D

full

full

15

15

15

17 15 13 10 15 13 10 8 5 10 8 5 7 5 5

TAB

15

A

full

1/4

7

7

(7)

5

5

7

7

7

5

5

7

8

5

8

5

5

TAB

Shotgun style example - [click to play](#)

"E" Mixolydian

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

learn with rhythmic strum

learn with rhythmic strum

learn with rhythmic strum

learn with rhythmic strum

learn with rhythmic strum

learn with rhythmic strum

grad. release

Clapton Style Blues Rock Example

The solo is written in G major (one sharp) and consists of 16 measures. The notation includes a standard staff with a treble clef and a guitar-specific staff with a 'T' (treble) and 'B' (bass) indicator. Chords are indicated above the staff: Cma7, G/B, G, D, Cma7, G/B, G, D, Cma7, G/B, G, D, Cma7, G/B, G, D, Am. The tablature includes fret numbers (13, 10, 12, 15, 17, 18, 19) and picking directions (upstrokes and downstrokes). Some measures include a 'practice muted strum for melodic rhythm' instruction. The solo is divided into four systems of four measures each.

Measures 1-4: Cma7, G/B, G, D. Fret numbers: 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13, 13. Picking: full, 1/2, full, 1/2, full, full, full, full, full, full, full, full, full, full, full, full.

Measures 5-8: D, Cma7, G/B, G, D, Cma7, G/B, G. Fret numbers: 10, 10, 12, 12, 10, 12, 12, 10, 12, 10, 12, 10, 12, 10, 12, 10. Picking: 1/2, 1/2, full, 1/2, full, 1/4, full, 1/4.

Measures 9-12: D, Cma7, G/B, G, D, Cma7, G/B, G. Fret numbers: 15, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15. Picking: full, full, full, full, full, full, full, full, full, full, full, full, full, full, full, full.

Measures 13-16: D, Cma7, G/B, G, D, Am. Fret numbers: 17, 19, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18, 18. Picking: full, 1/2, 1/2, full, 1/2, full, 1/2, full, full, full, full, full, full, full, full, full.

Autumn Leaves Improv Example

Swing Eighths

The sheet music for "Autumn Leaves" is presented in a system of five staves, each containing a treble clef staff and a bass staff. The key signature is B-flat major (two flats), and the time signature is 4/4. The tempo/style is "Swing Eighths". The music is divided into measures, with measure numbers 5, 9, 13, and 17 indicated at the start of their respective staves. Chord symbols are placed above the treble staff: Cm7, F7, Bbmaj7, Ebmaj7, Am7(b5), D7, and Gm. The bass staff contains fingerings for the left hand, with numbers 1-10 and 12. The right hand staff contains notes, rests, and triplets. The music is a 32-measure piece, with the final measure ending on a double bar line.

21 Cm⁷ F⁷ B^bmaj⁷ E^bmaj⁷

25 Am⁷(b⁵) D⁷ Gm G^b7 Fm⁷ E⁷

29 Am⁷(b⁵) D⁷ Gm

Tablature (T, A, B strings):

System 1 (Measures 21-24):

- Measure 21: 5 8 8 6 8 10
- Measure 22: 5 8 8 6 8 10 9 6 7 8
- Measure 23: 7 6 8 12
- Measure 24: 10 11 13

System 2 (Measures 25-28):

- Measure 25: 7 8 10 8 11 10
- Measure 26: 11 10 8 8 7 7
- Measure 27: 10 7 8 7 8 6 10 6
- Measure 28: 9 10 8 10 7 11 8

System 3 (Measures 29-32):

- Measure 29: 7 7 8 7 5 7 5
- Measure 30: 7 8 7 5 7 4
- Measure 31: 5 5 7 7 8 6 7 5
- Measure 32: 8 6 7 8

Afro Blue Pentatonic and Arpeggio Example

8^{va}
Fm⁹

Fm7/11 pentatonic

Fm9 arpeggio

full

full

full

T
A
B

13 16 13 13 16 13 15 (15) 13 13 13 16 15 13 13 15 15 13 12 13 15

5 (8)
Bbm⁹

Bbm13 arpeggio

Fm7/11 pentatonic

Fm⁹

full

full

full

full

T
A
B

13 16 13 15 13 16 13 15 13 15 13 15 13 13 16 13 13 16 13 15 (15) 13 15 15

9 (8)
Db9(#11) C7(#9) Fm⁹

Db9#11 arpeggio

Fm7/11 pentatonic

full

full

T
A
B

16 16 16 15 16 15 16 15 13 13 16 13 13 16 13 15 15 13 15

Something Style Solo Example - [click to play](#) [rhythm track](#)

3 3 1 1 3 2 1 1 2 1 1 3 3 1 4 1 3 1 1 3 2 3 1 2 3

15 15 13 13 15 14 13 (13) 8 9 8 10 13 8 12 8 10 8 10 9 7 9 10

6 C7 F

1 3 3 1 3 3 1/2 1 2 1 1 1 4 1 4 2 2 1 2 3 2 2 3 2

8 5/7 5 7 7 (7) 5 7/9 8 10 10 13 10 13 3 14 13 13 12 14 14 12 12

10 D7 G

3 3 1 3 2 3 1 3 1 3 3 1 3 1 3 1 3 3 3 1 3 3 1 3

15 15 13 15 13 14 15 13 15 13 15 full (15) 15 13 1/4 15 15 17 15 15 17 17 full 17 15 17 full

14 Am Am(maj7) Am7 D9

3 full 1 1 1 3 3 1 3 3 full 3 full 2 2 1 3 1 1/2 3 2 1 2 1 3 1 4 1

7 5 5 5 7/10 8 10 10 10 10 9 11 10 12 12 11 10 11 10 13 10 13 10

18 F Eb G C

2 2 1 2 3 full 3 1 3 1 1/2 3 full 3 1 3 1 2 1

11 14 13 14 15 15 13 15 15 15 13 15 13 14 13

Breakdown Style Am7/11, Aeolian and Arpeggio Solo Example

Swing Eighths

Am G Am G Am G Am G Am G

6 Am G Am G Am G Am G Am G

10 Am G Am G Am G Am G

14 Am G Am G Am G Am G

18 Am G Am G Am G

gradual full release

6

Am G Am G Am G Am G

22

TAB

Am G Fmaj7

26

TAB

Am G Am G Am G Am G

29

TAB

Am G Am G Am G

33

TAB

Fmaj7

36

TAB

Shred Blues - [click to play](#)

Swing Sixteenths

♩ = 62 D⁷ G⁷ D⁷ A⁷ D⁷ G⁷

for each triplet: tap, picking hand pull-off, fretting hand hammer

"T" is picking hand tap, "P" is picking hand pull-off

Slow Dancing in a Burning Room improv - [click to play](#)

♩ = 68 C#m A E

1 C#m 2 A 3 C#m 4 A E

5 6 7 8 A E

9 C#m 10 A 11 C#m 12 A E

13 C#m 14 A 15 E 16 C#m 17 A 18 E

PART 4 CONTENTS

Thinking Chords and Modes While Improvising

- Chord-Naming Conventions
- All Scale-Tone Chords
- Emotive Qualities of Chords and Scales
- Recognizing Scale-Tone Chords
- Modes
- Parent Scale Improv
- Key Scales, Parent Scales & Chord Scales
- Constructing Chords in the Key of the Chord Root
- Constructing Scale-Tone Chords by Keyscale
- Fingering Arpeggios for Improv
- Substitution
- Secondary Dominant
- Scale Ambiguity
- Modal II-V-I Cadences and Turnarounds
- Improv Level 4: Arpeggios

Chord-Naming Conventions

- **Chord Roots**
- **Triads**
- **Tertian Chords**
- **Add-Tone Chords**
- **Suspended Chords**
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- **Chord-Naming Rules by Chord Tone**
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- **Standard Chord Name Abbreviations and Chord Formulas**
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CHORD ROOTS

Chord Roots by Letter Name

A chord root is the letter name for a chord. The letter may be followed by a flat or sharp which alters the letter. C13#11, for example has the root "C". "Bb" (B flat) is the root of Bb13#11. When the letter name is not followed by any other characters ("Bb", for example), the chord is major.

Chord Roots by Number

A chord root can also be expressed with a number, showing which numbered step of the key the chord root occurs on. See the chapter [Chord Progression By Number](#). The number may be preceded (not followed as in letter names) by a flat or sharp which alters the numbered step in the key on which the chord is built. IV13#11, for example has the root on the fourth step of the key and its quality is "13#11".

TRIADS

Triads are three-note chords. In the primary method of chord construction, triads use every-other scale tone, each using some version of numbered tones "1", "3" and "5". Suspended triads are the exception, using "1-4-5" or "1-2-5". Triad names imply numbered tones with a word. Nothing after the letter name implies it is major ("Bb" is "B flat major"). The abbreviations below show the other options for triad names.

<u>triad name</u>	<u>abbreviation</u>	<u>numbered tones of a major scale on the chord root</u>
major	(nothing)	1-3-5
minor	m or min.	1-b3-5
diminished	dim. or °	1-b3-b5
augmented	aug. or +	1-3-#5
major flat five	maj. b5	1-3-b5
suspended fourth	sus. 4 or sus.	1-4-5
suspended second	sus. 2	1-2-5

When a triad quality isn't specified, chords assumed to be based on a major triad. When a chord name is shown as just the letter name (A, Bb, B, C, C#, etc.), the chord is major. Suspended chords without a specified "sus4" or "sus2" are suspended fourth. But it will be more universally understood if you write the name "sus4".

Using the degree symbol (°) for a diminished triad is risky, since the degree symbol is commonly used to represent a diminished seventh chord. So, when you write a diminished seventh chord, it will be more universally understood if you include the “7”: “°7”.

TERTIAN CHORDS

Tertian chords are those built in thirds, using the odd-number series “1-3-5-7-9-11-13”. They begin with “1” and may use any number of consecutive tones in the odd-number series.

<u>numbered tones</u>	<u>category</u>	<u>chord name</u>
1-3-5	triad	major, minor, diminished or augmented, depending on the versions of 3 and 5
1-3-5-7	quadrad	seventh
1-3-5-7-9	pentad	ninth
1-3-5-7-9-11	sextad	eleventh
1-3-5-7-9-11-13	septad	thirteenth

ADD-TONE CHORDS

Add-tone chords break the tertian series by adding a second, fourth or sixth where it is not a consecutive tones in the odd-number series. “1-3-5-7-9” is a tertian chord, but “1-3-5-9” is an add-tone chord, since it “skipped” the seventh in the odd-number series. “1-3-5-7-9-11” is a tertian chord with a continuous series of odd numbers, but “1-3-5-11” is an add-tone chord, since it “skipped” the seventh and ninth in the odd-number series.

Sixth Chords (add six)

When the bass part or chord name indicates that the next-to-lowest tone in a series of thirds is the chord root, it is a sixth chord. The series of thirds would be conceived by arranging the chord tones in thirds. Sixth chords can also be names after the lowest tone in the series of thirds, which would make it some type of seventh chord.

C6 IX 	Am7 IX 	Cm6 VIII 	Am7b5 IX
C6 IX 	Am7 IX 	Cm6 VIII 	Am7b5 IX
thirds: A C E G		thirds: A C Eb G	

Add Nine Chords

Ninths can be added to triads and to sixth chords. “/9” designates “add nine”. Adding a ninth to a seventh chord is called a ninth chord and is not considered an “add tone” chord, since it uses continuous odd numbers (1-3-5-7-9).

A/9 V 	Am/9 V 	A6/9 IV 	A dim.7/9 IV
------------------	-------------------	--------------------	-------------------------

Add Eleven Chords

Elevenths can be added to chords. “/11” designates “add eleven”.

Am7/11 III

Multiple Added Tones

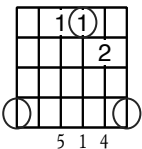
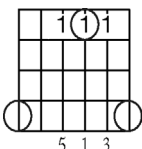
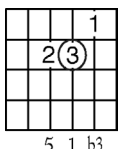
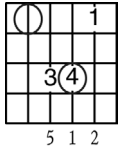
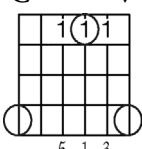
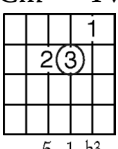
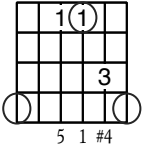
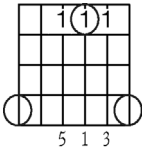
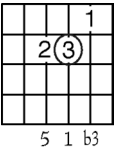
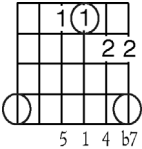
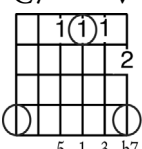
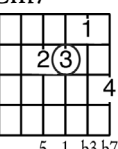
Usually, when you indicate multiple added tones in a chord name, the alternate name would be complicated also. The alternate name usually would have to specify missing tones.

E7/6/#11 IX 	E13#11 n9 IX 	E13#11 n9 IX
fingers		

SUSPENDED CHORDS

Suspended chords have a triad basis but replace the third with a fourth or second, rarely a sharped fourth. The fourth, second or sharped fourth is expected to resolve to the major third, but doesn't have to resolve or it can resolve to the minor third.

Each suspended chord below is traditionally expected to resolve to a major chord on the same root resolving four to three, but it can resolve to a minor chord on the same root. But, they don't have to resolve. Harmonies may be added, such as C7sus4, which behaves like Csus4 but the suspended version and the resolved versions all have a flatted seventh, implied by the "7" in the name. Folk rock often used the sus. 4, major, sus. 2, major sequence (or sus.2, major, sus4, major).

suspended chord type	suspended chord	resolve to major	resolve to minor
suspended fourth	Csus4 V 	C V 	Cm IV 
suspended second	Csus2 III 	C V 	Cm IV 
suspended sharp four	Csus#4 V 	C V 	Cm IV 
7 suspended fourth	C7sus4 V 	C7 V 	Cm7 V 

ALTERED CHORDS

Altered Numbers Versus Altered Scale-Tone Chords

The term "altered chord" commonly refers to chords that modify major scale-tone chords, implying that the major scale is altered. The term also is used to refer to chords with altered numbered tones, more often altered odd-numbered tones. The first chord in each bar below is a major scale tone chord with no alterations. The second chord in each bar has altered major scale tones and is an altered chord *except the* IVma9#11 in the fourth bar, which uses the unaltered "B" note of the C major scale to produce the "#11" tone of the Fma9#11 chord.

♩ = 100

	1	2	3	4	5	6	7
T	8	7	10	10	7	7	8
A	9	9	10	10	8	9	10
B	8	8	5	5	7	7	7

Major Scale-Tone Chords with Altered Numbered Tones

The common definition gets unclear when considering some major scale-tone chords that have altered numbers. A major scale-tone chord can have altered numbered tones *without altering the major scale*. The seventh chord (a tertian quadrad or four-note chord in thirds) built on the seventh step of the major scale is minor seven flat five *without altering the major scale*. The eleventh chord (a tertian sextad or six-note chord in thirds) built on the fourth step of the major scale is major nine sharp eleven and does not alter the major scale. If one thinks that a chord tone with sharpened or flatted numbers is an altered chord, VII minor seventh flat five and IV major ninth sharp eleven could be called "altered chords" since they each have flatted or sharpened numbered tones. C major scale has all natural notes, so any sharpened or flatted note would be an altered C major scale tone. As you can see below, the Fma9#11 and Bm7b5 each have all natural notes of the C major scale, yet when each is analyzed in terms of the chord root, which is how we name chords, each chord has an altered tone.

	Fma9#11	Bm7b5
T	7	6
A	8	7
B	8	7

In keys other than C, when a chord uses a note not in the major scale of the key, it is an altered major scale-tone chord in that key.

Chords That Alter the Major Scale Are Scale Tone Chord of Other Scales

Most altered chords that alter the major scale are scale tone chord of other scales. There are four harmonizable seven tone (heptatonic) scales: major scale (also called Ionian mode), harmonic minor (a mode of major sharp five), melodic minor (ascending form, which is major scale flat three) and major flat six (also called harmonic major). See [Modes/Modes of Four Heptatonic Scales](#) and [All Scale-Tone Chords](#). The melodic minor scale traditionally used in classical music ascending as a major scale with flat three and descends as a major scale with flat three, flat six and flat seven (Aeolian mode).

Scale-tone chords of each of the four harmonizable heptatonic tonic scales include chords with altered numbered tones. The table on [All Scale-Tone Chords/Major Scale Tone Chords by Type](#) shows chords with altered numbered tones in the IV column and in the VII column, although by definition, none of the chords shown in that table alter the major scale.. This shows that major scale-tone chords can have altered numbered tones without altering the the major scale. Scale tone chords of the other three harmonizable heptatonic scales also have altered tones. See:

[Harmonic Minor Scale-Tone Chords by Type](#)

[Melodic Minor Scale-Tone Chords by Type](#)

[Harmonic Major Scale-Tone Chords by Type](#)

Common Altered Scale-Tone Chords

IV and VII chords of the major scale

II, V and I of harmonic minor

I, IV, V, VI VII of melodic minor

all the steps of harmonic major have some use, though uncommon

Altered Chords Not Entirely Part of Any Heptatonic Scale

Some altered chords have multiple versions of a numbered tone and are not entirely part of any heptatonic scale. 13#11b9#9, for example is the harmonized version of the half-whole diminished scale and contains all eight of its notes. In its entirety, it is not playable on the guitar as a simultaneous-note chord, of course.

CHORD QUALITIES CURRENTLY NOT ACCEPTABLE

Because of dissonances considered inappropriate for the chord type, a few chord qualities are currently not acceptable. You may find an application to some of these "unacceptable" chord qualities in the wide world of artistic expression, but you won't find these chords in standard repertoire.

Major Seventh Type Chords Aren't Used with Natural Eleven

Major seventh, major ninth and major thirteenth chords are not used with a natural eleven, because of its dissonance against the major third, which is a half step away in the upper octave. Major third plus an octave is major tenth, which is a half step away from the natural eleventh. The Lydian chords $ma7\#11$, $ma9\#11$ and $ma13\#11$ are acceptable.

Major Seventh Type Chords Aren't Used with Altered Ninths

$Ma7$, $ma7\#11$ and $ma13\#11$ thirteenth chords are not used with a flat nine or sharp nine, probably because the striking dark mode the altered ninth would introduce to the otherwise romantic chords.

Minor Chords Never Have a Flat Nine

Though the sound is odd, minor seven with flat nine is never used in printed music. You will not find it in any of the over forty jazz fake books. It could be used in place of a $7b9$ chord with no third.

Minor Sharp Five

Minor triads with a sharp five are sometimes used, but could simply be named as a major triad on the root of the sharp five tone. A minor sharp five is spelled $A-C+E\#$. Enharmonically, the " $E\#$ " is " F ". $F-A-C$ is F major.

Dominant Chords with Flat Thirteen

This is a device to allow a fifth in the low range and a sharped fifth in the high range by naming the high sharp fifth "flat thirteen", its enharmonic equivalent.

CHORD-NAMING RULES BY CHORD TONE

The Triad Basis of Chords

When the letter name in a chord name (“Bb” in Bbma7) is the entire chord name or when it is followed by a number, the triad basis of the chord is major. When the letter name is followed by “m” (Cm), the basis of the chord is minor. See the other abbreviations in the previous [Triads](#) section.

Thirds

To have a flatted third (b3), minor, diminished or sharp nine must be specified. Chords with minor (“m”, “mi”, or “min”) immediately after the root always have a flatted third (b3). Diminished (“o” or dim.), diminished seventh (“o7”) and half diminished seventh (“Ø” = m7b5) chords also have a flatted third (b3).

Dominant chords have a major third (3) and a flatted seventh (b7). A dominant chord with a sharp nine (#9), such as C7#9, has a synonym of a flatted third. The “#9” is equivalent to “#2” in the lower octave (see [Numbered Tones Above Seven](#)). “#2” is equivalent to “b3”, since it is the only note between major scale tones “2” and “3”.

Numbered Tones above Seven

Numbered tones above seven in chord names indicate the same numbered tone as a the number minus seven, but imply the note is in an upper range of pitch. An octave implies that the eighth note in the scale has the same name as the first. So 8 = 1. Likewise 9=2, 10 = 3, 11 = 4, 12 = 5 and 13 = 6. 15 = 8 = 1, where “15” (fifteen) implies the second octave. In standard music notation, a bracketed group of notes with “8va” inset within the bracket indicates the notes should be played an octave higher. A bracketed group of notes with “15ma” inset within the bracket indicates the notes should be played two octaves higher.

Sevenths, Ninths, Elevenths, Thirteenth

When either of the numbers 7, 9, 11 or 13 are used *immediately* after the triad name (the letter name with an optional [triad abbreviation](#)), the chord has a flatted seventh (b7). Good to know. 9, 11 or 13 are altered only if specified. Those numbers also imply *all odd-numbered tones* through that number. So an eleventh chord has 1, 3, 5, b7, 9 and 11 (though it is usually voiced without the third, unless it is a minor 11 with 1-b3-5-b7-9-11).

When the word “major” (“Δ”, or “M” or “ma”, or “maj”) is used immediately before either of the numbers 7, 9, 11 or 13, the chord has a major seventh (7 or ♮7).

When the word “diminished” (“°”, “dim.” or “dimin.”) is used immediately before the number or word seven, the chord has a double-flat seven.

“Half diminished” (“ø”) is used immediately before the number or word seven (“ø7”), the chord has a flat seven (along with a flat three and flat five).

Ninths, elevenths and thirteenth are altered only if specified. A chord with “9” in its name implies that it also has a seventh, unless it is an add-tone chord (below). A chord with “11” in its name implies that it also has a seventh and a ninth, unless it is an add-tone chord (below). A chord with “13” in its name implies that it also has a seventh, ninth and eleventh, unless it is an add-tone chord (below). Elevenths are usually omitted from thirteenth chords, especially those with a major third (♯3).

Numbers After the Letter Name

Any odd number immediately after the letter name of a chord (i.e. Bb9) implies all the odd numbers through that number. So Ab9 implies the numbers 1, 3, 5, 7 and 9 (with b7, as discussed above).

Additional numbers after that immediately after the letter name only imply the one number they indicate. So, in C13♯11, the “13” is telling you to use all the odd numbers through thirteen (1-3-5-b7-9-11-13). The “♯11” is telling you that the “11” (implied with “13” suggesting the series of odd numbers including “11” in the chord name) is sharp. In the C13♯11 chord, there is only one version of “11”, the “♯11”. Any number or numbers after the initial number after the letter name are there to modify the number rather than adding another version of it. A C7b13 chord would have five notes: 1, 3, 5, b7 and b13 (=♯5).

Altered Fifths

When chords have a flat five, “b5” (flat five) or “diminished” (“°”, “°7”, “ø”) occurs in the chord name. When chords have a sharp five, “♯5” or “augmented” (aug., “+”) occurs in the chord name. Traditionally, “diminished” (“°”, “°7”, “ø”) occurs immediately after the root. “b13” suggests a “♮5” and “♯5”, since “b13” = “b6”, which is the same tone as “♯5”. “♯11” suggests a “♮5” (natural five) and “b5”, since “♯4” = “b5”.

Suspended Fourths and Suspended Seconds

Suspended chords replace the third with the indicated numbered tone. A suspended fourth chord replaces the third (3) with a fourth (4). Suspended second chords replace the third (3) with a second (2). When a chord name states suspended (“sus”) without a number, assume it is suspended fourth.

Double-Altered Fifths or Ninths

As a general rule, each numbered tone is only referred to once in a chord name. However, dominant chords (those with a natural third and flatted seventh) may have both flat five and sharp five. Dominant chords may also have both flat nine and sharp nine. The notations are as follows:

<u><i>chord name</i></u>	<u><i>abbreviation</i></u>	<u><i>abbreviation</i></u>
sharp five and flat five	#5b5	±5
sharp nine and flat nine	#9b9	±9
sharp five, flat five, sharp nine, flat nine	#5b5#9b9	±5±9

PREFERRED CHORD TONES

Since music relies heavily on the human imagination, all notes of a chord don't have to be included to suggest its sound. The essential notes most necessary to suggest a chord's sound are:

**“the third and the seventh (if part of the chord)
and any tone specified by the chord name”**

Roots are usually implied by the chord progression and can be omitted, especially in chords of four or more different notes (such as seventh or ninth chords). An exception is in the first presentation of a chord progression in a solo guitar piece (or a solo piece for any chording instrument, like the piano), where it may be preferable to play chord roots in the bass to clearly define the chord progression.

Many chord tones are implied by our familiarity with a chord and can be imagined when they are left out. These include unaltered fifths in any chord, ninths in eleventh chords, ninths or elevenths in thirteenth chords and any one of the tones in a diminished seventh chord.

Use your own discretion in preserving the emotive quality of a chord when you omit notes. In one arrangement, it may be fine to omit the ninth in a ninth chord and only play a seventh chord, while in another arrangement, the ninth may be essential in producing the mood or may be an important note in [voice leading](#). A note may be essential because it is a common tone with other chords, or where the series of notes created by the highest note (or lowest note) in each chord in a series of chords creates an ascending or descending scale.

Building a Chord Solo

In a basic chord solo, a typical structure is to play the melody and voice a chord where each chord begins. If a melody note occurs where a chord starts, include the preferred tones of the chord *and make sure the current melody note is the highest pitch in the chord*, even if the melody note is not in the chord.

STANDARD CHORD NAME ABBREVIATIONS AND CHORD FORMULAS

Communication Probability

<u>chord name</u>	<u>safe</u>	<u>low risk</u> (of miscommunication)	<u>high risk</u> (of miscommunication)	<u>formula</u>
major	(blank after letter name)	ma, maj	Δ	1, 3, 5
minor	m	min	-	1, b3, 5
diminished triad	dim		°	1, b3, b5
augmented triad	aug		+	1, 3, #5
suspended fourth	sus4		sus	1, 4, 5
suspended second	sus2			1, 2, 5
5 (i.e A ⁵ or C ⁵)	5 (i.e A ⁵ or C ⁵)			1, 5
major seventh	ma7	maj7	Δ7, 7	1, 3, 5, 7
dominant seventh	7	dom. 7	7	1, 3, 5, b7
dominant seventh, sharp five	7#5	+7, aug7, 7(+5), 7+		1, 3, #5, b7
dominant seventh, flat five	7b5		7-5	1, 3, b5, b7
minor seventh	m7	min7	-7	1, b3, 5, b7
minor seventh, flat five	m7b5	min7b5	Ø, Ø7	1, b3, b5, b7
minor, major seventh	m(ma7)	m(ma7)	m(#7), m(-7), m(Δ7) min(#7), min(-7), min(Δ7)	1, b3, 5, 7
diminished seventh	dim7	°7	°, dim.	1, b3, b5, bb7 (6)
major ninth	ma9	maj9	Δ9, ma7(9), ma9(7), ma(9/7), Δ7(9), -9	1, 3, 5, 7, 9
dominant ninth	9	dom.9	7(9)	1, 3, 5, b7, 9
dominant thirteenth	13	dom13		1,3,5,b7,9,11,13
dominant seventh, sharp ninth	7#9		7+9, 7(b3)	1, 3, 5, b7, #9
dominant seventh, sharp eleventh	7#11		7+11,	1, 3, 5, b7, #11
minor ninth	m9	min9	-9, -7(add 9)	1, b3, 5, b7, 9
minor ninth, flat five	m9b5	min9b5	Ø9	1, b3, b5, b7, 9
dominant seventh, sharp nine, flat thirteen	7#9b13		7+9-13	1, 3, 5, b7, #9, b13
six nine	6/9, 69	, 6(9)	Maj(9/6)	1, 3, 5, 6, 9
seventh, suspended fourth	7sus4	7(sus4)	7(sus)	1, 4, 5, b7
major seventh, suspended fourth	ma7sus4	ma7(sus4)	ma7(sus)	1, 4, 5, b7
add nine	add 9	/9	/2	1, 3, 5, 9
minor add nine	m add 9	m/9	m/2	1, b3, 5, 9
dominant seventh, no third	7no3	7n3	7(-3)	1, 5, b7

CHORD SYNONYMS

sevenths without a root

Cma7nr = Em
 C7nr = E diminished triad
 Cm7nr = Eb
 Cm7b5nr = Ebm
 Cdim7nr = Eb diminished triad

ninths without a root

Cma9nr = Em7
 C9nr = Em7b5 = Gm6 = Gb7#5b9
 Cm9nr = Ebma7
 Cm9b5nr = Ebm(ma7)

sixths

C6 = Am7 = Fma7nr
 Cm6 = Am7b5 = F9nr

flat five substitutes (see [Flat Five Substitute Chord Progression](#))

C7b5 = Gb7b5
 C9b5 = Gb7b5#5
 C7#5 = Gb9b5nr
 C9#5 = Gb9b5#5nr
 C7b9 = Gb7b9#11nr

serial patterns

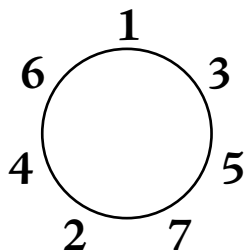
C aug. = E aug. = G# aug.
 C dim7. = Eb dim.7 = Gb dim.7 = A dim.7
 C9b5#5 = C whole tone scale = D9b5#5 = E9b5#5 = Gb9b5#5 = Ab9b5#5 = Bb9b5#5
 C13b9#9#11 = C half/whole diminished scale = Eb13b9#9#11 = Gb13b9#9#11 = A13b9#9#11
 C whole tone scale = D9b5#5 = E9b5#5 = Gb9b5#5 = Ab9b5#5 = Bb9b5#5

All Scale-Tone Chords

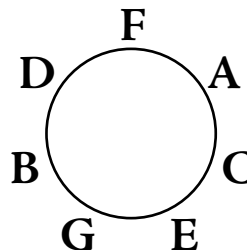
- **The Cycle of Thirds**
- **Chords from the Major Scale Fretboard Pattern**
- **Major Scale-Tone Root Cycles**
- **Major Scale-Tone Thirds, Triads & Quadrads**
- **Triad Subsets of Major Scale**
- **Triad Subsets of Harmonic Minor**
- **Triad Subsets of Melodic Minor**
- **Triad Subsets of Harmonic Major**
- **Major Scale-Tone Triad Inversions and Voice Leading**
- **The Chord Progression Game**
- **Using Triads in Improv and Comping**
- **Principles of Acceptable Dissonance**
- **All Major Scale-Tone Chords**
- **All Harmonic Minor Scale-Tone Chords**
- **All Melodic Minor Scale-Tone Chords**
- **All Harmonic Major Scale-Tone Chords**

THE CYCLE OF THIRDS

the seven number cycle of
every-other number



the seven letter cycle of
every-other letter

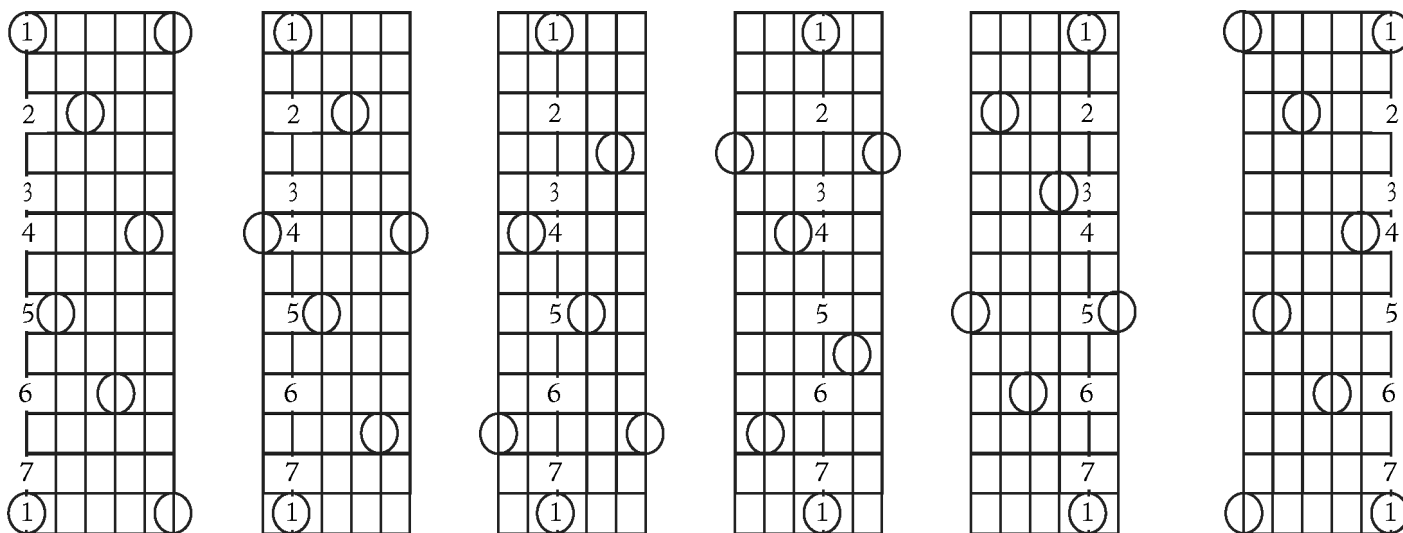


In the standard method of construction, chords are constructed from an every-other-note cycle. In numbers, this is 1-3-5-7-2-4-6. In letters, it's F-A-C-E-G-B-D. Common chords called *triads* are most commonly built with three consecutive notes on the cycle, such as "1-3-5" or "2-4-6". Quadrads use four consecutive notes on the cycle: "1-3-5-7" or "2-4-6-1". Pentads use five consecutive notes on the cycle: "1-3-5-7-2" or "2-4-6-1-3" (however, not all of the pentads have an acceptable sound).

CHORDS FROM THE MAJOR SCALE FRETBOARD PATTERN

The Major Scale on One String

The major scale can be used as a reference to compare any scale, chord, or melody. The tones of a scale have defined intervals which can be measured in whole steps. Whole steps equal an interval of two frets, such as the interval between "1" and "2" on either of the diagrams below. When the seven tones of the scale are numbered, consecutive notes are two frets apart, with two exceptions. The interval from "3" to "4" and the interval from "7" to "1" is a half step, or one fret, as you can see below.



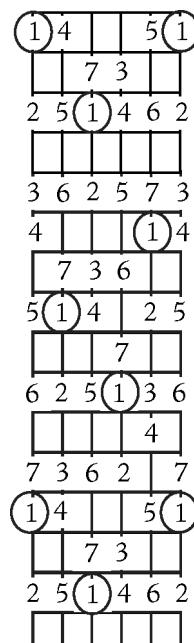
The Major Scale on All Strings

Notice in the diagram at the right that the relative pattern for the major scale on each string is the same. It just starts at a different place. Notice that “1” (circled) is five frets toward the guitar body on the next smaller string, except on the second string it is four frets toward the guitar body from the “1” on the third string. This is true for any numbered major scale tone.

Notice also that the pattern repeats on the fretboard every twelve frets. To help recognize this, view the major scale “lines” of notes across the fretboard. From scale tone “2” on the sixth string, the line reads to the right “2-5-1-4-6-2”. From “3” on the sixth string, the line reads “3-6-2-5-7-3”. From “6”, its “6-2-5-1-3-6”. Each of these major scale “lines” run right across the fret. The other four lines have slight deviations. The line at “1”, which is “1-4-7-3-5-1”, where “7-3” are one fret closer to the guitar body. “4-7-3-6-1-4” has “7-3-6” one fret closer to the guitar body. “5-1-4-7-2-5” has “7” one fret closer to the guitar body. “7-3-6-2-4-7” has “4” one fret farther from the guitar body. See [Full-Fretboard Major Scale Visualization](#).

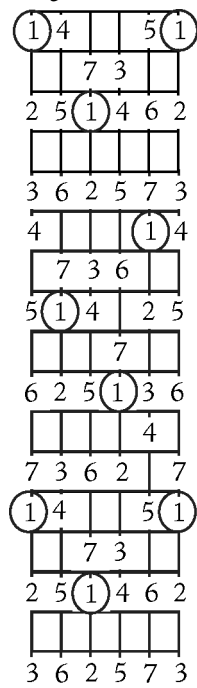
In building the scale pattern on all strings, the next smaller string is “up a fourth”, where in most cases, each note is four scale tones higher on the same fret, except scale tone seven is one fret closer to the guitar body. Each pair of numbers in the perfect fourth sequence “7-3-6-2-5-1-4” is on the same fret of adjacent strings. With scale tones “4 and 7” however, “7” is one fret closer to the guitar body.

Exception: between the third and second string, each pair of numbers in the perfect fourth sequence “7-3-6-2-5-1-4” forms a diagonal shape with the note on the second string one fret closer to the guitar body. With scale tones “4 and 7” however, “7” is on the second string two frets above “4” (closer to the guitar body).

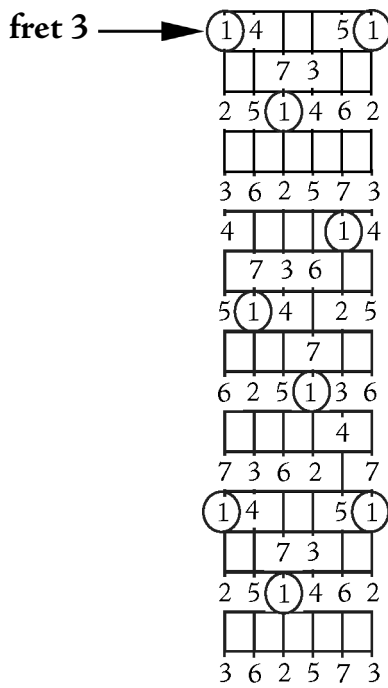


The Movable Major Scale

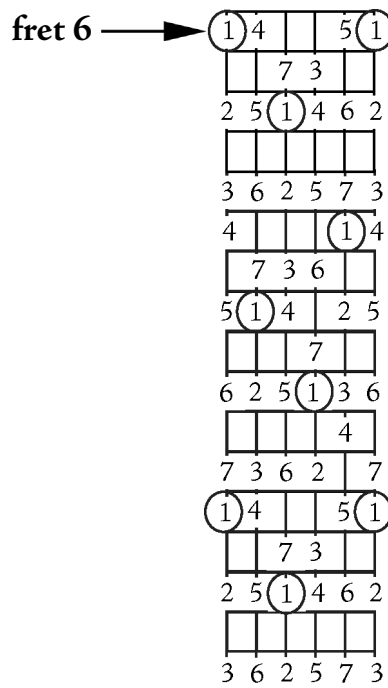
the movable major scale



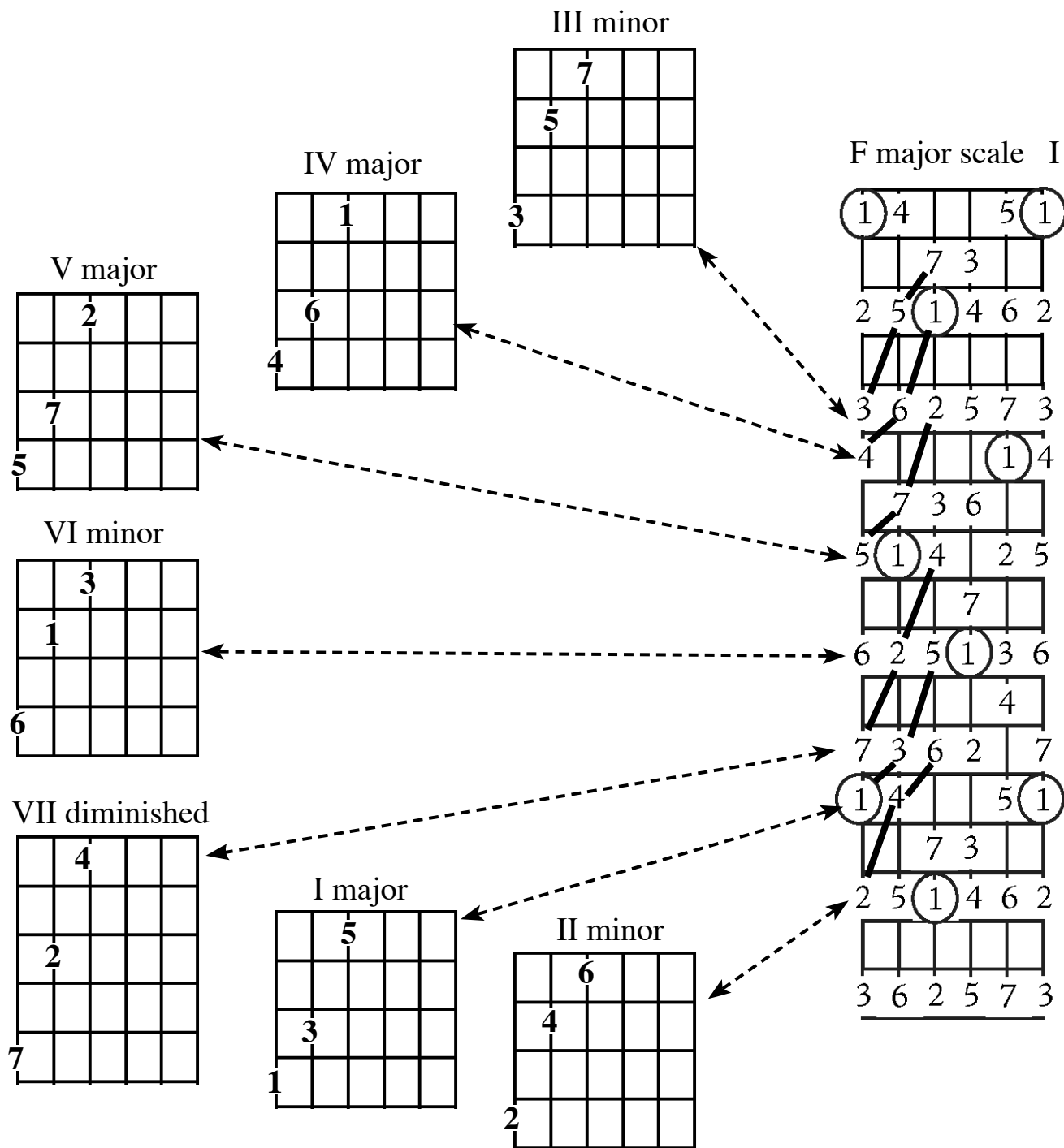
G major scale



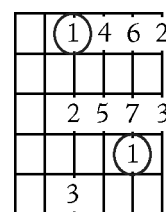
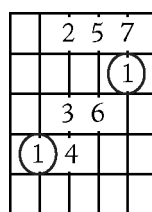
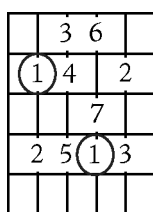
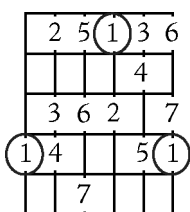
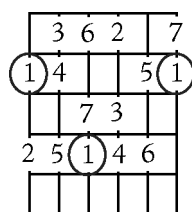
Bb major scale



Discovering Chords within the Major Scale



Scale Fingerings Extracted from the Full-Fretboard Pattern



discovering major chords within the major scale

In any area of the full-fretboard major scale, combinations of scale tones “1, 3, 5” or “4, 6, 1” or “5, 7, 2” make major chords. It will be shown below that either of these three combinations of three notes makes a major chord.

A major scale fingering 6

1-3-5 makes I major

A II

scale tones → 1 2 3 4 5 6 7 1 1 3 5
fingers → 4 1 3 4 1 3 1 2 4 3 1

T A B

5 2 4 5 2 4 1 2 5 4 2 2 5

A major scale fingering 2
added scale tone 1 on the sixth string

4-6-1 makes IV major

D VII

scale tones → 1 2 3 4 5 6 7 1 4 6 1
fingers → 1 1 3 4 1 3 4 1 4 3 1

T A B

5 7 9 10 7 9 11 7 9 7 6 7 10

A major scale fingering
added scale tones 1 and 2 on the sixth string

5-7-2 makes V major

E IX

scale tones → 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 5 7 2
fingers → 1 3 1 2 4 1 3 4 1 3 4 1 3 1 2 4 3 1

T A B

5 7 9 10 12 9 11 12 9 11 12 9 11 9 10 12 11 9 11 12

discovering minor and diminished chords within the major scale

In any area of the full-fretboard major scale, combinations of scale tones “2-4-6” or “3-5-7” or “6-1-3” make minor chords. They are named after the first note of each sequence: “2-4-6” is a II minor chord, “3-5-7” is a III minor chord and “6-1-3” is a VI minor chord.

A major scale fingering 7

2-4-6 makes II minor

Bm IV

A major scale fingering 1

3-5-7 makes III minor

C#m VI

A major scale fingering 4

added scale tones 1, 2 and 3 on the sixth string

F#m IX

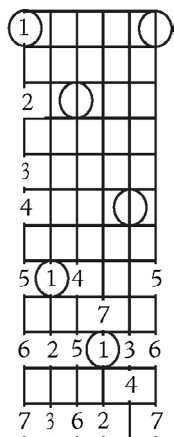
VI minor

scale → 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 6 1 3
fingers → 1 2 4 1 2 4 1 2 4 1 2 4 1 3 4 4 2 1

5 7 9 10 12 14 11 12 14 11 12 14 11 13 14 14 12 11 11 12 14

Combinations of scale tones “7, 2, 4” make diminished chords named after “7”, a VII diminished chord.

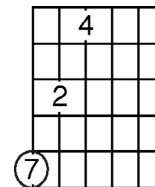
A major scale fingering 5



added scale tones 1, 2, 3 and 4 on the sixth string

7-2-4
makes
VII diminished

G[#]dim XII



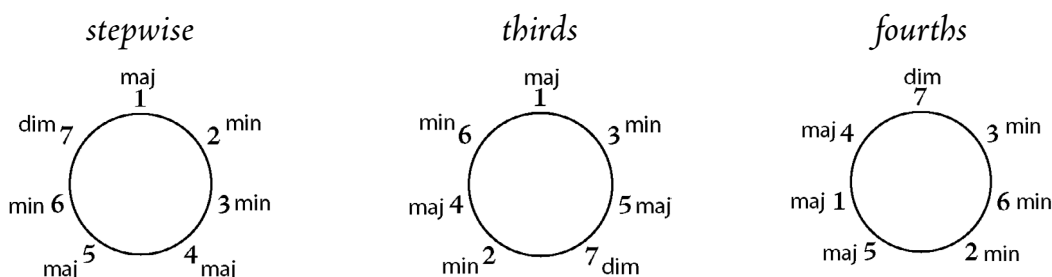
15

scale → 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 6 1 3
fingers → 1 3 1 2 1 2 4 1 2 4 1 2 4 1 2 4 2 1

T
A
B

5 7 9 10 12 14 16 12 14 16 12 14 16 13 14 16 14 12 12 14 16

MAJOR SCALE-TONE ROOT CYCLES



The Stepwise Cycle on the Major Scale

Playing the notes of a major scale in alphabetical or numerical order is called *stepwise order*. The notes can ascend or descend, but the most typical examples of a scale will ascend or ascend, then descend.

Scale tones three to four is an interval of one fret. Scale tones seven to one (at the octave, where the eighth note has the same name as the first note) are also an interval of one fret. Saying they are an interval of one fret is to say there are no notes between them: they are on frets next to each other. The other step to step intervals are two frets apart, indicating that there is a fret between them. The two fret intervals in the major scale are major scale tones one to two; two to three; four to five; five to six; and six to seven.

C major scale-tone tertian triads, stepwise roots

I		IIIm		IIIIm		IV		V		VIIm		VIIIdim.	
C	III	Dm	V	Em	VII	F	VIII	G	X	Am	XII	Bdim.	XIV
1 5 1 3	1 5 1 b3 5	1 5 1 b3 5	1 5 1 3	1 5 1 3	1 5 1 b3 5	1 b5 1 b3	1 5 1 3	1 5 1 b3 5	1 5 1 b3 5	1 5 1 b3 5	1 5 1 b3 5	1 5 1 b3 5	1 b7 b3 b5

C		VIII		Dm		X		Em		XII		F		XIII		G		III		Am		VI		Bdim.		VI	
1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 b7 b3 b5	1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 3 5 1	1 5 1 b3 5 1	1 b7 b3 b5														

The Cycle of Fourths on the Major Scale

Playing the notes of a major scale alphabetically and numerically in an order ascending or descending by every fourth note (inclusively) is called *fourths*.

visualizing chord progressions in fourths on the guitar

The piano and guitar are each effective in their own way in visualizing note structures. The piano makes it very easy to see the linear pattern of natural notes on the white keys with the sharps and flats on the black keys. However, it takes a expert pianist to be able to play chord progressions equally well in all keys. The guitar has no markings to indicate natural notes. It does, however provide a structure to see the most important chord progressions with root movement in fourths.

The sequence of perfect fourths in the major scale is 7-3-6-2-5-1-4. It can be thought in a cycle, as shown below, but major scale tones four through seven span the interval of an augmented fourth instead of a perfect fourth. Any four consecutive notes in the major scale constitute a perfect fourth interval of two and a half steps, except steps four through seven, which do not include a half step. An interval of two frets (not counting the starting fret) constitutes a whole step and one fret is a half step. Two and a half steps is five frets (not counting the starting fret).

perfect fourths and perfect fifths

perfect fourths \longrightarrow 7-3-6-2-5-1-4 \longleftarrow perfect fifths (read right to left)

perfect fifths \longrightarrow 4-1-5-2-6-3-7 \longleftarrow perfect fourths (read right to left)

C Major Scale-Tone Tertian Triads, Roots Moving in Perfect Fourths

minor				major			
diminished							
VII^{dim.}	III^m	VI^m	II^m	V	I	IV	
B^{dim.} XIV	E^m XII	A^m XII	D^m X	G X	C VIII	F VIII	
B^{dim.} VI	E^m VII	A^m V	D^m V	G III	C III	F I	

The Cycle of Thirds on the Major Scale

Playing the notes of a major scale alphabetically and numerically in an order ascending or descending by every-other-note is called *thirds*. Each note to the next in this cycle involves a range of three notes in the scale inclusively, hence the name *thirds*. This cycle of thirds on the major scale is called the *major scale-tone cycle of thirds*, or the *major scale-tone tertian cycle* (tertian means “of threes”).

Scale tones one to three are interval of four frets (three “empty” frets between them). Scale tones four to six are also four frets, and scale tones five to seven are four frets. These four fret intervals can be called *major thirds*, since they are the same as the interval from major scale tones one to three. A minor third is a three-fret interval (two “empty” frets between them).

C major scale-tone tertian triads, roots in thirds

I C VIII 1 3 5	IIIIm Em VII 5 1 b3	V G VII 3 5 1	VIIIdim. B dim VI 1 b3 b5	IIIm Dm VI 5 1 b3	IV F V 3 5 1	VIIm Am V 1 b3 5
C V 5 1 3	Em IV b3 5 1	G III 1 3 5	B dim III b5 1 b3	Dm II b3 5 1	F V 1 3 5	Am V 5 1 b3

Stepwise E Major Scale-Tone Triads

Bold roman numerals are scale tones. Roman numerals at the upper right of each diagram is the number of the top fret.

I	IIIm	IIIIm	IV	V	VIIm	VIIIdim.
E	I	F#m	II	G#m	IV	A
V	VII	C#m	IX	D#dim.	XI	

1 5 1 3 5 1 1 5 1 b3 5 1 1 5 1 b3 5 1 1 5 1 3 5 1 1 5 1 3 5 1 1 5 1 b3 5 1 1 b5 1 b3 b5

E	VII	F#m	IX	G#m	XI	A
XII	B	II	C#m	IV	D#dim.	VI

1 5 1 3 1 5 1 3 1 5 1 b3 5 1 5 1 b3 5 1 5 1 3 1 5 1 b3 5 1 b5 1 b3

E Major Scale-Tone Triads in Fourths

	minor				major		
diminished	VIIIdim.	IIIIm	VIIm	IIIm	V	I	IV
D#dim. VI	G#m	IV	C#m	IV	F#m	II	A

1 b5 1 b3 1 5 1 b3 5 1 1 5 1 b3 5 1 5 1 b3 5 1 1 5 1 3 1 5 1 3 5 1 1 5 1 3 5

D#dim. XI	G#m	XI	C#m	IX	F#m	IX	B
VII	E	VII	A	V			

1 b5 1 b3 b5 1 5 1 b3 5 1 5 1 b3 5 1 1 5 1 b3 5 1 5 1 3 5 1 1 5 1 3 5 1 1 5 1 3 5 1

Stepwise A Major Scale-Tone Triads

Bold roman numerals are scale tones. Roman numerals at the upper right of each diagram is the number of the top fret.

I	IIIm	IIIIm	IV	V	VIIm	VIIIdim.
A I	Bm II	C#m IV	D V	E VII	F#m IX	G#dim. XI
A V	Bm VII	C#m IX	D X	E I	F#m II	G#dim. IV

A Major Scale-Tone Triads in Fourths

minor				major		
diminished						
VIIIdim.	IIIIm	VIIm	IIIm	V	I	IV
G#dim. XI	C#m IX	F#m IX	Bm VII	E VII	A V	D V
G#dim. III	C#m IV	F#m II	Bm II	E I	A I	D I

Stepwise F Major Scale-Tone Triads

Bold roman numerals are scale tones. Roman numerals at the upper right of each diagram is the number of the top fret.

I	IIIm	IIIIm	IV	V	VIIm	VIIIdim.
F I	Gm III	Am V	Bb VI	C VIII	Dm X	Edim. XI
1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 3 5 1	1 5 1 b3 5 1	1 b5 1 b3 b5

F VIII	Gm X	Am XII	Bb I	C III	Dm V	Edim. VII
1 5 1 3	1 5 1 b3 5	1 5 1 b3 5	1 5 1 3	1 5 1 3	1 5 1 b3 5	1 b5 1 b3

F Major Scale-Tone Triads in Fourths

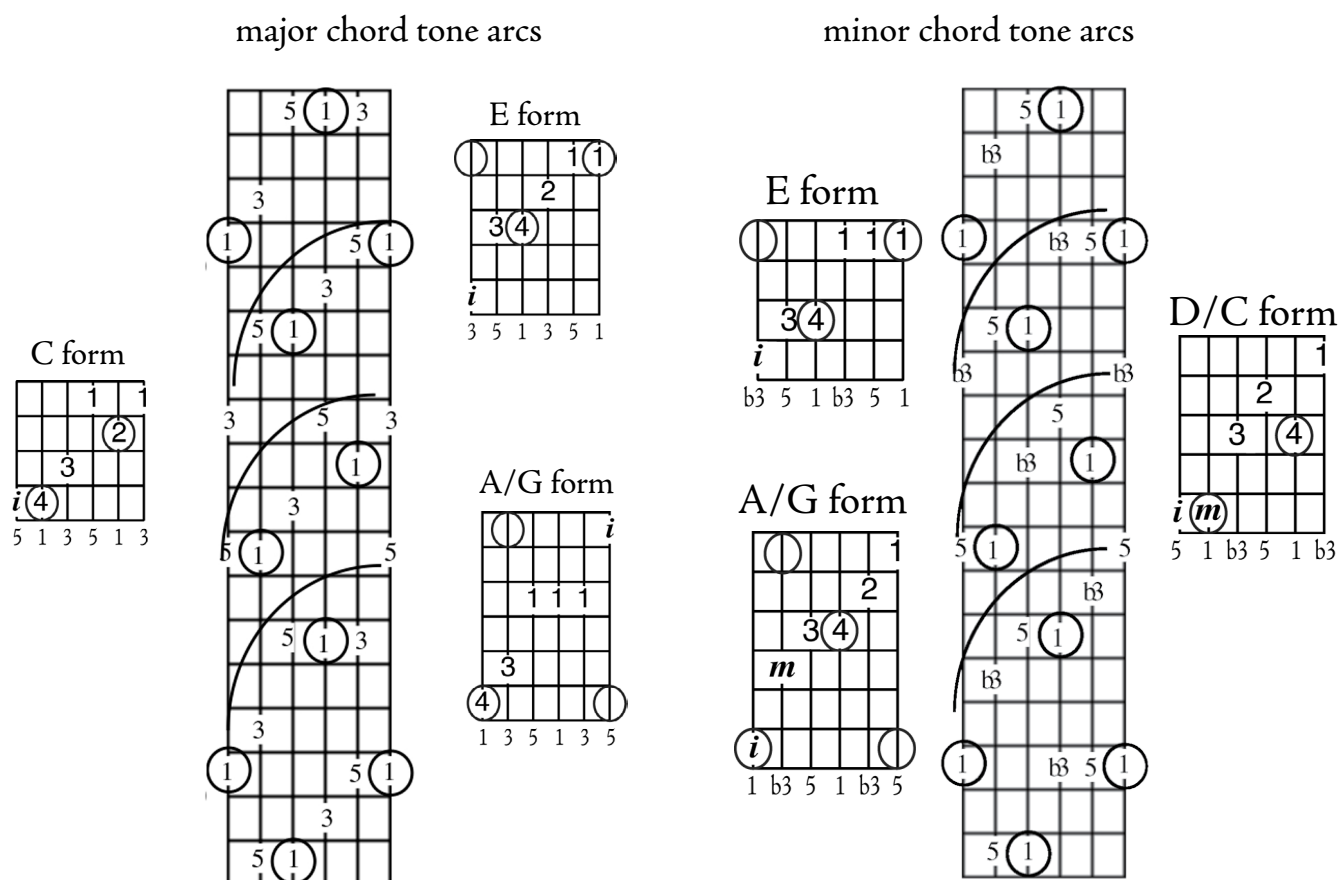
	minor				major		
diminished	VIIIdim.	IIIIm	VIIm	IIIm	V	I	IV
Edim. VII	Am V	Dm V	Gm III	C III	F I	Bb I	
1 b5 1 b3	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 3	1 5 1 3 5 1	1 5 1 3	

Edim. XI	Am X	Dm X	Gm X	C VIII	F VIII	Bb VI
1 b5 1 b3 b5	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 3 5 1	1 5 1 3	1 5 1 3 5 1

ARC-BASED TRIADS WITH ROOTS IN FOURTHS

Triad Arcs

I refer to the three groups of notes that represent all major chord tones or all minor chord tones on the fretboard as *arcs*, since they are the notes conceptually embraced by an arc, as shown below.



Six Triads with Roots Ascending in Fourths

In the IIIIm-VIm-IIIm-V-I-IV chord progression used in this section, the chord roots ascend in fourths. Reading down each page in columns shows the arc for a triad. For example, the Em chords are second in each row on the next page. Read their succession down the page to see the D/C form minor arc shown above. Likewise, the G chords are fifth in each row on the next page. Read their succession down the page to see the E form major arc shown above

III^{Im}-VI^{Im}-II^{Im}-V-I-IV - E Form I arc of G major

strings 1-2-3

B ^m II	E ^m III	A ^m V	D II	G III	C III

strings 2-3-4

B ^m III	E ^m IV	A ^m V	D II	G III	C V

strings 3-4-5

B ^m IV	E ^m IV	A ^m V	D II	G IV	C V

strings 4-5-6

B ^m IV	E ^m V	A ^m VII	D IV	G V	C V

III^{Im}-VI^{Im}-II^{Im}-V-I-IV - C form I Arc of G major

strings 1-2-3

B ^m VII	E ^m IX	A ^m V	D V	G VII	C VIII
b3 5 1	1 b3 5	b3 5 1	1 3 5	5 1 3	3 5 1

strings 2-3-4

B ^m VII	E ^m VIII	A ^m V	D VII	G VII	C VIII
1 b3 5	5 1 b3	1 b3 5	5 1 3	3 5 1	1 3 5

strings 3-4-5

B ^m VII	E ^m IX	A ^m V	D VII	G VII	C IX
5 1 b3	b3 5 1	5 1 b3	3 5 1	1 3 5	5 1 3

strings 4-5-6

B ^m IX	E ^m IX	A ^m X	D VII	G IX	C X
b3 5 1	1 b3 5	5 1 b3	1 3 5	5 1 3	3 5 1

III^m-VI^m-II^m-V-I-IV - A/G form I Arc of G major

strings 1-2-3

B ^m X	E ^m XII	A ^m I	D X	G X	C XII
5 1 b3	b3 5 1	5 1 b3	3 5 1	1 3 5	5 1 3

strings 2-3-4

B ^m XI	E ^m XII	A ^m IX	D X	G XII	C XII
b3 5 1	1 b3 5	b3 5 1	1 3 5	5 1 3	3 5 1

strings 3-4-5

B ^m XI	E ^m XII	A ^m IX	D XI	G XII	C XII
5 1 3	5 1 b3	1 b3 5	5 1 3	5 1 3	1 3 5

strings 4-5-6

B ^m XII	E ^m XIV	A ^m X	D XIV	G XII	C XIV
5 1 b3	b3 5 1	5 1 b3	3 5 1	1 3 5	5 1 3

MAJOR SCALE-TONE THIRDS, TRIADS & QUADRADS

[play this section on Youtube](#)

C Major Scale on Each String

♩ = 90

C major scale on the fifth string from "1" to "1".
Note that it is one fret between 3-4 and between 7-1 (1=8).

C major scale on the fourth string from "3" to "3".
Note that it is one fret between 3-4 and between 7-1 (1=8).

C major scale on the third string from "5" to "5".
Note that it is one fret between 3-4 and between 7-1 (1=8).

C major scale on the second string from "7" to "7".
Note that it is one fret between 3-4 and between 7-1 (1=8).

C Major Scale-Tone Thirds , Triads and Sevenths (Tertian Quadrads)

C major scale with thirds
Each lower-pitch note is harmonized with a note two scale tones higher. "1" is harmonized with "3".

C major scale with (tertian) triads (three-note chords built in thirds).
Each lower-pitch note is harmonized by adding two notes in the every-other-note cycle of thirds: 1-3-5-7-2-4-6-1-3, etc.
Each triad uses three consecutive notes in the 1-3-5-7-2-4-6 cycle.

C major scale with (tertian) quadrads (four-note chords built in thirds).
Each lower-pitch note is harmonized by adding three notes from the every-other-note cycle of thirds: 1-3-5-7-2-4-6-1-3, etc. Each triad uses four consecutive notes in the 1-3-5-7-2-4-6 cycle.

I^{ma}7

Alternate voicings of C^{ma}7. Each of these chords can be voiced with the notes changed by octave or changed by the string on which they occur. Note that each of the versions in the staff below contain

C^{ma}7

drop 2 voicings

Voicing	1357	1573	3715	5137	7351	1573	3715	5137	7351
CEGB	0	5	8	12	13	12	3	7	8
CGBE	0	4	8	9	12	12	4	5	8
EBCG	3	3	7	10	14	10	2	5	9

drop 3 voicings

Voicing	1735	3157	5371	7513	1735	3157	5371	7513
CBEG	8	12	13	5	3	7	8	12
ECBG	8	12	13	5	3	7	8	12
GECB	8	12	15	7	3	7	10	14

II^m7

Alternate voicings of D^m7, numbered in the key of the chord root. Each of these chords can be voiced with the notes changed by octave or changed by the string on which they occur. Note that each of the versions in the staff below contain the same notes

D^m7

drop 2 voicings

Voicing	1b35b7	15b7b3	b3b715	51b3b7	b7b351	15b7b3	b3b715	51b3b7	b7b351
DFAC	1	6	10	13	15	13	5	8	10
DACF	1	6	10	13	15	13	5	8	10
FCDA	1	6	10	13	15	13	5	8	10

drop 3 voicings

Voicing	1b7b35	b315b7	5b3b71	b751b3	1b7b35	b315b7	5b3b71	b751b3
DCFA	1	6	10	13	15	13	5	8
FDAC	1	6	10	13	15	13	5	8
AFCD	1	6	10	13	15	13	5	8

III^m7

Alternate voicings of E^m7, numbered in the key of the chord root. Each of these chords can be voiced with the notes changed by octave or changed by the string on which they occur. Note that each of the versions in the staff below contain the same notes.

E^m7

drop 2 voicings

Voicing	1b35b7	15b7b3	b3b715	51b3b7	b7b351	15b7b3	b3b715	51b3b7	b7b351
EGBD	3	8	12	15	17	15	7	10	12
EBDG	3	8	12	15	17	15	7	10	12
GDEB	3	8	12	15	17	15	7	10	12

drop 3 voicings

Voicing	1b7b35	b315b7	5b3b71	b751b3	1b7b35	b315b7	5b3b71	b751b3
EDGB	12	15	5	8	7	10	12	3
GEBD	12	15	5	8	7	10	12	3
BGDE	12	15	7	10	7	10	14	5

6

IVma7

Alternate voicings of Fma7. Each of these chords can be voiced with the notes changed by octave or changed by the string on which they occur. Note that each of the versions in the staff below contain

Fma7

drop 2 voicings

1357 FACE 1573 FCEA 3715 AEFC 5137 CFAE 7351 EACF 1573 FCEA 3715 AEFC 5137 CFAE 7351 EACF

drop 3 voicings

1735 FEAC 3157 AFCE 5371 CAEF 7513 ECFA 1735 FEAC 3157 AFCE 5371 CAEF 7513 ECFA

V7

Alternate voicings of G7. Each of these chords can be voiced with the notes changed by octave or changed by the string on which they occur. Note that each of the versions in the staff below contain

G7

drop 2 voicings

135b7 GBDF 15b73 GDFB 3b715 BFGD 513b7 DGBF b7351 FBDF 15b73 GDFB 3b715 BFGD 513b7 DGBF b7351 FBDF

drop 3 voicings

1b735 GFBD 315b7 BGDF 53b71 DBFG b7513 FDGB 1b735 GFBD 315b7 BGDF 53b71 DBFG b7513 FDGB

VIIm7

Alternate voicings of Am7. Each of these chords can be voiced with the notes changed by octave or changed by the string on which they occur. Note that each of the versions in the staff below contain

Am7

drop 2 voicings

1b35b7 ACEG 15b7b3 AEGC b3b715 CGAE 51b3b7 EACG b7b351 GCEA 15b7b3 AEGC b3b715 CGA 51b3b7 EACG b7b351 GCEA

drop 3 voicings

1b7b35 AGCE b315b7 CAEG 5b3b71 ECGA b751b3 GEAC 1b7b35 AGCE b315b7 CAEG 5b3b71 ECGA b751b3 GEAC

VIIIm7b5

Alternate voicings of Bm7b5. Each of these chords can be voiced with the notes changed by octave or changed by the string on which they occur. Note that each of the versions in the staff below contain

58

Bm^{7(b5)}

1b3b5b7 BDFA 1b5b7b3 BFAD b3b71b5 DABF b51b3b7 FBDA b7b3b51 ADFB 1b5b7b3 BFAD b3b71b5 DABF b51b3b7 FBDA b7b3b51 ADFB

drop 2 voicings

T	5	15	6	10	12	10	13	5	7
A	9	14	4	10	12	10	13	3	9
B	9	14	7	8	12	9	12	3	7

drop 2 voicings

61

1b7b35 BADF b315b7 DBFA 5b3b71 FDAB b751b3 AFBD 1b7b35 BADF b315b7 DBFA 5b3b71 FDAB b751b3 AFBD

drop 3 voicings

T	6	10	12	3	1	5	7	10
A	7	10	12	3	2	4	10	10
B	7	10	13	5	2	5	8	12

TRIAD SUBSETS OF MAJOR SCALE

On the following pages, the parts of major scales that make up each of the chords are shown. When the part of a scale is shown that makes up a particular chord, it will be called a *subset* of the scale. An arpeggio is a chord played one note at a time. Here is a linked list of the chord and arpeggio subsets of the major scale that are shown:

- ♦ [Major Scale-Tone Triad Arpeggios](#)
- ♦ [Close-Voiced, Root Position Major Scale-Tone Triads](#)
- ♦ [Close-Voiced, First Inversion Major Scale-Tone Triads](#)
- ♦ [Close-Voiced, Second Inversion Major Scale-Tone Triads](#)
- ♦ [Open-Voiced, Root Position Major Scale-Tone Triads](#)
- ♦ [Open-Voiced, Major Scale-Tone Triads in Perfect Fourths](#)
- ♦ [Close-Voiced, Major Scale Tone Triads in Perfect Fourths](#)

Major Scale-Tone Triad Arpeggios

Play on the fretboard by column in position or by row horizontally.

	fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
major scale							
root on FIRST scale tone							
root on SECOND scale tone							
root on THIRD scale tone							
root on FOURTH scale tone							
root on FIFTH scale tone							
root on SIXTH scale tone							
root on SEVENTH scale tone							

Close-Voiced, Root Position Major Scale-Tone Triads

three note triads

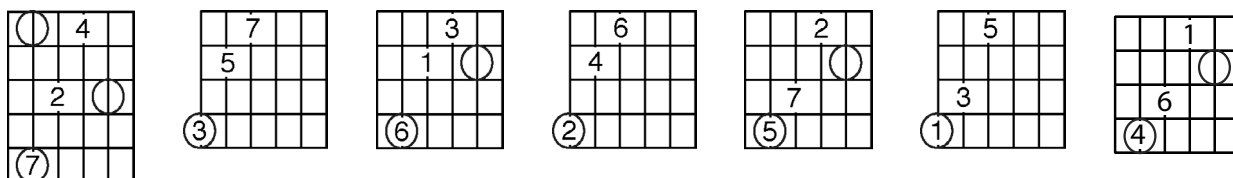
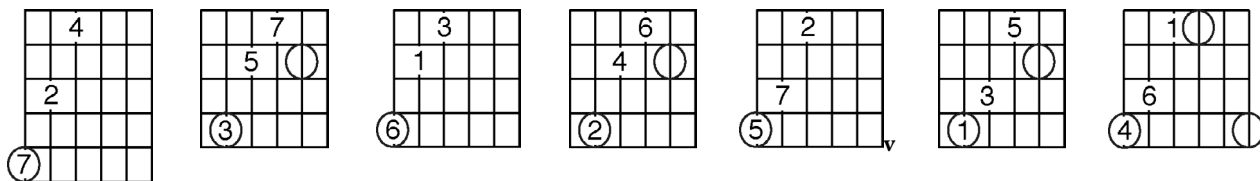
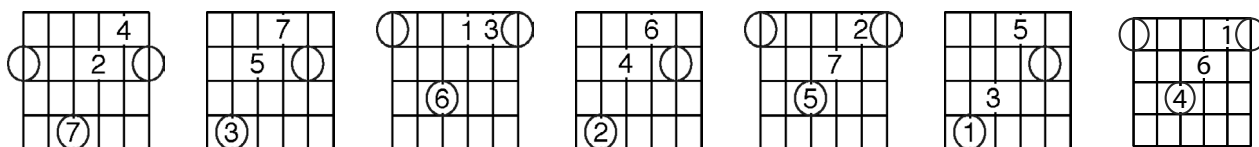
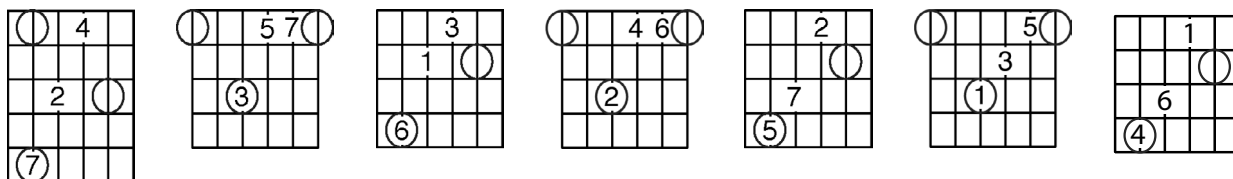
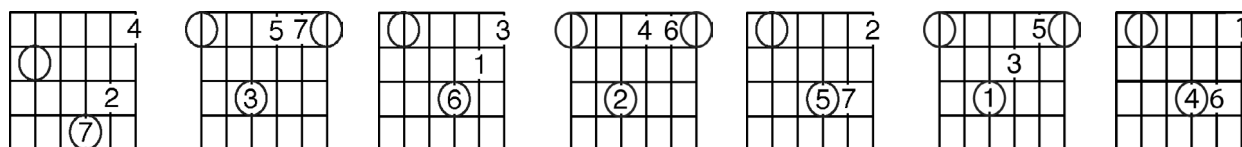
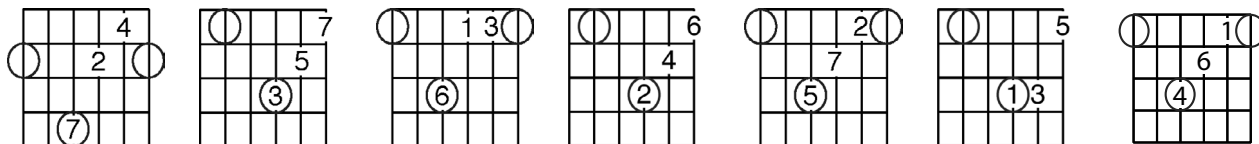
stepwise root position

play by row for stepwise order

	fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
root on SIXTH STRING							
root on FIFTH STRING							
root on FOURTH STRING							
root on THIRD STRING							

root position, roots in fourths, little finger bass

cycle through each pair of rows for root movement in fourths

roots on
SIXTH
and FIFTH
stringroots on
FIFTH and
FOURTH
stringroots on
FOURTH
and
THIRD
string

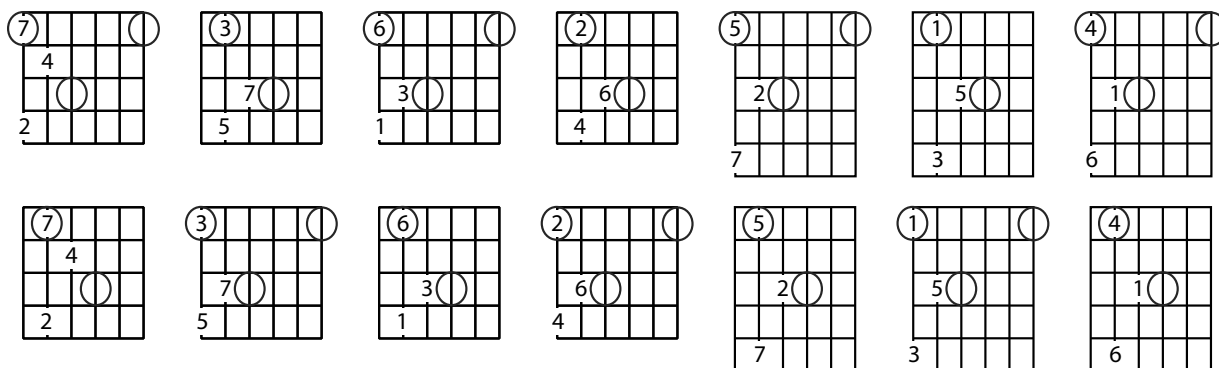
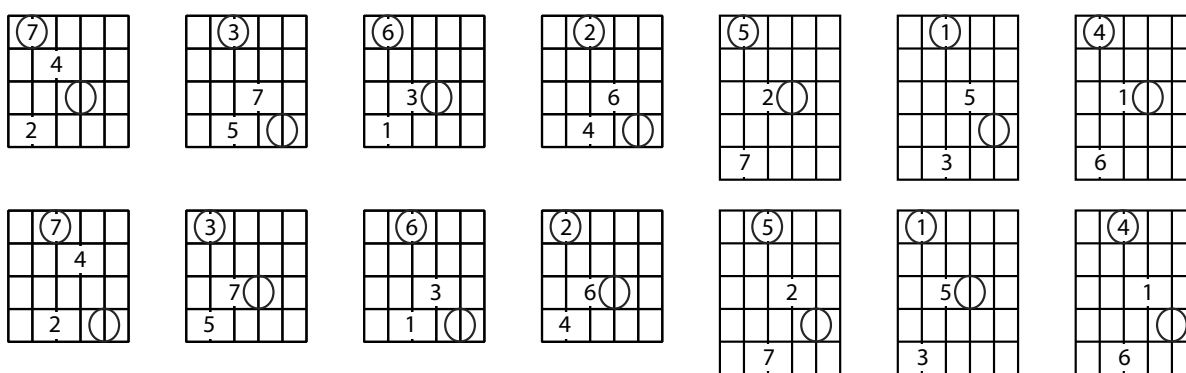
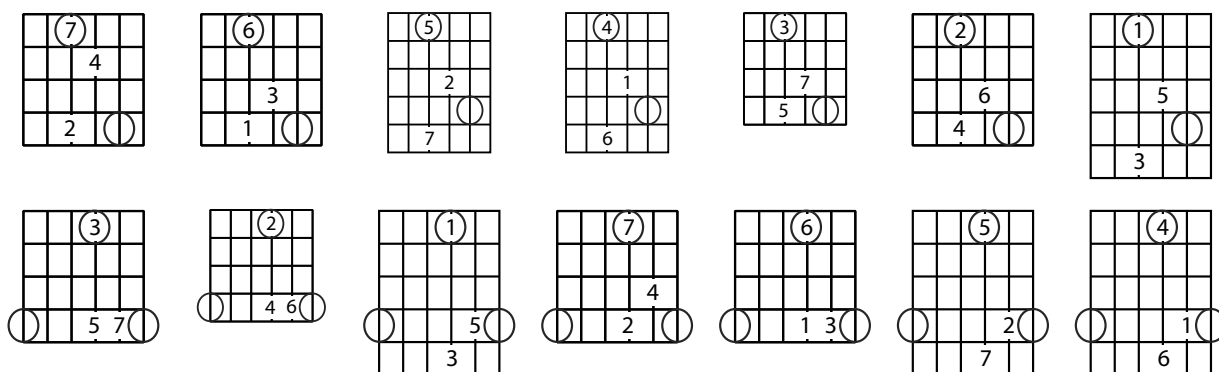
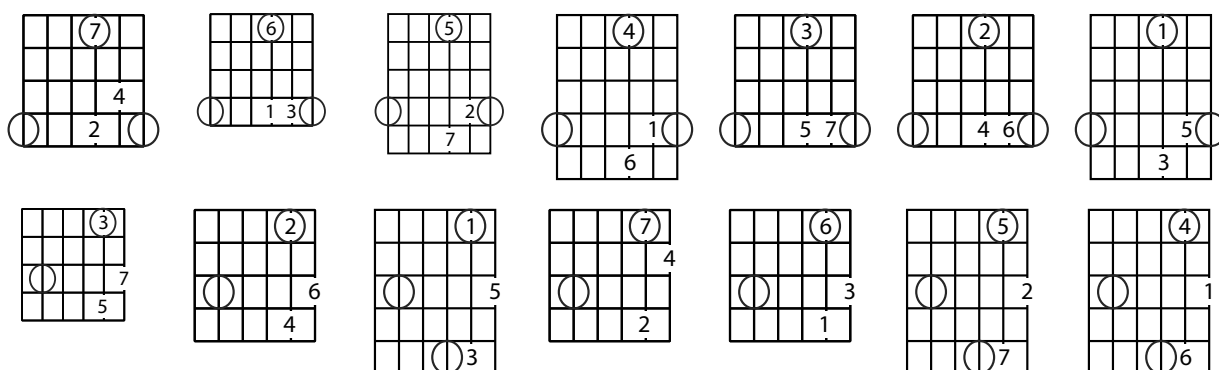
stepwise root position-index finger bass

play by row for stepwise order

	fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
root on SIXTH STRING							
root on FIFTH STRING							
root on FOURTH STRING							
root on THIRD STRING							
root on SECOND STRING							

root position, roots in fourths, index finger bass

cycle through each pair of rows for root movement in fourths

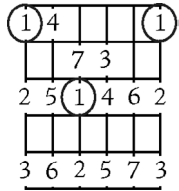
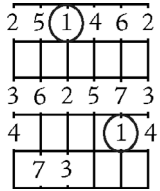
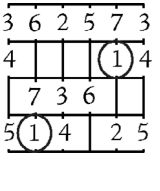
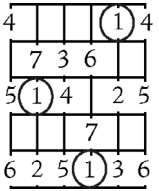
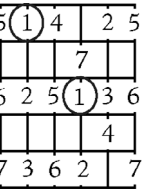
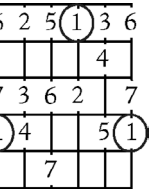
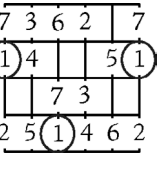
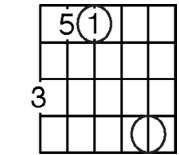
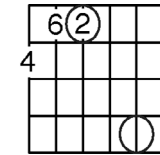
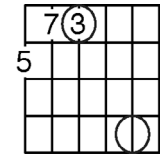
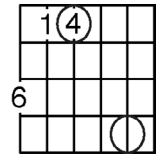
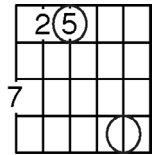
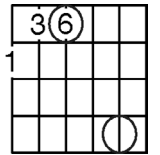
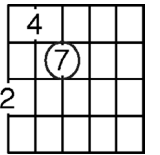
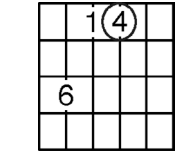
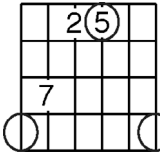
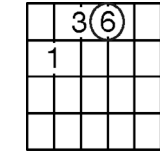
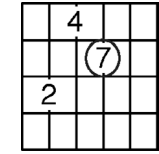
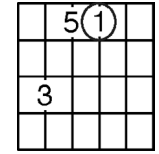
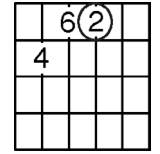
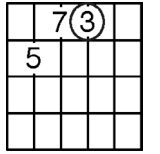
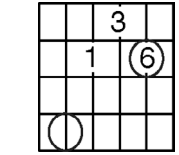
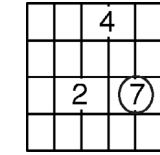
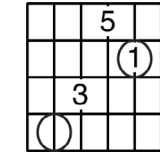
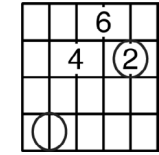
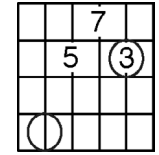
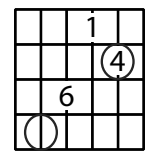
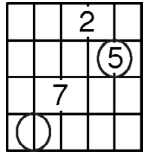
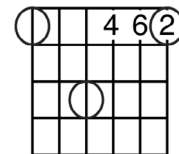
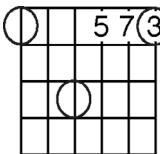
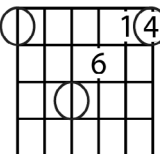
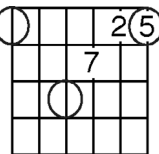
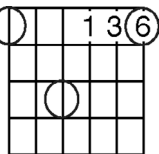
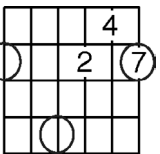
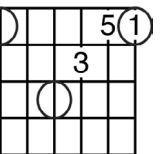
roots on
SIXTH
and FIFTH
stringroots on
FIFTH and
FOURTH
stringroots on
FOURTH
and
THIRD
stringroots on
THIRD
and
SECOND
string

Close-Voiced, First Inversion Major Scale-Tone Triads

three note triads

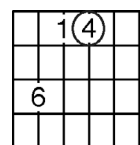
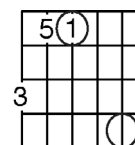
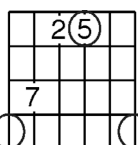
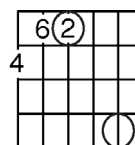
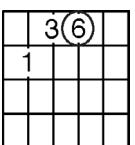
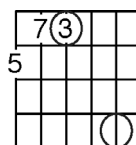
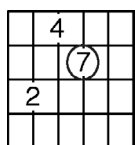
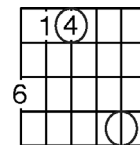
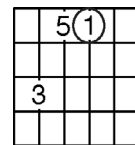
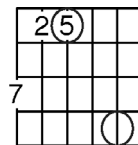
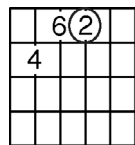
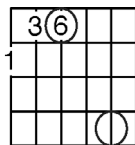
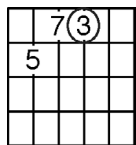
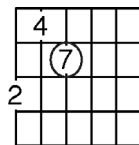
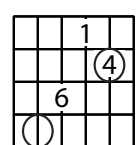
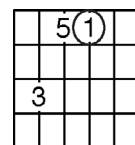
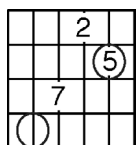
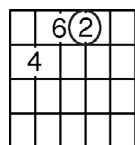
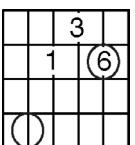
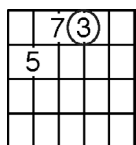
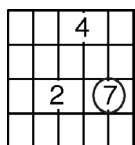
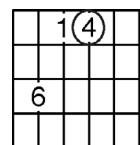
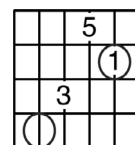
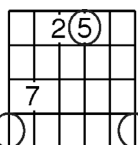
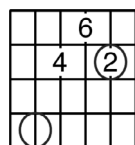
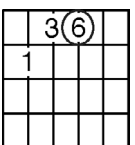
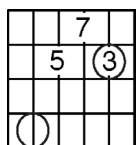
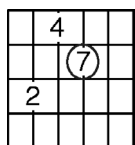
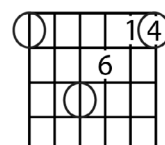
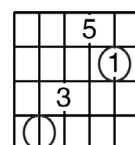
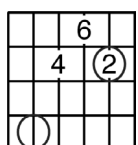
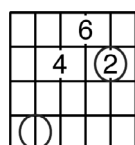
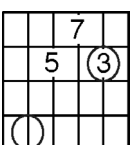
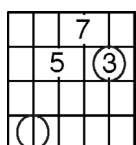
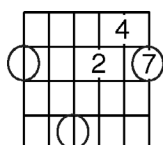
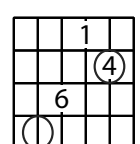
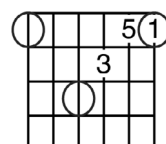
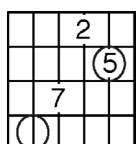
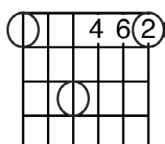
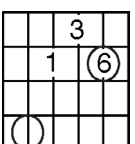
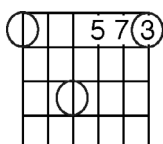
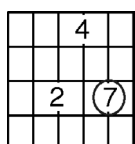
stepwise first inversion

play by row for stepwise order

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
						
						
						
						
						

first inversion, roots in fourths

cycle through each pair of rows for root movement in fourths

roots on
FOURTH
and
THIRD
stringroots on
THIRD
and
SECOND
stringroots on
SECOND
and FIRST
string

Close-Voiced, Second Inversion Major Scale-Tone Triads

three note triads

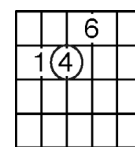
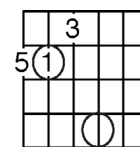
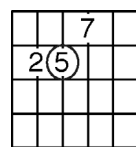
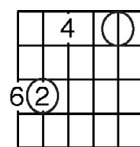
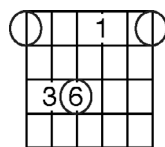
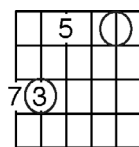
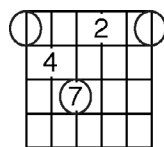
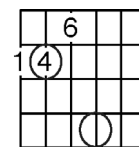
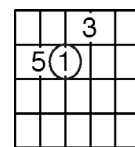
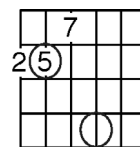
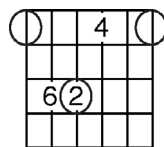
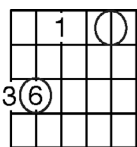
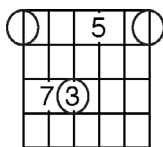
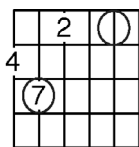
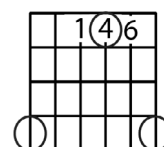
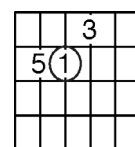
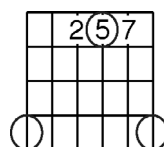
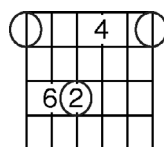
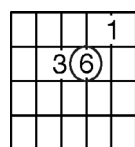
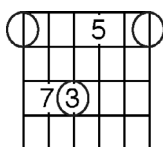
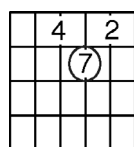
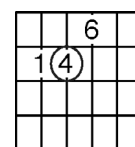
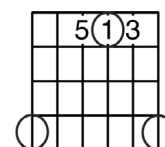
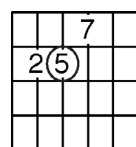
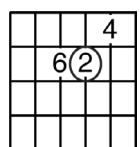
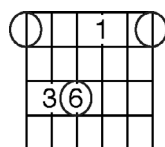
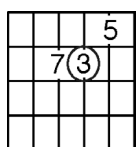
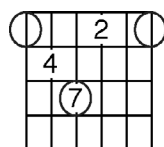
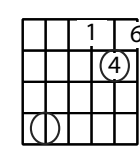
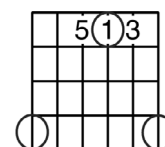
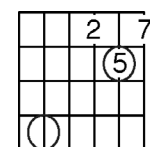
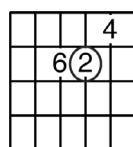
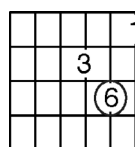
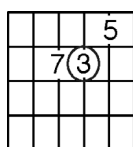
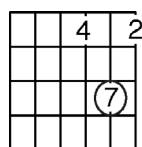
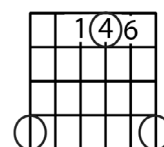
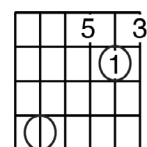
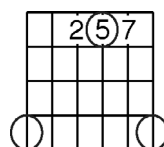
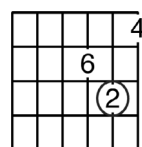
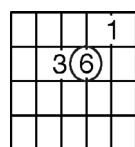
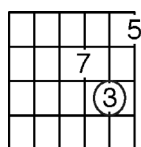
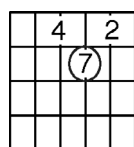
stepwise second inversion

play by row for stepwise order

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

second inversion, roots in fourths

cycle through each pair of rows for root movement in fourths

roots on
FIFTH
and
FOURTH
stringroots on
FOURTH
and
THIRD
stringroots on
THIRD
and
SECOND
string

Open-Voiced, Root Position Major Tone Triads

three note triads - play by column or row (stepwise order in either case)

	finger 1	finger 2	finger 3	finger 4	finger 5	finger 6	finger 7
E form							
E form							
E form							
A form							
A form							
C form							
D form							
D form							

play across facing pages by row

The image shows six 4x4 grid puzzles. Each grid contains numbers and empty cells. Some cells contain a number inside a circle. The puzzles are arranged in a row.

- Puzzle 1:** A 4x4 grid. Row 1: (1,1)=1, (1,2)=4, (1,3)=5, (1,4)=1. Row 2: (2,2)=7, (2,3)=3. Row 3: (3,1)=2, (3,2)=5, (3,3)=1, (3,4)=4, (3,5)=6, (3,6)=2. Row 4: (4,1)=3, (4,2)=6, (4,3)=2, (4,4)=5, (4,5)=7, (4,6)=3.
- Puzzle 2:** A 4x4 grid. Row 1: (1,1)=1. Row 2: (2,3)=3. Row 3: (3,4)=1. Row 4: (4,1)=6.
- Puzzle 3:** A 4x4 grid. Row 1: (1,1)=2, (1,3)=4, (1,4)=1. Row 2: (2,2)=6, (2,3)=1. Row 3: (3,4)=5.
- Puzzle 4:** A 4x4 grid. Row 1: (1,2)=7. Row 2: (2,1)=2, (2,2)=1. Row 3: (3,1)=3, (3,3)=5. Row 4: (4,4)=1.
- Puzzle 5:** A 4x4 grid. Row 1: (1,3)=1. Row 2: (2,1)=3, (2,3)=5. Row 3: (3,4)=1.
- Puzzle 6:** A 4x4 grid. Row 1: (1,4)=4. Row 2: (2,3)=1, (2,4)=6.

[illegible]

(continued in rows from the previous page)

fingering 1

Grid 1: 4, 6, 2. Grid 2: 5, 2, 7. Grid 3: 1, 3, 5, 1. Grid 4: 1, 4, 6. Grid 5: 7, 4, 2. Grid 6: 7, 5, 3.

Grid 1: 4, 1, 2, 7. Grid 2: 5, 3, 7. Grid 3: 1, 3, 6. Grid 4: 1, 4, 6, 2. Grid 5: 7, 2, 5. Grid 6: 1, 5, 3.

fingering 2

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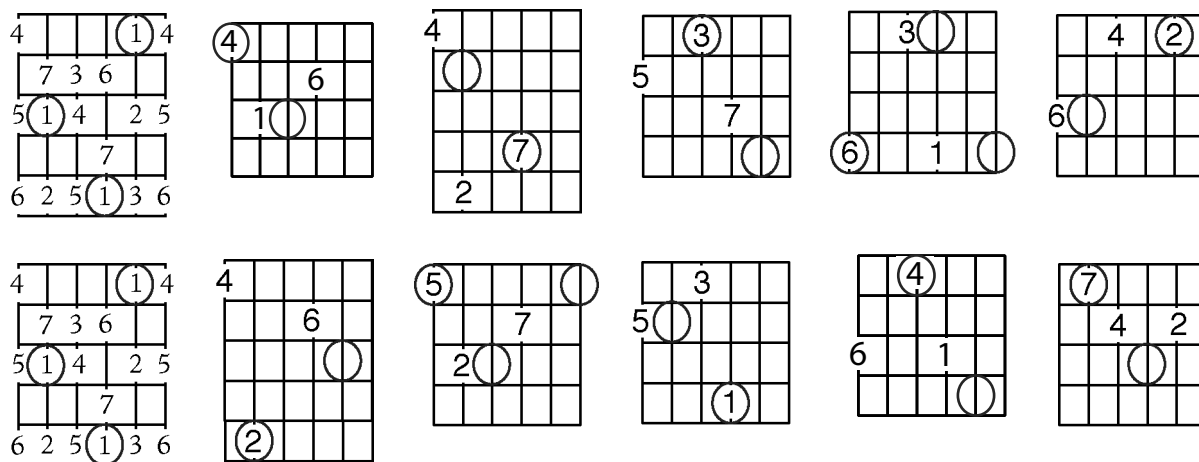
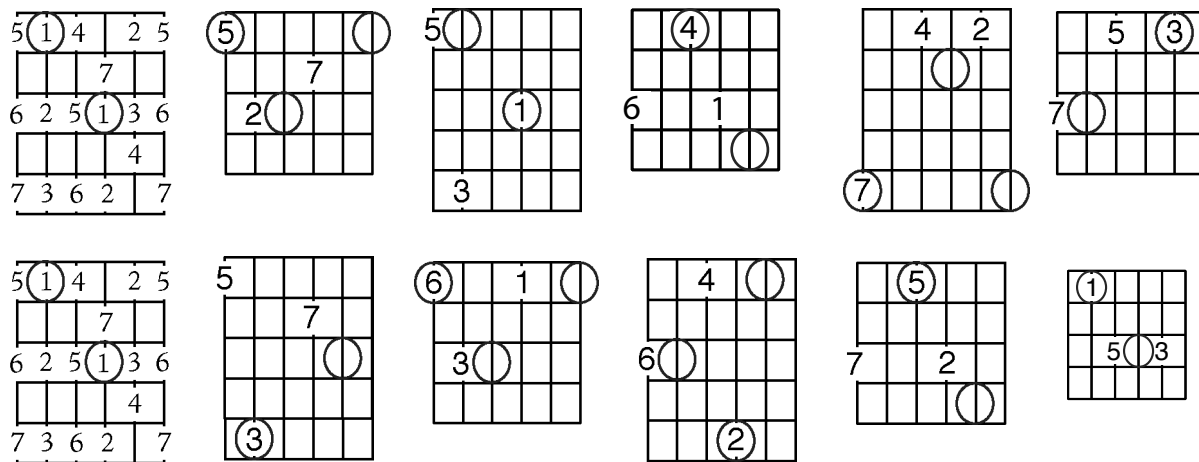
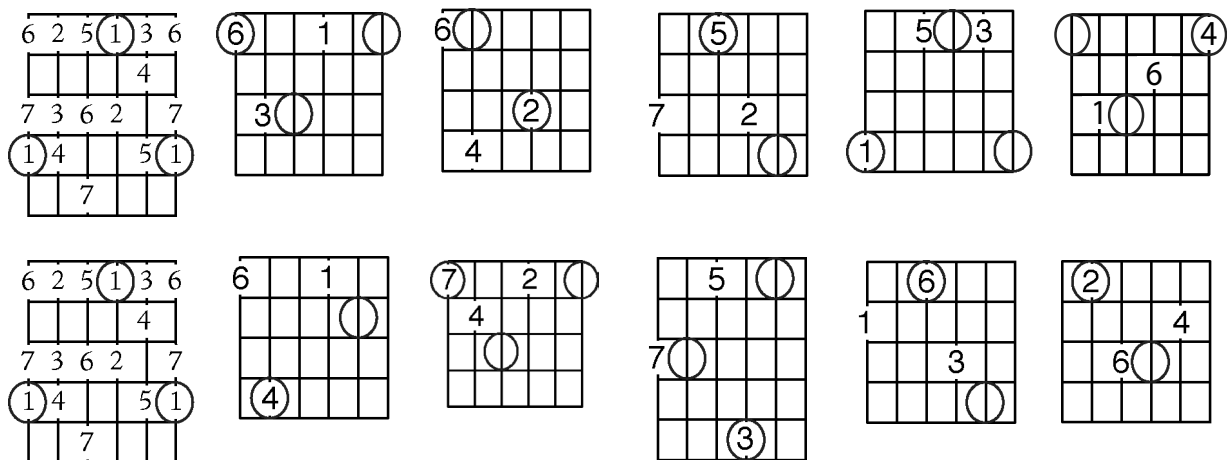
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fingering 3

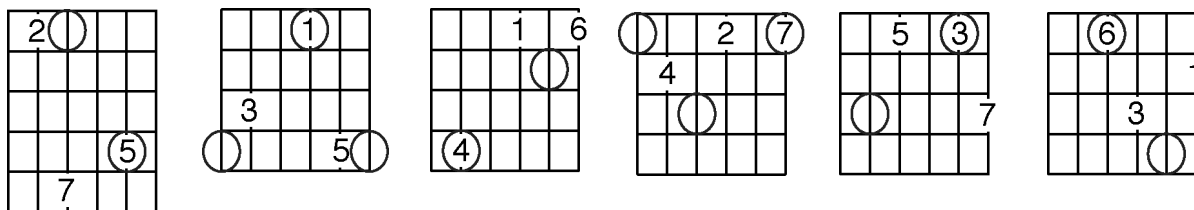
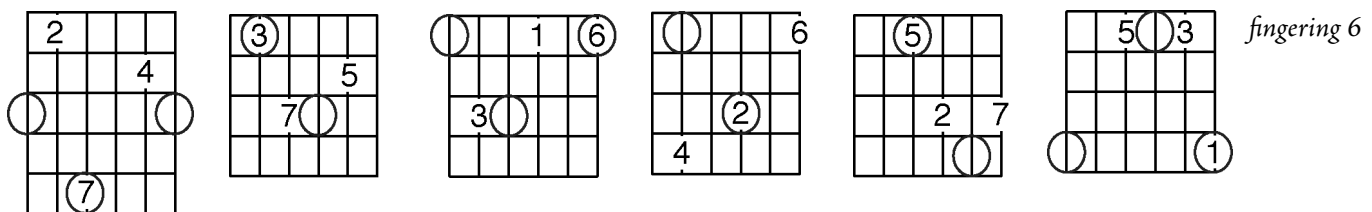
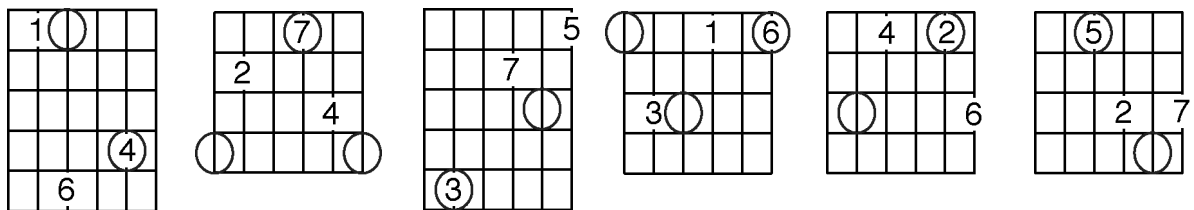
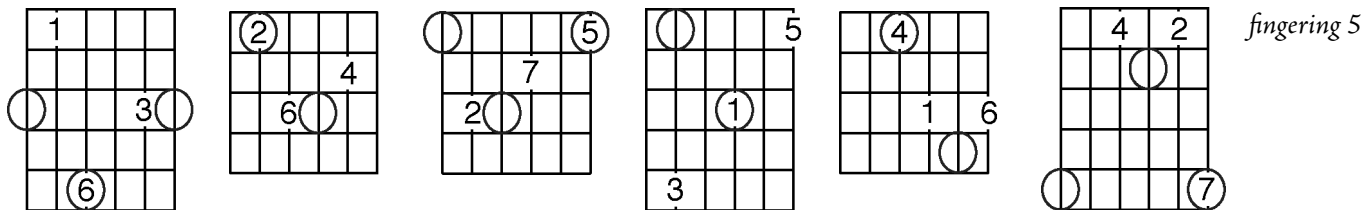
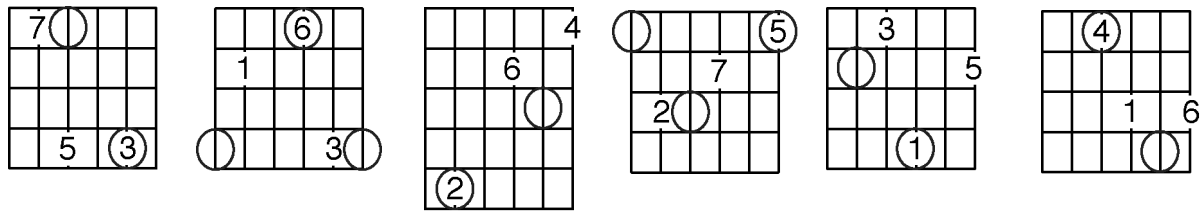
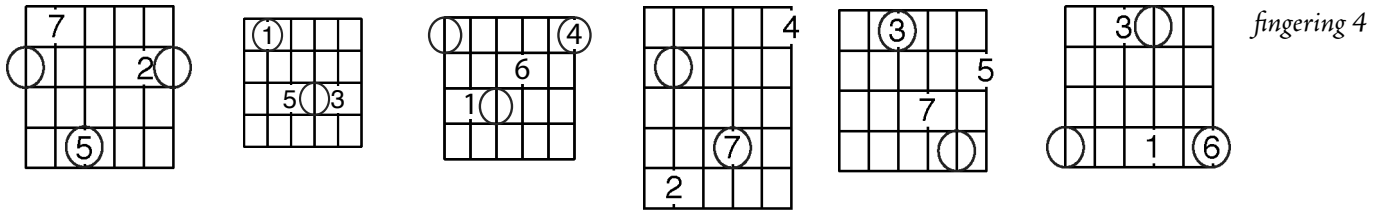
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Grid 1: 6, 4, 2. Grid 2: 5, 7, 2. Grid 3: 5, 3, 1. Grid 4: 1, 4, 6. Grid 5: 2, 7, 4. Grid 6: 3, 7, 5.

(fingerings 4 through 6)

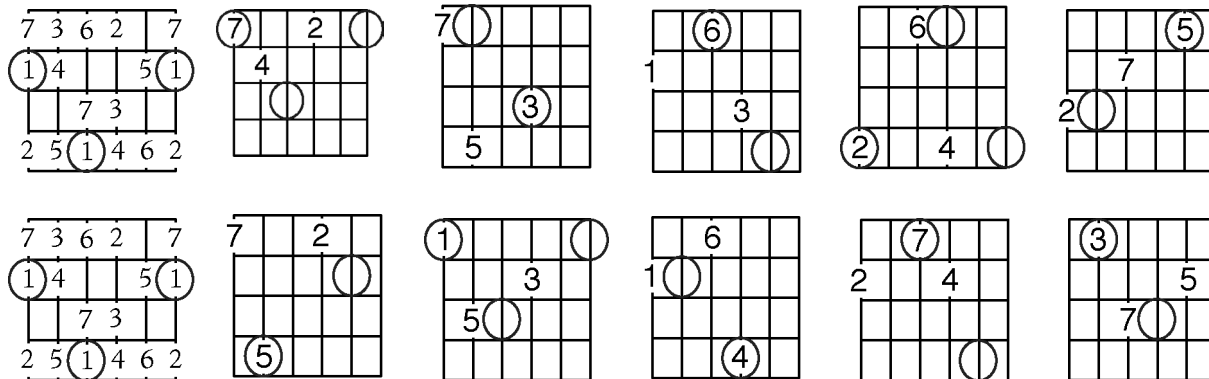
fingering 4*fingering 5**fingering 6*

(continued in rows from the previous page)



(fingering 7)

fingering 7



v

(continued in rows from the previous page)

fingerings 7

The diagrams are arranged in two rows of six. Each diagram is a 4x5 grid representing a fretboard. The first row shows a sequence of chords: 3-5, 4-1-6, 1-2-7, 1-3-5, 6-3-1, and 6-4-2. The second row shows: 3-1-6, 4-2-6, 2-1-5, 1-3-5, 1-4-6, and 7-4-2.

Close-Voiced, Major Scale-Tone Triads in Perfect Fourths

string set 6-5-4

Diagram 1: Notes 5, 3, 1 (1) in frets 1, 2, 3. Fingering: 1(1).

Diagram 2: Notes 6, 4, 2 in frets 1, 2, 3. Fingering: 1(4).

Diagram 3: Notes 4, 2, 7 in frets 1, 2, 3. Fingering: 2(7).

Diagram 4: Notes 7, 5, 3 in frets 1, 2, 3. Fingering: 3(3).

Diagram 5: Notes 1, 6, 4 in frets 1, 2, 3. Fingering: 3(6).

Diagram 6: Notes 6, 4, 2 in frets 1, 2, 3. Fingering: 4(2).

Diagram 7: Notes 2, 7, 5 in frets 1, 2, 3. Fingering: 5(5).

Diagram 8: Notes 3, 1, 6 in frets 1, 2, 3. Fingering: 5(1).

Diagram 9: Notes 1, 6, 4 in frets 1, 2, 3. Fingering: 6(4).

Diagram 10: Notes 4, 2, 7 in frets 1, 2, 3. Fingering: 7(7).

Diagram 11: Notes 5, 3, 1 in frets 1, 2, 3. Fingering: 7(3).

Diagram 12: Notes 3, 6, 4 in frets 1, 2, 3. Fingering: 1(6).

Diagram 13: Notes 6, 4, 2 in frets 1, 2, 3. Fingering: 2(5).

Diagram 14: Notes 5, 3, 1 in frets 1, 2, 3. Fingering: 3(1).

Diagram 15: Notes 1, 6, 4 in frets 1, 2, 3. Fingering: 4(4).

Diagram 16: Notes 4, 2, 7 in frets 1, 2, 3. Fingering: 4(7).

Diagram 17: Notes 7, 5, 3 in frets 1, 2, 3. Fingering: 5(3).

Diagram 18: Notes 3, 6, 4 in frets 1, 2, 3. Fingering: 6(6).

Diagram 19: Notes 6, 4, 2 in frets 1, 2, 3. Fingering: 6(2).

Diagram 20: Notes 2, 7, 5 in frets 1, 2, 3. Fingering: 7(5).

string set 5-4-3

Diagram 1: Notes 5, 3, 1 (1) in frets 1, 2, 3. Fingering: 1(1).

Diagram 2: Notes 6, 4, 2 in frets 1, 2, 3. Fingering: 1(4).

Diagram 3: Notes 4, 2, 7 in frets 1, 2, 3. Fingering: 2(7).

Diagram 4: Notes 7, 5, 3 in frets 1, 2, 3. Fingering: 3(3).

Diagram 5: Notes 1, 6, 4 in frets 1, 2, 3. Fingering: 1(6).

Diagram 6: Notes 6, 4, 2 in frets 1, 2, 3. Fingering: 4(2).

Diagram 7: Notes 2, 7, 5 in frets 1, 2, 3. Fingering: 5(5).

Diagram 8: Notes 3, 1, 6 in frets 1, 2, 3. Fingering: 5(1).

Diagram 9: Notes 1, 6, 4 in frets 1, 2, 3. Fingering: 6(4).

Diagram 10: Notes 4, 2, 7 in frets 1, 2, 3. Fingering: 7(7).

Diagram 11: Notes 5, 3, 1 in frets 1, 2, 3. Fingering: 7(3).

Diagram 12: Notes 3, 6, 4 in frets 1, 2, 3. Fingering: 1(6).

Diagram 13: Notes 6, 4, 2 in frets 1, 2, 3. Fingering: 2(5).

Diagram 14: Notes 5, 3, 1 in frets 1, 2, 3. Fingering: 3(1).

Diagram 15: Notes 1, 6, 4 in frets 1, 2, 3. Fingering: 4(4).

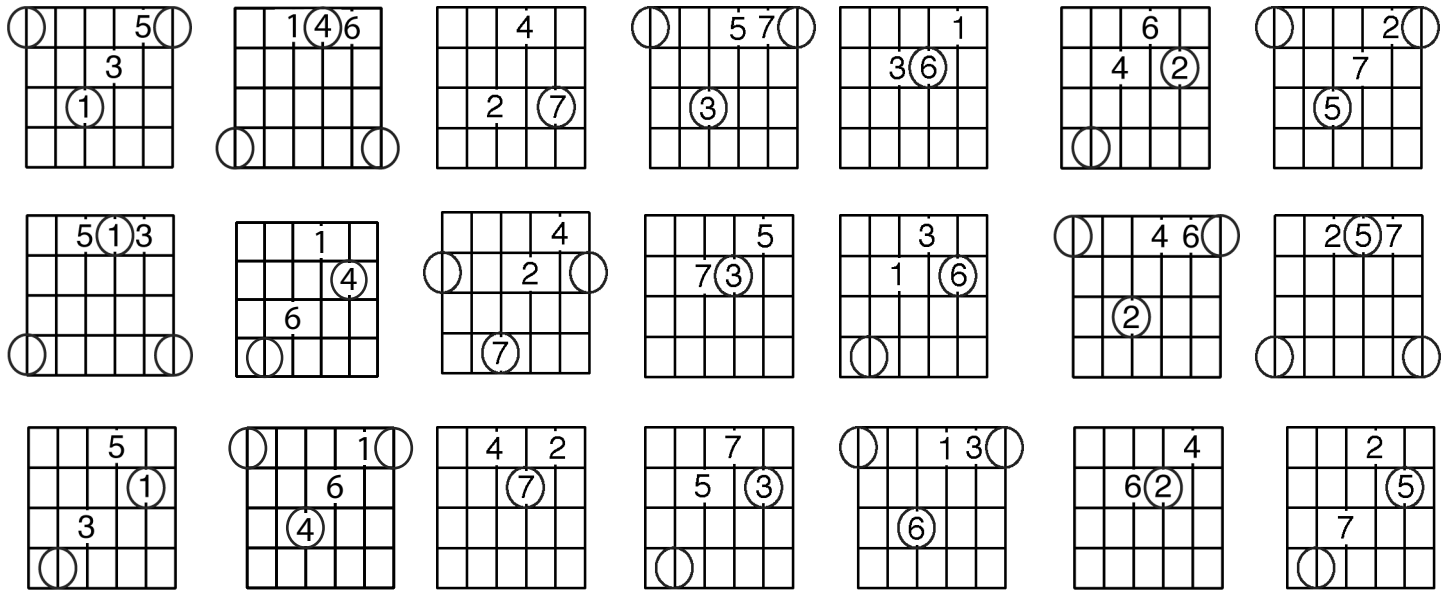
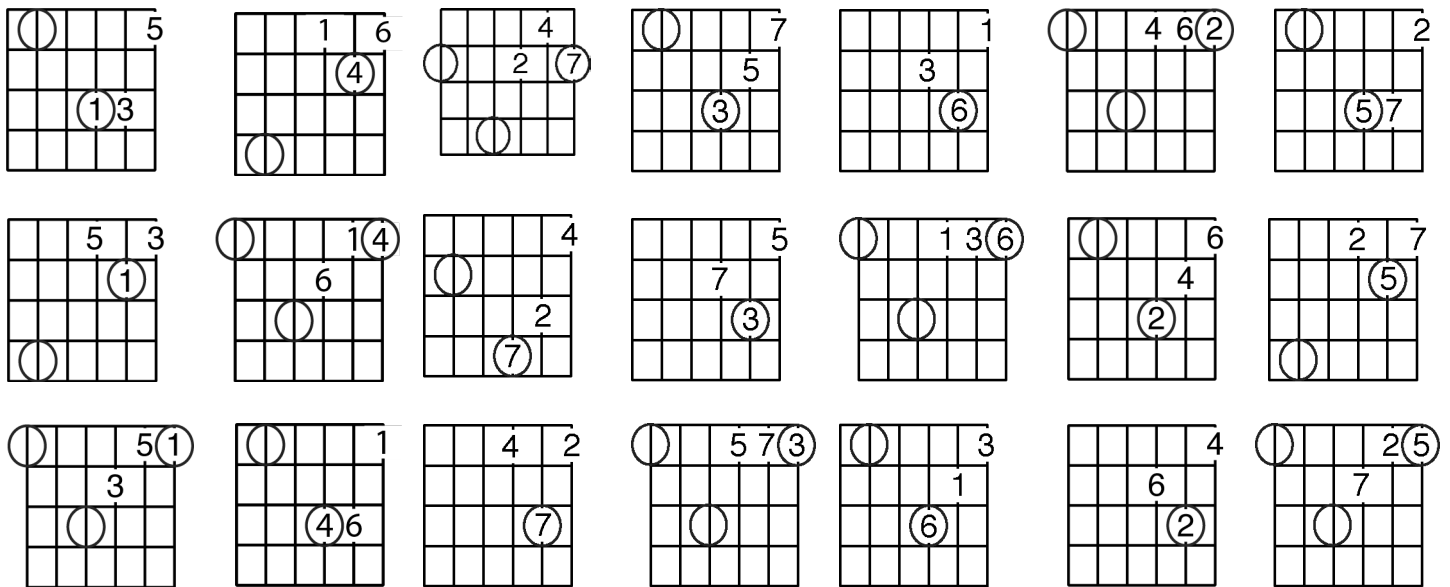
Diagram 16: Notes 4, 2, 7 in frets 1, 2, 3. Fingering: 4(7).

Diagram 17: Notes 7, 5, 3 in frets 1, 2, 3. Fingering: 5(3).

Diagram 18: Notes 3, 6, 4 in frets 1, 2, 3. Fingering: 6(6).

Diagram 19: Notes 6, 4, 2 in frets 1, 2, 3. Fingering: 6(2).

Diagram 20: Notes 2, 7, 5 in frets 1, 2, 3. Fingering: 7(5).

string set 4-3-2**string set 3-2-1**

TRIAD SUBSETS OF HARMONIC MINOR

Major Sharp Five Scale-Tone Triad Arpeggios

harmonic minor is the mode on major #5 scale tone VI

These are numbered by major sharp five tones. Play on the fretboard by column in position or by row horizontally.

major #5	major sharp five	Dorian #4	Phrygian dominant	Lydian #2	Mixolydian #1	harmonic minor	Locrian nat. 6
	fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
major sharp five							
major sharp five							
major sharp five							
major sharp five							
root on FIRST scale tone							
root on SECOND scale tone							
root on THIRD scale tone							
root on FOURTH scale tone							
root on FIFTH scale tone							
root on SIXTH scale tone							
root on SEVENTH scale tone							

Close-Voiced, Root Position Major Sharp Five Scale-Tone Triads

three note triads - play by row

	major #5	major sharp five	Dorian #4	Phrygian dominant	Lydian #2	Mixolydian #1	harmonic minor	Locrian nat. 6
major sharp five	fingering 1 	fingering 2 	fingering 3 	fingering 4 	fingering 5 	fingering 6 	fingering 7 	
root on SIXTH STRING								
root on FIFTH STRING								
root on FOURTH STRING								
root on THIRD STRING								

TRIAD SUBSETS OF MELODIC MINOR

Melodic Minor (major flat three) Scale-Tone Triad Arpeggios

Play by column horizontally on the fretboard or by row in position on the fretboard.

melodic minor	melodic minor (b3)	Dorian b2 (b2, b3, b7)	Phrygian flat one	Lydian dominant (#4, b7)	Mixolydian b6	harmonic minor	Locrian nat. 6
	fingering 1	fingering 2	fingering b3	fingering 4	fingering 5	fingering 6	fingering 7
melodic minor (major b3)							
root on FIRST scale tone							
root on SECOND scale tone							
root on THIRD scale tone							
root on FOURTH scale tone							
root on FIFTH scale tone							
root on SIXTH scale tone							
root on SEVENTH scale tone							

TRIAD SUBSETS OF HARMONIC MAJOR

Harmonic Major (major flat six) Scale-Tone Triad Arpeggios

Play by column horizontally on the fretboard or by row in position on the fretboard.

	fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
major scale							
root on FIRST scale tone							
root on SECOND scale tone							
root on THIRD scale tone							
root on FOURTH scale tone							
root on FIFTH scale tone							
root on SIXTH scale tone							
root on SEVENTH scale tone							

MAJOR SCALE-TONE TRIAD INVERSIONS AND VOICE LEADING

See also the chapter on [Voice Leading/Major Scale-Tone Triad Voice Leading](#).

Triad Inversions

The root of a chord is the note it is named after. Bb is the root of Bb7#9 (B flat seven, sharp nine). The third is the note on the third step of the scale on which the chord is built. The the third may be flatted, as specified by the chord name. The fifth may be flatted or sharpened as specified by the chord name. See [Chord Naming Conventions/Triads](#) and [Chord Naming Rules by Chord Tone](#).

C major triad (1-3-5 of C major scale) C minor triad (1-b3-5 of C major scale) C diminished triad (1-b3-b5 of C major scale)

the letter names of each chord are listed in ascending order								
C major triad			C minor triad			C diminished triad		
root position	first inversion	second inversion	root position	first inversion	second inversion	root position	first inversion	second inversion
C	E	G	C	Eb	G	C	Eb	Gb
E	G	C	Eb	G	C	Eb	G	C
G	C	E	G	C	Eb	G	C	Eb

root position

In root position, the root of the chord is in the bass. The order of the third and fifth above the root (in pitch) are not specified by “root position”, only the root is specified in the bass.

first inversion

In first inversion, the third of the chord is in the bass. The order of the third and fifth above the third (in pitch) are not specified. “First inversion only specifies that the third is in the bass.

second inversion

In second inversion, the fifth of the chord is in the bass. The order of the root and third above the third (in pitch) are not specified. “Second inversion only specifies that the fifth is in the bass.

Using Triad Inversions to Create Scalar Basslines

The chord progressions in this section will serve as examples to think through the [Triad Voice Leading](#) section that follows. Often when the interval on two bass strings would be a third or sixth, the next to the lowest string is omitted to avoid muddiness in the bass. Perfect fourths and fifths are clearer in the bass.

root position, open position C major parent scale

Play this thirteen-chord progression in the order shown for ascending roots and in reverse order (I major, VII diminished, VI minor, etc) for descending roots.

bass roman	3 of parent III minor	4 of parent IV major	5 of parent V major	6 of parent VI minor	7 of parent VII^m7b5	1 of parent I major	2 of parent II minor
	Em I	F I	G I	Am I	Bm7b5 II	C I	Dm I
	1 5 1 b3 5 1	1 5 1 3 5 1	1 3 5 1 3 1	1 5 1 b3 5	1 b5 b7 b3	1 3 5 1 3	1 5 1 b3
	Em I	F I	G III	Am I	Bdim I	C III	
	1 b3 5 1	1 3 5 1	1 3 5 1	1 b3 5	1 b3 b5	1 3 5	

root position, C form F major parent scale

Play this thirteen-chord progression in the order shown for ascending roots and in reverse order (I major, VII^m7b5, VI minor, etc) for descending roots.

bass roman	3 of parent III minor	4 of parent IV major	5 of parent V major	6 of parent VI minor	7 of parent VII^m7b5	1 of parent I major	2 of parent II minor
	Am V	Bb VI	C V	Dm V	Em7b5 VII	F V	Gm V
	1 5 1 b3 5 1	1 5 1 3 5 1	1 3 5 1 3 1	1 5 1 b3 5	1 b5 b7 b3	1 3 5 1 3	1 5 1 b3
	Am V	Bb VI	C VIII	Dm V	Edim VI	F VIII	
	1 b3 5 1	1 3 5 1	1 3 5 1	1 b3 5	1 b3 b5	1 3 5	

first inversion, open position C major parent scale

Each of these chords has its third in the bass. VIIIm7b5 usually substitutes for VII diminished, which is rare in pop music. Play them in the order shown for ascending bass notes and in reverse order (I major, VIIIm7b5, VI minor, etc) for descending bass notes.

bass	3 of parent	4 of parent	5 of parent	6 of parent	7 of parent	1 of parent	2 of parent
roman	I	I	I	I	I	I	I
	C/E	Dm/F	Em/G	F/A	G/B	Am/C	Bm7b5/D
	C/E I	Dm/F II	Em/G IV	F/A V	G/B VII	Am/C VIII	

first inversion, C form F major parent scale

Each of these chords has its third in the bass. VIIIm7b5 usually substitutes for VII diminished, which is rare in pop music. Play them in the order shown for ascending bass notes and in reverse order (I major, VIIIm7b5, VI minor, etc) for descending bass notes.

bass	3 of parent	4 of parent	5 of parent	6 of parent	7 of parent	1 of parent	2 of parent
roman	I	I	I	I	I	I	I
	F/A	Gm/Bb	Am/C	Bb/D	C/E	Dm/F	Em7b5/G
	F/A V	Gm/Bb VII	Am/C IX	Bb/D X	C/E XII	Dm/F XIII	

alternate root position and first inversion chords in a scalar bassline, open position C major parent scale

This progression alternates root position and first inversion chords. Play them in the order shown for ascending bass notes and in reverse order (VIIm/b3, VIIIm7b5, IVmaj/3, etc) for descending bass notes.

bass	3 of parent	4 of parent	5 of parent	6 of parent	7 of parent	1 of parent	2 of parent
roman	I maj/3	IV major	IIIIm/b3	VI minor	Vmaj/3	I major	VIIIm7b5/b3
	C/E I	F I	Em/G III	Am I	G/B I	C I	Bm7b5/D I
	3 3 5 1	1 1 3 5	b3 1 b3 5	1 5 1 b3	3 5 1 5	1 5 1 3	b3 b7 1 b5
roman	III minor	IIIm/b3	V major	IVmaj/3	VIIIm7b5	VIIm/b3	
	Em I	Dm/F II	G V	F/A V	Bm7b5 IX	Am/C VIII	
	1 b3 5 b3	b3 5 1 5	1 5 1 3	3 5 1 5	1 b5 b7 b3	b3 5 1 b3	

alternate root position and first inversion chords in a scalar bassline, C form F major parent scale

This progression alternates root position and first inversion chords. Play them in the order shown for ascending bass notes and in reverse order (VIIm/b3, VIIIm7b5, IVmaj/3, etc) for descending bass notes.

bass	3 of parent	4 of parent	5 of parent	6 of parent	7 of parent	1 of parent	2 of parent
roman	III minor	IIIm/b3	V major	IVmaj/3	VIIIm7b5	VIIm/b3	VIIIm7b5/b3
	F/A V	Bb VI	Am/C V	Dm V	C/E V	F V	Em7b5/G V
	1 3 5 1	1 1 3 5	b3 1 b3 5	1 5 1 b3	3 5 1 5	1 5 1 3	b3 b7 1 b5
roman	III minor	IIIm/b3	V major	IVmaj/3	VIIIm7b5	VIIm/b3	
	Am V	Gm/Bb VII	C X	Bb/D X	Em7b5 XIV	Dm/F XIII	
	1 b3 5 b3	b3 5 1 5	1 5 3	3 5 1 5	1 b5 b7 b3	b3 5 1 b3	

root position & first inversion chords, root names in fourths, open position C major parent scale

In this progression, each chord is played in root position, then in first inversion to voice lead the bass note to the next root-position chord up a fourth from the first root position chord. Each minor chord is followed with a first inversion major version so its major third bass note precedes the bass note of the next chord by a half step (one fret). Play the progression only in the ascending order of bass notes as shown.

roman	VIIIm7b5	VIIIm7b5/b3	IIIIm	IIIImaj/3	VIIm	VIImaj/3	IIm
	Bm7b5 II	Bm7b5/D I	Em I	E/G# II	Am I	A/C# II	Dm I
	1 b5 b7 b3	b3 b7 1 b5	1 b3 5 1	3 1 5 1	1 1 b3 5	3 5 1 5	1 5 1 b3
roman	IIma/3	V major	Vmaj/3	I major	Ima/3	IV	
	D/F# I	G I	G/B I	C I	C/E I	F I	
	3 5 1 3	1 3 5 1 5 1	3 1 5 1	1 5 1 3	3 5 1 5	1 3 5 1	

root position & first inversion chords, root names in fourths, fifth position F major parent scale

In this progression, each chord is played in root position, then in first inversion to voice lead the bass note to the next root-position chord up a fourth from the first root position chord. Each minor chord is followed with a first inversion major version so its major third bass note precedes the bass note of the next chord by a half step (one fret). Play the progression only in the ascending order of bass notes as shown.

roman	VIIIm7b5	VIIIm7b5/b3	IIIIm	IIIImaj/3	VIIm	VIImaj/3	IIm
	Em7b5 VII	Em7b5/G V	Am V	Ama/3 IV	Dm V	Dma/3 VII	Gm V
	1 b5 b7 b3	b3 b7 1 b5	1 b3 5 1	3 1 3 5	1 5 1 b3	3 5 1 5	1 5 1 b3
roman	IIma/3	V major	Vmaj/3	I major	Ima/3	IV	
	G/B V	C V	C/E V	F V	F/A V	Bb VI	
	3 1 5 1	1 5 1 3	3 5 1 5	1 5 1 3	3 5 1 5	1 3 5 1	

second inversion, open position C major parent scale

Each of these chords has its fifth in the bass, which is called second inversion. VIIIm7b5 usually substitutes for VII diminished, which is rare in pop music. Play the chord progression in the order shown for ascending bass notes and in reverse order for descending bass notes.

bass	3 of parent	4 of parent	5 of parent	6 of parent	7 of parent	1 of parent	2 of parent
roman	VIIm/5	VIIIm7b5/b5	IImaj/5	IIIm/5	IIIIm/5	IVma/5	Vmaj/5
	Am/E I	Bm7b5/F I	C/G I	Dm/A I	Em/B I	F/C I	G/D I
	5 5 1 b3	b5 b3 b7 1	5 3 5 1	b3 5 1	5 1 b3 5	5 1 3 5	5 1 3 1
roman	VIIm/5	VIIIm7b5/b5	IImaj/5	IIIm/5	IIIIm/5	IVma/5	Vmaj/5
	Am/E I	Bm7b5/F III	C/G III	Dm/A V	Em/B VII	Fmaj/C VIII	
	5 1 b3 5	b5 1 b3 b7	5 1 3 5	5 1 b3 5	5 1 b3 5	5 1 3 5	

second inversion, fifth position F major parent scale

Each of these chords has its fifth in the bass, which is called second inversion. VIIIm7b5 usually substitutes for VII diminished, which is rare in pop music. Play the chord progression in the order shown for ascending bass notes and in reverse order for descending bass notes.

bass	3 of parent	4 of parent	5 of parent	6 of parent	7 of parent	1 of parent	2 of parent
roman	VIIm/5	VIIIm7b5/b5	IImaj/5	IIIm/5	IIIIm/5	IVma/5	Vmaj/5
	Dm/A V	Em7b5/Bb V	F/C V	Gm/D V	Am/E V	Bb/F V	C/G V
	5 5 1 b3	b5 b3 b7 1	5 3 5 1	5 b3 5 1	5 1 b3 5 1	5 3 5 1	5 1 3 1
roman	VIIm/5	VIIIm7b5/b5	IImaj/5	IIIm/5	IIIIm/5	IVma/5	Vmaj/5
	Dm/A V	Em7b5/Bb VIII	F/C VIII	Gm/D X	Am/E XII	Bbmaj/F XIII	
	5 1 b3 5	b5 1 b3 b7	5 1 3 5	5 1 b3 5	5 1 b3 5	5 1 3 5	

alternate root position and second inversion chords in a scalar bassline, open position C major parent scale

This progression alternates root position and second inversion chords. Play them in the order shown for ascending bass notes and in reverse order (VI^m/b3, VII^m7b5, IV^{maj}/3, etc) for descending bass notes.

bass	3 of parent	4 of parent	5 of parent	6 of parent	7 of parent	1 of parent	2 of parent
roman	VI ^m /5	IV major	I ^{maj} /5	VI minor	III ^m /5	I major	V ^{maj} /5
	Am/E I	F I	C/G I	Am I	Em/B I	C I	G/D I
roman	III minor	VII ^m 7b5/b5	V major	II ^m /5	VII ^m 7b5	IV ^{maj} /5	
	Em I	Bm7b5/F III	G V	Dm/A V	Bm7b5 IX	Fmaj/C VIII	
	1 b3 5 b3	b5 1 b3 b7	1 5 1 3	5 1 b3 5	1 b5 b7 b3	5 1 3 5	

alternate root position and second inversion chords in a scalar bassline, C form F major parent scale

This progression alternates root position and second inversion chords. Play them in the order shown for ascending bass notes and in reverse order (VI^m/b3, VII^m7b5, IV^{maj}/3, etc) for descending bass notes.

bass	3 of parent	4 of parent	5 of parent	6 of parent	7 of parent	1 of parent	2 of parent
roman	VI ^m /5	II ^m /b3	I ^{maj} /5	IV ^{maj} /3	III ^m /5	VI ^m /b3	V ^{maj} /5
	Dm/A V	Bb VI	F/C V	Dm V	Am/E V	F V	C/G V
roman	III minor	VII ^m 7b5/b5	V major	II ^m /5	VII ^m 7b5	IV ^{maj} /5	
	Am V	Em7b5/Bb VIII	C X	Gm/D X	Em7b5 XIV	Bbmaj/F XIII	
	1 b3 5 b3	b5 1 b3 b7	1 5 1 3	5 1 b3 5	1 b5 b7 b3	5 1 3 5	

root position, open position G major parent scale

Play this thirteen-chord progression in the order shown for ascending roots and in reverse order (IV major, III minor, II minor, etc) for descending roots.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	VI minor	VIIIm7b5	I major	II minor	III minor	IV major	V major
	Em I	F#m7b5 I	G I	Am I	Bm II	C I	D I
	Em I	F#m7b5 IV	G III	Am I	Bm II	C III	

root position, G form C major parent scale

Play this thirteen-chord progression in the order shown for ascending roots and in reverse order (IV major, III minor, II minor, etc) for descending roots.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	VI minor	VIIIm7b5	I major	II minor	III minor	IV major	V major
	Am V	Bm7b5 VI	C V	Dm V	Em VII	F V	G V
	Am V	Bm7b5 V	C VIII	Dm V	Em VII	F VIII	

first inversion, open position G major parent scale

Each of these chords has its third in the bass. VIIIm7b5 usually substitutes for VII diminished, which is rare in pop music. Play them in the order shown for ascending bass notes and in reverse order (I major, VIIIm7b5, VI minor, etc) for descending bass notes.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	IVmaj/3	V/3	IIIIm/b3	VIIm7b5/b3	IImaj/3	IIIm/b3	IIIIm/b3
	C/E I	D/F# I	Em/G III	F#m7b5/A I	G/B I	Am/C I	Bm/D I
	C/E I	D/F# II	Em/G III	F#dim/A V	G/B VII	Am/C VIII	

first inversion, G form C major parent scale

Each of these chords has its third in the bass. VIIIm7b5 usually substitutes for VII diminished, which is rare in pop music. Play them in the order shown for ascending bass notes and in reverse order (I major, VIIIm7b5, VI minor, etc) for descending bass notes.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	IVmaj/3	V/3	VIIm/b3	VIIm7b5/b3	IImaj/3	IIIm/b3	IIIIm/b3
	F/A V	G/B V	Am/C V	Bm7b5/D IV	C/E V	Dm/F V	Em/G V
	F/A V	G/B VII	Am/C VIII	Bdim/D X	C/E XII	Dm/F XIII	

alternate root position and first inversion chords in a scalar bassline, open position G major parent scale

This progression alternates root position and first inversion chords. Play them in the order shown for ascending bass notes and in reverse order (VIIm/b3, VIIIm7b5, IVmaj/3, etc) for descending bass notes.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	VIIm	V/3	I major	VIIIm7b5/b3	III minor	IIIm/b3	V major
	Em I	D/F# I	G I	F#m7b5/A I	Bm II	Am/C I	D I
roman	IV/3	VIIIm7b5	VIIm/b3	II minor	IImaj/3	IV major	
	C/E I	F#m7b5 I	Em/G III	Am I	G/B VII	C VIII	

alternate root position and first inversion chords in a scalar bassline, G form C major parent scale

This progression alternates root position and first inversion chords. Play them in the order shown for ascending bass notes and in reverse order (VIIm/b3, VIIIm7b5, IVmaj/3, etc) for descending bass notes.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	VIIm	V/3	I major	VIIIm7b5/b3	III minor	IIIm/b3	V major
	Am V	G/B V	C V	Bm7b5/D IV	Em VII	Dm/F V	G V
roman	IV/3	VIIIm7b5	VIIm/b3	II minor	IImaj/3	IV major	
	F/A V	Bm7b5 VII	Am/C VIII	Dm V	C/E XII	F XIII	

root position & first inversion chords, root names in fourths, open position G major parent scale

In this progression, each chord is played in root position, then in first inversion to voice lead the bass note to the next root-position chord up a fourth from the first root position chord. Each minor chord is followed with a first inversion major version so its major third bass note precedes the bass note of the next chord by a half step (one fret). Play the progression only in the ascending order of bass notes as shown.

roman	VIIIm7b5	VIIIm7b5/b3	IIIm	IIImaj/3	VIIm	VIImaj/3	IIm
	F#m7b5 I	F#m7b5/A I	Bm II	B/D# IV	Em I	E/G# II	Am I
	1 b7 b3 b5	b3 1 b3 b5 b7	1 5 1 b3	3 5 1 5	1 b3 5 b3	3 1 5 1	1 5 1 b3 5
roman	IIma/3	V major	Vmaj/3	I major	Ima/3	IV	
	A/C# II	D I	D/F# II	G I	G/B I	C I	
	3 5 1 5	1 5 1 3	3 5 1 3	1 3 5 1	3 1 5 1	1 3 5 1 3	

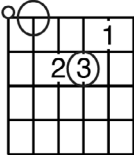
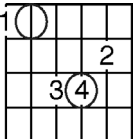
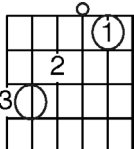
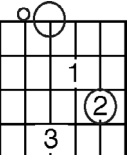
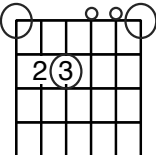
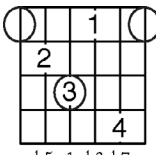
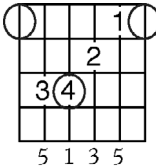
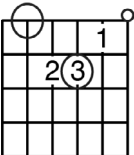
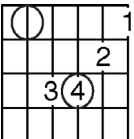
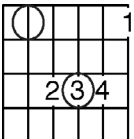
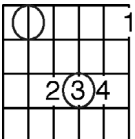
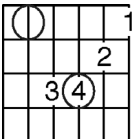
root position & first inversion chords, root names in fourths, G form C major parent scale

In this progression, each chord is played in root position, then in first inversion to voice lead the bass note to the next root-position chord up a fourth from the first root position chord. Each minor chord is followed with a first inversion major version so its major third bass note precedes the bass note of the next chord by a half step (one fret). Play the progression only in the ascending order of bass notes as shown.

roman	VIIIm7b5	VIIIm7b5/b3	IIIm	IIImaj/3	VIIm	VIImaj/3	IIm
	Bm7b5 VI	Bm7b5/D IV	Em VII	E/G# IV	Am V	Ama/3 VII	Dm V
	1 b7 b3 b5	b3 1 b5 b7	1 5 1 b3 5	3 5 1 5	1 b3 5 1	3 1 5 1	1 5 1 b3 5
roman	IIma/3	V major	Vmaj/3	I major	Ima/3	IV	
	D/F# VII	G V	G/B V	C V	C/E V	F V	
	3 5 1 5	1 5 1 3	3 1 5 1	1 5 1 3	3 5 1 5	1 3 5 1 3	

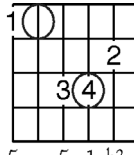
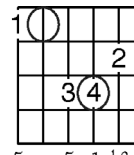
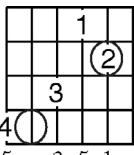
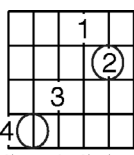
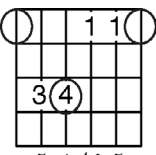
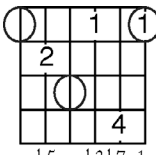
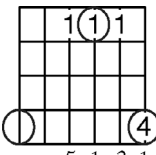
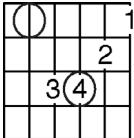
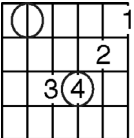
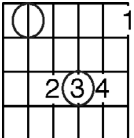
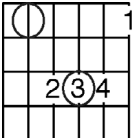
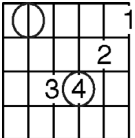
second inversion, open position G major parent scale

Each of these chords has its fifth in the bass, which is called second inversion. VII^m7b5 usually substitutes for VII diminished, which is rare in pop music. Play the chord progression in the order shown for ascending bass notes and in reverse order for descending bass notes.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	II^m/5	III^m/5	IV^{maj}/5	V^{maj}/5	VI^m/5	VII^m7b5/b5	I^{maj}/5
	Am/E I	Bm/F# II	C/G I	D/A I	Em/B I	F#m7b5/C II	G/D III
							
	5 5 1 b3	5 5 1 b3	5 3 5 1	5 3 5 1	5 1 b3 5	b5 1 b3 b7	5 1 3 5
roman	II^m/5	III^m/5	IV^{maj}/5	V^{maj}/5	VI^m/5		
	Am/E I	Bm/F# II	C/G III	D/A V	Em/B VII		
							
	5 1 b3 5	5 1 b3 5	5 1 3 5	5 1 3 5	5 1 b3 5		

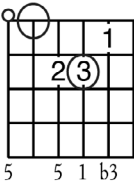
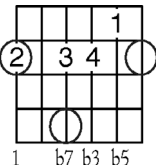
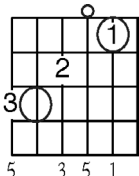
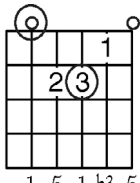
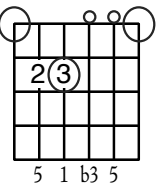
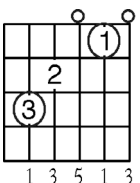
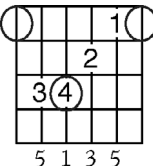
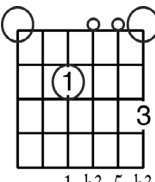
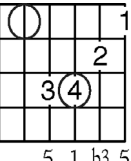
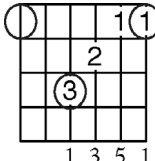
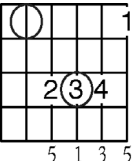
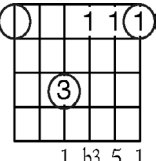
second inversion, fifth position G form C major parent scale

Each of these chords has its fifth in the bass, which is called second inversion. VII^m7b5 usually substitutes for VII diminished, which is rare in pop music. Play the chord progression in the order shown for ascending bass notes and in reverse order for descending bass notes.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	II^m/5	III^m/5	IV^{maj}/5	V^{maj}/5	VI^m/5	VII^m7b5/b5	I^{maj}/5
	Dm/A V	Em/B VII	F/C V	G/D VII	Am/E V	Bm7b5/F VII	C/G V
							
	5 5 1 b3	5 5 1 b3	5 3 5 1	5 3 5 1	5 1 b3 5	b5 b3b7 1	5 1 3 1
roman	II^m/5	III^m/5	IV^{maj}/5	V^{maj}/5	VI^m/5		
	Dm/A V	Em/B VII	F/C VIII	G/D X	Am/E XII		
							
	5 1 b3 5	5 1 b3 5	5 1 3 5	5 1 3 5	5 1 b3 5		

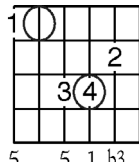
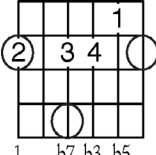
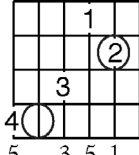
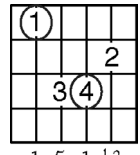
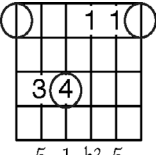
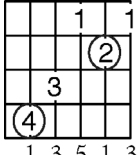
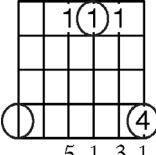
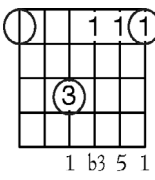
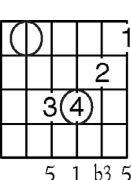
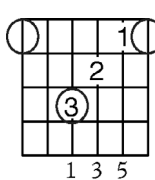
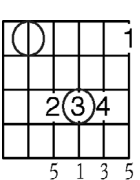
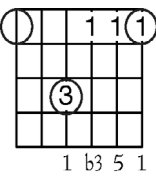
alternate root position and second inversion chords in a scalar bassline, open position G major parent scale

This progression alternates root position and second inversion chords. Play them in the order shown for ascending bass notes and in reverse order (VIIm/b3, VIIIm7b5, IVmaj/3, etc) for descending bass notes.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	IIIm/5	VIIIm7b5	IVma/5	II minor	VIIm/5	IV major	I maj/5
	Am/E I	F#m7b5 I	C/G III	Am I	Em/B I	C I	G/D III
							
	5 5 1 b3	1 b7 b3 b5	5 3 5 1	1 5 1 b3 5	5 1 b3 5	1 3 5 1 3	5 1 3 5
roman	VI minor	IIIIm/5	I major	Vmaj/5	III minor		
	Em I	Bm/F# II	G III	D/A V	Bm VII		
							
	1 b3 5 b3	5 1 b3 5	1 3 5 1	5 1 3 5	1 b3 5 1		

alternate root position and second inversion chords in a scalar bassline, G form C major parent scale

This progression alternates root position and second inversion chords. Play them in the order shown for ascending bass notes and in reverse order (VIIm/b3, VIIIm7b5, IVmaj/3, etc) for descending bass notes.

bass	6 of parent	7 of parent	1 of parent	2 of parent	3 of parent	4 of parent	5 of parent
roman	IIIm/5	VIIIm7b5	IVma/5	II minor	VIIm/5	IV major	I maj/5
	Dm/A V	Bm7b5 VI	F/C V	Dm V	Am/E V	F V	C/G V
							
	5 5 1 b3	1 b7 b3 b5	5 3 5 1	1 5 1 b3	5 1 b3 5	1 3 5 1 3	5 1 3 1
roman	VI minor	IIIIm/5	I major	Vmaj/5	III minor		
	Am V	Em/B VII	C VIII	G/D X	Em XII		
							
	1 b3 5 1	5 1 b3 5	1 3 5	5 1 3 5	1 b3 5 1		

Triad Voice Leading

triad voice leading table

<u>root movement</u>	<u>chord types</u>	<u>chord pair</u>		<u>voice leading</u> (relates to first chord)	<u>Key of C</u>	<u>Key of A</u>
stepwise	major to minor	I	IIIm	all up 1 scale tone	C-Dm	A-Bm
		V	VIIm	all up 1 scale tone	G-Am	E-F#m
	major to major	IV	V	all up 1 scale tone	F-G	D-E
	minor to minor	IIIm	IIIIm	all up 1 scale tone	Dm-Em	Bm-C#m
	minor to major	IIIIm	IV	all up 1 scale tone	Em-F	C#m-D
	dimin. to major	VII dim	I	all up 1 scale tone	B dim-C	G# dim-A
fourths	major to major	I	IV	3rd & 5th up a scale step	C-F	A-D
		V	I	3rd & 5th up a scale step	G-C	E-A
	minor to major	IIIm	V	3rd & 5th up a scale step	Dm-G	Bm-E
	minor to minor	IIIIm	VIIm	3rd & 5th up a scale step	Em-Am	C#m-F#m
	dimin. to minor	VIIm	IIIm	3rd & 5th up a scale step	Am-Dm	F#m-Bm
		VII dim	IIIIm	3rd & 5th up a scale step	Bd im-Em	G# dim-C#m
		IV	VII dim.	3rd & 5th up a scale step	F-B dim.	D-G# dim.
thirds	major to minor	I	IIIIm	root down a scale step	C-Em	A-C#m
		IV	VIIm	root down a scale step	F-Am	D-F#m
	major to dimin.	V	VII dim	root down a scale step	G-Bdim	E-G#dim
	minor to major	IIIm	IV	root down a scale step	Dm-F	Bm-D
		IIIIm	V	root down a scale step	Em-G	C#m-E
		VIIm	I	root down a scale step	Am-C	F#m-A
	dimin. to minor	VII dim	IIIm	root down a scale step	B dim-Dm	G# dim-Bm

THE CHORD PROGRESSION GAME

Theory of Chord Construction and Progression

A chord root is the note after which a chord is named. The root of Cma9 is “C”. The root of Bb7b9 (“B” flat seventh, flat nine) is “Bb” (“B” flat). See [Chord-Naming Conventions](#).

Major scale-tone chord roots can progress in the order of fourths, stepwise, or thirds. See the [Major Scale-Tone Chord Cycles and Tables](#).

stepwise root order

Stepwise root order is ascends numerically 1-2-3-4-5-6-7-1-2, etc and descends 1-7-6-5-4-3-2-1-7-6, etc. Alphabetically, stepwise root order ascends A-B-C-D-E-F-G-A-B, etc. and descends A-G-F-E-D-C-B-A-G-F, etc. with certain letters sharped (#) or flatted (b) for most keys, as you can see on the [Major Scale-Tone Chord Cycles and Tables](#).

root order in fourths

Root movement in fourths is 7-3-6-2-5-1-4-7-3, etc. in numbers and B-E-A-D-G-C-F-B-E-A, etc. in letters. In reverse order, this is fifths” 4-1-5-2-6-7-3-7 (repeating cycle) in numbers and F-C-G-D-A-E-B (cycle) in letters.

B# E# A# D# G# C# F# B E A D G C F Bb Eb Ab Db Gb Cb Fb

In the complete series of perfect fourths (above), any seven in a row are a major scale, with “1” next-to-last, which names the major scale. It is also the accumulative order of flats in flat key signatures.

Chords with root movement in fourths (B-E-A-D-G-C-F) in C major are B dim., Em (IIIIm), Am (VIIm), Dm (IIIm), G (V), C (I), F (IV), B dim., Em (IIIIm), Am, etc. This order can also be used in reverse, which is down in fourths or up in fifths:

Fb-Cb-Gb-Db-Ab-Eb-Bb-F-C-G-D-A-E-B-F#-C#-G#-D#-A#-E#-B#

root order in thirds

Root movement up in thirds is 1-3-5-7-2-4-6 (repeating cycle). in numbers and F-A-C-E-G-B-D (cycle) in letters. Roots down in thirds are 6-4-2-7-5-3-1 or -D-B-G-E-C-A-F,

Chords with root movement in stepwise order in C major are C (I), Dm (IIIm), Em (IIIIm), F (IV), G (V), Am (VIIm), B dim. or m7b5 (VII dim or VIIIm7b5), C, Dm, Em, etc. This order can also be used in reverse: C-B dim.-Am-G, etc., which is still stepwise.

Chords with root movement up in thirds in C major are C (I), Em (III^m), G (V), B dim. or Bm7b5 (VII dim or VII^m7b5), Dm (II^m), F (IV), Am (VI^m), C, G, B dim, etc. This order can also be used in reverse: F-C-G-D, etc., which is then root movement in fifths.

making phrases with chord progression

Chords are usually phrases in groups of four, eight, twelve, sixteen, twenty four or thirty two bars, but don't have to be. To give the familiar sound of order to a chord progression, it helps to have sequences of two or more chords with their roots progressing in stepwise or fourths order. Roots moving in thirds are used less often.

The Rules of the Game

start experimenting with four, eight, twelve-bars progressions

The most common chord progressions used for song sections (verse, chorus, bridge, section A, section B, etc.) are four, eight, twelve, sixteen or thirty two bars in length. Start your experimenting in creating shorter chord progressions of four, eight or twelve bars.

beats per bar

4/4, the most common time signature is best to start with. 4/4 has four beats per bar and each beat is equivalent to a quarter note in music notation.

first and last chords of the progression

Good first and last chords of chord progressions are those chords that can establish a key or temporary key: I, II^m, IV, V and VI^m (C, Dm, F, G and Am in the key of C).

the duration of each chord

To give you and the listener time to contemplate each chord yet still have an ongoing sense of chord change, one chord per bar or two chords per bar are good to start with. You may occasionally want to use a chord for two bars to complete a four or eight bar progression.

chord qualities

Keep it simple. Start with major scale-tone triads. Major, minor and diminished chords makeup the triads built on each major scale. Read their letter names and qualities on any row of the stepwise table on the left side of the [Major Scale-Tone Chord Cycles and Tables](#). The letter in the "1" column (numbered "1" at the top of the first column) designates the name of the major scale. Letter names such as C, Bb (B flat) or F# (F sharp) with nothing after the letter name are major. Those followed by "m" such as the "m" ending the chord name "Am" are minor (A minor). The row with "C" in the "1" column lists the chords on the seven steps of the "C" major scale: C-Dm-Em-F-G-Am-Bdiminished.

substituting V/3 for VII diminished

Notice the alternatives in the “VII” column of the tables in [Major Scale-Tone Chord Cycles and Tables](#).

Since the VII diminished chord (B. diminished in the key of C) is rarely used, substitute the V chord (G) with the seventh tone of the major scale in the bass. In C, this is G/B (G with a “B” bass), numerically V/3, since it is the V chord of C and the bass note is “3” in the key of the chord, G. In G, substitute D/F# for VII diminished, which would be V/3 of G. Here are some fingerings for those chords:

chords with their third in the bass (the third in the key of the chord root)

G/B I 	G/B V 	C/E I 	C/E V 	F/A I 	F/A III 	F/A V 	F/A X
D/F# I 	D/F# VII 	A/C# II 	A/C# VII 	E/G# II 	E/G# IV 	B/D# IV 	F#/A# IV
C#/E# VI 	G#/B# VI 	Bb/D III 	Eb/G VIII 	Ab/C VI 	Db/F VI 	Gb/Bb IV 	Cb/Eb IV

substituting III major for III minor

Notice the alternatives in the “III” column of the tables in [Major Scale-Tone Chord Cycles and Tables](#).

III major (E) has been used historically in place of III minor (Em) to precede VIIm (Am), making the chord progression stronger. Three major has been used more freely recently, especially in the last fifty years in pop music. III major (E) may sound as if it will progress to VIIm (Am), because that’s what we’ve heard in classical music, ragtime and traditional jazz. It may then unexpectedly progress to IV (F), where IV has two of the same notes as VIIm and ambiguously sounds somewhat resolved. VIIm (Am) has scale tones 6-1-3 of the major scale on which it was built (C major), while IV major has scale tone 4-6-1 of the major scale on which it was built (C major). They share tones “1” and “6”, so they sound similar and can be involved in chord progressions somewhat interchangeably.

fourths, stepwise and third order of chord roots

Use more fourths order, some stepwise order and order of thirds least. Once you get a sense of how the Chord Progression Game works, “reverse construct” some known songs that use chords all from one major scale. You can identify them as being from one major scale by confirming all their names are in a single row of [Major Scale-Tone Chord Cycles and Tables](#).

Any of these order of roots (fourths, stepwise or thirds) can be used in forward or reverse order. Choose three or more chords in one of the systems of order, such as fourths (Dm-G-C in the C major scale). Find the last chord from your first sequence (C) in the another system of order (stepwise) and progress two or more chords farther in that order (C-G/B-Am-G). Experiment with the duration of each chord and find something that makes a likeable four-bar or eight-bar phrase.

step-by-step procedure

- ✦ Choose a single major scale, in a horizontal row on the Major Scale-Tone Chords chart below.
- ✦ Decide on a few chords in fourths, fourths or thirds root movement.
- ✦ Keep the last chord from step 2 in mind, which could be called the “pivotal” chord. Find it in another order of root movement (in stepwise, thirds or fourths) and continue in the new order.
- ✦ Continue the progression as long as you like, finding the last chord you used in one order in another and continuing from there.

sample progression

Start with the ascending fourths sequence Dm-G-C (IIIm-V-I of C). Then, from the “C” chord, progress stepwise C-G/B (substitute for VII)-Am then up a third to C (I) and down a fourth to G (V). Then repeat, but replace the fourth chord with “E” (substituting E for Em), progressing a third from C to E and a fourth from E to Am. End on Am.

bar 1 Dm I G I 	bar 2 C I G/B I 	bar 3 Am I C I 	bar 4 G I
bar 5 Dm I G I 	bar 6 C I G/B I 	bar 7 Am I C I 	bar 8 G I

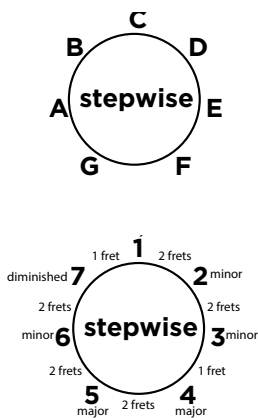
end on Am
 Am I

Major Scale-Tone Chord Cycles and Tables

In the tables below, each row is a key. Read a row for a key all the way across the three tables.

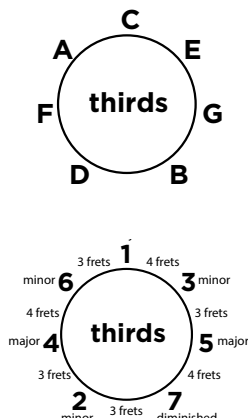
stepwise

With stepwise roots, ascending suggests going somewhere. Descending suggests returning. All notes change (1-3-5 to 2-4-6).



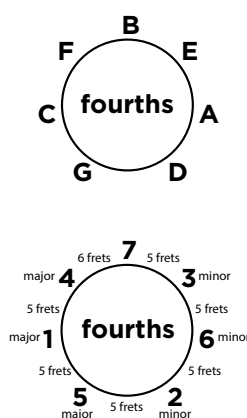
thirds

Progression in thirds is incidental. Each chord to the next only changes one note (1-3-5 to 3-5-7).



fourths

Progression in fourths is pivotal. With triads, one note is retained and two note move up a scale tone (1-3-5 to 1-4-6).



1	2	3	4	5	6	7
1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
maj.	min.	min. or maj.	maj.	maj.	min.	dim. or V/3
C#	D#m	E#m or E#	F#	G#	A#m	B#dim or G#/B#
F#	G#m	A#m or A#	B	C#	D#m	E#dim. or C#/E#
B	C#m	D#m or D#	E	F#	G#m	A#dim or F#/A#
E	F#m	G#m or G#	A	B	C#m	D#dim. or B/D#
A	Bm	C#m or C#	D	E	F#m	G#dim. or E/G#
D	Em	F#m or F#	G	A	Bm	C#dim. or A/C#
G	Am	Bm or B	C	D	Em	F#dim. or D/F#
C	Dm	Em or E	F	G	Am	Bdim. or G/B
F	Gm	Am or A	Bb	C	Dm	Edim. or C/E
Bb	Cm	Dm or D	Eb	F	Gm	Adim. or F/A
Eb	Fm	Gm or G	Ab	Bb	Cm	Ddim. or Bb/D
Ab	Bbm	Cm or C	Db	Eb	Fm	Gdim. or Eb/G
Db	Ebm	Fm or F	Gb	Ab	Bbm	Cdim. or Ab/C
Gb	Abm	Bbm or Bb	Cb	Db	Ebm	Fdim. or Db/F
Cb	Dbm	Ebm or Eb	Fb	Gb	Abm	Bbdim. or Gb/Bb

1	3	5	7	2	4	6
1-3-5	3-5-7	5-7-2	7-2-4	2-4-6	4-6-1	6-1-3
maj.	min. or maj.	maj.	dim. or V/3	min.	maj.	min.
C#	E#m or E#	G#	B#dim or G#/B#	D#m	F#	A#m
F#	A#m or A#	C#	E#dim. or C#/E#	G#m	B	D#m
B	D#m or D#	F#	A#dim or F#/A#	C#m	E	G#m
E	G#m or G#	B	D#dim. or B/D#	F#m	A	C#m
A	C#m or C#	E	G#dim. or E/G#	Bm	D	F#m
D	F#m or F#	A	C#dim. or A/C#	Em	G	Bm
G	Bm or B	D	F#dim. or D/F#	Am	C	Em
C	Em or E	G	Bdim. or G/B	Dm	F	Am
F	Am or A	C	Edim. or C/E	Gm	Bb	Dm
Bb	Dm or D	F	Adim. or F/A	Cm	Eb	Gm
Eb	Gm or G	Bb	Ddim. or Bb/D	Fm	Ab	Cm
Ab	Cm or C	Eb	Gdim. or Eb/G	Bbm	Db	Fm
Db	Fm or F	Ab	Cdim. or Ab/C	Ebm	Gb	Bbm
Gb	Bbm or Bb	Db	Fdim. or Db/F	Abm	Cb	Ebm
Cb	Ebm or Eb	Gb	Bbdim. or Gb/Bb	Dbm	Fb	Abm

7	3	6	2	5	1	4
7-2-4	3-5-7	6-1-3	2-4-6	5-7-2	1-3-5	4-6-1
dim. or V/3	min. or maj.	min.	min.	maj.	maj.	maj.
B#dim or G#/B#	E#m or E#	A#m	D#m	G#	C#	F#
E#dim. or C#/E#	A#m or A#	D#m	G#m	C#	F#	B
A#dim or F#/A#	D#m or D#	G#m	C#m	F#	B	E
D#dim. or B/D#	G#m or G#	C#m	F#m	B	E	A
G#dim. or E/G#	C#m or C#	F#m	Bm	E	A	D
C#dim. or A/C#	F#m or F#	Bm	Em	A	D	G
F#dim. or D/F#	Bm or B	Em	Am	D	G	C
Bdim. or G/B	Em or E	Am	Dm	G	C	F
Edim. or C/E	Am or A	Dm	Gm	C	F	Bb
Adim. or F/A	Dm or D	Gm	Cm	F	Bb	Eb
Ddim. or Bb/D	Gm or G	Cm	Fm	Bb	Eb	Ab
Gdim. or Eb/G	Cm or C	Fm	Bbm	Eb	Ab	Db
Cdim. or Ab/C	Fm or F	Bbm	Ebm	Ab	Db	Gb
Fdim. or Db/F	Bbm or Bb	Ebm	Abm	Db	Gb	Cb
Bbdim. or Gb/Bb	Ebm or Eb	Abm	Dbm	Gb	Cb	Fb

USING TRIADS IN IMPROV AND COMPING

Preparation

In improvising melody and comping (composing an accompaniment part spontaneously), you need to quickly perform the three-step procedure below:

1. determine the scale-tone chord type by number.
2. choose arpeggio, chord, and/or pentatonic fingering(s).
3. determine seven tone scale fingering.

Determining a Scale-Tone Chord by Number

In a chord progression, groups of consecutive chords usually occur in the same heptatonic (seven-tone) scale, and more commonly in the major scale. A good first step in recognizing the numbered scale tones on which a group of chord roots have occurred is to identify a scale-tone pair of chords.

Unique And Ambiguous Major Scale-Tone Pairs Of Chords

If you see two major chords with their roots a whole step (two frets) apart, you should suspect they have come from major scale tones four and five and are “IV type” and “V type” chords. Two minor roots a whole step apart should be suspected as “II type” and “III type”. A minor chord root progressing up a half step (one fret) to a major chord is probably “III type” to “IV type”.

Any major scale-tone triad pair of chords that includes a diminished triad (on the seventh step of the major scale), is unique. With roots moving in perfect fourths, the only other unique pair of triads is IIm to V. In stepwise order, every pair in the cycle from IIm to V is unique (IIm to IIIm, IIIm to IV and IV to V). With roots moving in thirds the only unique pairs of triads include the VII diminished triad.

Three Categories of Arpeggio and Heptatonic Scale Fingerings

Arpeggios and heptatonic (seven-tone) scales usually fall into these categories for the location of the low octave root or tone center:

index finger

middle finger, in this case meaning the middle or ring finger

little finger, in this case meaning the ring or little finger

Notice that the ring finger could be in either category as a middle finger or little finger. Where it is the high-pitched note used on a string, it can be in the “little finger” category. Where the ring finger is next to highest-pitched note on a string, it is in the middle finger category.

PRINCIPLES OF ACCEPTABLE DISSONANCE

Questions of Actual Dissonance and Mood

We decide whether a chord is acceptable or not according to the beating that physically occurs when notes are close together in pitch *and* by mood and style.

major seventh and minor seventh chords are romantic by combining happy and sad

Major chords sound happy and minor chords sound sad. Like a romantic literary work or film, major seventh chords are romantic because the triad on their root is major (1-3-5) and the triad on their third is minor (3-5-7). Since the major triad occurs on the root, the major seventh has a happy basis and a minor undertone.

Minor seventh chords such as IIm7 with parent scale tones 2-4-6 and 1 are romantic also, but have a sad (minor, such as 2-4-6) basis with a happy undertone (major, such as 4-6-1). The IIm7 is constructed with tones 2-4-6-1 of its parent scale and the 2-4-6 part makes a II minor triad while the 4-6-1 part makes a IV major triad. See [Number And Letter Cycles](#) and [Basic Chord Construction](#).

dominant seventh chords combine happy and depressed

Dominant seventh chords such as V7, with parent scale tones 5-7-2-4 are angry or funky in mood, since they combine drastically opposed moods: happy and oppressed. The triad on the root of a V7 chord is the happy major chord (5-7-2 of the parent), while the triad on the third of a V7 chord is oppressed (or depressed), being the diminished triad made with tones 7-2-4 of the parent scale.

Specific Attributes

notes a half step apart are usually voiced in different octaves

Half steps in the same octave are very dissonant, but sometimes this is desirable, such as voicing the ninth and the flatted third of a minor ninth chord in the same octave.

critical dissonance, usually unacceptable

The third and fourth, even if in different octaves. The b6 and the 5, unless in different octaves on a dominant chord (with a natural 3 and b7).

controversial dissonance when voiced in the same octave

1 and b2 (=b9), 2 and b3, #9 (= #2) and 3, #4 (= #11) and 5, 5 and b13(=b6), #5 and 13(=6), 6 and b7, 7 and 1.

acceptable dissonance when voiced in different octaves

1 and b2 (=b9), 2 and b3, #9 (= #2) and 3, #4 (= #11) and 5, 5 and b13 (=b6), #5 and 13 (=6), 6 and b7, 7 and 1.

b9, #9 (“proxy”), and b13 (“proxy”) chord tones are only used on dominant chords

The hypothetical IIIIm9 and VIIImb5b9 ninth chords on steps III and VII are not acceptable, since they would have flat ninths. We only find flat ninths acceptable on dominant chords (chords with a major third and flattened seventh). Similarly, we only accept sharp nine and sharp five on dominant chords.

The name minor #5 is sometimes used, but is really a way to name a major triad on the note that is “#5”.

#9 is used to allow a flat three in a chord with a natural three, since #9 = b3. So, #9 could be called a “proxy” for b3.

b13 is used to allow a sharp five in a chord with a natural five, since b13 = b6 = #5. So, b13 could be called a “proxy” for #5.

b5, #5 “proxy” chord tones

#4 can be used as a proxy for b5. b6 can be used as a proxy for #5.

ALL MAJOR SCALE-TONE CHORDS

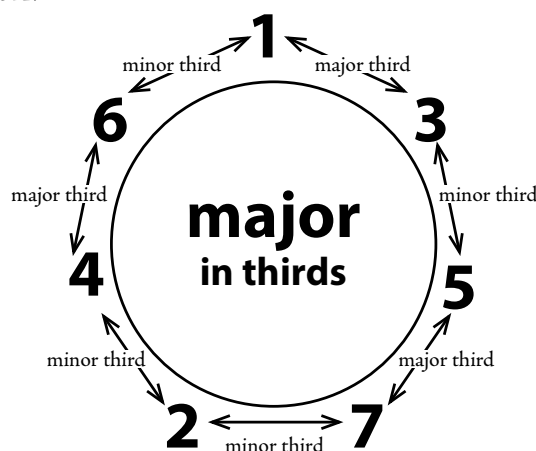
Major Scale-Tone (MST) modes in terms of the seventh chord and remaining 2, 4, 6

Memorize the major scale-tone seventh chord qualities built on each scale tone first. Then memorize the remaining 2, 4 and 6 to be able to build all scale tone chord types, as you will learn in this chapter. The only mode that has #4 is Lydian. So, for most MST modes, the question is “what’s the 2 and 6”. modes III and VII are the only modes with b2. The major modes I, IV and V have a natural 6. Dorian also has natural 6 (the brightest mood of the minor modes). The other three modes have b6: VI Aeolian, III phrygian and VII Locrian.

Constructing Major Scale-Tone Chords

the primary structure of chords is thirds

In the standard method of construction, major scale-tone chords are built with every-other note, using the cycle of thirds shown below. Each triad uses three consecutive notes from the cycle. The I major triad uses scale tones 1-3-5. The II minor triad uses scale tones 2-4-6, and so on. Each quadrad (specifically a tertian scale tone quadrad, commonly called a scale-tone seventh chord) uses four consecutive notes from the cycle. The I major seventh chord uses scale tones 1-3-5-7. The II minor seventh chord uses scale tones 2-4-6-1 and so on.



numbered major scale tones used in scale tone triads, seventh and ninth chords

scale-tone:	I	II	III	IV	V	VI	VII
triad.....	I major	II minor	III minor	IV major	V major	VI minor	VII dimin.
parent scale tones	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
chord scale tones	1-3-5	1-b3-5	1-b3-5	1-3-5	1-3-5	1-b3-5	1-b3-b5
seventh chord	I _{ma} 7	II _m 7	III _m 7	IV _{ma} 7	V7	VI _m 7	VII _m 7b5
parent scale tones....	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-6
chord scale tones	1-3-5-7	1-b3-5-b7	1-b3-5-b7	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7
ninth chord	I _{ma} 9	II _m 9	no chord	IV _{ma} 9	V9	VI _m 9	no chord
parent scale tones....	1-3-5-7-2	2-4-6-1-3		4-6-1-3-5	5-7-2-4-6	6-1-3-5-7	
chord scale tones	1-3-5-7-2	1-b3-5-b7-2		1-3-5-7-2	1-3-5-b7-2	1-b3-5-b7-2	

I^{ma}7 is 1-3-5-7 of the parent scale

The largest chord built on major scale tone one in thirds is I^{ma}9. The 11 (= 4) is dissonant against the 3 and the “3” is forms the primary character of the chord, so the 11 (4) is not used except in I sus. 4 chords.

II^m7 is 2-4-6-1 of the parent major scale

The largest acceptable chord built in thirds on major scale tone two is II^m13. A wide variety of chords is available.

III^m7 is 3-5-7-2 of the parent major scale

The largest acceptable chord built in thirds on major scale tone three is III^m7. Phrygian mode (major scale mode III) has b2 and b6. b9 (= b2) is only usable on dominant chords, so you can only use the b2 if the chord is change to III7 (as opposed to III^m7) making a III7b9. When the III7 chord is used, the b6 is available to make III7#5.

IV^{ma}7 is 4-6-1-3 of the parent major scale

The largest chord built in thirds on major scale tone four is the IV^{ma}13#11. Lydian mode (major scale mode IV) has #4. The #4 can be used as a proxy for b5 in IV^{ma}7b5, IV^{ma}9b5 or IV^{ma}9/6b5.

V7 is 5-7-2-4 of the parent major scale

The largest acceptable chord built in thirds on major scale tone five is the V9. V13 is usually voiced without 11 (=4) is dissonant against the 3). So, without the 11, V13 is really V9/6 or V13 no 11. If the 11th is used, the third is usually omitted, which makes V13sus4. V11 is usually voiced without the third, and therefore could be called V9sus4.

VI^m7 is 6-1-3-5 of the parent major scale

The largest acceptable chord built in thirds on major scale tone six is VI^m11. Aeolian mode (major scale mode VI) has b6, which equals b13. The flatted sixth cannot be used, since b6 (= b13) is only usable on dominant chords where it is a “proxy” for #5.

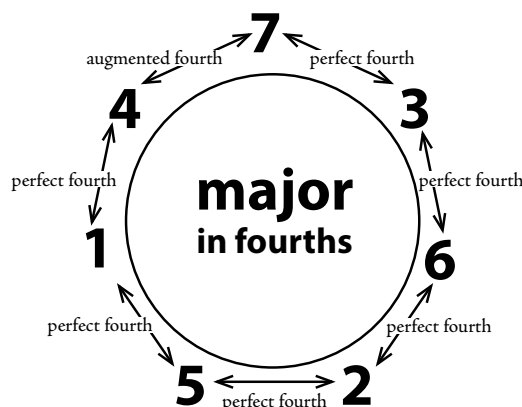
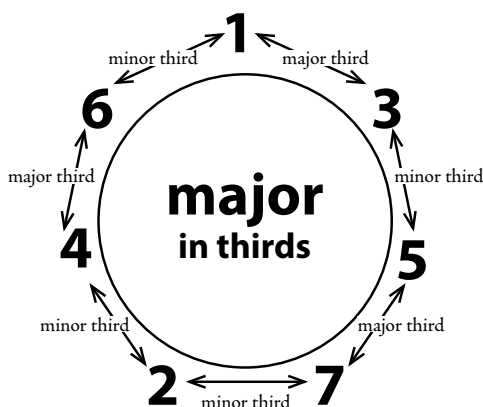
VII^m7b5 is 7-2-4-6 of the parent major scale

The largest acceptable chord built in thirds on major scale tone seven is VII^m7b5. Locrian mode (major scale mode VII) has b2, which equals b9. The flatted ninth cannot be used, since b9 is only usable on dominant chords.

Major Scale-Tone Chords by Type

The types are shown in the far left column.

scale-tone:	I	II	III	IV	V	VI	VII
M.S.T. mode.....	Ionian.....	Dorian.....	Phrygian.....	Lydian.....	Mixolydian.....	Aeolian.....	Locrian
Lydian.....	V.....	VI.....	VII.....	I.....	II.....	III.....	#IV
Mixolydian.....	IV.....	V.....	VI.....	bVII.....	I.....	II.....	III
Dorian.....	bVII.....	I.....	II.....	bIII.....	IV.....	V.....	VI
Aeolian.....	bIII.....	IV.....	V.....	bVI.....	bVII.....	I.....	II
Phrygian.....	bVI.....	bVII.....	I.....	bII.....	bIII.....	IV.....	V
Locrian.....	bII.....	bIII.....	IV.....	bV.....	bVI.....	bVII.....	I
thirds.....	major.....	minor.....	minor.....	major.....	major.....	minor.....	minor
sixths.....	minor.....	major.....	major.....	minor.....	minor.....	major.....	major
triad.....	major.....	minor.....	minor.....	major.....	major.....	minor.....	diminished
seventh.....	ma7.....	m7.....	m7.....	ma7.....	7.....	m7.....	m7b5
ninth.....	ma9.....	m9.....		ma9.....	9.....	m9.....	
eleventh.....		m11.....		ma9#11.....		m11.....	
thirteenth.....		m13.....		ma13#11.....			
11no3(9sus4).....		11no3.....			11no3.....	11no3.....	
13no11.....	ma13no11.....	m13no11.....		ma13no11.....	13no11.....		
7/6.....	ma7/6.....	m7/6.....		ma7/6.....	7/6.....		
sixth.....	6.....	m6.....		6.....	6.....		
add 9.....	add9.....	m add9.....		add 9.....	add 9.....	m add 9.....	
6/9.....	6/9.....	m6/9.....		6/9.....	6/9.....		
7/11.....		m7/11.....	m7/11.....			m7/11.....	(m7/11b5)
sus.4.....	sus.4.....	sus.4.....	sus.4.....		sus.4.....	sus.4.....	
sus.2.....	sus.2.....	sus.2.....		sus.2.....	sus.2.....	sus.2.....	
7 sus.4.....	(ma7sus.4).....	7sus.4.....	7sus.4.....		7sus.4.....	7sus.4.....	
7 sus.2.....	ma7sus.2.....	7sus.2.....		ma7sus.2.....	7sus.2.....	7sus.2.....	
9 no 3.....	ma9no3.....	9no3.....		ma9no3.....	9no3.....	9no3.....	
9 sus.4.....	(ma7sus.4).....	9sus.4.....			9sus.4.....	9sus.4.....	
13 sus.4 (13no3).....		13sus.4.....			13sus.4.....		
7/6 sus.4.....		7/6sus.4.....			7/6sus.4.....		
7/6 sus.2.....		7/6sus.2.....			7/6sus.2.....		



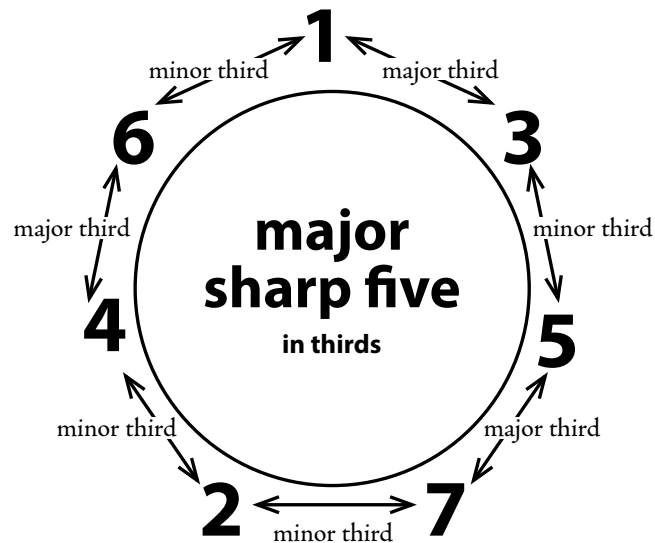
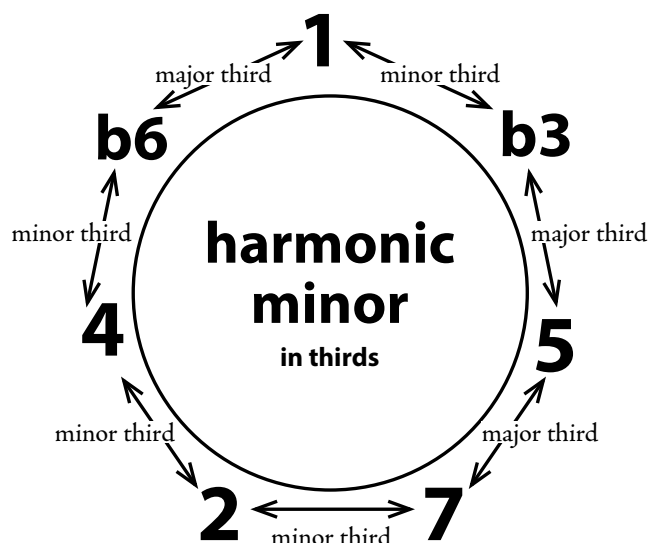
Major Scale-Tone Triads and Seventh Chords in All Keys

major scale tone	1	2	3	4	5	6	7
roman numeral name	I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim.}
triad quality	major	minor	minor	major	major	minor	diminished
scale tones in triad	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
formula on root	1-3-5	1-b3-5	1-b3-5	1-3-5	1-3-5	1-b3-5	1-b3-b5
seventh quality	maj7	min7	min7	maj7	dom.7	min7	min7b5
scale tones in seventh	1-3-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-6
formula on root	1-3-5-7	1-b3-5-b7	1-b3-5-b7	1-3-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7
mode	major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
altered tones in mode	none	b3-b7	b2-b3-b6-b7	#4	b7	b3-b6-b7	b2-b3-b5-b6-b7
letter names in C	C	D ^m	E ^m	F	G	A ^m	B ^{dim.}
	C ^{ma7}	D ^{m7}	E ^{m7}	F ^{ma7}	G7	A ^{m7}	B ^{m7b5}
letter names in F	F	G ^m	A ^m	B ^b	C	D ^m	E ^{dim.}
	F ^{ma7}	G ^{m7}	A ^{m7}	B ^{bma7}	C7	D ^{m7}	E ^{m7b5}
letter names in G	G	A ^m	B ^m	C	D	E ^m	F ^{#dim.}
	G ^{ma7}	A ^{m7}	B ^{m7}	C ^{ma7}	D7	E ^{m7}	F ^{#m7b5}
letter names in D	D	E ^m	F ^{#m}	G	A	B ^m	C ^{#dim.}
	D ^{ma7}	E ^{m7}	F ^{#m7}	G ^{ma7}	A7	B ^{m7}	C ^{#m7b5}
letter names in B ^b	B ^b	C ^m	D ^m	E ^b	F	G ^m	A ^{dim.}
	B ^{bma7}	C ^{m7}	D ^{m7}	E ^{bma7}	F7	G ^{m7}	A ^{m7b5}
letter names in A	A	B ^m	C ^{#m}	D	E	F ^{#m}	G ^{#dim.}
	A ^{ma7}	B ^{m7}	C ^{#m7}	D ^{ma7}	E7	F ^{#m7}	G ^{#m7b5}
letter names in E ^b	E ^b	F ^m	G ^m	A ^b	B ^b	C ^m	D ^{dim.}
	E ^{bma7}	F ^{m7}	G ^{m7}	A ^{bma7}	B ^{b7}	C ^{m7}	D ^{m7b5}
letter names in E	E	F ^{#m}	G ^{#m}	A	B	C ^{#m}	D ^{#dim.}
	E ^{ma7}	F ^{#m7}	G ^{#m7}	A ^{ma7}	B7	C ^{#m7}	D ^{#m7b5}
letter names in A ^b	A ^b	B ^{b^m}	C ^m	D ^b	E ^b	F ^m	G ^{dim.}
	A ^{bma7}	B ^{b^{m7}}	C ^{m7}	D ^{bma7}	E ^{b7}	F ^{m7}	G ^{m7b5}
letter names in B	B	C ^{#m}	D ^{#m}	E	F [#]	G ^{#m}	A ^{#dim.}
	B ^{ma7}	C ^{#m7}	D ^{#m7}	E ^{ma7}	F ^{#7}	G ^{#m7}	A ^{#m7b5}
letter names in D ^b	D ^b	E ^{b^m}	F ^m	G ^b	A ^b	B ^{b^m}	C ^{dim.}
	D ^{bma7}	E ^{b^{m7}}	F ^{m7}	G ^{bma7}	A ^{b7}	B ^{b^{m7}}	C ^{m7b5}
letter names in F [#]	F [#]	G ^{#m}	A ^{#m}	B	C [#]	D ^{#m}	E ^{#dim.}
	F ^{#ma7}	G ^{#m7}	A ^{#m7}	B ^{ma7}	C ^{#7}	D ^{#m7}	E ^{#m7b5}
letter names in G ^b	G ^b	A ^{b^m}	B ^{b^m}	C ^b	D ^b	E ^{b^m}	F ^{dim.}
	G ^{bma7}	A ^{b^{m7}}	B ^{b^{m7}}	C ^{bma7}	D ^{b7}	E ^{b^{m7}}	F ^{m7b5}
letter names in C [#]	C [#]	D ^{#m}	E ^{#m}	F [#]	G [#]	A ^{#m}	B ^{#dim.}
	C ^{#ma7}	D ^{#m7}	E ^{#m7}	F ^{#ma7}	G ^{#7}	A ^{#m7}	B ^{#m7b5}

ALL HARMONIC MINOR SCALE-TONE CHORDS

The types are shown in the far left column.

scale tone:	I	II	bIII	IV	V	bVI	VII
mode	Aeolian \flat 7 harmonic minor	Locrian \flat 6	major #5	Dorian #4	Phrygian \flat 3 Phry. dominant	Lydian #2	Mixo. #1
formula	b3-b6	b2-b3-b5-b7	#5	b3-#4-b7	b2-b6-b7	#2-#4	b2-b3-b4-b5-b6-bb7
Locrian nat. 6	bVII	I	bII	bIII	IV	bV	VI
major #5	VI	VII	I	II	III	IV	#V
Dorian #4	V	VI	bVII	I	II	bIII	#IV
Phrygian nat. 3	IV	V	bVII	bVII	I	bII	III
Lydian b2	III	#IV	V	VI	VII	I	bII
Mixolydian #1	bII	bIII	bIV	bV	bVI	bbVII (=6)	I
thirds	minor	minor	major	minor	major	major	minor
sixths	major	major	minor	major	minor	minor	major
triad	minor	diminished	augmented	minor	maj. or aug.	maj. or dim.	dim. or aug.
seventh	min(ma7)	m7b5 or dim7	ma7#5	m7 or dim7	7 or 7#5	maj7 or dim7	dim
ninth	min9(ma7)	ma9#5	m9 or dim7/9	9, 9#5	m9b5	7±5±9	
sixth				m6	6		
add 9	m add9			m add 9			
6/9				m6/9			
7/11		m7/11b5		7/11	ma7#11		
sus.4	sus.4			sus.4			
sus.2	sus.2			sus.2			
7 sus.4	ma7sus4			7sus4			
7 sus.2	ma7sus.2			7sus2	7sus4		
9 no 3	ma9no3			9no3			



harmonic minor scale-tone modes in terms of seventh chords and remaining 2, 4, 6.

Once you memorize the seventh chords and “remaining 2, 4, 6” for the major scale, you can put each mode through a conversion process to convert it to a harmonic minor scale-tone mode.

<u>har.m.</u>	<u>maj. #5</u>	<u>altered tones</u>	<u>7th & 246</u>	<u>description</u>
I	VI	b3 b6	m(ma7) (24b6)	Aeolian natural 7 (major mode VI with n7)
II	VII	b2 b3 b5 b7	m7b5 (b246)	major #5 (major mode I with #5)
bIII	I	#5	ma7#5 (246)	
IV	II	b3 #4 b7	m7 (2#46)	Dorian #4 (major mode II with #4)
V	III	b2 b6 b7	7(b24b6)	Phrygian major (major mode III with n3)
bVI	IV	#2 #4	ma7(2#46)	Lydian #2 (major mode IV with #2)
VII	#V	b2 b3 b4 b5 b6 bb7	dim.7(b2b4b6)	Mixolydian #1 (major mode V with #1)

Im(ma7) (also available: 2, 4, b6)

The largest chord built in thirds is Im9(ma7). b6 is not used in this chord, since too dissonant with “5”.

IIIm7 b5 (also available: b2, 4, 6)

The largest usable chord built in thirds on scale tone two of harmonic minor is IIIm7b5. “b2” is not used in this chord, since too dissonant with “1”. “b6” is also not used in this chord, since too dissonant with “5”. IIIm7/11b5 is usable if “4” and “b5” are not voiced in the same octave.

bIIIma7#5 (also available: 2, 4, 6)

The largest chord built in thirds is bIIIma9#5. “4” is not used in this chord, since too dissonant with “3”. “6” is not used in this chord, since too dissonant with “#5”.

IVm7 (also available: 2, #4, 6)

The largest chord built in thirds is IVm9. “#4” is not used with “n5” in this chord, but “#5” can be used as a “proxy” tone to represent “b5”. “6” can be combined with m7 to make m7/6 or with m9 to make m9/6.

V7 (also available: b2, 4, b6)

The largest chord built in thirds is V7b9. “4” is not used with “3” in this chord, but “4” can be used in a V7sus.4 chord. “b6” can be used to replace “5” as a “proxy” for #5, or “b6” can be used as a “proxy” for #5 so a chord can have “n5” and “#5” both, in effect.

bVIma7 (also available: #2, #4, 6)

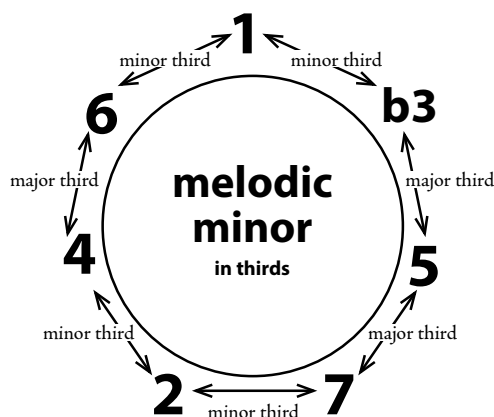
The largest chord built in thirds is bVIma7. “6” can be used to make a sixth chord, or added to the IVma7 to make IVma7/6. “#2” is not used with “3” in this chord. “#4” can be used to replace “5” as a “proxy” for b5, or “#4” can be used as a “#11” in a IVma7#11 or IVma7/6/#11 chord.

VIIIdim7 (also available: b2, b4, b6)

The largest chord built in thirds is VIIIdim7.

ALL MELODIC MINOR SCALE-TONE CHORDS

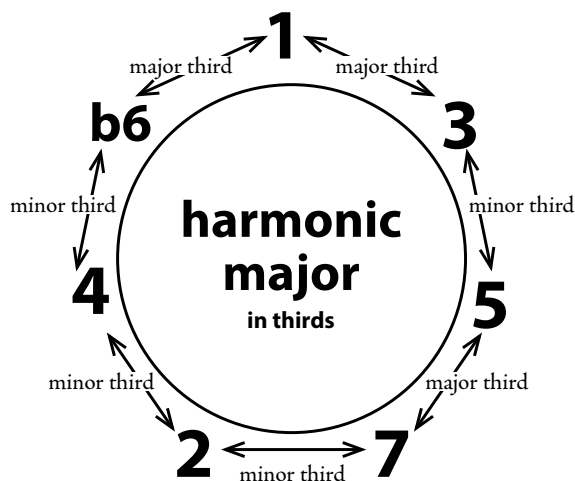
scale tone:	I	II	bIII	IV	V	VI	VII
mode	major b3	Dorian b2	Phrygian b1	Lydian b7	Mixolydian b6	Aeolian b5.....	Locrian b4 super Locrian
formula	b3	b2-b3-b7	#4-#5	#4-b7	b6-b7	b3-b5-b6-b7.....	b2-b3-b4-b5-b6-b7
Dorian b2.....	bVII	I	bII	bIII	IV	V	VI
Phrygian b1.....	bVI	bII	I	bII	IbII	IV	V
Lydian dominant.....	V	VI	bVII	I	II	III	#IV
Mixolydian b6..... (Aeolian dominant)	IV	V	bVI	bVII	I	II	III
Aeolian b5.....	bIII	IV	bV	bVI	bVII	I	II
Locrian b4.....	bII	bIII	bIV	bV	bVI	bVII	I
thirds.....	minor	minor	major	major	major	minor	minor
sixths.....	major	major	minor	minor	minor	major	major
triad.....	minor	minor	augmented	major	maj., aug.	diminished	maj., min., dim., aug.
seventh.....	min(ma7)	m7	ma7#5	7	7, 7#5	m7b5	7b5, 7#5, m7b5
ninth.....	min9(ma7)		ma9#5	9	9, 9#5	m9b5	7#5#9, 7#5b9, 7b5#9, 7b5b9
eleventh.....	m11(ma7)			9#11			
thirteenth.....				13#11			
11no3(9sus4).....					11no3		
13no11.....				ma13no11			
7/6.....	m(ma7)/6	m7/6		7/6	7/6		
sixth.....	m6	m6		6			
add 9.....	madd9			add 9	add 9		
6/9.....	m6/9			6/9			
7/11.....		m7/11				m7/11b5	
sus.4.....	sus.4	sus.4			sus.4		
sus.2.....	sus.2			sus.2	sus.2		
7 sus.4.....	ma7sus.4	7sus.4			7sus.4		
7 sus.2.....	ma7sus.2			7sus.2	7sus.2		
9 no 3.....	ma9no3			9no3	9no3		
9 sus.4.....	ma7sus.4				9sus.4		
7/6 sus.4.....		7/6sus.4					
7/6 sus.2.....							



ALL HARMONIC MAJOR SCALE-TONE CHORDS

(major flat six)

scale tone:	I	II	III	IV	V	bVI	VII
mode	harmonic major	Dorian b5	Phrygian b4 super Phrygian	Lydian b3 Lydian diminished	Mixolydian b2	Aeolian b1	Locrian bb7
formula	b6	b3-b5-b7	b2-b3-b4-b6-b7	b3-#4	b2-b7	#2, #4, #5	b2-b3-b4-b5-b6-b7
Dorian b5.....	bVII	I	II	bIII	IV	bV	VI
Phrygian b6.....	bVI	bII	I	bII	bII	IV	V
Lydian diminished..	V	VI	VII	I	II	bIII	#IV
Mixolydian b2.....	IV	V	VI	bVII	I	bII	III
Aeolian b1.....	III	#IV	#V	VI	VII	I	#II
Locrian bb7.....	bII	bIII	bIV	bV	bVI	bbVII	I
thirds.....	major	minor	minor	minor	major	major	minor
sixths.....	minor	major	minor	major	minor	minor	major
triad.....	major, aug.	diminished	minor, major	minor	major	augmented	diminished
seventh.....	ma7	m7b5	min7	min(ma7)	7	ma7#5	dim. 7
ninth.....	ma9	m9b5	7#9, 7b9	m9(ma7)	7b9		
7/6.....					7/6		
13no11 (9/6).....		m9/6			13b9no11		
13.....		m13b5					
sixth.....				m6	6		
add 9.....	add9			m add 9			
6/9.....				m6/9			
7/11.....		m7/11b5			7/11		
sus.4.....	sus.4				sus.4		
sus.2.....	sus.2			sus.2			
7 sus.4.....	ma7sus.)				7sus.4		
7 sus.2.....	ma7sus.2						
9 no 3.....	ma9no3			m(ma9)no3			
9 sus.4.....	ma7sus.4						
13 sus.4 (13no3).....							
7/6 sus.4.....					7/6sus4		



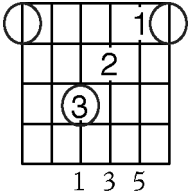
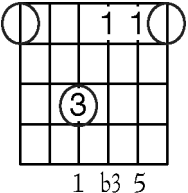
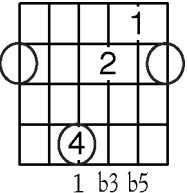
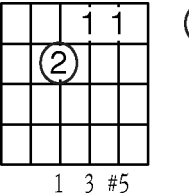
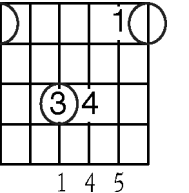
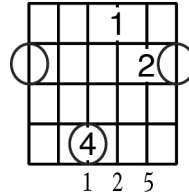
Emotive Qualities of Chords and Scales

- **Triad Emotive Qualities**
- **Chord Qualities Expressed by Scales**
- **Summarizing Emotive Qualities in Chord Progression**
- **Chord Synonyms**
- **Each Note of Minor Pentatonic with Common Chords**
- **Each Note of Major Pentatonic with Common Chords**
- **Two and Flat Six of Aeolian with Common Chords**
- **Two and Six of Dorian with Common Chords**
- **Four and Seven of Major with Common Chords**
- **Four and Flat Seven of Mixolydian with Common Chords**

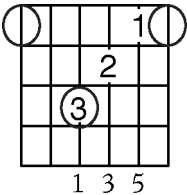
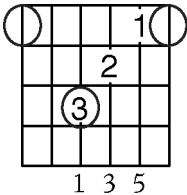
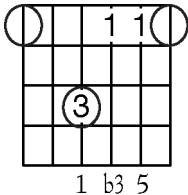
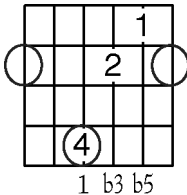
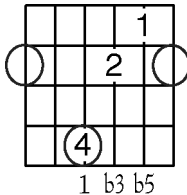
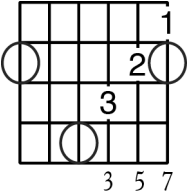
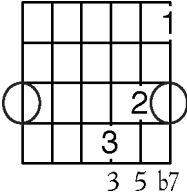
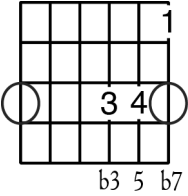
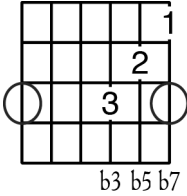
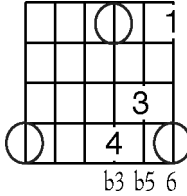
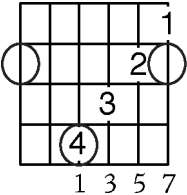
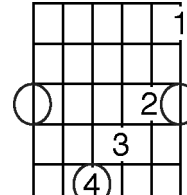
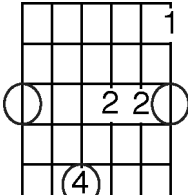
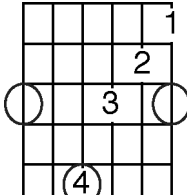
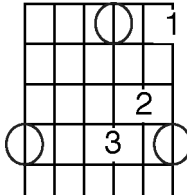
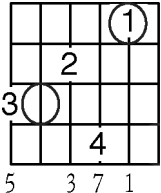
TRIAD EMOTIVE QUALITIES

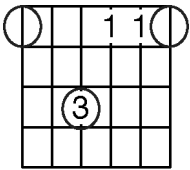
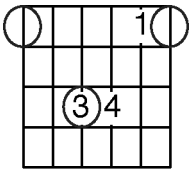
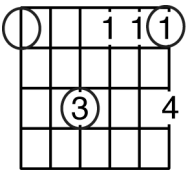
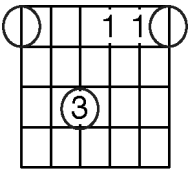
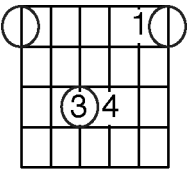
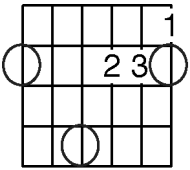
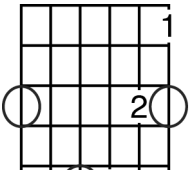
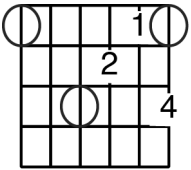
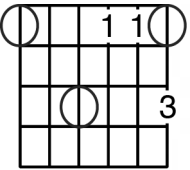
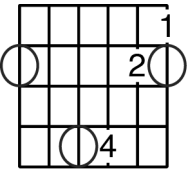
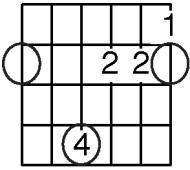
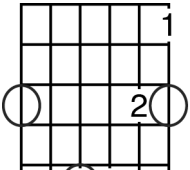
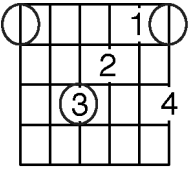
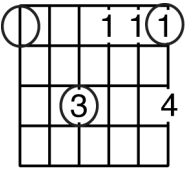
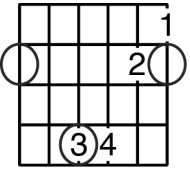
Singular Triad Moods

Triads can be identified aurally by their emotive quality. Major chords sound happy, minor sad. Other factors can influence the mood and effect the emotive quality of a triad. A fast swing rhythm, for example, makes a song feel cheerful, even when used on a minor chord. A long, slow song featuring major chords, can sound a bit more somber than a fast song.

quality	major	minor	diminished	augmented	suspended fourth	suspended second
mood	happy	sad	depressed	tormented	heavenly	positive, other- worldly, modern
						

Paired Triad Moods in Seventh Chords

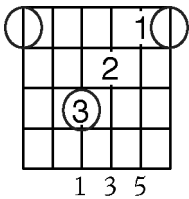
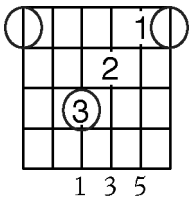
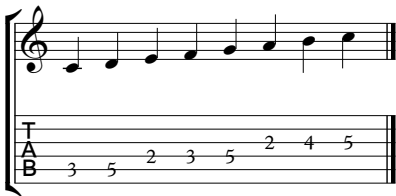
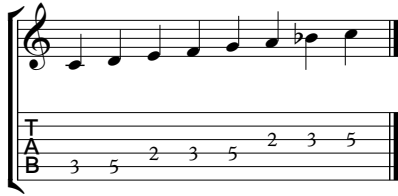
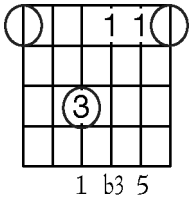
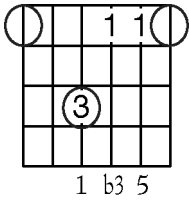
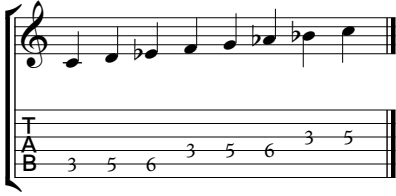
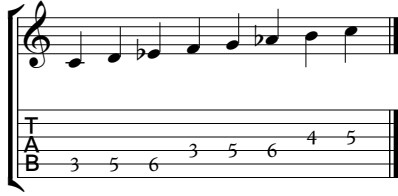
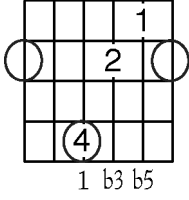
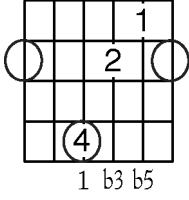
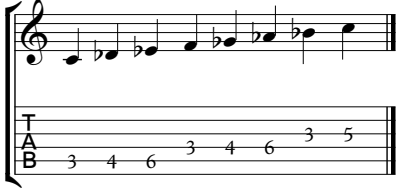

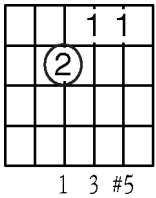
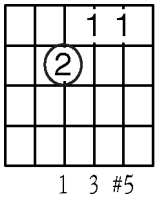


quality	major 7	7 (dominant 7)	minor 7	m7b5	dim. 7 (°7)
combined triads	major + minor	major + diminished	minor + major	diminished + minor	dim. triad serial (repeating) pattern
mood	Romantic, leaning toward happy. A bright, open sound with two perfect fifths. Exotic dissonance when voicing 7 next to 1.	Aggressive, funky.	Romantic, leaning toward sad. Dark, open sounds with two perfect fifths.	Sad, but beautiful, synonym of minor sixth with the sixth as a bright color	Dark, open sound with two perfect fifths.
triad on root					
triad or cluster on third					
quadrad					
exotic voicing					

quality	m(ma7) (minor, major 7)	7 sus 4	major add 9	minor add 9	ma7sus4
combined triads	minor + augmented	suspended fourth + 1-2-4 cluster	major + 1-3-7 cluster	minor + 1-3-7 cluster	suspended + 1-2-b5 cluster
mood	Dark dilemma.	Aggressive, funky.	Bright, open sounds with three notes in stacked fifths.	Dark, exotic, Asian, with three notes in stacked fourths. Exotic dissonance when voicing 7 next to 1.	Heavenly and provocative.
triad on root	 1 b3 5	 1 4 5	 1 b3 5 2	 1 b3 5	 1 4 5
triad or cluster on third	 b3 5 7	 4 5 b7	 3 5 2	 b3 5 2	 4 5 7
quadrad	 1 b3 5 7	 1 4 5 b7	 1 3 5 2	 1 b3 5 2	 1 4 5 7
exotic voicing					

CHORD QUALITIES EXPRESSED BY SCALES

A melody made with an scale will primarily express the same emotive quality as the triad on which it is based. Other attributes to a piece of music can slant the emotive quality one way or another. Although a minor scale is sad, a lively rhythm, like an up-tempo swing can brighten the mood. A major key melody like Let It Be may be saddened by the slow “funeral march” tempo and the ambiguous temporary tone center moving from C major to A minor.

The table below shows common scales and the emotive qualities based on their tonic triads. A tonic triad is built with the first, third and fifth steps of the scale (technically a tonic tertian triad).

tonic triad	quality	scale examples	
major 	happy	major scale (Ionian mode)	Mixolydian mode (scale)
			
minor 	sad	Aeolian mode (scale)	harmonic minor scale
			
diminished 	depressed	Locrian mode (scale)	Aeolian flat five scale
			
augmented 	tormented	whole tone scale	super Locrian scale (b6 proxies as #5)
			

SUMMARIZING EMOTIVE QUALITIES IN CHORD PROGRESSION

Chord progression can be conceptually abbreviated. In improving over a four-chord progression like Am-G-F-G, one could improvise as if it were all an A minor chord. This would be treating the “G” chords as passing chords and treating the F as an Fma7, which includes the notes of Am. This same conception happens in every thing we listen to, without the listener necessarily realizing it.

In the [Substitution](#) chapter, in the sections [Abbreviate, Elaborate or Alter Chord Progression](#) and [Abbreviating Chord Pairs](#), you can learn how to abbreviate chord progression. Abbreviate a chord progression to a single chord and think of the emotive quality of that chord.

CHORD SYNONYMS

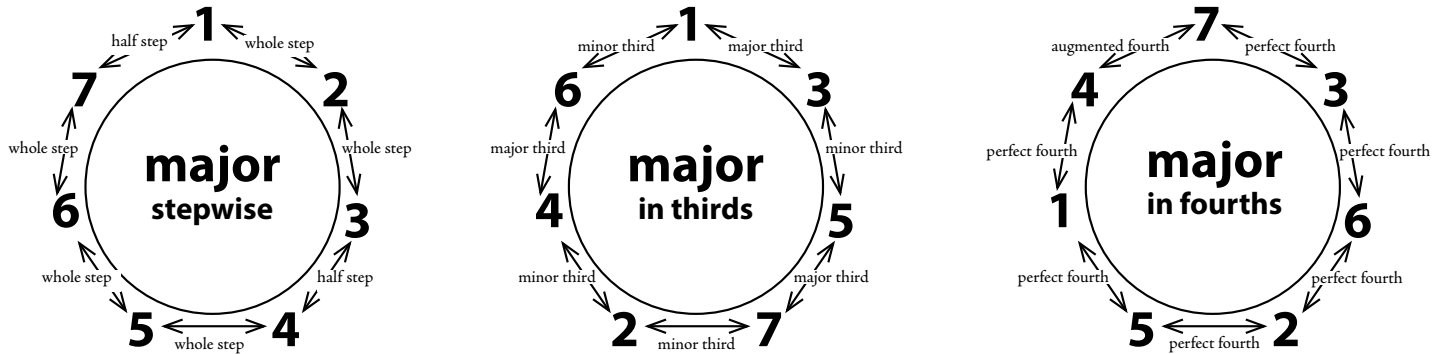
Synonyms are alternate names for chords that share the same notes. Am7 has the notes A-C-E-G. So does C6 (C-E-G-A). By thinking of the synonym for a chord, you can change the emotive quality. Pat Martino, for example, uses a “minor conversion” theory and thinks of all the minor synonyms for chords in a progression. Likewise, you could think of all the major synonyms. Study Improv By Ear/[Deciding How You Will Depict the Chords](#), Chord-Naming Conventions/[Chord Synonyms](#).

Recognizing Scale-Tone Chords

- **Number Cycles**
- **Devices Used to Recognize Scale-Tone Chords**
- **Unique and Repeating Series of Scale Tone Chords**
- **Major Scale-Tone Chords**
- **Modal Major Scale-Tone Chords**
- **Major Sharp Five Scale-Tone Chords**
- **Melodic Minor Scale-Tone Chords**
- **Major Flat Six (harmonic major) Scale-Tone Chords**
- **Adding the 2, 4 and 6 to Seventh Chords**
- **Major and Minor II-V Cadences**
- **Scales for Altered Dominant Chords**
- **Scales for Diminished Chords**

NUMBER CYCLES

Memorize the three cycles in which chord roots can move: stepwise, thirds and fourths. Study all possible pairs of scale-tone triads, looking for unique pairs and duplicate pairs.



DEVICES USED TO RECOGNIZE SCALE-TONE CHORDS

Memorize Key Signatures

If you have key signatures memorized, you can recognize the parent scale used in a song, then contemplate the chords built with that parent scale (see [Key Scales, Parent Scales & Chord Scales](#)) and the pentatonic scale subsets (see [Scale-Tone Arpeggios and Pentatonics/Major Scale-Tone Pentatonic Scales](#)).

Memorizing Scale-Tone Chords

By memorizing the chords constructed on common scales, you can recognize them when they occur in songs. It's especially useful to also memorize the sequence of chord roots in fourths, which is the most common order of chord roots in songs. See the following:

[Unique and Repeating Series of Scale-Tone Chords.](#)

[Scale-Tone Arpeggios and Pentatonics/Major Scale-Tone Tertian Triad Arpeggios,](#)

[Scale-Tone Arpeggios and Pentatonics/Major Scale-Tone Tertian Seventh Arpeggios,](#)

[Scale-Tone Arpeggios and Pentatonics/Major Scale-Tone Tertian Ninth Arpeggios,](#)

[Scale-Tone Arpeggios and Pentatonics/Major Scale-Tone Full-Tertian Arpeggios,](#)

[Major Scale-Tone Triads, Scale-Tone Seventh Chord Progression.](#)

Memorizing II-V-I Cadences

The most common three chord cadence in jazz is II-V-I. It occurs on major or minor. See the section [Major and Minor II-V-I Cadences](#) and the chapter [Modal II-V-I Cadences and Turnarounds](#).

UNIQUE AND REPEATING SERIES OF SCALE-TONE CHORDS

This is the most common method of identifying sets of chords derived from scales. These are all conceived in regard to chord root movement and quality. For reference, see Major (Ionian) Scale Tone Chord, Major Sharp Five Scale-Tone Chords, Melodic Minor Scale Tone Chords

Unique Triad and Seventh Chord Progression

stepwise

Major scale tone III^m to IV^{ma} and VII diminished to I^{ma}.

Major scale tone III^m7 to IV^{ma}7, IV^{ma}7 to V7 and VII^m7^b5 to I^{ma}7.

fourths

Major scale tone VII diminished to III^m, II^m to V^{ma} and IV^{ma} to VII dim.

Major scale tone VII^m7^b5 to III^m7, II^m7 to V7 and IV^{ma}7 to VII^m7^b5.

thirds

Major scale tone I^{ma} to III^m, V^{ma} to VII dim and VII dim to II^m.

Repeating Series Triad and Seventh Chord Progression

stepwise

Major scale tone II^m to III^m and IV^{ma} to V^{ma}.

Major scale tone II^m7 to III^m7.

fourths

Major scale tone III^m to V^{Im}, V^{Im} to II^m, III^m to V^{Im} to II^m, V^{ma} to I^{ma}, I^{ma} to IV^{ma}, V^{ma} to I^{ma} to IV^{ma}.

Major scale tone III^m7 to V^{Im}7, V^{Im}7 to II^m7, III^m7 to V^{Im}7 to II^m7, I^{ma}7 to IV^{ma}7.

thirds

Major scale: none.

MAJOR (IONIAN) SCALE-TONE CHORDS

Where there is no entry, the chord that would have occurred is not currently acceptable.

chords with roots in stepwise order

scale tone	I	II	III	IV	V	VI	VII
triad (3-note)	major	minor	minor	major	major	minor	diminished
key tones	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
seventh (4-note)	ma7	m7	m7	ma7	7	m7	m7b5
key tones	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-6
ninth (5-note)	ma9	m9		ma9	9	m9	
key tones	1-3-5-7-2	2-4-6-1-3		4-6-1-3-5	5-7-2-4-6	6-1-3-5-7	
available others	2-(4)-6	2-4-6	b2-4-b6	2-#4-6	2-(4)-6	2-4-b6	b2-4-b6

chords with roots in perfect fourth order

scale tone	VII	III	VI	II	V	I	IV
triad (3-note)	dim.	minor	minor	minor	major	major	major
seventh (4-note)	m7b5	m7	m7	m7	7	ma7	ma7
ninth (5-note)			m9	m9	9	ma9	ma9

chords with roots in order of thirds

scale tone	I	III	V	VII	II	IV	VI
triad (3-note)	major	minor	major	dim.	minor	major	minor
seventh (4-note)	ma7	m7	7	m7b5	m7	ma7	m7
ninth (5-note)	ma9		9		m9	ma9	m9

Memorize the qualities of major scale-tone triads, seventh chords, and ultimately all major scale-tone chords used in practice. Learn to interpret each chord in terms of both its formula numbering (based on a major scale on its root) and key-scale-tone numbering (in terms of the numbered tones of a major scale named after the key in which the chord occurs).

MODAL MAJOR SCALE-TONE CHORDS

Major mode	I	II	III	IV	V	VI	VII
triad	major	minor	minor	major	major	minor	dimin.
seventh	ma7	m7	m7	ma7	7	m7	m7b5
7th parent tones	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-6
7th chord scale tones	1-3-5-7	1-b3-5-b7	1-b3-5-b7	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7
chord scale added tones	2-4-6	2-4-6	b2-4-b6	2-#4-6	2-4-6	2-4-b6	b2-4-b6
M.S.T. mode	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
Lydian S.T.	V	VI	VII	I	II	III	#IV
Mixolydian S.T.	IV	V	VI	bVII	I	II	III
Dorian S.T.	bVII	I	II	bIII	IV	V	VI
Aeolian S.T.	bIII	IV	V	bVI	bVII	I	II
Phrygian S.T.	bVI	bVII	I	bII	bIII	IV	V
Locrian S.T.	bII	bIII	IV	bV	bVI	bVII	I

modal scale-tone thirds

On the following pages, notice that the scale-tone thirds (s.t. thirds) are always the same series of numbers. They start with a scale-tone number, proceed through the cycle of thirds with the appropriate altered numbers for the mode. For example, the second step of major (major is also called Ionian mode) has the scale-tone thirds “2-4-6-1-3-5-7”. The second step of Dorian has the scale-tone thirds “2-4-6-1-b3-5-b7”. The second step of Phrygian (b2) has the scale-tone thirds “b2-4-b6-1-b3-5-b7”. Without the flats, they each are “2-4-6-1-3-5-7”.

modal scale-tone perfect fourths

The tones of the major scale (Ionian mode) can be arranged in an order of perfect fourths by beginning with “7”, creating the sequence “7-3-6-2-5-1-4”. The interval from “4” to “7” is an augmented fourth. The last three numbers, “5-1-4” represent the roots of major triads. The three numbers before them, “3-6-2”, represent the roots of minor triads.

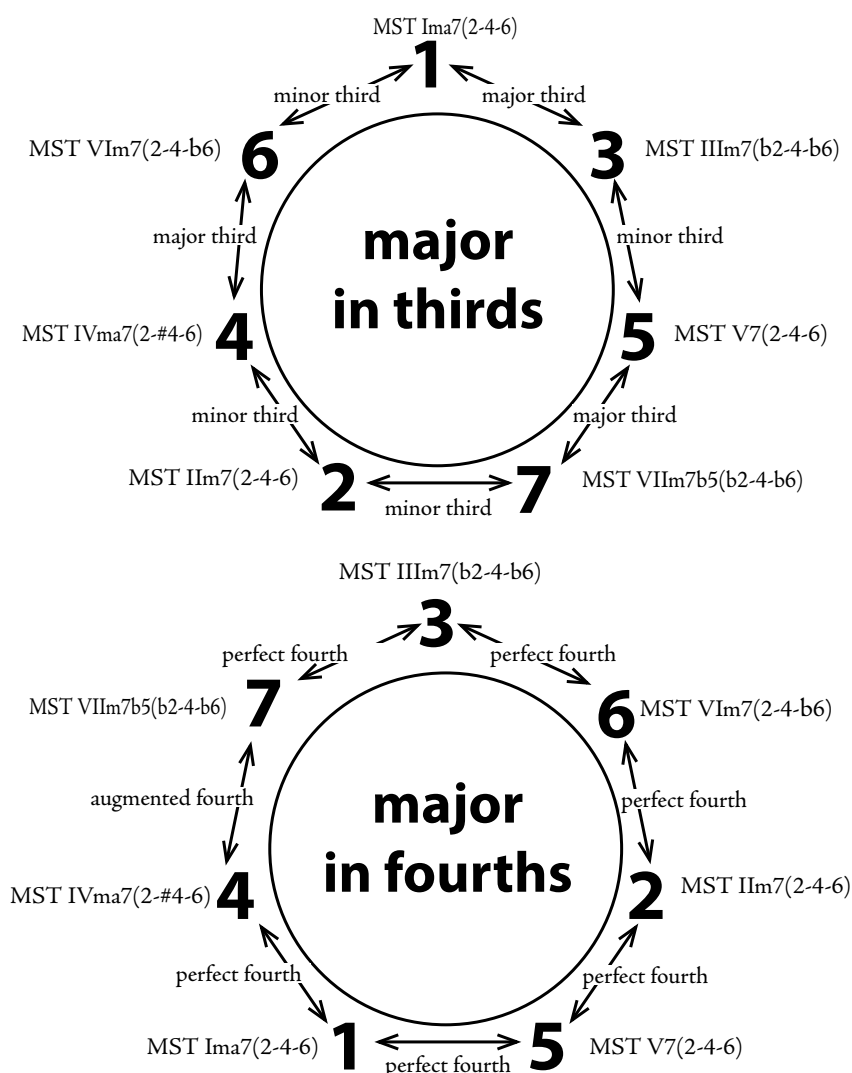
Memorize “7-3-6-2-5-1-4”. Each mode uses the cycle “7-3-6-2-5-1-4-7-3-6-2-5-1-4, etc”, beginning on a specific number and includes its specific alterations. This *perfect fourth series* for each mode must begin with the correct number, which is the root of the diminished triad. Use this formula to find that number: 8 (- mode number) = beginning of perfect fourths. For Mixolydian, which is mode V (5) of the major scale, subtract “5” from “8” and the perfect fourth series begins on III (3). For Dorian (major mode II), subtract “2” from “8” and the perfect fourth series starts on VI (6).

Get the number in mind that begins the perfect fourth series for each mode, then the numbers for the three minor chord roots that follow and the numbers for the major chord roots that follow.

On the table below, the major and minor triads are grouped together when the roots are in perfect fourths. The sequence of perfect fourths begins then with “7” the root of the only diminished triad, then proceeds through the roots of three minor chords “3-6-2” and three major chords “5-1-4”. In the other modes, this same order occurs, but with different numbers:

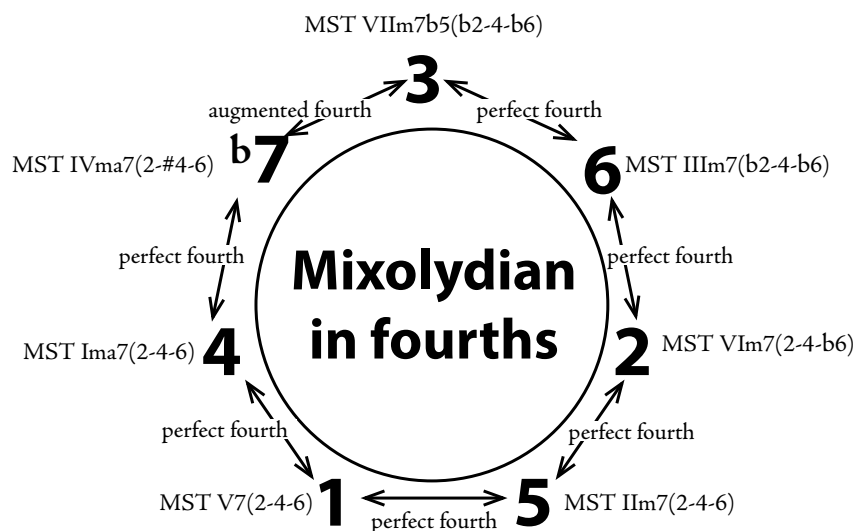
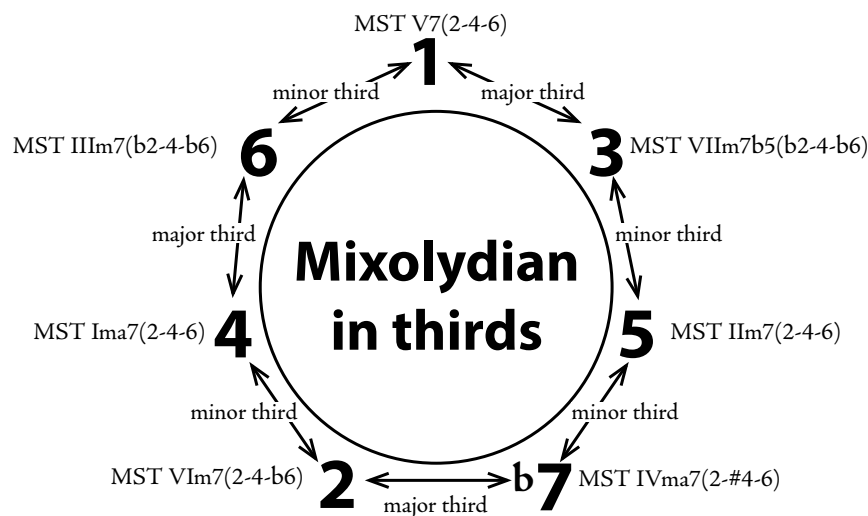
the perfect fourth series for each major scale mode

<u>triads</u>	<u>diminished</u>	<u>minor</u>	<u>minor</u>	<u>minor</u>	<u>major</u>	<u>major</u>	<u>major</u>
major	VII	III	VI	II	V	I	IV
Mixolydian	III	VI	II	V	I	IV	bVII
Dorian	VI	II	V	I	IV	bVII	bIII
Aeolian	II	V	I	IV	bVII	bIII	bVI
Phrygian	V	I	IV	bVII	bIII	bVI	bII
Locrian	I	IV	bVII	bIII	bVI	bII	bV
Lydian	#IV	VII	III	VI	II	V	I



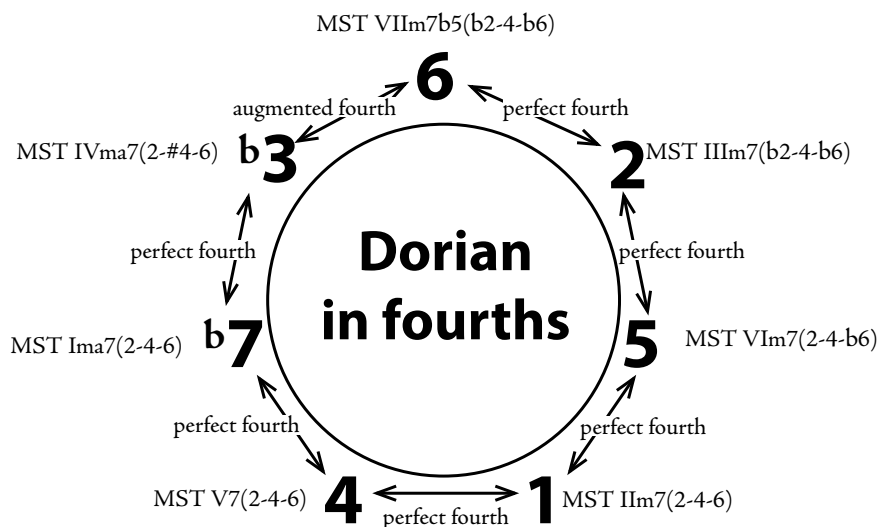
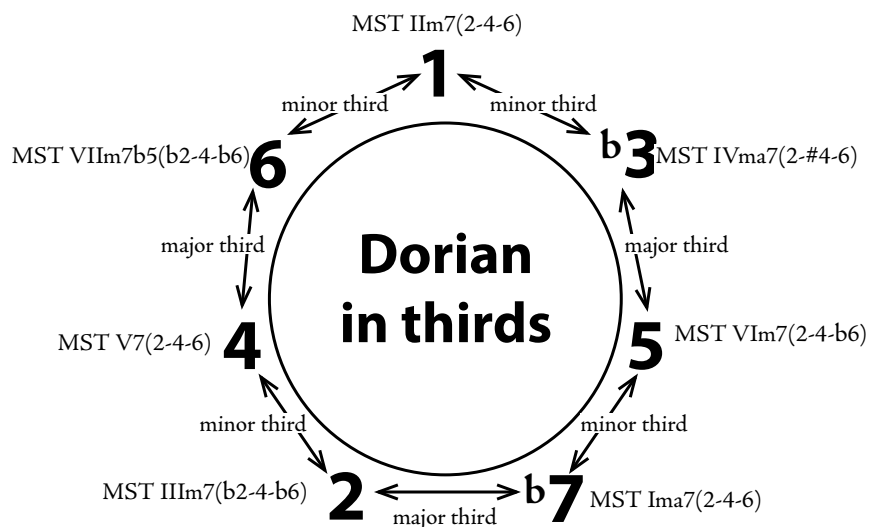
Mixolydian Scale-Tone Chords

	I	II	III	IV	V	VI	bVII
triad	major	minor	dimin.	major	minor	minor	major
G Mixolydian (G is 5 of C)	G	Am	B dim.	C	Dm	Em	F
seventh plus	7(2-4-6)	m7(2-4-b6)	m7b5 (b2-4-b6)	ma7 (2-4-6)	m7(2-4-6)	m7(b2-4-b6)	ma7(2-4-6)
s.t. thirds	1-3-5-b-7-2-4-6	2-4-6-1-3-5-b7	3-5-b7-2-4-6-1	4-6-1-3-5-b7-2	5-b-7-2-4-6-1-3	6-1-3-5-b7-2-4	b7-2-4-6-1-3-5
major mode	V (G is V of C)	VI (Am is VI of C)	VII (B dim. is VII dim. of C)	I (C is I of C)	II (Dm is II of C)	III (Em is III of C)	IV (F is IV of C)



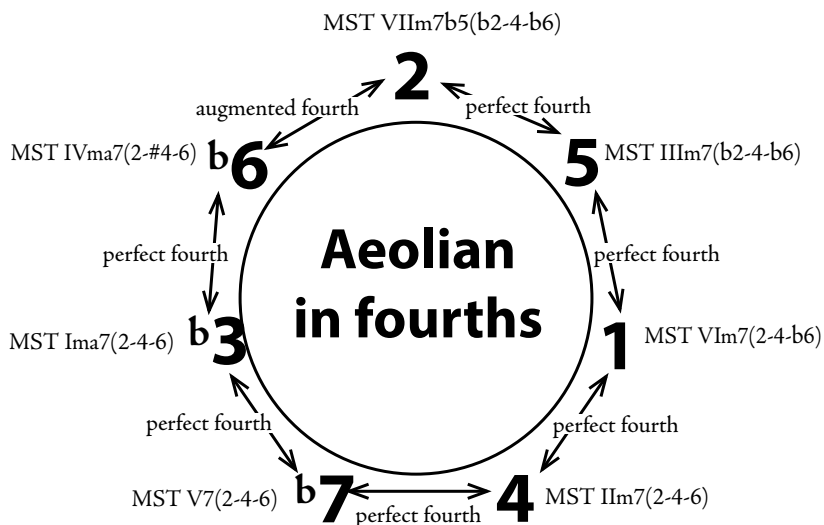
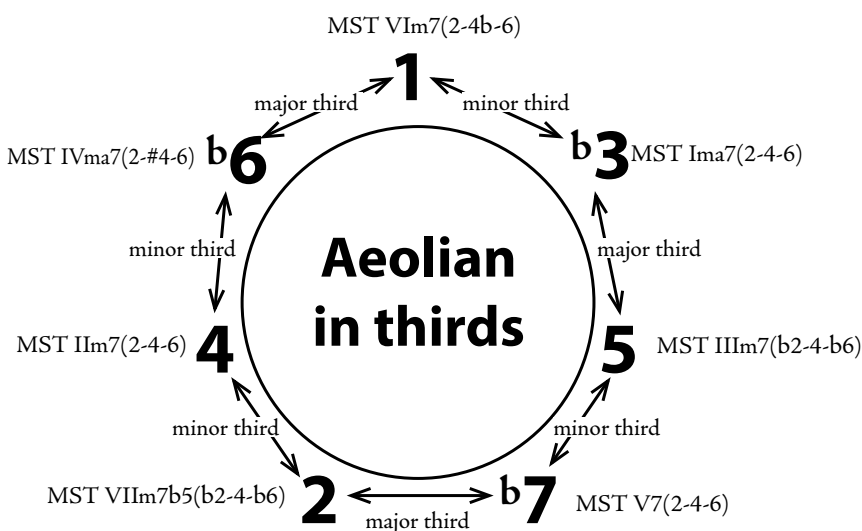
Dorian Scale-Tone Chords

	I	II	bIII	IV	V	VI	bVII
triad	minor	minor	major	major	minor	dimin.	major
D Dorian (D is 2 of C)	Dm	Em	F	G	Am	B dim.	C
seventh plus	m7(2-4-6)	m7(b2-4-b6)	ma7(2-4-6)	7(2-4-6)	m7(2-4-b6)	m7b5 (b2-4-b6)	m7 (2-4-6)
s.t. thirds	1-b3-5-b7-2-4-6	2-4-6-1-b3-5-b7	b3-5-b7-2-4-6-1	4-6-1-b3-5-b7-2	5-b7-2-4-6-1-b3	6-1-b3-5-b7-2-4	b7-2-4-6-1-b3-5
major mode	II	III	IV	V	VI	VII	I
major mode	(Dm is IIIm of C)	(Em is IIIIm of C)	(F is IV of C)	(G is V of C)	(Am is VIIm of C)	(B dim. is VII dim. of C)	(C is I of C)



Aeolian Scale-Tone Chords

	I	II	bIII	IV	V	bVI	bVII
triad	minor	dimin.	major	minor	minor	major	major
A Aeolian (A is 6 of C)	Dm	Em	F	G	Am	B dim.	C
seventh plus	m7(2-4-b6)	m7b5 (b2-4-b6)	ma7 (2-4-6)	m7(2-4-6)	m7(b2-4-b6)	ma7(2-4-6)	7(2-4-6)
s.t. thirds	1-b3-5-b7-2-4-b6	2-4-b6-1-b3-5-b7	b3-5-b7-2-4-b6-1	4-b6-1-b3-5-b7-2	5-b7-2-4-b6-1-b3	b6-1-b3-5-b7-2-4	b7-2-4-b6-1-b3-5
major mode	VI (Am is VIm of C)	VII (B dim. is VII dim. of C)	I (C is I of C)	II (Dm is IIm of C)	III (Em is IIIIm of C)	IV (F is IV of C)	V (G is V of C)



MAJOR SHARP FIVE SCALE-TONE CHORDS

mode VI is harmonic minor

mode III is Phrygian dominant

These harmonic minor scale-tone chords are a parallel structure of the major scale-tone chords shown earlier with each chord altered where the sharp five is involved. Where there is no entry, the chord that would have occurred is not currently acceptable.

chords with roots in stepwise order

major #5 scale tone	I	II	III	IV	#V	VI	VII
harmonic min. tone	bIII	IV	V	bVI	VII	I	II
triad (3-note)	augmented	minor	major	major	dimin.	minor	diminished
key tones	1-3-#5	2-4-6	3-#5-7	4-6-1	#5-7-2	6-1-3	7-2-4
seventh (4-note)	ma7#5	m7	7	ma7	dim.7	m(ma7)	m7b5
key tones	1-3-#5-7	2-4-6-1	3-#5-7-2	4-6-1-3	#5-7-2-4	6-1-3-#5	7-2-4-6
ninth (5-note)	ma9#5	m9	7b9			m9(ma7)	
key tones	1-3-#5-7-2	2-4-6-1-3	3-#5-7-2-4			6-1-3-#5-7	

chords with roots in perfect fourth order

major #5 scale tone	VII	III	VI	II	#V	I	IV
harmonic min. tone	II	V	I	IV	VII	bIII	bVI
triad (3-note)	dim.	major	minor	minor	major	aug.	major
seventh (4-note)	m7b5	7	m(ma7)	m7	7	ma7#5	ma7
ninth (5-note)		7b9	m9(ma7)	m9	9	ma9#5	ma9

chords with roots in order of thirds

major #5 scale tone	I	III	#V	VII	II	IV	VI
harmonic min. tone	bIII	V	VII	II	IV	bVI	I
triad (3-note)	aug.	major	dim.	dim.	minor	major	minor
seventh (4-note)	ma7#5	7	dim7	m7b5	m7	ma7	m7
ninth (5-note)	ma9#5	7b9			m9		m9

MELODIC MINOR SCALE-TONE CHORDS

mode IV is Lydian dominant

mode VII is super locrian

mode VI is Aeolian flat five

These melodic minor scale-tone chords are a parallel structure of the major scale-tone chords shown earlier with each chord altered where the flat three is involved. Where there is no entry, the chord that would have occurred is not currently acceptable.

chords with roots in stepwise order

scale tone	I	II	bIII	IV	V	VI	VII
triad (3-note)	minor	minor	augmented	major	major	diminished	diminished
key tones	1-b3-5	2-4-6	b3-5-7	4-6-1	5-7-2	6-1-b3	7-2-4
seventh (4-note)	min(ma7)	m7	ma7#5	7	7	m7b5	m7b5
key tones	1-b3-5-7	2-4-6-1	b3-5-7-2	4-6-1-b3	5-7-2-4	6-1-b3-5	7-2-4-6
ninth (5-note)	m9(ma7)		ma9#5	9	9	m9b5	
key tones	1-3-#5-7-2			4-6-1-b3-5	5-7-2-4-6	6-1-b3-5-7	

chords with roots in perfect fourth order

scale tone	VII	bIII	VI	II	V	I	IV
triad (3-note)	dim.	augmented	diminished	minor	major	aug.	major
seventh (4-note)	m7b5	ma7#5	m7b5	m7	7	m(ma7)	7
ninth (5-note)		ma9#5			9	m9(ma7)	9

chords with roots in order of thirds

scale tone	I	bIII	V	VII	II	IV	VI
triad (3-note)	minor	aug.	major	dim.	minor	major	minor
seventh (4-note)	m(ma7)	ma7#5	7	m7b5	m7	7	m7b5
ninth (5-note)	m9(ma7)	ma9#5	9			9	m9b5

MAJOR FLAT SIX (HARMONIC MAJOR) SCALE-TONE CHORDS

mode I is major flat six
mode II is Dorian flat five
mode III is super Phrygian
mode IV is Lydian diminished

These major flat six scale-tone chords are a parallel structure of the major scale-tone chords shown earlier with each chord altered where the flat six is involved. Where there is no entry, the chord that would have occurred is not currently acceptable.

chords with roots in stepwise order

scale tone	I	II	III	IV	V	bVI	VII
triad (3-note)	major	dimin.	minor	minor	major	augmented	diminished
key tones	1-3-5	2-4-b6	3-5-7	4-b6-1	5-7-2	b6-1-3	7-2-4
seventh (4-note)	ma7	m7b5	m7	min(ma7)	7	ma7#5	dimin. 7
key tones	1-3-5-7	2-4-b6-1	3-5-7-2	4-b6-1-3	5-7-2-4	b6-1-3-5	7-2-4-b6
ninth (5-note)	ma9	m9b5		m9(ma7)	7b9		
key tones	1-3-5-7-2	2-4-b6-1-3		4-b6-1-3-5	5-7-2-4-b6		

chords with roots in perfect fourth order

scale tone	VII	III	bVI	II	V	I	IV
triad (3-note)	dim.	minor	aug.	dimin.	major	major	minor
seventh (4-note)	dim7	m7	ma7#5	m7b5	7	ma7	m(ma7)
ninth (5-note)				m9b5	7b9	ma9	m9(ma7)

chords with roots in order of thirds

scale tone	I	III	V	VII	II	IV	bVI
triad (3-note)	major	aug.	major	dim.	dimin.	minor	aug
seventh (4-note)	ma7	ma7#5	7	dim7	m7b5	m(ma7)	ma7#5
ninth (5-note)	ma9		7b9		m9b5	m9(ma7)	

ADDING THE 2, 4 AND 6 TO SEVENTH CHORDS

This shows four-note seventh chords elaborated to larger chords by adding a “2,” “4” or “6” tone. Adding a “2” makes a ninth chord. Adding “2” and “4” makes an eleventh chord. Adding all three tones (“2,” “4” and “6”) makes a thirteenth chord. Not all versions of ninth chords, eleventh chords and thirteenth chords are acceptable to listeners. Various other combinations of “2,” “4” or “6” tones can be added. For all of these possibilities, see [All Scale-Tone Chords](#).

major scale	major Ima7 2-4-6 major (Ionian)	Dorian IIIm7 2-4-6 Dorian	Phrygian IIIIm7 b2-4-b6 Phrygian	Lydian IVma7 2-#4-6 Lydian	Mixolydian V7 2-4-6 Mixolydian	Aeolian VIIm7 2-4-b6 Aeolian	Locrian VIIIm7b5 b2-4-b6 Locrian
major sharp 5	Ima7#5	IIIm7	III7	IVma7	#Vdim7.	VIIm(ma7)	VIIIm7b5
harmonic minor	bIIIIma7#5 2-4-6 major #5	IVm7 2-#4-6 Dorian #4	V7 b2-4-b6 Phrygian dominant Phrygian major	bVIma7 #2-#4-6 Lydian #2	VII°7 b2-b4-b6 Mixo. #1	Im(ma7) 2-4-b6 harmonic minor Aeolian ma7	IIIm7b5 b2-4-6 Locrian #6
melodic minor	Im(ma7) 2-4-6 major b3	IIIm7 b2-4-6 Dorian b2	bIIIIma7#5 b2-4-b6 Phrygian b1	IV7 2-#4-6 Lydian b7	V7 2-4-6 Aeolian dominant Mixolydian b6	VIIm7b5 2-4-b6 Aeolian b5	VIIIm7b5 b2-b4-b6 super Locrian Locrian b4
harmonic major	Ima7 2-4-b6 major b6 (aug.)	IIIm7b5 2-4-6 Dorian b5 (m6b5 = °7)	III7 b2-#2-b6 super Phrygian Phrygian b4 (b4 = 3, aug.)	IVm7 2-#4-6 Lydian b3 (m6b5 = °7)	V7 b2-4-6 Mixo. b2	bVIma7#5 #2-#4-6 Aeolian b1 (aug.. °7)	VII°7 b2-4-b6 Locrian bb7 (°7)

Scales by Chord Type

chord	<u>2-4-6</u>	<u>2-4-b6</u>	<u>b2-4-b6</u>	<u>2-#4-6</u>	<u>b2-#2-#4</u>
ma7	major	major b6		Lydian	
7	Mixolydian	Aeolian dominant Mixolydian b6	Phrygian Major	Lydian b7	
m7	Dorian	Aeolian	Phrygian	Dorian #4	
m7b5	Dorian b5	Aeolian b5	Locrian		
m(ma7)	melodic minor	harmonic minor			
dim. 7		Mixolydian #1			dim. half/whole

MAJOR AND MINOR II V I CADENCES

The classic major II-V-I cadence is IIm7-V7-Ima7 (Dm7-G7-Cma7), derived from major (Ionian) mode. The classic minor II-V-I cadence is IIm7b5-V7-Im7 (Bm7b5-E7-Am7), derived from a combination of Aeolian mode (on the sixth step of major) and of harmonic minor scale (on the sixth step of major sharp five scale).

Chords are usually voiced with approximately the same number of different notes. Triads have three different notes. Seventh chords have four different notes. Other chords have theoretically as many as seven different notes. Most chords are voiced with three to five different notes, often leaving some of the notes out that are implied by the chord name.

Complete ninth chords have five notes, complete eleventh chords six notes and complete thirteenth chords have seven notes in their complete form. Ninth, eleventh and thirteenth chords usually omit some notes in their voicing so they have four or five different notes. Add-tone chords that break the rule of chord construction in thirds, such as add six (1-3-5-6), add nine (1-3-5-9 <9= 2>), m7/11 (1-b3-5-7-11 <11= 4>) and 9/6 (1-3-5-b7-9-6 <9= 2 and 6=13>) also are usually voiced with three to five different notes.

Since chords usually progress with approximately the same number of notes, they can be thought of as a combination of melodies or *voices*. Chord *voicing* is the choice of notes for each chord that forms a somewhat predictable sequence of notes. The sequence of the lowest notes in a sequence of chords (a chord progression) usually forms a bass melody. The sequence of the highest notes in a sequence of chords usually forms a treble (soprano) melody. Less distinctly, the inner voices do the same. When a note in a voice (such as the bass or soprano) can stay the same, it usually does. Movement is usually preferred by smaller intervals, making the part easier to predict.

Variants of the Major II V I Cadence

Each chord in the cadence is described here with typical voicings. For a more complete list of possibilities, see the chapter in my Theory book called “All Scale-Tone Chords”.

major IIm7 V7 Ima7 basis

The basis of the major II-V-I cadence is part of the sequence of major scale-tone chords with root movement in perfect fourths (7-3-6-2-5-1-4): IIm7-V7-Ima7 (Dm7-G7-Cma7).

IIm7

The II chord in the major II-V-I cadence can be minor or minor seventh with any or all of the tones “2”, “4”, and “6” added. Adding “2” makes IIm9. Adding “4” makes IIm7/11. Adding “2” “4”, and “6” makes IIm13. See “Major Scale-Tone Chords By Type”, column II in [All Scale-Tone Chords](#).

V7

The V chord in the major I-V-I cadence can be major or dominant seventh with any or all of the tones “2”, “4”, and “6” added. Adding “2” to V7 makes V9. Adding “6” to V7 makes V7/6 (V13 no ninth, no eleventh). Adding “2” and “6” to V7 makes V9/6. See “Major Scale-Tone Chords By Type”, column V in [All Scale-Tone Chords](#).

Ima7 or I6

The I chord in the major II-V-I cadence can be major or major seventh with either or both of the tones “2” and “6” added. Adding “2” to Ima7 makes Ima9. Adding “6” to Ima7 makes Ima7/6. The I major triad with “6” added is called I6. Adding “2” and “6” makes Ima9/6. See “Major Scale-Tone Chords By Type”, column I in [All Scale-Tone Chords](#).

Variants of the Minor II V I Cadence

Each chord in the IIIm7b5 V7 Im cadence is described here with typical voicings. For a more complete list of possibilities, see the chapter called “All Scale-Tone Chords”.

major VIIIm7b5 III7 VIIm7 basis

The basis of the minor II V I cadence is part of the sequence of major scale-tone chords with root movement in perfect fourths (7-3-6-2-5-1-4): VIIIm7b5-IIIIm7-VIm7 (Bm7b5-Em7-Am7), but with the IIIIm7 chord usually changed to III7 (VIIIm7b5-III7-VIm7 or Bm7b5-E7-Am7). During the III7 chord, the parent scale is major sharp five.

IIIm7b5

The II chord in the minor II V I cadence is usually m7b5.

V7 (optional b9, #9 and #5)

The V chord in the minor II V I cadence can be major or dominant seventh with any or all of the tones “b2”, “b3” (#2 = #9), and “#5” (= b6) added. Adding “b2” to V7 makes V7b9. Adding “b3” (= #9) to V7 makes V7#9. Replacing the fifth with a “#5” makes V7#5. Adding “#5” to V7 makes V7b13. Possibilities include V7, V7#5, V7#9, V7b9, V7#5#9, V7#5b9, V7#5b9#9.

In terms of a scale on the key scale V chord root, this chord can combine Phrygian (1, b2, b3, 4, 5, b6, b7) and Phrygian major (1-b2-3-4-5-b6-b7).

See “Major Scale-Tone Chords By Type”, column V and “Harmonic Minor Scale-Tone Chords By Type”, column V in [All Scale-Tone Chords](#).

Im or Im7 (rarely Im6)

The Im chord in the major II V I cadence can be minor or minor seventh with either or both of the tones “2” and “4” added. Occasionally, the Im chord is depicted as Im6, changing it from Aeolian mode to Dorian mode. Summertime by George Gershwin used a Im6 as the tonic chord (main chord of the key).

Adding “2” to Im7 makes Im9. Adding “4” to Im7 makes Im7/11. Occasionally, the I minor triad is used with “6” added, called Im6. Adding “2” and “6” makes Im9/6. See “[Major Scale-Tone Chords by Type](#)”, column VI and (less often) column II in [All Scale-Tone Chords](#).

SCALES FOR ALTERED DOMINANT CHORDS

b5..... Mixolydian #4 (Lydian b7, mel. min. mode IV), using the #4 scale tone as a b5 chord tone
#5..... Aeolian Dominant or Mixolydian b6 (melodic minor mode V), using the b6 scale tone as a #5 chord tone
 b5...#5..... whole tone scale (9b5#5)
b9..... Phrygian Dominant or Phrygian Major (harmonic minor V), using the b6 scale tone as a #5 chord tone
#9... Mixolydian in low range of pitch, Dorian in high range (b3 of Dorian serves as a #9)
b9....#9... Diminished half/whole scale (13b9#9#11)
#5...b9..... Phrygian Dominant or Phrygian Major (harmonic minor V), using the b6 scale tone as a #5 chord tone
 b5.....b9....#9... Diminished half/whole scale (13b9#9#11), using the #4 scale tone as a b5 chord tone
 b5...#5...b9....#9... super Locrian or Locrian b4 (melodic minor VII)

SCALES FOR DIMINISHED CHORDS

Modes II, IV, bVI and VII of harmonic minor (or of harmonic major).

Diminished. A diminished seventh arpeggio with a lower chromatic embellishment to each tone in ascending and upper chromatic embellishments in descending.

Modes

- **Chord Roots, Tone Centers, Keys and Chord Progression**
- **Recognizing Modes by Their Sound In Songs**
- **Relative Minor and Relative Major**
- **Key Scale, Parent Scale and Chord Scale**
- **Modes: Alternate Tone Centers of a Scale**
- **Discovering the Modes of the C Major Scale**
- **Discovering the Parent Scale for a Given Mode**
- **The Predominance of Major and Aeolian**
- **Modal Interchange (Change of Mode)**
- **The Expressive Use of Modes**
- **The Vagueness of Key Signatures**
- **The Modes of All Major Scales**
- **Chords and Modes by Numbered Type**
- **Composing Triad Progression with Changing Mode**
- **Establishing a Minor Key**
- **Modes on I IV V Blues**
- **Modes on Jazz Blues (also called swing blues)**
- **Scale Tone Chords of Four Heptatonic Scales**
- **Modes of Four Heptatonic Scales**
- **Modal Chord Scales of Four Heptatonic Scales**
- **Major Scale Mode (Mood) Cycles**
- **Subset Scales and Subset Arpeggios of Modes**
- **Modal Key Scale Cycle Diagrams**
- **Mode Families**
- **Full-Fretboard Hepatonic Scale Diagrams**

CHORD ROOTS, TONE CENTERS, KEYS AND CHORD PROGRESSION

What is a Chord Root?

A chord root is the lowest note you can imagine in the sound of a chord. It is the letter after which a chord is named. The letter name of a chord may be followed by a sharp or flat, such as G# or Gb. The sharp symbol indicates a note is played a half step (one fret) higher and a flat indicates it is played a half step lower.

Usually, the notes of a chord can be transposed by octaves to be arranged in consecutive thirds. When a chord is arranged entirely in thirds, the lowest note is usually the root. The first chord below has a “C” note in the bass. When the notes are arranged in thirds, which would be all notes on lines or all on spaces, “F” is the root.

Fma7 Fma7

T 4/4 5
A 4/4 3
B 4/4 3

0
2
3

In some cases, the root is not the lowest note in a series of thirds. Sixth chords have their root as the second-to-lowest tone in a series of thirds. With sixth chords, the lowest root you can imagine may indicate a different root. In the example below, the lowest imaginable root for the D6 chord could be heard as “B”, making the chord a Bm7.

Bm7 D6

T 4/4 5
A 4/4 3
R 4/4 9

0
2
4
5

What is a Tone Center?

A tone center is the root of the chord you would expect a piece to end on. You would expect a chord progression to end on a chord which gives a feeling of resolution. That chord would be the tonic chord, or main chord in the progression. If the tonic chord is Cm7, the tone center is “C.” If the tonic chord is “Eb7”, the tone center is “Eb.”

The tonic chord (or “main chord”) is the chord you would expect the piece of music to end on. It is the chord which sounds most resolved in a piece of music. A tonic chord is used to give the most final sound at the end of a piece.

I said “you would expect” the piece of music to end on the tonic chord in the previous paragraph, because although the listener expects a song to end on the tonic chord, it doesn’t have to. A song can end with a deceptive cadence (chord sequence) where the final chord is not the tonic chord. This type a ending is intended to “trick” the listener. Although a deceptive cadence does not produce as strong a feeling of resolution, it still can be stimulating. Likewise, songs often begin on the tonic chord, but they don’t have to.

Many recorded pieces of music have a “fade- out” ending. No distinct ending chord is played with a fade-out. I have always hated fade-out endings. I much prefer hearing the ending the band or artist would play in a live performance. The only exception would be where there is some point to fading out, such as the main character in the lyric is walking off into the woods or something of that nature.

The tonic chord can be established by a number of elements in the chord progression, including:

- ✦ Use a tonic chord built on the first step of a well know seven-tone (heptatonic) scale, such as major (Ionian), Dorian, Mixolydian, Aeolian or harmonic minor. The scales which are traditionally used more often produce a stronger tonality, because they are familiar to the listener.
 - a. The tonic chord usually has a strong tonality (is easy to establish as the main chord) in major, Dorian, Mixolydian or Aeolian mode (when major, Dorian, Mixolydian or Aeolian scales are used), in harmonic minor, or in Phrygian major mode (Phrygian scale with a major third).
 - b. The main chord has a passive tonality (somewhat difficult to establish as a main chord) in Phrygian or Lydian mode (when major scale tone three is used as a tone center for Phrygian mode or major scale tone four as a tone center for Lydian mode).
 - c. The main chord has a weak tonality (quite difficult to establish as the main chord) in Locrian mode (when Locrian scale is used).
- ✦ Use a harmonic cadence (chord progression of two or more chords) that is historically known, so the listener expects the tonic chord at the end of the cadence. Most cadences use a chord on the fifth of the intended tonic scale last before the resolution to the tonic chord.

The chord on the fifth of the scale of the intended tonic is commonly a dominant seventh type chord (or altered dominant seventh in jazz). In major mode (also called Ionian), the fifth step of the scale is called dominant, since it has a strong tendency to progress to the tonic (scale tone one). When the intended tonic is not the first step of the parent major scale, the seventh type chord on the fifth of the intended tonic is called a [secondary dominant](#).

In jazz, a [flat five substitute](#) chord replaces the chord on the fifth with one a flat fifth above or below the root of the chord on the fifth of the tonic. The note a flat fifth above or below any given note is the same note. The [flat five substitute](#) becomes a chord built on the upper chromatic neighbor to the tonic, on the root up a half step (one fret) from the root of the intended tonic chord.

- ✦ Long duration or frequent occurrence of the intended tonic chord.
- ✦ **Scalar chord root movement.** A progression of chord roots up or down a scale to the root of the intended tonic chord.
- ✦ **Dissonance.** Preceding the intended tonic chord by one or more dissonant, tension-producing chords.
- ✦ **Low-pitched tonic root.** Use the root of the main chord in a low range of pitch.
- ✦ A [pedal point](#) or **common tone.** Use of the root of the intended tonic chord as a repeating note through a series of chords. A common tone is a note common to all of the chords and usually occurs with the same rhythm as the other chords. A pedal tone is a common tone that occurs consistently in the bass, and takes on the character of an individual voice in the arrangement. An inverted pedal tone occurs in the highest voice.
- ✦ Ending or beginning a section with a chord, where sections are typically multiples of four measures. Ending with the desired tonic chord establishes stronger tonality than beginning with it.

Key

A song is said to be in a key named after the tone center. If the tone center is “A”, the song is said to be in the key of “A”. The key may be further qualified by the scale or mode type, such as “A” major, “A” minor or “A” Mixolydian.

The term “minor” is commonly used loosely in key names where the song may be in any mode which has a minor chord built on the tone center (e.g., Dorian Aeolian or harmonic minor). Likewise, the term major is sometimes used in reference to any mode which has a major chord built on the tone center (e.g., Ionian, Mixolydian, Lydian or Phrygian major).

In the example below, the Am chord sounds resolved at the end. The piece is in the key of A minor.

Treble clef, key signature of one flat (B-flat). The melody consists of four measures. The first measure has a B-flat, the second a B-natural, the third a B-flat, and the fourth a B-natural. The bass line consists of four measures: 2 0 1 3 0 1 0, 4 4 4 3 3 3, 2 0 1 3 0 1 0 5, and 0 1 0 5 0 2. The piece ends with an Am chord.

Elsewhere, in the same piece of music, the section below appears. It has a sense of temporarily being in the key of E major. The specific scale it uses is E Mixolydian flat six (1, 2, 3, 4, 5, b6, b7), but the tonic chord is E, and the primary sound of the scale is E major. The E major chord sounds somewhat resolved at the end of the example, but you might get the sense that the melody is going back to the key of A minor afterward (play the example below, then the example above).

Treble clef, key signature of one sharp (F-sharp). The melody consists of four measures. The first measure has a B-natural, the second a B-natural, the third a B-natural, and the fourth a B-natural. The bass line consists of four measures: 2 4 1 2 0 1 0, 1 1 1 0 1 0, 2 4 1 2 0 1 0, and 1 1 1 0 2. The piece ends with an E chord.

Chord Progression

A chord progression is any sequence of chords. Typically, a chord progression is repeated during a piece of music. Each section of the piece of music (verse, chorus, etc.) may use a different chord progression. Chord progression can combine root movement up or down in stepwise, thirds or fourths order.

RECOGNIZING MODES BY THEIR SOUND IN SONGS

The four common modes are major (Ionian mode), Dorian mode, Mixolydian mode and Aeolian mode, respectively built on steps one, two, five and six of major scales. Of the remaining modes, Lydian on step four and Phrygian on step three are rare. Locrian the mode on step seven of the major scale is very rarely used as a key. See [Modal Key Scale Cycle Diagrams](#).

Determine the Mode for A Song By Listening

happy or sad sound in the scales and chords

If a song sounds happy, it probably is based on a major chord. If a song sounds sad, it is probably based on a minor chord. The general major and minor categories each break down to two common options. A major chord basis could be major scale (also *Ionian*, a seven-tone scale, not just a pentatonic scale) or Mixolydian (a major scale with flat seven). A minor chord basis could be Aeolian or Dorian. Read on.

Mood is determined by the scales that are used, but mood is also determined by other elements of music like tempo and tone. Faster tempos brighten the mood. Slower tempos darken the mood. Clear tone with more treble brightens the mood. Distorted tone with more bass darkens the mood. Of course the lyric affect the mood by the tone of the story.

common scales with a major basis

If you feel the song is happy and therefore likely major, determine if it uses the seven-tone major scale (1-2-3-4-5-6-7) with no altered numbers, or if it uses Mixolydian (1-2-3-4-5-6-b7) with flat seven. The seven-tone major scale and Mixolydian each have major pentatonic as part of them. Minor scales can be changed to have major qualities: minor pentatonic can be played with natural three, making it part of Mixolydian with a *major-sounding* natural three. See [Major \(Ionian mode\)](#) and [Mixolydian mode](#) below.

Lydian is a major scale with a sharp four. Lydian has a major basis since it includes 1-3-5, the notes of a major chord. Lydian mode is rare. See [Lydian Mode](#) below.

common scales with a minor basis

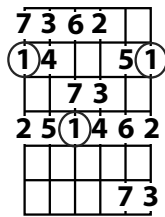
If you feel the song is sad and therefore likely minor, determine if it uses Dorian (1-2-b3-4-5-6-b7) with six or if it uses Aeolian 1-2-b3-4-5-b6-b7) with flat six. Dorian and Aeolian each have minor pentatonic as part of them. Major scales can be changed to have minor qualities: major pentatonic can be played with flat three as part of Dorian, with a *minor-sounding* flat three. See [Dorian mode](#) and [Aeolian mode](#).

Phrygian mode is a major scale with a flat three, flat six and flat seven. Phrygian has a minor basis since it includes 1-b3-5, the notes of a minor chord. Phrygian mode is rare. See [Phrygian mode](#), below.

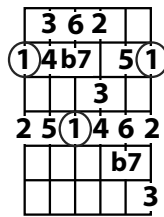
fingering four common modes in E form

Compare the modes below. Mixolydian has b7, Dorian has b3 and b7. Aeolian has b3, b6 and b7.

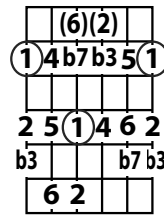
major scale



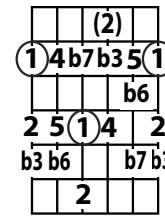
Mixolydian mode



Dorian Mode



Aeolian mode



Major (Ionian Mode)

Ionian mode is the major scale, with the tone center on step one. illustrated by ascending or descending the major scale linearly from step one to one. When it is based on a major triad (major chord), it is happy. See both the [major triad list](#) and the [major seventh list](#) below.

songs in major mode based on a major triad include (Spotify):

MAJUH		
title	artist	album
(Oh) Pretty Woman - 2015 Remaster	Van Halen	Diver Down (Remastered)
A Day In The Life - Remastered 2009	The Beatles	Sgt. Pepper's Lonely Hearts Club Band (Remastered)
A Fond Farewell	Elliott Smith	From A Basement On The Hill
A Hard Rain's A-Gonna Fall	Bob Dylan	The Freewheelin' Bob Dylan
A Meeting by the River	Ry Cooder & V.M. Bhatt	A Meeting by the River
A Pirate Looks At Forty	Jack Johnson, Dave Matthews, Tim Reynolds	Jack Johnson & Friends: Best Of Kokua Festival, A Benefit For The Kokua Hawaii Foundation
A Whiter Shade Of Pale - Original Single Version	Procol Harum	Hits'n'Flips
Afternoon In Paris	Cedar Walton Trio, Billy Higgins, David Williams	Manhattan Afternoon
Airegin	Wes Montgomery	Incredible Jazz Guitar
Albatross - 2018 Master	Fleetwood Mac	The Pious Bird of Good Omen
Alice In Wonderland - Take 2 / Live At The Village Vanguard, NYC; 6/25/1961	Bill Evans Trio	Sunday At The Village Vanguard [Keepnews Collection]
All I Have to Do Is Dream	The Everly Brothers	The Very Best of The Everly Brothers
All of Me	John Legend	Love In The Future (Expanded Edition)
All The Things You Are	Joe Pass	Virtuoso
All the Things You Are	Django Reinhardt, Stéphane Grappelli	The Indispensable Django Reinhardt (1949-1950)
All The Things You Are - Instrumental	Jimmy Bruno	Sleight Of Hand
America	Paul Desmond	Bridge Over Troubled Water
And I Love Her	Pat Metheny	What's It All About
And I Love Her - Remastered 2009	The Beatles	A Hard Day's Night (Remastered)
Anthropology	Charlie Parker	The Complete Live Performances On Savoy
Anthropology (Live) (Remastered)	Charlie Parker, Dizzy Gillespie	In Person
Apri! Come She Will	Simon & Garfunkel	Sounds Of Silence
Autumn Leaves	Paul Desmond	The Best Of Paul Desmond
Banana Pancakes	Jack Johnson	In Between Dreams
Be Honest (feat. Inara George)	Jason Mraz	Love Is a Four Letter Word (Deluxe Edition)
Beast Of Burden - Remastered 1994	The Rolling Stones	Some Girls
Beaucoup	Lolo Zouai	High Hights to Low Lows
Begin the Beguine	Tuck Andress	Reckless Precision
Better Together	Jack Johnson	In Between Dreams
Beverly Hills	Weezer	Make Believe
Blackbird	Biréli Lagrène & Sylvain Luc	Duet
Blitzkrieg Bop - 2016 Remaster	Ramones	Ramones (40th Anniversary Deluxe Edition; 2016 Remaster)
Bloomdido	Charlie Parker, Dizzy Gillespie	Compact Jazz
Blue Moon	The MarceIs	The Best Of The MarceIs
Blues For Alice	Mark Whitfield, Kenny Kirkland, Rodney Whitaker, Jeff Watts	True Blue
Body And Soul	Tuck Andress	Reckless Precision
Bold as Love	Jimi Hendrix	Axis: Bold As Love
Brazil	Declan McKenna	What Do You Think About the Car?
Breezin'	George Benson	Breezin'
Bridge Over Troubled Water	Paul Desmond	Bridge Over Troubled Water
Bridge over Troubled Water (with The Jessy Dixon Singers & Urubamba) - Live 1973	Paul Simon, The Jessy Dixon Singers, Urubamba	Paul Simon In Concert: Live Rhyming'
Broken	Jack Johnson	Jack Johnson And Friends: Sing-A-Longs And Lullabies For The Film Curious George
Brown Eyed Girl	Van Morrison	Blowin' Your Mind!
Call Me Back	DORA	Call Me Back
Candle In The Wind - Remastered 2014	Elton John	Goodbye Yellow Brick Road (Remastered)
Ceora	Joey DeFrancesco	LIVE: The "Authorized Bootleg"
Chasin' The Bird	Charlie Parker	Best Of The Complete Savoy & Dial Studio Recordings
Come On Baby Dance With Me (with John McLaughlin)	Shakti, John McLaughlin	Natural Elements (with John McLaughlin)
comethru	Jeremy Zucker	summer,
Confirmation	Charlie Parker Quartet, Charlie Parker	In Person
Crazy Love - 2013 Remaster	Van Morrison	Moondance (Expanded Edition)
Cryin'	Joe Satriani	The Extremist
D'yer Mak'er - Remaster	Led Zeppelin	Houses of the Holy (Remaster)
Danny Boy	Ben Webster, Barney Kessel, Oscar Peterson, Ray Brown, J.C. Heard	Milestones of a Jazz Legend - Ben Webster, Vol. 1 (1953, 1958)
Days Of Wine And Roses	Wes Montgomery	Boss Guitars
Days of Wine and Roses	Andy Williams	The Essential Andy Williams
Days Of Wine And Roses	McCoy Tyner	Nights Of Ballads & Blues
Dead Flowers - 2009 Mix	The Rolling Stones	Sticky Fingers (Remastered)
Dexterity	Charlie Parker	The Genius Of Charlie Parker
Diamonds on the Soles of Her Shoes	Paul Simon	Graceland (25th Anniversary Deluxe Edition)
Dizzy Atmosphere	Dizzy Gillespie	Groovin' High
Don't Get Around Much Anymore	Oscar Peterson	Oscar Peterson Plays The Duke Ellington Song Book
Don't Get Around Much Anymore	Duke Ellington	The Duke: The Columbia Years (1927-1962)
Don't Know Why	Pat Metheny	One Quiet Night
Don't Let Me Down - Remastered 2009	The Beatles	The Beatles 1967 - 1970 (Remastered)
Don't Think Twice, It's All Right	Ramblin' Jack Elliott	Vanguard Visionaries
Donna Lee	Charlie Parker	The Complete Savoy & Dial Master Takes
Down On The Corner	Creedence Clearwater Revival	Willy And The Poor Boys (Expanded Edition)
Drop Dead Legs - 2015 Remaster	Van Halen	1984 (Remastered)
Earth Angel (Will You Be Mine)	The Penguins	The Best Of The Penguins
Easy To Love	Cannonball Adderley Sextet	Nippon Soul
Eleanor Rigby - Remastered 2015	The Beatles	1 (Remastered)
Fast Car	Tracy Chapman	Tracy Chapman
Float On	Modest Mouse	Good News For People Who Love Bad News
Fly Me To The Moon	Frank Sinatra, Count Basie	Ultimate Sinatra
Forever Young	Alphaville	Forever Young
Four	Miles Davis Quintet	Workin' With The Miles Davis Quintet
Four On Six	Wes Montgomery	Incredible Jazz Guitar

Free Fallin'	Tom Petty	Full Moon Fever
Fun, Fun, Fun	The Beach Boys	50 Big Ones: Greatest Hits
Georgia On My Mind	Wes Montgomery	Down Here On The Ground
Get Off Of My Cloud - (Original Single Mono Version)	The Rolling Stones	Singles 1965-1967
Getting Better - Remastered 2009	The Beatles	Sgt. Pepper's Lonely Hearts Club Band (Remastered)
Girl - Remastered 2009	The Beatles	Rubber Soul (Remastered)
GIRL FROM IPANEMA	Barney Kessel	LIVE AT SOMETIME
God Bless The Child - Remastered	Grant Green	Sunday Mornin'
God Save the Queen	Sex Pistols	Never Mind The Bollocks, Here's The Sex Pistols
Golden Lady	Stevie Wonder	Innervisions
Good Day Sunshine - Remastered 2009	The Beatles	Revolver (Remastered)
Good Lovin' - 2013 Remaster	Grateful Dead	Shakedown Street
Good Riddance (Time of Your Life)	Green Day	Nimrod
Goodie Bag	Still Woozy	Goodie Bag
Gravity	John Mayer	Continuum
Gypsy In My Soul - 2001 Remaster	Johnny Smith, Malcolm Addey	The Sound Of Johnny Smith
Happiness Is A Warm Gun - Remastered 2009	The Beatles	The Beatles (Remastered)
Have You Met Miss Jones	Stan Getz	Jazz Moods - Cool
Have You Met Miss Jones?	Joe Pass	Virtuoso (CJC Remaster)
Headlights	Dave Barnes	Hymns for Her
Here Comes The Sun - Remastered 2009	The Beatles	Abbey Road (Remastered)
Here's That Rainy Day	Biréli Lagrène	Blue Eyes (feat. Chris Minh Doky, Maurice Vander & André Ceccarelli)
Here's That Rainy Day	Bill Evans	Alone (Expanded Edition)
Here's That Rainy Day	Joe Pass	Virtuoso
Here, There And Everywhere - Remastered 2009	The Beatles	Revolver (Remastered)
Hey Jude - Remastered 2015	The Beatles	1 (Remastered)
Hey There Delilah	Plain White T's	All That We Needed
Hipping The Hop	George Benson	Absolute Benson
Honky Tonk Women	The Rolling Stones	Honky Tonk Women / You Can't Always Get What You Want
How High The Moon	Joe Pass	Virtuoso
How's It Going to Be	Third Eye Blind	Third Eye Blind
I Fought the Law - Single Version	The Bobby Fuller Four	Never To Be Forgotten - The Mustang Years
I Got Rhythm	Oscar Peterson	The Maharaja of the Keyboard
I Got Rhythm	Barney Kessel	Presenting Barney Kessel
I Got Rhythm (feat. Stéphane Grappelli) - Remastered	Django Reinhardt, Quintette du Hot Club de France, Stéphane Grappe	Djangology (feat. Stéphane Grappelli)
I Say a Little Prayer	Aretha Franklin	Aretha Now
I Second That Emotion	Smokey Robinson & The Miracles	The 35th Anniversary Collection
I Shall Be Released - Studio Outtake - 1971	Bob Dylan	The Essential Bob Dylan
I Wanna Be Sedated	Ramones	Road to Ruin (40th Anniversary Deluxe Edition)
I Will - Remastered 2009	The Beatles	The Beatles (Remastered)
I Will Follow You into the Dark	Death Cab for Cutie	Plans
I Won't Back Down	Tom Petty	Full Moon Fever
I Won't Give Up	Jason Mraz	Love Is a Four Letter Word (Deluxe Edition)
I'll Be Seeing You	Julian Lage	Arclight
I'll Fly Away	John Scofield	Piety Street
I'll Remember April	Wynton Marsalis	Standard Time Vol. 2: Intimacy Calling
I'm Getting Sentimental over You	John Abercrombie, Andy Laverne	Timeline
I'm Gonna Be (500 Miles)	The Proclaimers	Sunshine on Leith
I'm Still in Love with You	Al Green	I'm Still in Love with You
I'm Yours	Jason Mraz	We Sing. We Dance. We Steal Things.
I've Been Loving You Too Long	Otis Redding	Otis Blue: Otis Redding Sings Soul (Collector's Edition)
If I Ain't Got You	Alicia Keys	The Diary Of Alicia Keys
If I Were A Bell	Oscar Peterson	Walkman Jazz : Oscar Peterson
Iko Iko	The Dixie Cups	The Very Best of The Dixie Cups: Chapel of Love
Iko Iko - Live at JFK Stadium, Philadelphia, PA, July 7, 1989	Grateful Dead	Crimson, White & Indigo: July 7 1989, JFK Stadium, Philadelphia (Live)
In a Sentimental Mood	Chris Potter, Kasper Tranberg, Peter Fuglsang, Jacob Fischer, Kevin H	This Will Be
Isa Lei	Ry Cooder & V.M. Bhatt	A Meeting by the River
Island In The Sun	Weezer	Weezer
Isn't She Lovely	Stevie Wonder	Songs In The Key Of Life
Isn't She Lovely	Biréli Lagrène, Sylvain Luc	Duet
It Don't Mean a Thing (If It Ain't Got That Swing)	Louis Armstrong, Duke Ellington	The Great Reunion
It Don't Mean a Thing (If It Ain't Got That Swing) - 1990 Remaster	Louis Armstrong, Duke Ellington	The Great Summit - The Master Tapes
It Don't Mean a Thing - Live at Birdland	Regina Carter, Jimmy Rosenberg, Frank Vignola	Django Reinhardt NY Festival [Live At Birdland]
I'm Getting Sentimental Over You	Julian Lage	Love Hurts
I'm So Lonesome I Could Cry	John Scofield	Country For Old Men
Jambalaya (On The Bayou)	Roy Clark & Joe Pass	Roy Clark & Joe Pass Play Hank Williams
Jelly Roll	Charles Mingus	Mingus Ah Um
Johnny Too Bad	The Slickers	The Harder They Come (Original Motion Picture Soundtrack)
Joy Spring	Joe Pass	Virtuoso #2
Jump	Van Halen	Best of Volume 1
Just the Two of Us (feat. Bill Withers)	Grover Washington, Jr., Bill Withers	Anthology
King Of The Road	Jimmy Smith, Wes Montgomery, Roger Miller	Greatest Jazz Driving Songs
Knockin' On Heaven's Door	Bob Dylan	Pat Garrett & Billy The Kid (Soundtrack From The Motion Picture)
La Bamba - Single Version	Ritchie Valens	Ritchie Valens
Landslide	Fleetwood Mac	Fleetwood Mac
Last Date	Floyd Cramer	For The Moment
Late in the Evening	Paul Simon	One-Trick Pony
Learn to Fly	Foo Fighters	There Is Nothing Left To Lose
Lenny	Stevie Ray Vaughan	The Essential Stevie Ray Vaughan And Double Trouble
Lenny	Stevie Ray Vaughan	Texas Flood (Legacy Edition)

Let It Be	Joshua Redman	Walking Shadows
Let It Be - Remastered 2015	The Beatles	1 (Remastered)
Let's Stay Together	Al Green	Let's Stay Together
Like a Rolling Stone	Bob Dylan	Highway 61 Revisited
Like I'm Gonna Lose You (feat. John Legend)	Meghan Trainor, John Legend	Title (Deluxe)
Like Someone in Love - Live	Oscar Peterson Trio	Exclusively for My Friends: Action, Vol. 1
Love For Sale - Instrumental	Herb Ellis, Joe Pass	Two For The Road
Lovely Day	Bill Withers	Menagerie
Lucky	Jason Mraz, Colbie Caillat	We Sing, We Dance, We Steal Things.
Me and Julio Down by the Schoolyard	Paul Simon	Paul Simon
Melissa	Allman Brothers Band	Eat A Peach
Memphis, Tennessee	Chuck Berry	Chuck Berry On Stage (Expanded Edition)
Midnight in Harlem	Tedeschi Trucks Band	Revelator
Midnight In Harlem (Swamp Raga intro with Little Martha) - Live	Tedeschi Trucks Band	Everybody's Talkin'
Minority	Green Day	Warning
Misty	Wes Montgomery, Wynton Kelly Trio	Movin': The Complete Verve Recordings
Moose The Mooche	Charlie Parker, Miles Davis	Best Of The Complete Savoy & Dial Studio Recordings
Motherless Child	Eric Clapton	From the Cradle
Mr. Tambourine Man	The Byrds	Mr. Tambourine Man
Mrs. Robinson	Paul Desmond	Bridge Over Troubled Water
Mrs. Robinson	Paul Desmond	Bridge Over Troubled Water
My Best Friend's Girl	The Cars	The Cars
My Girl	Otis Redding	Otis Blue: Otis Redding Sings Soul (Collector's Edition)
My Hero	Foo Fighters	The Colour And The Shape
My Sweet Lord (2014 Remaster)	George Harrison	All Things Must Pass (2014 Remaster)
New Kid in Town - 2013 Remaster	Eagles	Hotel California (2013 Remaster)
New Light	John Mayer	New Light
New Light	John Mayer	Sob Rock
No Woman No Cry	Bob Marley & The Wailers	Natty Dread
Now's the Time - Remastered Version	Sonny Stitt	Stitt Plays Bird
Oh! Darling - Remastered 2009	The Beatles	Abbey Road (Remastered)
One Note Samba	The Howard Roberts Quartet	H.R. Is A Dirty Guitar Player
Ooh La La	Faces	Ooh La La
Ornithology	Charlie Parker	The Genius Of Charlie Parker
Over the Rainbow	Israel Kamakawiwo'ole	Alone In Iz World
Peace Of Mind (with John McLaughlin)	Shakti, John McLaughlin	Natural Elements (with John McLaughlin)
Peace Train	Yusuf / Cat Stevens	The Very Best Of Cat Stevens
Pent-Up House	Sonny Rollins, Clifford Brown, Max Roach, Richie Powell, George M	Plus Four
People Get Ready - Live	Jeff Beck	Live and Exclusive from The Grammy Museum
Perfect	Ed Sheeran	÷ (Deluxe)
Photograph	Ed Sheeran	x (Deluxe Edition)
Piano Man	Billy Joel	Piano Man (Legacy Edition)
Poinciana	Biréli Lagrène	Gipsy Trio
Pork And Beans	Weezer	Weezer
Pressure Drop	Toots & The Maytals	Sweet and Dandy
Rag Rageshri	Rakesh Chaurasia	Swar-Vandana
Raga Rageshri - Part 1 (Alap) - Digitally Remastered	Ravi Shankar	The Ravi Shankar Collection: Improvisations
Raga Rageshri - Part 2 (Jor) - Digitally Remastered	Ravi Shankar	The Ravi Shankar Collection: Improvisations
Raga Rageshri - Part 3 (Gat) - Digitally Remastered	Ravi Shankar	The Ravi Shankar Collection: Improvisations
Riviera Paradise	Stevie Ray Vaughan	The Essential Stevie Ray Vaughan And Double Trouble
Rockin' Robin	Bobby Day	Rockin' Robin
Rocks Off	The Rolling Stones	Exile On Main Street (2010 Re-Mastered)
Rocky Raccoon - 2018 Mix	The Beatles	The Beatles
Rosie	John Mayer	The Search for Everything
Samba de Orfeu	Lutz Bonfá	Solo in Rio 1959
Samba Pa Ti	Joscho Stephan	Guitar Heroes
Santeria	Sublime	Sublime
Saturday Nights	Khalid	Suncity
Say a Little Prayer - Live	Lianne La Havas	Say a Little Prayer (Live)
Scarlet Begonias - 2013 Remaster	Grateful Dead	From the Mars Hotel
Scrapple From The Apple	Charlie Parker	Jazz Masters
Semi-Charmed Life	Third Eye Blind	Third Eye Blind
September	Earth, Wind & Fire	September
She	Green Day	Dookie
She's a Woman	Jeff Beck	Blow By Blow
Sitting In Limbo	Jimmy Cliff	The Harder They Come (Original Motion Picture Soundtrack)
Skylark	k.d. lang	Midnight In The Garden Of Good And Evil (Music From And Inspired By The Motion Picture)
Slow Dancing in a Burning Room	John Mayer	Continuum
Solitude	Billie Holiday	Solitude
Some Might Say	Oasis	(What's The Story) Morning Glory?
Somebody Loves Me	Roy Eldridge	The Complete Verve Studio Sessions
Someday My Prince Will Come	Barney Kessel, Ray Brown, Shelly Manne	The Poll Winners: Straight Ahead
Someday My Prince Will Come (feat. John Coltrane, Hank Mobley, Wynton Kelly, Pau	Miles Davis, John Coltrane, Hank Mobley, Wynton Kelly, Paul Chamber	Someday My Prince Will Come
Someone To Watch Over Me	Keith Jarrett	The Melody At Night, With You
Something	Biréli Lagrène	Gypsy Trio
Somewhere over the Rainbow	Tommy Emmanuel	Endless Road
Somewhere Over The Rainbow, What A Wonderful World	Israel Kamakawiwo'ole	Facing Future
Soul to Squeeze	Red Hot Chili Peppers	Greatest Hits
Speak Low	Barney Kessel	Kessel Plays Standards
Spiderwebs	No Doubt	Tragic Kingdom

St. Thomas	Sonny Rollins	Now's The Time!
St. Thomas	Sonny Rollins, Tommy Flanagan, Doug Watkins, Max Roach	Saxophone Colossus
Stand by Me	Ben E. King	Don't Play That Song (Mono)
Steal My Kisses	Ben Harper And The Innocent Criminals	Burn To Shine
Stir It Up	Bob Marley & The Wailers	Legend - The Best Of Bob Marley And The Wailers
Stormy Weather	Oscar Peterson, Ray Brown, Herb Ellis	The Maharaja of the Keyboard
Street Fighting Man	The Rolling Stones	Hot Rocks (1964-1971)
Summertime Blues	The Who	The Who Sell Out (Super Deluxe)
Sun King - 2019 Mix	The Beatles	Abbey Road (Super Deluxe Edition)
Surfin' U.S.A.	The Beach Boys	50 Big Ones: Greatest Hits
Take the "A" Train	George Benson	Bad Benson
Tears in Heaven	Joshua Redman	Wish
Tears in Heaven	Eric Clapton	Rush (Music from the Motion Picture Soundtrack)
Tenderly	Barney Kessel	Plays For Lovers
Thanks For The Memory	Jim Hall	Jazz Guitar
The 59th Street Bridge Song (Feelin' Groovy)	Simon & Garfunkel	Parsley, Sage, Rosemary And Thyme
The Boxer	Simon & Garfunkel	Bridge Over Troubled Water
The Eternal Triangle	Dizzy Gillespie, Sonny Rollins, Sonny Stitt	Sonny Side Up
The Flintstones	Herb Ellis Trio	Burnin'
The Fool On The Hill - Remastered 2009	The Beatles	Magical Mystery Tour (Remastered)
The Girl From Ipanema - Single Version	Stan Getz, João Gilberto, Astrud Gilberto, Antônio Carlos Jobim	Getz/Gilberto (Expanded Edition)
The Hustle - Original Mix	Van McCoy	Disco Baby
The Lion Sleeps Tonight (Wimoweh)	The Tokens	Wimoweh!!! - The Best Of The Tokens
The Shadow Of Your Smile	Wes Montgomery	Verve Jazz Masters 14: Wes Montgomery
The Spirit Of Radio	Rush	Permanent Waves
The Stumble	John Mayall & The Bluesbreakers	A Hard Road
The Tide Is High	Blondie	Best Of Blondie
The Way You Look Tonight	Jimmy Bruno	Like That
The Way You'd Love Her	Mac DeMarco	Another One
The Wind Cries Mary	Jimi Hendrix	Are You Experienced
Theme from the Flintstones	TV Theme Song Library	TV Theme Library - Hit Cartoon and Kids Show Themes
There Will Never Be Another You - Remastered 2001	Joe Pass	The Capitol Vaults Jazz Series
Thinking out Loud	Ed Sheeran	x (Wembley Edition)
This Kiss	Faith Hill	Faith
Time Is Tight	Booker T. & the M.G.'s	The Complete Stax / Volt Soul Singles, Vol. 2: 1968-1971
Tiny Dancer	Elton John	Madman Across The Water
Today - 2011 Remaster	The Smashing Pumpkins	Siamese Dream (Deluxe Edition)
Try a Little Tenderness	Otis Redding	Complete & Unbelievable: The Otis Redding Dictionary of Soul
Tune-Up	Miles Davis Quartet	Blue Haze
Twist And Shout	The Isley Brothers	Twist & Shout
Uncle John's Band - 2013 Remaster	Grateful Dead	Workingman's Dead
Under the Bridge	Red Hot Chili Peppers	Blood Sugar Sex Magik (Deluxe Edition)
Upside Down	Jack Johnson	Upside Down
Upside Down	Jack Johnson	Jack Johnson And Friends: Sing-A-Longs And Lullabies For The Film Curious George
Waiting In Vain	Bob Marley & The Wailers	Legend - The Best Of Bob Marley And The Wailers
Waiting On A Friend - Remastered 2009	The Rolling Stones	Tattoo You (2009 Re-Mastered)
Waiting On the World to Change	John Mayer	Continuum
Wave	Antônio Carlos Jobim	Wave
What a Wonderful Thing Love Is	Al Green	I'm Still in Love with You
What Am I Here For	Rosenberg Trio and Tim Kliphuis	Rosenberg Trio & Tim Kliphuis
When I Come Around	Green Day	Dookie
When Sunny Gets Blue	Nat King Cole	Love Is The Thing
When You Love Someone	James TW	First Impressions
Where Were You (with Terry Bozzio & Tony Hymas)	Jeff Beck, Terry Bozzio, Tony Hymas	Beckology
Who Says	John Mayer	Battle Studies
Wild Thing - Live At Monterey	Jimi Hendrix	Live At Monterey
Wildwood Flower	John Scofield	Country For Old Men
WILLOW WEEP FOR ME	Barney Kessel	LIVE AT SOMETIME
Witchcraft	Biréli Lagrène	Blue Eyes (feat. Chris Minh Doky, Maurice Vander & André Ceccarelli)
With Or Without You	U2	U218 Singles
Wonderful Tonight	Eric Clapton	Slowhand 35th Anniversary (Super Deluxe)
Yardbird Suite	Charlie Parker	The Genius Of Charlie Parker
Yellow Ledbetter	Pearl Jam	Jeremy
Yellow Submarine	The Beatles	Yellow Submarine Songtrack
Yesterday - Remastered 2015	The Beatles	1 (Remastered)
You Ain't Goin' Nowhere - Studio Outtake - 1971	Bob Dylan	The Essential Bob Dylan
You Are The Sunshine Of My Life	Stevie Wonder	Talking Book
You Can Call Me Al	Paul Simon	Graceland (25th Anniversary Deluxe Edition)
You Can't Always Get What You Want	The Rolling Stones	Let It Bleed
You Go To My Head	Barney Kessel, Ray Brown, Shelly Manne	The Poll Winners
You're Going To Lose That Girl - Remastered 2009	The Beatles	Help! (Remastered)
You're Pretty Good Looking (For a Girl)	The White Stripes	De Stijl
You're Still a Young Man - Remastered	Tower Of Power	The Very Best Of Tower Of Power: The Warner Years
Your Body Is a Wonderland	John Mayer	Room For Squares
Your Cheatin' Heart	Roy Clark & Joe Pass	Roy Clark & Joe Pass Play Hank Williams
Your Song	Elton John	Elton John
Youth	Daughter	If You Leave

songs in major mode with a major seventh basis include:

All the Things You Are (three keys), Beginnings, Breezin', Fly Me To the Moon, Georgia On My Mind (verse), I Got Rhythm, Imagine, Scrapple From the Apple (section A), September, Stay (Post Malone), Stormy Weather, There Will Never Be Another You, The Way You Look Tonight, Why Does Love Have To Be So Sad (chorus), Witchcraft, You're Still A Young Man, You Are the Sunshine of My Life.

Mixolydian Mode

Mixolydian mode built on the fifth step of a major scale by playing the major scale linearly from step five to five, ascending or descending. Once you build it, you can reconceive it by modifying a major scale on its root and flatting the seventh. The mode built on the fifth step of the C major is G Mixolydian, with the tones G-A-B-C-D-E-F-G. Modifying the G major scale (G-A-B-C-D-E-F#-G) by flatting its seventh (changing F# to F natural), produces the same notes as five to five of the C major scale: G-A-B-C-D-E-F-G.

Mixolydian darkens major by flatting its seventh and makes a bluesier, more funky scale.

Mixolydian songs include (Spotify):

MIXOLYDIAN

title	artist	album
(I Can't Get No) Satisfaction - Mono Version	The Rolling Stones	Out Of Our Heads
99 1/2	Steve Cropper	With A Little Help From My Friends
Addicted To Love	Robert Palmer, Eric 'ET' Thorngren	Riptide
Alive	Pearl Jam	Ten
All Blues (feat. John Coltrane, Cannonball Adderley & Bill Evans)	Miles Davis, John Coltrane, Cannonball Adderley, Bill Evans	Kind Of Blue (Legacy Edition)
All Right Now	Free	Fire And Water
Angel from Montgomery - 2008 Remaster	Bonnie Raitt	Streethlights
Anyday	Derek & The Dominos	Layla And Other Assorted Love Songs (Remastered 2010)
Are You Gonna Be My Girl	Jet	Get Born
Baby, I Love You	Aretha Franklin	Chain of Fools
Back In Black	AC/DC	Back In Black
Badge	Cream	Goodbye
Beast Of Burden - Remastered 1994	The Rolling Stones	Some Girls
Beck's Bolero - Instrumental	Jeff Beck	Truth
Bigger Than My Body	John Mayer	Heavier Things
Black Mountain Side	Jimmy Page, Steve Tibbetts	Big Map Idea
Born On The Bayou	Creedence Clearwater Revival	Bayou Country
Boy From New York City	The Manhattan Transfer	Mecca For Moderns
Californication	Red Hot Chili Peppers	Californication (Deluxe Edition)
Can't Find My Way Home	Blind Faith	Blind Faith
Can't You Hear Me Knocking - 2009 Mix	The Rolling Stones	Sticky Fingers (Remastered)
Cat's in the Cradle	Harry Chapin	Verities & Balderdash
Celebration - Single Version	Kool & The Gang	Celebration / Morning Star
Centerfold	The J. Geils Band	Freeze Frame
Champagne Supernova - Remastered	Oasis	(What's The Story) Morning Glory? (Deluxe Edition) [Remastered]
Change the World	Eric Clapton	Clapton Chronicles: The Best of Eric Clapton
Chicken	Jaco Pastorius, Peter Lübke, Biréli Lagrène	Broadway Blues
Cinnamon Girl	Crazy Horse	Cinnamon Girl- A Tribute to Neil Young
Cissy Strut	John Scofield	Guitarra de jazz
Clocks	Coldplay	A Rush of Blood to the Head
Closer To The Heart	Rush	A Farewell To Kings
Cold Duck Time	Jeff Golub	Do It Again
Comfortably Numb	Pink Floyd	The Wall
Communication Breakdown - Remaster	Led Zeppelin	Led Zeppelin (Remaster)
Cucumber Slumber	Weather Report	Mysterious Traveller
Day Tripper - Remastered 2015	The Beatles	1 (Remastered)
Dear Mr. Fantasy	Traffic	The Best Of Traffic
Dear Mr. Fantasy	Traffic	Mr. Fantasy
Dear Prudence - Remastered 2009	The Beatles	The Beatles (Remastered)
Deep River Blues	Tommy Emmanuel, Jason Isbell	Accomplice One
Desire	U2	Rattle And Hum
Dig A Pony - Remastered 2009	The Beatles	Let It Be (Remastered)
Don't Stop - 2004 Remaster	Fleetwood Mac	Rumours (Super Deluxe)
Don't You (Forget About Me)	Simple Minds	Once Upon A Time (Super Deluxe)
Drop Dead Legs - 2015 Remaster	Van Halen	1984 (Remastered)
Drume negrita	Ry Cooder, Manuel Galbán	Mambo Sinuendo
East-West	The Paul Butterfield Blues Band	East-West
Even Flow	Pearl Jam	Ten
Fashion - 2017 Remaster	David Bowie	Scary Monsters (And Super Creeps) [2017 Remaster]
Flying High Again	Ozzy Osbourne	Diary Of A Madman
For the Love of Money	The O'Jays	Ship Ahoy (Expanded Edition)
Fortunate Son	Creedence Clearwater Revival	Willy And The Poor Boys (Expanded Edition)
Freeway Jam	Jeff Beck	Blow By Blow
Ganges Delta Blues	Ry Cooder & V.M. Bhatt	A Meeting by the River
Get Back - Remastered 2009	The Beatles	Let It Be (Remastered)
Getting Better - Remastered 2009	The Beatles	Sgt. Pepper's Lonely Hearts Club Band (Remastered)
Gimme All Your Lovin'	ZZ Top	Eliminator
Give It Up	KC & The Sunshine Band	All In a Night's Work (Expanded Version)
Give Up The Funk (Tear The Roof Off The Sucker)	Parliament	Motherhip Connection

Good Lovin' Gone Bad - 2015 Remaster	Bad Company	Straight Shooter
Good Times Bad Times - 1993 Remaster	Led Zeppelin	Led Zeppelin
Got To Get Better In A Little While - Live	Derek & The Dominos	Derek & The Dominos In Concert (Live)
Gratitude	Earth, Wind & Fire	Gratitude
Hard Place	H.E.R.	I Used To Know Her - Part 2 - EP
Hard Sun	Eddie Vedder	Into The Wild (Music For The Motion Picture)
Hard to Handle	Otis Redding	Soul Manifesto: 1964-1970
Hard To Handle	The Black Crowes	Shake Your Money Maker
Hari Kamboji Ragam	K. J. Yesudas	Mayilpeeli
Hey Jude - Remastered 2015	The Beatles	1 (Remastered)
Hurdy Gurdy Man	Donovan	The Hurdy Gurdy Man
Hush	Deep Purple	Shades of Deep Purple
I Can't Explain	The Who	Meaty, Beaty, Big And Bouncy
I Don't Need No Doctor	John Scofield, John Mayer	That's What I Say
If I Needed Someone - Remastered 2009	The Beatles	Rubber Soul (Remastered)
If I Were A Carpenter - Live From The Desert Inn / 1971	Bobby Darin	Darin 1936-1973 (Expanded Edition)
In the Midnight Hour	Wilson Pickett	In the Midnight Hour
It's Still Rock and Roll to Me	Billy Joel	Glass Houses
Jane Says	Jane's Addiction	Nothing's Shocking
Jessica	Allman Brothers Band	Dreams
La Danse Du Bonheur (with John McLaughlin)	Shakti, John McLaughlin	A HANDFUL OF BEAUTY (with John McLaughlin)
Learn to Fly	Foo Fighters	There Is Nothing Left To Lose
Let It Rain	Eric Clapton	Eric Clapton
Limelight	Rush	Moving Pictures (2011 Remaster)
Listen to the Music	The Doobie Brothers	Toulouse Street
Living In The U.S.A.	Steve Miller Band	Sailor
Magic Bus - Original Stereo Version	The Who	Meaty, Beaty, Big And Bouncy
Magic Carpet Ride	Steppenwolf	The Second
Magical Mystery Tour - Remastered 2009	The Beatles	Magical Mystery Tour (Remastered)
Mercy, Mercy, Mercy	Cannonball Adderley	Jazz Profile: Cannonball Adderley
More Than a Feeling	Boston	Boston
My Generation - Mono Version	The Who	The Who Sings My Generation (U.S. Version)
Night Moves	Bob Seger	Night Moves
No Rain	Blind Melon	Blind Melon
Norwegian Wood (This Bird Has Flown) - Remastered 2009	The Beatles	Rubber Soul (Remastered)
Nowhere To Run	Martha Reeves & The Vandellas	Dance Party
Paperback Writer - Remastered 2015	The Beatles	1 (Remastered)
Peace of Mind	Boston	Boston
Polythene Pam - 2019 Mix	The Beatles	Abbey Road (Super Deluxe Edition)
Put It Where You Want It	The Crusaders	Crusaders 1
Put It Where You Want It - Live	Gene Harris	Alley Cats
Raga Rageshree	Vilayat Khan	Maestro's Choice - Vilayat Khan
Rain - Remastered 2009	The Beatles	Past Masters (Vols. 1 & 2 / Remastered)
Respect	Aretha Franklin	I Never Loved a Man The Way I Love You
Revelation	Robben Ford	Talk To Your Daughter
Rikki Don't Lose That Number	Steely Dan	Pretzel Logic
Roadhouse Blues	The Doors	Morrison Hotel
Rock'n Me	Steve Miller Band	Fly Like An Eagle
Runnin' Down A Dream	Tom Petty	The Best Of Everything - The Definitive Career Spanning Hits Coll
Sharp Dressed Man - 2019 Remaster	ZZ Top	Goin' 50
She Said She Said - Remastered 2009	The Beatles	Revolver (Remastered)
Shining Star	Earth, Wind & Fire	That's The Way Of The World
Sledgehammer - 2012 Remaster	Peter Gabriel	So (25th Anniversary Deluxe Edition)
Soul Sauce	Cal Tjader	Soul Sauce
Southern Cross	Crosby, Stills & Nash	CSN 2012
Squib Cakes	Tower Of Power	Back To Oakland
Stick Together - Live at Pasquale's on Malibu Beach, 1983	Victor Feldman	Stick Together (Live at Pasquale's on Malibu Beach, 1983)
Sugar Magnolia - Live in Paris, 1972; 2001 Remaster	Grateful Dead	Europe '72 (Live; 2001 Remaster)
Summer Song	Joe Satriani	The Extremist
Sweet Child O' Mine	Karizma Duo	Chilled Covers
Sweet Child O' Mine	Guns N' Roses	Appetite For Destruction
Sweet Home Alabama	Lynyrd Skynyrd	Second Helping (Expanded Edition)

Sympathy For The Devil - Live	The Rolling Stones	Get Yer Ya-Ya's Out! The Rolling Stones In Concert (40th Annivers
Take Me to the River	Al Green	Al Green Explores Your Mind
Taxman - Remastered 2009	The Beatles	Revolver (Remastered)
Tell Her About It	Billy Joel	An Innocent Man
Tequila	Wes Montgomery	Movin': The Complete Verve Recordings
Tequila	The Champs	Greatest Hits / Tequila
That's Enough	John Scofield	Piety Street
The Inner Light - Remastered 2009	The Beatles	Past Masters (Vols. 1 & 2 / Remastered)
The Last Time - (Original Single Mono Version)	The Rolling Stones	Singles 1963-1965
The Preacher	Joey DeFrancesco	Funky Pieces of Silver: The Horace Silver Songbook (The Compos
The Way It Is	Bruce Hornsby, The Range	The Way It Is
The Way You Make Me Feel - 2012 Remaster	Michael Jackson	Bad 25th Anniversary
Them Changes	Buddy Miles	Them Changes
This Little Light Of Mine	The Gene Harris Quartet	Brotherhood
Thunderstruck	AC/DC	The Razors Edge
Wabash III	John Scofield	Time On My Hands
Walk With Me	John Scofield	Piety Street
Watermelon Man	Herbie Hancock	Head Hunters
We Are Family - 1995 Remaster	Sister Sledge	We Are Family (1995 Remaster)
We Can Work It Out - Remastered 2015	The Beatles	1 (Remastered)
Whip It	DEVO	Freedom of Choice
White Summer - 2003 Remaster	The Yardbirds	Little Games
WILLOW WEEP FOR ME	Barney Kessel	LIVE AT SOMETIME
Windy	The Association	Just The Right Sound: The Association Anthology [Digital Version]
With A Little Help From My Friends - Remastered 2009	The Beatles	Sgt. Pepper's Lonely Hearts Club Band (Remastered)
Within You Without You - Remastered 2009	The Beatles	Sgt. Pepper's Lonely Hearts Club Band (Remastered)
Within You Without You - Take 1 / Indian Instruments	The Beatles	Sgt. Pepper's Lonely Hearts Club Band (Deluxe Edition)
Won't Get Fooled Again - Original Album Version	The Who	Who's Next (Deluxe Edition)
You Got to Get Funkifize - Remastered	Tower Of Power	The Very Best Of Tower Of Power: The Warner Years
You Know What I Mean	Jeff Beck	Blow By Blow
You Never Give Me Your Money - Remastered 2009	The Beatles	Abbey Road (Remastered)
You Wreck Me	Tom Petty	Wildflowers

Lydian mode

Lydian mode is built on the fourth step of a major scale by playing the major scale linearly from step four to four, ascending or descending. Once you build it, you can reconceive it by modifying a major scale on its root and sharpening the fourth. The mode built on the fourth step of the C major is F Lydian, with the tones F-G-A-B-C-D-E-F. Modifying the F major scale (F-G-A-B \flat -C-D-E-F) by sharpening its fourth (changing B \flat to B natural), produces the same notes as four to four of the C major scale: F-G-A-B-C-D-E-F.

Lydian songs include:

Dreams (Fleetwood Mac), Freewill, Flying in a Blue Dream, Blue Jay Way (alternates Lydian diminished and Lydian), Eleanor Rigby (the “C” chords), Golden Lady (bars 3-4, 7-8 of chorus), Maria, Donna Lee bars 3-4 key scale (Mixolydian b6 chord scale),

Dorian mode

Dorian mode is built on the second step of a major scale by ascending or descending the major scale from step two to two. It has the brightest mood of all minor modes. Once you build it on the second step of a major scale, you can reconceive it by flattening the third and seventh steps of a major scale named after it. C major scale from D to D produces D Dorian. Modifying the D major scale (D-E-F \sharp -G-A-B-C \sharp -D) by flattening its third (F \sharp to F natural) and flattening its seventh (changing C \sharp to C natural), produces the same notes as two to two of the C major scale: D-E-F-G-A-B-C-D. In addition to being the basis of the Dorian songs listed below, Dorian is used in major key blues to darken the sound of seventh chords, such as using D Dorian with its D minor basis on a blues based on a D major chord. The typical, simple major key blues in D uses the chord progression D-D-D-D-G-G-D-D-A-G-D-A). Try playing the D Dorian scale over it (D-E-F-G-A-B-C-D).

Dorian songs include (Spotify):

title	artist	album
A Go Go	John Scofield	A Go Go
Aeroplane	Red Hot Chili Peppers	One Hot Minute (Deluxe Edition)
Affirmation	George Benson	Breezin'
Afro Blue	Mongo Santamaria	Afro Roots
Another Brick in the Wall, Pt. 2	Pink Floyd	The Wall
Another Country	The Electric Flag	A Long Time Comin'
Bad Intentions	Niykee Heaton, Migos, OG Parker	The Bedroom Tour Playlist
Billie Jean	Michael Jackson	Thriller 25 Super Deluxe Edition
Black Narcissus	Joe Henderson	Power To The People [Keepnews Collection] (Remastered)
Bohemian Like You	The Dandy Warhols	Thirteen Tales From Urban Bohemia
Boulevard of Broken Dreams	Green Day	Greatest Hits: God's Favorite Band
Can't Stand Your Funk	Mahavishnu Orchestra	Visions of the Emerald Beyond
Chamber Of Reflection	Mac DeMarco	Salad Days
Chank	John Scofield	A Go Go
Cissy Strut	The Meters	Funkify Your Life: The Meters Anthology
Cissy Strut	John Scofield	Guitarra de jazz
Come Together - Remastered 2009	The Beatles	Abbey Road (Remastered)
Don't You Worry 'Bout A Thing	Stevie Wonder	Innervisions
El Condor Pasa	Paul Desmond	Bridge Over Troubled Water
Entre Dos Aguas - Instrumental	Paco de Lucía	Fuente Y Caudal
Evil Ways	Santana	Santana (Legacy Edition)
Face To Face (with John McLaughlin)	Shakti, John McLaughlin	Natural Elements (with John McLaughlin)
Fantasy	Earth, Wind & Fire	All 'N All
Fixing A Hole - Remastered 2009	The Beatles	Sgt. Pepper's Lonely Hearts Club Band (Remastered)
Flashlight	Parliament	Can't Hardly Wait
From the Beginning - 2015 Remaster	Emerson, Lake & Palmer	Trilogy (Deluxe)
From the Beginning - 2015 Remaster	Emerson, Lake & Palmer	The Anthology
Funk in the Hole	Roy Ayers	Suol Mates : Fritz Kalkbrenner
Get Lucky (feat. Pharrell Williams and Nile Rodgers)	Daft Punk, Pharrell Williams, Nile Rodgers	Random Access Memories
Gold on the Ceiling	The Black Keys	El Camino
Good Times - 2018 Remaster	CHIC	The Chic Organization 1977-1979 (2018 Remaster)
Green Onions	Booker T. & the M.G.'s	Green Onions
Green Tea	John Scofield	A Go Go
Helplessly Hoping - 2005 Remaster	Crosby, Stills & Nash	Crosby, Stills & Nash
Higher Ground	Stevie Wonder	Innervisions
Hot 'Lanta - Live At The Fillmore East/1971	Allman Brothers Band	At Fillmore East (Deluxe Edition)
I Wish	Stevie Wonder	Songs In The Key Of Life
I Wish	Stevie Wonder	Songs In The Key Of Life
Impressions	The Jimmy Bruno Group	Midnight Blue
In Memory Of Elizabeth Reed	Allman Brothers Band	Idlewild South (Deluxe Edition Remastered)
In Memory Of Elizabeth Reed - Live At The Fillmore East/1971/Second Show	Allman Brothers Band	The 1971 Fillmore East Recordings
Inner City Blues (Make Me Wanna Holler)	Marvin Gaye	What's Going On - 40th Anniversary (Super Deluxe)
It's Too Late - Live At The Troubadour / 2007	Carole King, James Taylor	Live At The Troubadour
John Barleycorn	Traffic	John Barleycorn Must Die
Jungle Boogie	Kool & The Gang	Wild And Peaceful
La Grange - 2005 Remaster	ZZ Top	Tres Hombres (Expanded 2006 Remaster)
Le Freak	CHIC	Brass In Pocket: The 70s All Over
Little Black Submarines	The Black Keys	El Camino
Locomotive Breath	Jethro Tull	Aqualung (Special Edition)
Lonely Boy	The Black Keys	El Camino
Mad World	Gary Jules, Michael Andrews	Trading Snakeoil for Wolf tickets
Mary Jane's Last Dance	Tom Petty and the Heartbreakers	Greatest Hits
Mind Ecology (with John McLaughlin)	Shakti, John McLaughlin	Natural Elements (with John McLaughlin)
Mister Magic	Grover Washington, Jr.	Mister Magic
Money for Nothing	Dire Straits	Brothers in Arms
Money For Nothing (Single Edit) - 2022 Remaster	Dire Straits	Money For Nothing (2022 Remaster)

Montuno Funk	Solsonics	Jazz In The Present Tense
Moondance - 2013 Remaster	Van Morrison	Moondance (Deluxe Edition)
Moving On and Getting Over	John Mayer	The Search for Everything
My Favorite Things	John Coltrane	My Favorite Things (Deluxe Edition)
New Light	John Mayer	New Light
Oye Como Va	Santana	Abraxas
People Like Us	Kelly Clarkson	Greatest Hits - Chapter One
Pick Up the Pieces	Average White Band	AWB
Pick Up the Pieces (feat. Jeff Golub)	Avenue Blue feat. Jeff Golub	Avenue Blue feat. Jeff Golub
Play That Funky Music	Wild Cherry	Wild Cherry
Raga Bhimpalasi	Ravi Shankar	More Flowers from India
Red Baron	Billy Cobham	Spectrum
Rikki Don't Lose That Number	Steely Dan	Pretzel Logic
Riviera Paradise	Stevie Ray Vaughan	In Step
Saved	Khalid	American Teen
Scarborough Fair / Canticale	Paul Desmond	Bridge Over Troubled Water
So What (feat. John Coltrane, Cannonball Adderley & Bill Evans)	Miles Davis, John Coltrane, Cannonball Adderley	Kind Of Blue (Legacy Edition)
Soul Vaccination	Tower Of Power	Tower Of Power
Squib Cakes	Tower Of Power	Back To Oakland
Stayin' Alive	Bee Gees	How Can You Mend A Broken Heart
Strange Brew	Cream	Disraeli Gears (Deluxe Edition)
Superstition	Stevie Wonder	Talking Book (Reissue)
This Masquerade - 2000 Remaster	George Benson	Breezin'
Tipatina's	Mike Stern	Play
Use Me	Bill Withers	Lean on Me: The Best of Bill Withers
Use Me	Bill Withers	Still Bill
What I Got	Sublime	Sublime
What Is Hip?	Tower Of Power	Tower Of Power
Wonderwall - Remastered	Oasis	(What's The Story) Morning Glory? (Deluxe Edition) [Remastered]

Mixolydian and Dorian hybrid

Songs often use a hybrid of Mixolydian and Dorian, usually based on a I7#9 chord. Examples include Are You Gonna Be My Girl, Black Friday, Born to Be Wild, Chain of Fools, Chank, Cissy Strut, Don't You Worry 'Bout A Thing, Foxey Lady, Get Back. Livin' For the City, Living in the U.S.A., Purple Haze, Roadhouse Blues, Taxman, What Is Hip?, You Got to Funkafize.

Major Key Blues Modes

Blues in a major key usually uses Mixolydian throughout, except Dorian on the IV chord. See [Modes On I-IV-V Blues](#) and [Modes On Jazz Blues](#). During the I and V chords, Dorian can be used in place of Mixolydian to darken the mood.

Aeolian mode (natural minor)

Aeolian mode is built on the sixth step of a major scale by ascending or descending linearly from major scale tone six to six. It is the traditional sad mode. Once you build it on the sixth step of a major scale, you can then reconceive it by modifying a major scale on its tone center and flattening the third, sixth and seventh. Minor keys can be made to sound happier by using a lively rhythm, like Hava Nageela or Stray Cat Strut.

Aeolian songs include (Spotify):

	artist	album
'Round Midnight (feat. John Coltrane, Red Garland, Paul Chambers & Philly Joe Jones)	Miles Davis, John Coltrane, Red Garland, Paul Chambers, Philly Joe Jones	'Round About Midnight
(Come 'Round Here) I'm The One You Need	Smokey Robinson & The Miracles	Away We A Go-Go
(Don't Fear) The Reaper	Blue Oyster Cult	Agents Of Fortune
21 Guns	Green Day	21st Century Breakdown
50 Ways to Leave Your Lover	Paul Simon	Still Crazy After All These Years
A Hazy Shade of Winter	Simon & Garfunkel	Bookends
Affirmation	George Benson	Breezin'
Africa	TOTO	Toto IV
Afro Blue - Live In Stockholm / 1963	John Coltrane	Afro Blue Impressions (Remastered & Expanded)
After Last Night (with Thundercat & Bootsy Collins)	Bruno Mars, Anderson .Paak, Silk Sonic, Thundercat, Bootsy Collins	An Evening With Silk Sonic
Ain't No Sunshine	Bill Withers	Just As I Am
All Along the Watchtower	Jimi Hendrix	Electric Ladyland
All Along the Watchtower	Bob Dylan	John Wesley Harding
Alone Together	Pat Martino	Cream
Always with Me, Always with You	Joe Satriani	Surfing With The Alien
Angel Eyes	Barney Kessel	The Poll Winners Ride Again!
Angie - Remastered	The Rolling Stones	Made In The Shade
Anji	Simon & Garfunkel	Sounds Of Silence
Another Star	Stevie Wonder	At The Close Of A Century
Another Star	The Gene Harris Quartet	Black And Blue
Asturias	John Williams	Original Album Classics - John Williams
Asturias	John C. Williams	Spanish Guitar Music
Asturias (Leyenda)	Narciso Yepes	Narciso Yepes
Attention	Charlie Puth	Voicenotes
Autumn Leaves	Cannonball Adderley	Somethin' Else (Rudy Van Gelder Edition)
Babe I'm Gonna Leave You - 1990 Remaster	Led Zeppelin	Led Zeppelin
Babydoll	Dominic Fike	Don't Forget About Me, Demos
Ballad of a Thin Man	Bob Dylan	Highway 61 Revisited
Be Yourself	Audioslave	Out of Exile
Beast Of Burden - Remastered 1994	The Rolling Stones	Some Girls
Beat It	Michael Jackson	Thriller 25 Super Deluxe Edition
Being For The Benefit Of Mr. Kite! - Remastered 2009	The Beatles	Sgt. Pepper's Lonely Hearts Club Band (Remastered)
Best of You	Foo Fighters	In Your Honor
Black Madonna	Cage The Elephant	Social Cues
Black Magic Woman	Santana	Ultimate Santana
Black Magic Woman - 2018 Remaster	Fleetwood Mac	The Pious Bird of Good Omen
Black Orpheus	Joscho Stephan, Biréli Lagrène	Guitar Heroes
Blue in Green (feat. John Coltrane & Bill Evans)	Miles Davis, John Coltrane, Bill Evans	Kind Of Blue (Legacy Edition)
Boogie Wonderland	Earth, Wind & Fire, The Emotions	I Am
Bossa Dorado	Diknu Schneebarger	The Spirit Of Django
Bossa Dorado	Jimmy Rosenberg, Stochelo Rosenberg, Biréli Lagrène	Dreams, Drugs and Django
Break on Through (To the Other Side) - 2017 Remaster	The Doors	The Doors (50th Anniversary Deluxe Edition)
Breakdown	Tom Petty and the Heartbreakers	Tom Petty & The Heartbreakers
Brothers in Arms	Dire Straits	Brothers in Arms
California Dreamin' (From "Forrest Gump")	Acoustic Guitar Collective	Movie Themes, Vol. 3
California Dreamin' - Single Version	The Mamas & The Papas	If You Can Believe Your Eyes & Ears
Californication	Red Hot Chili Peppers	Californication (Deluxe Edition)
Can't Stop	Red Hot Chili Peppers	By the Way (Deluxe Edition)
Capricho árabe	Francisco Tárrega, Giulio Tampalini	Tárrega: Guitar Edition
Carry on Wayward Son	Kansas	Leftverture (Expanded Edition)
Cause We've Ended as Lovers	Jeff Beck	Blow By Blow
Chim Chim Cher-ee	The Howard Roberts Quartet	Goodies
Cigarette Daydreams	Cage The Elephant	Melophobia
Come Together - Remastered 2009	The Beatles	Abbey Road (Remastered)
Comfortably Numb	Pink Floyd	The Wall
Concierto de Aranjuez for Guitar and Orchestra: II. Adagio - Version 1979	Joaquín Rodrigo, Narciso Yepes, Philharmonia Orchestra, Luis Antonio García Navarro	Rodrigo: Concierto de Aranjuez
Conga	Gloria Estefan, Miami Sound Machine	Greatest Hits
Constant Craving	k.d. lang	Recollection
Crazy	Gnarls Barkley	St. Elsewhere
Danger Zone - From "Top Gun" Original Soundtrack	Kenny Loggins	Yesterday, Today, Tomorrow - The Greatest Hits Of Kenny Loggins
Dani California	Red Hot Chili Peppers	Stadium Arcadium
Desert Rose	Sting, Cheb Mami	Brand New Day
Despacito	Peter Dinklage	Despacito
Despacito	Luis Fonsi, Daddy Yankee	VIDA
Dirty Paws	Of Monsters and Men	My Head Is An Animal
Do I Wanna Know?	Arctic Monkeys	AM
Don't Let Me Be Misunderstood	The Animals	Animal Tracks
Don't Let Me Be Misunderstood	Nina Simone	Broadway-Blues-Ballads
Don't Let Me Be Misunderstood (feat. Lady Gaga)	Brian Newman, Lady Gaga	Showboat
Dream On	Aerosmith	Aerosmith
Eastside (with Halsey & Khalid)	benny blanco, Halsey, Khalid	FRIENDS KEEP SECRETS
El Condor Pasa (If I Could)	Simon & Garfunkel	Bridge Over Troubled Water
Eleanor Rigby	Jimmy Bruno, Joe Beck	Polarity
Equinox	John Coltrane	Naima
Europa (Earth's Cry Heaven's Smile)	Santana	Ultimate Santana
Eventually	Tame Impala	Currents
Everything Must Change	Nina Simone	Baltimore
Face Down	The Red Jumpsuit Apparatus	Don't You Fake It

Fantasy	Earth, Wind & Fire	All 'N All
Fascinating Rhythm	Ella Fitzgerald	Ella Fitzgerald Sings The George And Ira Gershwin Song Book
Feeling Good	Nina Simone	I Put A Spell On You
Fever	The Black Keys	Turn Blue
Fields Of Gold	Sting	Ten Summoner's Tales
Flake	Jack Johnson	Brushfire Fairytales [Remastered (Bonus Version)]
Footprints	Pat Martino	Footprints
Footprints	Miles Davis	Miles Smiles
Four On Six	Wes Montgomery	Incredible Jazz Guitar
Fragile	Sting	...Nothing Like The Sun
Fresh Eyes	Andy Grammer	The Good Parts
Gimme Shelter	The Rolling Stones	Let It Bleed
Gimme Shelter	The Rolling Stones	Let It Bleed
Giri, You'll Be A Woman Soon	Neil Diamond	The Bang Years 1966-1968 (The 23 Original Mono Recordings)
Give Me Love	Ed Sheeran	+
good 4 u	Olivia Rodrigo	SOUR
Good Vibrations - Remastered 2001	The Beach Boys	Smiley Smile (Remastered)
Got a Match	Biréli Lagrène, Sylvain Luc	Summertime
Greensleeves	John Coltrane Quartet	The Complete Africa / Brass Sessions
Greensleeves - Instrumental	Jeff Beck	Truth
Greensleeves - Remastered	Oscar Peterson Trio	Another Day (Remastered Anniversary Edition)
Grenade	Bruno Mars	Doo-Wops & Hooligans
Happy Together	The Turtles	Happy Together
Happy Together - Remastered	The Turtles	All the Singles
Harlem Nocturne	Illinois Jacquet	Swing's The Thing
Havana (feat. Young Thug)	Camila Cabello, Young Thug	Camila
Hell N Back	Bakar	Hell N Back (Sped Up)
Hello	Lionel Richie	Can't Slow Down
Hesitation Blues - Live	Hot Tuna	Hot Tuna
Hit the Road Jack	John Scofield	Essential Jazz Covers
Hit The Road Jack - Live	Willie Nelson, Wynton Marsalis, Norah Jones	Here We Go Again: Celebrating The Genius Of Ray Charles
Home	Edward Sharpe & The Magnetic Zeros	Up from Below
Hot 'Lanta - Live At Fillmore East, March 13, 1971	Allman Brothers Band	At Fillmore East
House Of The Rising Sun	The Animals	The Animals
Hurricane	Bob Dylan	Desire
I Cry	Flo Rida	Wild Ones
I Like It Like That	Pete Rodríguez	I Like It Like That
I Put A Spell On You	Creedence Clearwater Revival	Creedence Clearwater Revival (Expanded Edition)
I Put a Spell on You (feat. Joss Stone)	Jeff Beck, Joss Stone	Emotion & Commotion
I Shot The Sheriff	The Wallers	Burnin'
I Shot The Sheriff - Edited Version	Bob Marley & The Wallers	Africa Unite: The Singles Collection
I Want It That Way	Backstreet Boys	Millennium
I Want You (She's So Heavy) - Remastered 2009	The Beatles	Abbey Road (Remastered)
I Won't Back Down	Tom Petty	Full Moon Fever
I'll Be Back - Remastered 2009	The Beatles	A Hard Day's Night (Remastered)
I'll Play The Blues For You - Album Version - (Parts 1 & 2)	Albert King	I'll Play The Blues For You
If I Should Lose You	Nina Simone	Wild Is The Wind
In A Sentimental Mood	Duke Ellington, John Coltrane	Duke Ellington & John Coltrane
In A Sentimental Mood	Ella Fitzgerald	Ella Fitzgerald Sings The Duke Ellington Song Book
In A Sentimental Mood	Sonny Rollins, The Modern Jazz Quartet	Sonny Rollins With The Modern Jazz Quartet
In Your Eyes - 2012 Remaster	Peter Gabriel	So (2012 Remastered)
Iris	The Goo Goo Dolls	Dizzy up the Girl
It Ain't Me	Kygo, Selena Gomez	NOW That's What I Call Music, Vol. 62
Jaco Reggae	Jaco Pastorius, Peter Lübke, Biréli Lagrène	Broadway Blues
Just A Girl	No Doubt	Tragic Kingdom
Kid Charlemagne	Steely Dan	The Royal Scam
Kilby Girl	The Backseat Lovers	When We Were Friends
Knee Socks	Arctic Monkeys	AM
Layla	Derek & The Dominos	Layla And Other Assorted Love Songs (Remastered 2010)
Levels - Radio Edit	Avicii	Levels
Little Black Submarines	The Black Keys	El Camino
Little Do You Know	Alex & Sierra	It's About Us
Little Talks	Of Monsters and Men	My Head Is An Animal
Loan Me a Dime	Boyz n the Scaggs	Boyz n the Scaggs
Location	Khalid	American Teen
Locked out of Heaven	Bruno Mars	Unorthodox Jukebox
Long Time Gone	Crosby, Stills & Nash	CSN 2012
Longing	Ry Cooder & V.M. Bhatt	A Meeting by the River
Losing My Religion	R.E.M.	Out Of Time (25th Anniversary Edition)
Lost	Frank Ocean	channel ORANGE
Love and Happiness	AI Green	I'm Still in Love with You
Love Child	Diana Ross & The Supremes	The Ultimate Collection: Diana Ross & The Supremes
Love Lies (with Normani)	Khalid, Normani	Love Lies (with Normani)
Loveland - Studio Version	Milky Chance	Sadnecessary
Lover's Temptation - Waltz No. 7 in C sharp minor, Op. 64/2	John Di Martino's Romantic Jazz Trio	Chopin Jazz
Magic Man	Heart	Dreamboat Annie
Mahjong - Rudy Van Gelder 24 Bit Mastering/1999 Digital Remaster	Wayne Shorter	JuJu
Malaguena Salerosa	Chingon	Kill Bill Vol. 2 Original Soundtrack
Mambo influenciado	Chucho Valdés	JazzCuba. Volumen 1
Manha De Carnaval - Instrumental	Barney Kessel	Solo

Master Blaster (Jammin')	Stevie Wonder	Hotter Than July
Master Blaster (Jammin')	Stevie Wonder	At The Close Of A Century
Mediterranean Sundance	Al Di Meola	Elegant Gypsy
Mellow Mood	Jimmy Smith, Wes Montgomery	Talkin' Verve: Roots Of Acid Jazz
Minnie the Moocher	Duke Ellington	Recollections Of The Big Band Era
Minnie the Moocher (Theme Song)	Cab Calloway	Best Of The Big Bands
Minor Swing	Django Reinhardt, Stéphane Grappelli, Quintette du Hot Club de France	Djangologie Vol6 / 1937
Miss You - Remastered	The Rolling Stones	Some Girls
Moanin'	Wes Montgomery Trio	Jazz Six Pack
Moondance - 2013 Remaster	Van Morrison	Moondance (Deluxe Edition)
Mr. Man	Alicia Keys	Songs In A Minor
My Funny Valentine	Ella Fitzgerald	Ella Fitzgerald Sings The Rodgers And Hart Song Book
My Funny Valentine	Bill Evans, Jim Hall	Undercurrent
My Heart Will Go On - Love Theme from "Titanic"	Céline Dion	Let's Talk About Love
Nature Boy	Jimmy Rosenberg, Angelo DeBarre, Birdi Lagrène	The One and Only
New Slang	The Shins	Oh, Inverted World
Night in Tunisia	Dizzy Gillespie	The Essential Dizzy Gillespie (Remastered)
Não Me Toques	Brejeiro	Carinhoso
One Call Away	Charlie Puth	Nine Track Mind
Otherside	Red Hot Chili Peppers	Californication (Deluxe Edition)
Out of My League	Fitz and The Tantrums	More Than Just a Dream (Deluxe Edition)
Overload (feat. Miguel)	John Legend, Miguel	DARKNESS AND LIGHT
Paint It, Black	The Rolling Stones	Aftermath
Papa Don't Preach	Madonna	True Blue
Paranoid - 2012 - Remaster	Black Sabbath	Paranoid (Remaster)
Piensa en Mi	Olivier Hecho	Guitare classique
Pinball Wizard	The Who	Tommy
Put Your Lights On (feat. Everlast)	Santana, Everlast	Supernatural (Remastered)
Rebel Yell	Billy Idol	Rebel Yell
Red Rain - 2012 Remaster	Peter Gabriel	So (25th Anniversary Deluxe Edition)
Remember When	Wallows	Nothing Happens
Rhiannon	Fleetwood Mac	Fleetwood Mac
Ride Like the Wind	Christopher Cross	Christopher Cross
Road Song	Wes Montgomery	Wes Montgomery: Finest Hour
Road Trippin'	Red Hot Chili Peppers	Californication
Roxanne - Remastered 2003	The Police	The Police
Ruby Tuesday	The Rolling Stones	Between The Buttons
Runaway	Del Shannon	Runaway with Del Shannon
Runaway - 2008 Remaster	Bonnie Raitt	Sweet Forgiveness
Santeria	Sublime	Sublime
Save Tonight	Eagle-Eye Cherry	Desireless
Saved	Khalid	American Teen
Señorita	Shawn Mendes, Camila Cabello	Señorita
Shallow	Peter Dinklage	Cover Songs #3
She Will Be Loved	Maroon 5	Songs About Jane
Since I've Been Loving You - Remaster	Led Zeppelin	Led Zeppelin III (Remaster)
Six-Appeal	Charlie Christian	Six Appeal
Sixteen Tons	Tennessee Ernie Ford	Sixteen Tons
Slow Dancing in a Burning Room	John Mayer	Continuum
Slow Dancing in a Burning Room - Live at the Nokia Theatre, Los Angeles, CA - December 1, 2006	John Mayer	Where the Light Is: John Mayer Live in Los Angeles
Smoke on the Water	Deep Purple	Machine Head
Smooth (feat. Rob Thomas)	Santana, Rob Thomas	Supernatural (Remastered)
Softly As In A Morning Sunrise - Live At The Village Vanguard, 1961	John Coltrane Quartet	Live At The Village Vanguard - The Master Takes
Somewhere They Can't Find Me	Simon & Garfunkel	Sounds Of Silence
Song For My Father	George Benson	Give Me the Night
Song For My Father	Horace Silver	Song For My Father
Spain	Chick Corea, Return To Forever	Light As A Feather (Deluxe Edition)
St. James Infirmary	Louis Armstrong & His Savoy Ballroom Five	The Complete Hot Five And Hot Seven Recordings Volume 3
Stairway to Heaven - 1990 Remaster	Led Zeppelin	Led Zeppelin IV
Stairway to Heaven - Remaster	Led Zeppelin	Led Zeppelin IV (Deluxe Edition)
Stayin' Alive	Bee Gees	How Can You Mend A Broken Heart
Still Got The Blues	Gary Moore	Still Got The Blues
Stitches	Shawn Mendes	Handwritten
Stolen Dance	Milky Chance	Sadnecessary
Stop Draggin' My Heart Around (with Tom Petty and The Heartbreakers) - 2016 Remaster	Stevie Nicks, Tom Petty and The Heartbreakers	Bella Donna (2016 Remastered)
Stop! In The Name Of Love	The Supremes	More Hits By The Supremes
Straight On	Heart	Dog & Butterfly
Stray Cat Strut	Stray Cats	Built For Speed
Stronger (What Doesn't Kill You)	Kelly Clarkson	Stronger (Deluxe Version)
Sugar	Stanley Turrentine	Jazz Moods - Cool
Sultans of Swing	Dire Straits	Dire Straits
Sultans Of Swing	Dire Straits	Private Investigations - The Very Best Of (2CD - Germany Version)
Summertime	Wes Montgomery	Far Wes
Summertime	John Coltrane	My Favorite Things
Summertime	Doc Watson, David Grisman	Doc & Dawg
Sunny	Pat Martino	Cream
Sunny	Bobby Hebb	Sunny
Super Freak	Rick James	Street Songs (Deluxe Edition)
Sweet Dreams (Are Made of This) [2018 Remastered]	Eurythmics, Annie Lennox, Dave Stewart	Sweet Dreams [Are Made of This] [2018 Remastered]
Swing To Bop	Charlie Christian	Immortal Charlie Christian - Guest Artist

Take Five	George Benson	Bad Benson
The Gentle Rain	Joe Pass	Simplicity
The Good, The Bad And The Ugly - 2004 Remaster	Ennio Morricone	The Good, The Bad And The Ugly [Original Motion Picture Soundtr
The Red One	John Scofield, Pat Metheny	I Can See Your House From Here
The Scientist	Coldplay	A Rush of Blood to the Head
The Sounds of Silence	Simon & Garfunkel	Greatest Hits
The Thrill Is Gone	B.B. King	Completely Well
The Work Song - Instrumental	Cannonball Adderley Sextet	Nippon Soul
Things We Said Today - Remastered 2009	The Beatles	A Hard Day's Night (Remastered)
This Love	Maroon 5	Cleaning Motivation Songs
This Masquerade - 2000 Remaster	George Benson	Breezin'
Time In A Bottle	Jim Croce	You Don't Mess Around With Jim
Tongue Tied	GROUPOVE	Never Trust a Happy Song
Too Close	Alex Clare	The Lateness Of The Hour
Topsy	Django Reinhardt	Django Reinhardt: Legendary Recordings
Tore Down House	Scott Henderson	Tore Down House
Under My Thumb	The Rolling Stones	Aftermath
Under the Boardwalk	The Drifters	Under the Boardwalk
Walk Don't Run	Johnny Smith	Kaleidoscope
Walk, Don't Run - Stereo	The Ventures	Walk Don't Run
Walking On The Moon - Remastered 2003	The Police	The Police
Waltz in C-Sharp Minor, Op. 64, No. 2	Frédéric Chopin, Vladimir Horowitz	Horowitz Plays Chopin
Waltzes, Op. 64: No. 2, in C-sharp Minor	Frédéric Chopin, Arthur Rubinstein	Arthur Rubinstein Plays Chopin - Original Album Classics
We Can Work It Out - Remastered 2015	The Beatles	1 (Remastered)
What Once Was	Her's	Songs of Her's
What's Love Got to Do with It	Tina Turner	What's Love Got to Do with It?
When You Love Someone	James TW	Chapters
Where'd All the Time Go?	Dr. Dog	Shame, Shame (Deluxe Edition)
Why Does Love Got To Be So Sad?	Derek & The Dominos	Layla And Other Assorted Love Songs (Remastered 2010)
Wild World	Yusuf / Cat Stevens	Tea For The Tillerman (Remastered)
Windy And Warm	Doc Watson	The Best Of Doc Watson 1964-1968
Wish You Were Here	Pink Floyd	Wish You Were Here
Wonderwall	Oasis	(What's The Story) Morning Glory?
Work Song	The Paul Butterfield Blues Band	East-West
Working Class Hero - Remastered 2010	John Lennon	Plastic Ono Band
You Keep Me Hangin' On	The Supremes	The Supremes Sing Holland, Dozier, Holland
You're Somebody Else	flora cash	You're Somebody Else

Phrygian mode

Phrygian mode is built on the third step of a major scale by ascending or descending linearly from major scale tone three to three. Once you build it on the third step of a major scale, you can then reconceive it by modifying a major scale on its tone center and flattening the second, third, sixth and seventh. It is the darkest mode of the major scale that is based on a minor chord.

Phrygian songs include:

Miserlou, Would?, Space Oddity, Wherever I May Roam, Set the Controls for the Heart of the Sun, London Calling, The Ocean.

RELATIVE MINOR AND RELATIVE MAJOR

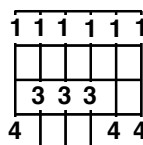
Tone centers of scales or keys and roots of chords or arpeggios are all usually circled in this course. To show relative and parallel major and minor scales, squares are used here in this section for minor tone centers and circles are used for major tone centers.

Relative Major and Minor Pentatonic

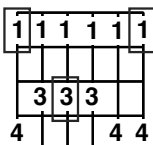
Each common pentatonic scale fingering can be used for a minor key and a major key. Pentatonic fingering 1 is shown below. On the far left, “fingers” shows fingering 1 in fifth position, with the numbers “1”, “3” and “4” shown to indicate the index, ring and little fingers, respectively. Next to the left, is “A minor pentatonic”, using the same notes in fifth position, but indicating that the key is on the “squared” notes, “A”. Next, “C major pentatonic” is again the same notes, but the circled “C” notes show C as the key.

Relative A minor and C Major Pentatonic Scales

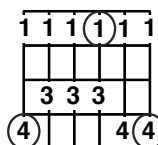
fingers
pentatonic scale
fingering 1 V



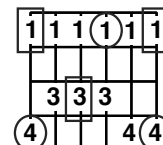
A minor pentatonic
 (“A’s” in squares)
fingering 1 V



C major pentatonic
 (“C’s” in circles)
fingering 1 V



relative major and
minor pentatonic
fingering 1 V



Melodic Examples: A minor pentatonic and C major pentatonic [click to play video](#)

Notice that each example sounds finished on its tonic (key) chord, Am, then C.

key of A minor

♩ = 130

Am Fmaj7 Am Fmaj7 Am

mf

A G E E D C A D C A G A

5 8 5 7 7 5 7 5 7

full

pp

key of C major

7 C Fmaj7 C Fmaj7 C

mf

E G A C G E D C A C

5/7 5 7 5 8 7 7 5 7

full

pp

duality tones

Notes that are in a key scale (a scale named after the key) and the current chord are **duality tones**. Duality tones satisfy the constant reference to the key by being notes in the key scale. At the same time they make reference to the current chord, so the listener can hear the relationship between the key and the current chord.

In the melodic examples “A minor pentatonic and C major pentatonic, shown above, the letter names (A, B, C, etc.) of the notes are shown in the white space between the music notation and the tablature. In the example in A minor, the notes of the A minor chord A-C-E predominate, establishing A minor as the key. In the C major example, the notes C-E-G predominate, establishing C major as the key.

Parallel Major and Minor Pentatonic

parallel major and minor in the same position with different fingerings

By using different pentatonic scale fingerings, major and minor pentatonic can be played in the *same* key. Major and minor scales in the same key are called parallel major and minor.

Parallel C minor and C Major Pentatonic Scales

fingers pentatonic scale fingering 1 V	fingers pentatonic scale fingering 1 VIII	C major pentatonic ("C's" in circles) fingering 1 V	C minor pentatonic ("C's" in aquares) fingering 1 VIII

parallel major and minor with the same fingering, changing position

Wherever you play a particular minor pentatonic fingering on the fretboard, moving the fingering toward the head of the guitar three frets changes the same key to major. Conversely, wherever you play a particular major pentatonic fingering on the fretboard, moving the fingering toward the body of the guitar three frets changes the same key to minor.

In the Hound Dog example below, the improv in the second bar is C major pentatonic, fingering 1 in fifth position, where the low octave tone center is under the little finger on the sixth string, eighth fret. Improv in the third bar also uses pentatonic fingering 1, but in C minor by placing the index finger on the minor tone center on the sixth string at the eighth fret.

Hound Dog example - [click to play video](#)

Swing Eighth

C major pentatonic fingering 1 C minor pentatonic fingering 1 F

5/8 5 7 5 7 5 8 10 8 11 8 11 13

Key Signatures and the Relative Minor-Relative Major System

















From 1600 to 1900, in the common practice period of classical music, songs primarily used major scales with the key on the first step (C of the C major scale) or on the sixth step ("A" of the C major scale). Using the C major scale, this would produce either C major or A Aeolian (also called A natural minor). A Aeolian is the *relative minor* of C major. Conversely, C major is the *relative major* of A Aeolian, although the term *relative major* is less common than relative minor.

This major and relative minor system was expressed in our current key signature system. A key signature is a set of flats or sharps shown in the standard music notation at the beginning of a piece of music to indicate what notes should be altered to produce the desired major scale. C major has no sharps or flats.

Using the five major scale fingerings below, play many of the major and minor scales at the right. Locate "1" on the major scale fingerings below on a major tone center, or locate "6" on the major scale fingerings below on a minor tone center. For example, play fingering 6 and locate the C note on "1" on the sixth string (in the fifth position with the little finger on the sixth string, eighth fret "C"). Play up and down the scale from "1" to "1" to sound the C major scale. Fingering 6 in the fifth position would also make A minor (A Aeolian) with the index finger fret C major scale tone six, the "A" note on the sixth string. Play up and down the scale from "6" to "6" to sound the A Aeolian (A natural minor) scale.

	fingering 7	fingering 1/2	fingering 2	fingering 3	fingering 4/5	fingering 6
finger numbers						
major scale numbers						

key signature table

key signature	flats or sharps	major scale	sequence of notes to ascend the scale	minor scale	sequence of notes to ascend the scale
C/Am 	none	C major	C D E F G A B C	A minor	A B C D E F G A
F/Dm 	flats: B	F major	F G A B C D E F	D minor	D E F G A B C D
Bb/Gm 	flats: B-E	Bb major	Bb C D Eb F G A Bb	G minor	G A Bb C D Eb F G
Eb/Cm 	flats: B-E-A	Eb major	Eb F G Ab Bb C D Eb	C minor	C D Eb F G Ab Bb C
Ab/Fm 	flats: B-E-A-D	Ab major	Ab Bb C Db Eb F G Ab	F minor	F G Ab Bb C Db Eb F
Db/Bbm 	flats: B-E-A-D-G	Db major	Db Eb F G Ab Bb C Db	Bb minor	Bb C Db Eb F G Ab Bb
Gb/Ebm 	flats: B-E-A-D-G-C	Gb major	Gb Ab Bb C Db Eb F Gb	Eb minor	Eb F Gb Ab Bb C Db Eb
Cb/Abm 	flats: B-E-A-D-G-C-F	Cb major	Cb Db Eb Fb Gb Ab Bb Cb	Ab minor	Ab Bb Cb Db Eb Fb Gb Ab
C/Am 	none	C major	C D E F G A B C	A minor	A B C D E F G A
G/Em 	sharps: F	G major	G A B C D E F# G	E minor	E F# G A B C D E
D/Bm 	sharps: F-C	D major	D E F# G A B C# D	B minor	B C# D E F# G A B
A/F#m 	sharps: F-C-G	A major	A B C# D E F# G A	F# minor	F# G A B C# D E F#
E/C#m 	sharps: F-C-G-D	E major	E F# G A B C# D# E	C# minor	C# D# E F# G A B C#
B/G#m 	sharps: F-C-G-D-A	B major	B C# D# E F# G A# B	G# minor	G A# B C# D# E F# G
F#/D#m 	sharps: F-C-G-D-A-E	F# major	F# G# A# B C# D# E# F#	D# minor	D# E# F# G# A# B C# D#
C#/A#m 	sharps: F-C-G-D-A-E-B	C# major	C# D# E# F# G# A# B# C#	A# minor	A# B# C# D# E# F# G# A#

KEY SCALE, PARENT SCALE AND CHORD SCALE

Key Scale

Key scales are named after the tone center. They may vary by type when used in a particular piece of music, but would have a tone center in common. A melody in the key of C may use C major, C Mixolydian and C Dorian. All three of these scales share the tone center, “C”, so they would be *key scales* for the key of “C”.

Melody more often makes use of scales named after the key, rather than the chord. It is easier for the listener to follow a melody if it is all (or primarily) based on the tone center. A piece of music in the key of “E” with the chord progression Em7 A7 Cma7 B7 sus. 4 may use an E Dorian scale (E Dorian mode) during the Em7 and A7 chords and E Aeolian scale during the Cma7 and B7sus4 chords.

Parent Scale

A *parent scale* is a reference scale from which a scale or mode was derived. Most commonly, a major scale is used as a parent scale. Any of the modes of the major scale would refer to that major scale (which was their source) as their parent scale. Other parent scales are *major #5*, *major b3* and *major b6*, each of which have seven modes like the major scale and are simple modifications of the major scale.

C major scale uses the notes C, D, E, F, G, A, B and C. Modes are constructed on each of the tones of the C major scale. The [Discovering Major Scale Modes](#) section earlier in this chapter demonstrated modes of the C major scale. Those modes all have the C major scale as their parent scale.

In the example below, play the C major scale from the sixth string to the first string. It will be the parent major scale. Now play the notes from “D” to “D”, followed by the D minor triad (three-note chord), to emphasize the chosen note as a focal point or main note. This establishes a new scale, “D Dorian”.

Follow the same procedure with “E” to “E” for E Phrygian, “F” to “F” for F Lydian, and so on. You have now experienced all the modes of the C major parent scale.

C major parent scale

D Dorian mode on "2" of the parent C major scale Dm E Phrygian mode on "2" of the parent C major scale Em

D-F-A E-G-B

The image displays four musical examples, each consisting of a treble clef staff with a melody, a bass staff with fingerings, and a chord symbol above the staff.

- Example 1:** F Lydian mode on "4" of the parent C major scale. Chord: F. Bass staff fingerings: 5 7 4 5 7 5 6 | 5 7 5 4 7 5 6 | 6 5 7 4 5 7 5 6 8 | 6 5 7 5 4 7 7.
- Example 2:** G Mixolydian mode on "5" of the parent C major scale. Chord: G. Bass staff fingerings: 5 7 4 5 7 5 6 8 | 6 5 7 5 4 7 7.
- Example 3:** A Aeolian mode on "6" of the parent C major scale. Chord: Am. Bass staff fingerings: 7 4 5 7 5 6 8 5 | 8 6 5 7 5 4 5 | 4 5 7 5 6 8 5 7 | 5 8 6 5 7 5 7.
- Example 4:** B Locrian mode on "7" of the parent C major scale. Chord: Bdim. Bass staff fingerings: 5 7 4 5 7 5 6 8 | 6 5 7 5 4 7 7.

Chord Scale

When a scale is named after a chord root which is not the key, it is called a *chord scale*. Key scales keep the tone center as the object of the melody. As the melody progresses with key scales, the tone center is common to all of the scales and the melody weaves around and leads to the tone center. Chord scales tend to take the focus off of the tone center and can cause a loss of purpose in the melody.

When a chord has a long duration and its root is not the tone center, it can be treated as a temporary tone center. In this case, a chord scale can be used. The chord scale would usually include all of the notes of the chord, although it doesn't have to. In choosing a chord scale, first think of the triad part of the chord. Do the root, third and fifth of the chord make a major, minor, diminished or augmented triad? Or, is it a suspended chord with a fourth or second that replaces the third? What kind of seventh or sixth does the chord have (if any)?

In the example above, the chord progression Em7 A7 Cma7 B7sus4 was suggested, in the key of "E". A chord scale could be used for each chord. E Dorian scale during the Em7 chord, A Mixolydian during the A7, C Lydian scale during the Cma7 and B Phrygian major scale during the B7sus4.

E Dorian and A Mixolydian have the same notes. They are both derived from the D major scale. By thinking of them as "A" and "A" scales you would tend to shift the weight of the melody from "E" to "A", where it might be better to keep the focus of the melody on "E". C Lydian scale could be used during the Cma7 chord, but E Aeolian has the same notes and would keep the focus on the tone center ("E"). Likewise, B Phrygian major scale could be thought of as E harmonic minor.

This can all seem too complicated, but the point is to begin by thinking of a type of scale named after the key which has most or all of the notes of the current chord. If any of the notes of a key scale conflict with a chord, they can be de-emphasized. Conflict is not necessarily bad, though. Notes that have varying degrees of dissonance with a chord can be used effectively to create tension and release during the course of a melody.

MODES: ALTERNATE TONE CENTERS OF A SCALE

Earlier, [Relative Major and Minor Pentatonic](#) showed that A minor pentatonic and C major pentatonic used the same notes, yet could each establish their own key (A minor and C major). Similarly, the seven-tone major scale can be used in the same manner. Any tone of the major scale can be the key. To demonstrate that, seven examples are shown below, each using the notes of the C major scale, but each in a different key, with a key on a different note of the C major scale. The mode names originated in Greece. *Modus* means mood in Greek, so each mode represents its own mood.

All of these examples use the C major scale, but each one puts the focus or tone center on a particular note. D Dorian, for example, is the C major scale with the focus or tone center on “D”.

table of modes of the C major scale

click the links below

to go to an example

ascend or descend the notes in each row to sound the respective scale

C major (ionian)	C	D	E	F	G	A	B	C
D Dorian	D	E	F	G	A	B	C	D
E Phrygian	E	F	G	A	B	C	E	E
F Lydian	F	G	A	B	C	E	F	F
G Mixolydian	G	A	B	C	D	E	F	G
A Aeolian	A	B	C	D	E	F	G	A
B Locrian	B	C	D	E	F	G	A	B

C Major Scale Tones Common to Seven Examples

All seven of the examples below use the same seven notes of the C major scale, each one is in the key of a unique note of the C major scale. They share the same notes and are called the modes of the C major scale.

letters C D E F G A B C D E F G F E D C B A G F
scale tones 1 2 3 4 5 6 7 1 2 3 4 5 4 3 2 1 7 6 5 4

E A D G B E
F B E A
G C F D G

3 6 2 5 7 3
4 1 1 1 1 4
7 3 6 1
5 1 4 2 5

T A B 3 0 2 3 0 2 0 1 3 0 1 3 1 0 3 1 0 2 0 3

E D C B A G F E F G A B C D E F G A B C C major chord
3 2 1 7 6 5 4 3 4 5 6 7 1 2 3 4 5 6 7 1

T A B 2 0 3 3 0 3 1 0 1 3 0 2 3 0 2 0 1 0 0 3

C major (Ionian mode)Ode To Joy - [click to play video](#)

The image displays a musical score for the song "Ode To Joy" in C major (Ionian mode). The score is written for guitar and includes a standard musical staff with a treble clef and a 2/4 time signature. The key signature is one sharp (F#), indicating C major. The score is divided into four systems, each containing a musical staff and a corresponding guitar TAB. The TAB is written on a six-line staff with numbers 0-3 representing frets. The score includes various chords and melodic lines, with some measures containing triplets. The chords are labeled as C, F, G7, Am, D7, and C. The score is numbered 1 through 12, indicating measures. The TAB is written in a way that corresponds to the notes on the musical staff.

1 C 2 3 4 G7

1 C 2 3 F 4 G7 C

5 G7 6 7 8 Am D7 G

9 C 10 11 F D7 12 G7 C

D Dorian mode

Dorian Latin - [click to play video](#)

"D" Dorian

Chords: Dm⁷ G⁷ F C Dm⁷ G⁷ F C

5

Chords: Dm⁷ G⁷ F C Dm C Dm

E Phrygian mode

Minor Malaguena - [click to play video](#)

"E" Phrygian

Chords: Em Fma^{9#11}

5

Chords: Em Am Dm⁷ G F

13

Chords: Em Fma^{9#11} Am Dm⁷ G F

21 Em 3 3 3 3 3 Am 3 3 3 3 3

29 Em F F G F Em

F Lydian mode

F Lydian example - [click to play video](#)

"F" Lydian

F6add#11 G/B C(add9) C6 F6add#11 Fmaj9

G Mixolydian mode

G Mixolydian example - [click to play video](#)

"G" Mixolydian

C G G F C G G F C G

A Aeolian mode

Cowgirl In The Sand with double stops - [click to play video](#)

"A" Aeolian

Am F Am

T
A
B

B Locrian mode

Devilish Locrian - [click to play video](#)

Swing Eighths

"B" Locrian

B[°] F Em Dm B[°] Am G/B C

T
A
B

5

DISCOVERING THE MODES OF THE C MAJOR SCALE

The alternate scale names for C major scale tones were demonstrated in the previous section [Modes: Alternate Tone Centers of a Scale](#). Each of the seven pieces in [The C Major Scale Common to Seven Examples](#) uses a scale with a different scale name: C major, D Dorian, E Phrygian, F Lydian, G Mixolydian, A Aeolian and B Locrian. Yet all seven of them used the same notes as the C major scale: A-B-C-D-E-F-G.

A key implies the sense of a primary focal tone that is the lowest imaginable bass note of an expected ending chord in the traditional sense. A piece of music in the key of C major is expected to end on a C major chord with a “C” bass note. A piece in the key of A minor is expected to end in the key of on an A minor chord with an “A” bass note. The note after which a key is named is called the *tone center* or *tonic*.

Particularly when alternate tone centers such as those demonstrated in [The C Major Scale Common to Seven Examples](#) establish a key, they are called *modes*. Modus is the Greek word for mood. The Greeks used seven tone scales with the option of any of the seven tones being the tone center. The modes of the C major scale are shown below, played in the traditional manner ascending from the tone center to the tone center in the next octave and descending back down to the lower tone center. The chord at the end of each mode demonstrates the expected ending chord. Click to play the video so you can hear the establishment of each key.

The Modes of C Major - [click to play video](#)

The Parent C Major Scale

The notes of each examples in [The C Major Scale Common to Seven Examples](#) were from the same set of notes, the C major scale, as were the notes of [The Modes of C Major](#) above. So, C major could be called the *parent scale*, since it is the source of all the notes. Parent scale is a very useful concept, usually referring to a major scale as the parent, since we usually know major scale fingerings and the harmonies and chords built on them better than any of the other modes. See Key Scale, Parent Scale and Chord Scale.

Discovering the Modes of the C major Scale, Step By Step

Playing the C major scale from scale tone “1” to “1” (C to C), in numeric and alphabetical order constitutes the C major scale, or using the Greek name, C *Ionian*. By playing a major scale up and down an octave in numerical and alphabetical order from any particular numbered tone (or lettered tone) to the next occurrence of the same note and back implies a *mode*.

The etymological origin of the word mode in English is the Greek word *modus*, which means *mood*. Each note in the major scale can be used as a tone center. The octave from each note up and down to its next occurrence and back produces a different scale, each scale with a different mood. So these scales are called modes. The seven modes of the major scale are shown below.

To further define the emotive character of each mode, consider an triad (three note chord) constructed on the note after which the mode is named and including two more notes in an every-other-note pattern. The qualities (major, minor or diminished) of the triads constructed on the seven steps of the major scale are shown in the right column below.

mode name	mode formula	generated from the C major scale	triad name
I Ionian	1-2-3-4-5-6-7	C-D-E-F-G-A-B-C	C major
II Dorian	1-2-b3-4-5-6-b7	D-E-F-G-A-B-C-D	D minor
III Phrygian	1-b2-b3-4-5-b6-b7	E-F-G-A-B-C-D-E	E minor
IV Lydian	1-2-3-#4-5-6-7	F G-A-B-C-D-E-F	F major
V Mixolydian	1-2-3-4-5-6-b7	G-A-B-C-D-E-F-G	G major
VI Aeolian	1-2-b3-4-5-b6-b7	A-B-C-D-E-F-G-A	A minor
VII Locrian	1-b2-b3-4-b5-b6-b7	B-C-D-E-F-G-A-B	B diminished

To discover the modes of the major scale, we will compare major scales named after each note of the C major scale to the C major scale starting on that note.

C major scale

C ma. scale VII

BEAD B

CF GC

BE

DGCFAD

C ma. scale VII

7 3 6 2 7

1 4 5 1

7 3

2 5 1 4 6 2

D Dorian: Mode II of C Major

The C major scale is the parent scale for D Dorian, because Dorian is built on step two of a major scale and the C major scale has “D” on its second step. Ascend the C major scale from “D” to “D” (“2” to “2”) and back. This is the D Dorian mode. In the same fretboard area, ascend and descend the D major scale from “1” to “1” and flat tones three and seven. The result is the same as D to D (2 to 2) of the C major scale.

comparing C major scale from D to D (2 to 2) and D major scale with b3 and b7

C major scale by letter	C major scale by number	C major scale from D to D	C major scale from 2 to 2	D major scale	D major scale with b3 and b7
C ma. scale VII	C ma. scale VII	D Dorian VII	D Dorian VII	D ma. scale VII	D Dorian VII
B E A D B C F G C B E D G C F A D	7 3 6 2 7 1 4 5 1 7 3 2 5 1 4 6 2	E A (D) F B D G C	3 6 (2) 4 7 2 5 1	2 5 (1) 3 6 1 4 7	2 5 (1) b3 6 1 4 b7

D Dorian mode is C major scale D to D (2 to 2) or D major scale with b3, b7

Notice that to make the D major scale the same as playing the C major scale from “D” to “D”, the third and seventh steps have to be lowered. So, Dorian mode, named after step two of a major scale has “b3” and b7” in relation to a major scale on its tone center (a major scale named after step two of the parent major scale).

D major scale

E Phrygian: mode III of C major

The C major scale is the parent scale for E Phrygian, because Phrygian is built on step three of a major scale and the C major scale has “E” on its third step. Ascend the C major scale from “E” to “E” (“3” to “3”) and descend back down. This is the E Phrygian mode. In the same fretboard area, ascend and descend the E major scale from “1” to “1” with b2, b3, b6 and b7. The result is the same as E to E (3 to 3) of the C major scale.

C major scale
by letter

C ma. scale VII

B	E	A	D	B
C	F		G	C
	B	E		
D	G	C	F	A

C major scale
by number

C ma. scale VII

7	3	6	2	7
1	4		5	1
	7	3		
2	5	1	4	6

C major scale
from E to E

E Phrygian VII

(E)	A	D		
F				
	B	(E)		
G	C			

C major scale
from 3 to 3

E Phrygian VII

(3)	6	2		
4				
	7	(3)		
5	1			

E major scale

E ma. scale VII

(1)	4			
		7		
2	5	(1)		
3	6			

E major scale with
b2, b3, b6, b7

E Phrygian VII

(1)	4	b7		
		b2		
		5	(1)	
		b3	b6	

E Phrygian mode is C major scale E to E (3 to 3) or E major scale with b2, b3, b6, b7

Notice that to make the E major scale the same as playing the C major scale from “E” to “E”, steps two, three, six and seven have to be lowered. So, Phrygian mode, named after step three of a major scale has “b2, b3, b6 and b7” in relation to a major scale on its tone center (a major scale named after step three of the parent major scale).

E major scale

F Lydian: mode IV of C major

The C major scale is the parent scale for F Phrygian, because Lydian is built on step four of a major scale and the C major scale has “F” on its fourth step. Ascend the C major scale from “F” to “F” (“4” to “4”) and descend back down. This is the F Lydian mode. In the same fretboard area, ascend and descend the F major scale from “1” to “1”, sharpening the fourth step. The result is the same as F to F (4 to 4) of the C major scale.

C major scale
by letter

C ma. scale VII

B	E	A	D	B
C	F	G	C	
	B	E		
D	G	C	F	A

C major scale
by number

C ma. scale VII

7	3	6	2	7
①	4		5	①
	7	3		
2	5	①	4	6

C major scale
from F to F

F Lydian VII

	A	D	
(F)			
	B	E	
G	C	(F)	

C major scale
from 4 to 4

F Lydian VII

	6	2	
(4)			
	7	3	
5	①	4	

F major scale

F ma. scale VII

	3	6	
(1)	4		
		7	
2	5	(1)	

F major scale
with #4

F Lydian VII

	3	6	
(1)			
	#4	7	
2	5	(1)	

F Lydian mode is C major scale F to F (4 to 4) or F major scale with #4

Notice that to make the F major scale the same as playing the C major scale from “F” to “F”, step four needs to be raised. So, Lydian mode, named after step four of a major scale has “#4” in relation to a major scale on its tone center (a major scale named after step four of the parent major scale).

F major scale

G Mixolydian: mode V of C major

The C major scale is the parent scale for G Mixolydian, because Mixolydian is built on step five of a major scale and the C major scale has “G” on its fifth step. Ascend the C major scale from “G” to “G” (“5” to “5”) and descend back down. This is the G Mixolydian mode. In the same fretboard area, ascend and descend the G major scale from “1” to “1”, flattening the seventh step. The result is the same as G to G (5 to 5) of the C major scale.

C major scale by letter	C major scale by number	C major scale from G to G	C major scale from 5 to 5	G major scale	G major scale with b7																																																																																																										
C ma. scale VII	C ma. scale VII	G Mixolydian VII	G Mixolydian VII	G ma. scale VII	G Mixolydian VII																																																																																																										
<table><tr><td>B</td><td>E</td><td>A</td><td>D</td><td>B</td></tr><tr><td>C</td><td>F</td><td></td><td>G</td><td>C</td></tr><tr><td></td><td>B</td><td>E</td><td></td><td></td></tr><tr><td>D</td><td>G</td><td>C</td><td>F</td><td>A</td><td>D</td></tr></table>	B	E	A	D	B	C	F		G	C		B	E			D	G	C	F	A	D	<table><tr><td>7</td><td>3</td><td>6</td><td>2</td><td>7</td></tr><tr><td>①</td><td>4</td><td></td><td></td><td>5①</td></tr><tr><td></td><td>7</td><td>3</td><td></td><td></td></tr><tr><td>2</td><td>5</td><td>①</td><td>4</td><td>6</td><td>2</td></tr></table>	7	3	6	2	7	①	4			5①		7	3			2	5	①	4	6	2	<table><tr><td></td><td>A</td><td>D</td><td></td></tr><tr><td></td><td></td><td></td><td>Ⓜ</td></tr><tr><td></td><td>B</td><td>E</td><td></td></tr><tr><td>Ⓜ</td><td>C</td><td>F</td><td></td></tr></table>		A	D					Ⓜ		B	E		Ⓜ	C	F		<table><tr><td></td><td>6</td><td>2</td><td></td></tr><tr><td></td><td></td><td></td><td>⑤</td></tr><tr><td></td><td>7</td><td>3</td><td></td></tr><tr><td>⑤</td><td>1</td><td>4</td><td></td></tr></table>		6	2					⑤		7	3		⑤	1	4		<table><tr><td></td><td>2</td><td>5</td><td>7</td></tr><tr><td></td><td></td><td></td><td>①</td></tr><tr><td></td><td>3</td><td>6</td><td></td></tr><tr><td>①</td><td>4</td><td></td><td></td></tr></table>		2	5	7				①		3	6		①	4			<table><tr><td></td><td>2</td><td>5</td><td></td></tr><tr><td></td><td></td><td></td><td>①</td></tr><tr><td></td><td>3</td><td>6</td><td></td></tr><tr><td>①</td><td>4</td><td>b7</td><td></td></tr></table>		2	5					①		3	6		①	4	b7	
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G Mixolydian mode is C major scale G to G (5 to 5) or G major scale b7

Notice that to make the G major scale the same as playing the C major scale from “G” to “G”, step seven needs to be lowered. So, Mixolydian mode, named after step five of a major scale has “b7” (flat seven in relation to a major scale on its tone center (a major scale named after step five of the parent major scale).

G A B C D E (F) G (F) E D C B A G

1 2 3 4 5 6 (b7) 1 (b7) 6 5 4 3 2 1

T A B

10 7 9 10 7 9 10 8 10 9 7 10 9 7 10

G major scale

G A B C D E F# G F# E D C B A G

1 2 3 4 5 6 7 1 7 6 5 4 3 2 1

T A B

10 7 9 10 7 9 7 8 7 9 7 10 9 7 10

A Aeolian: mode VI of C major

The C major scale is the parent scale for A Aeolian, because Aeolian is built on step six of a major scale and the C major scale has “A” on its sixth step. Ascend the C major scale from “A” to “A” (“6” to “6”) and descend back down. This is the A Aeolian mode. In the same fretboard area, ascend and descend the A major scale from “1” to “1” with b3, b6 and b7. The result is the same as A to A (6 to 6) of the C major scale.

C major scale
by letter

C ma. scale VII

B	E	A	D	B
C	F		G	C
	B	E		
D	G	C	F	A

C major scale
by number

C ma. scale VII

7	3	6	2	7
1	4		5	1
		7	3	
2	5	1	4	6

C major scale
from A to A

A Aeolian VII

(A)	D			
		G		
	B	E		
C	F	(A)		

C major scale
from 6 to 6

A Aeolian VII

(6)	2			
		5		
	7	3		
1	4	(6)		

A major scale

A ma. scale VII

(1)	4	6		
	2	5	7	
			(1)	
	3			

A major scale
with b3, b6, b7

A Aeolian VII

(1)	4			
			b7	
	2	5		
	b3	b6	(1)	

A Aeolian mode is C major scale A to A (6 to 6) or A major scale with b3, b6, b7

Notice that to make the A major scale the same as playing the C major scale from “A” to “A”, steps three, six and seven need to be lowered. So, Aeolian mode, named after step six of a major scale has “b3, b6, and b7” in relation to a major scale on its tone center (a major scale named after step six of the parent major scale).

A B C D E F G A G F E D C B A
1 2 (b3) 4 5 (b6) (b7) 1 (b7) (b6) 5 4 (b3) 2 1

T 7 9 10 7 9 10 8 10 8 10 9 7 10 9 7

A major scale

A B C# D E F# G# A G# F# E D C# B A
1 2 3 4 5 6 7 1 7 6 5 4 3 2 1

T 7 9 11 7 9 7 10 9 7 9 7 11 9 7

B Locrian: Mode VII of C Major

The C major scale is the parent scale for B Locrian, because Locrian is built on step seven of a major scale and the C major scale has “B” on its seventh step. Ascend the C major scale from “B” to “B” (“7” to “7”) and descend back down. This is the B Locrian mode. In the same fretboard area, ascend and descend the E major scale from “1” to “1” with b2, b3, b5, b6 and b7. The result is the same as B to B (7 to 7) of the C major scale.

C major scale by letter	C major scale by number	C major scale from B to B	C major scale from 7 to 7	B major scale	B major scale with b2, b3, b5, b6, b7
C ma. scale VII	C ma. scale VII	B Locrian VII	B Locrian VII	B ma. scale VII	B Locrian VII

B Locrian mode is C major scale B to B (7 to 7) or B major scale with b2, b3, b5, b6, b7

Notice that to make the B major scale the same as playing the C major scale from “B” to “B”, steps two, three, five, six and seven need to be lowered (all but one and four). So, Locrian mode, named after step six of a major scale has “b2, b3, b5, b6, and b7” in relation to a major scale on its tone center (a major scale named after step six of the parent major scale).

B major scale

DISCOVERING THE PARENT SCALE FOR A GIVEN MODE

A Tone Center As a Different Numbered Tone In Seven Major Scales

Any given tone center can occur on any step of a major scale. It can occur on step one of one unique major scale, on step two of another unique major scale, and so on. The tone center “A” occurs on:

- ✦ step one of an A major scale
- ✦ step two of a G major scale
- ✦ step three of an F major scale
- ✦ step four of an E major scale
- ✦ step five of a D major scale
- ✦ step six of an C major scale
- ✦ step seven of a Bb major scale

For any given letter, you could find the seven major scales in which it occurs in the table below. In each of the seven major scales, it is a different numbered tone, as with the list of modes of the note “A” above.

Table of Modes of Parent Major Scales

scale tone →	1	2	3	4	5	6	7
mode formula →	1-2-3-4-5-6-7	1-2-b3-4-5-6-b7	1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-7	1-2-3-4-5-6-b7	1-2-b3-4-5-b6-b7	1-b2-b3-4-b5-b6-b7
mood →	bright, happy	dark, some bright colors (2 and 6)	dark, dramatic	bright, exotic	bright, bluesy	dark, sad	dark, evil
styles →	all styles	blues, latin rock	flamenco, middle-eastern	jazz, progressive rock, art rock	blues, funk, rock	all styles	death metal, art rock
parent scale ↓	major scale (Ionian mode)	Dorian mode	Phrygian mode	Lydian mode	Mixolydian mode	Aeolian mode	Locrian mode
C major scale	C Ionian	D Dorian	E Phrygian	F Lydian	G Mixolydian	A Aeolian	B Locrian
F major scale	F Ionian	G Dorian	A Phrygian	Bb Lydian	C Mixolydian	D Aeolian	E Locrian
Bb major scale	Bb Ionian	C Dorian	D Phrygian	Eb Lydian	F Mixolydian	G Aeolian	A Locrian
Eb major scale	Eb Ionian	F Dorian	G Phrygian	Ab Lydian	Bb Mixolydian	C Aeolian	D Locrian
Ab major scale	Ab Ionian	Bb Dorian	C Phrygian	Db Lydian	Eb Mixolydian	F Aeolian	G Locrian
Db major scale	Db Ionian	Eb Dorian	F Phrygian	Gb Lydian	Ab Mixolydian	Bb Aeolian	C Locrian
Gb major scale	Gb Ionian	Ab Dorian	Bb Phrygian	Cb Lydian	Db Mixolydian	Eb Aeolian	F Locrian
G major scale	G Ionian	A Dorian	B Phrygian	C Lydian	D Mixolydian	E Aeolian	F# Locrian
D major scale	D Ionian	E Dorian	F# Phrygian	G Lydian	A Mixolydian	B Aeolian	C# Locrian
A major scale	A Ionian	B Dorian	C# Phrygian	D Lydian	E Mixolydian	F# Aeolian	G# Locrian
E major scale	E Ionian	F# Dorian	G# Phrygian	A Lydian	B Mixolydian	C# Aeolian	D# Locrian
B major scale	B Ionian	C# Dorian	D# Phrygian	E Lydian	F# Mixolydian	G# Aeolian	A# Locrian
F# major scale	F# Ionian	G# Dorian	A# Phrygian	B Lydian	C# Mixolydian	D# Aeolian	E# Locrian

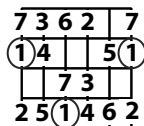
Determine the Parent Scale by a Memory of Major Scales

If you have memorized the names of the notes in each of the major scales well enough, you may be able to browse your memory and determine the scale on which a particular letter name occurs on any step you want. You may be able to think the note “Db” and know that it is the fourth step of an Ab major scale to construct Db Lydian. If you cannot do that at this time, don’t worry, many others cannot either. Use the method below to determine the parent by major scale fingerings.

Determine the Parent Scale with Major Scale Fingerings

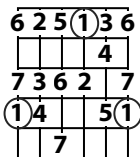
determine the name of the parent scale

Determine the key and the mode you want to play, then determine the parent scale by playing the numbered tone on which the mode is built in any major scale. Count up or down the major scale, by the shortest route and go to step “one”. The letter name on step one is the name of the parent major scale. Phrygian mode is built on the third step of a major scale. If you want to play D Phrygian mode, begin on tone three of a major scale fingering and progress in numbered order to step one by the shortest route. Locate the fingering below where the numbered tone “3” is on the note “D”. That would be at the fifth fret, where the top note of the diagram is a the fifth fret.



Then progress to step one. Go down the scale, in descending numbers. It is only two numbers down to one, but six (inclusively) up to one. Name the note “1”. It could be called “A#” or “Bb”. If you look at the Table of Modes of Parent Major Scales, in the parent scale column on the left, you’ll see that most major keys name notes with an altered letter use flats, rather than sharps. F# and Gb are both used, though they are the same note. So, call it “Bb”. The parent scale for D Phrygian is “Bb” major.

Figure out another parent scale. Aeolian mode is build on step six of a major scale. If you want to play C# Aeolian mode, begin on tone six of a major scale fingering and progress in numbered order to step one by the shortest route. Locate the fingering below where the numbered tone “6” is on the note “C#”. That would be at the ninth fret, where the top note of the diagram is a the ninth fret.



Then progress to step one. Go up the scale, in ascending numbers to step one. Name the note “1”. It would be “E”. So the parent scale for E Aeolian is “E” major.

determine the most suitable fingering of the parent scale

Determine the tone center and mode you want. Then figure out its parent scale, as described in [Determine the Parent Scale with Major Scale Fingerings](#). Once you figure out the name of the parent scale, decide where to play it on the fretboard. Choose an area of the fretboard where you want to play the parent scale of the mode. Decide between the options in that area, according to ease of fingering for the whole scale and for subset pentatonic scales, arpeggios and melodic designs you wish to play in the area.

The diagrams illustrate various scale fingerings for modes, organized into three columns:

- Left Column:** Fingerings 1 through 6, each showing a sequence of notes and fingerings across the fretboard.
- Middle Column:** A large set of diagrams, including a central one with a circled '1' and '4' on the first string, and others with circled '1' and '5'.
- Right Column:** Fingerings 1/2, 3, 4/5, and 7, each showing a sequence of notes and fingerings across the fretboard.

Mood Cycles and Major Scale Fingering Cycles

In this section, you will learn how to play any major scale mode in any key. You will need to do the following:

- memorize the seven in-position major scale fingerings
- memorize the mood cycle for major scale modes
- memorize the fingering cycle for in-position major scales to coordinate with the mood cycle of major scale modes

the seven in-position major scale fingerings

These are numbered according to the number of the lowest pitch on the sixth (largest) string. Fingering 3, for example has major scale tone “3” as its lowest pitch. That would be C major scale fingering 3 in the twelfth position, where the lowest pitch on the sixth string is “E”, the third step of the C major scale. Here are the seven in-position fingerings in numerical order:

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

The best order to memorize the fingerings in is 7-3-6-2-5-1-4, as shown below. You could memorize one a week for seven weeks. Learn how to use each “fingering of the week” in different modes and with pentatonic and arpeggio subsets so you reinforce the memory. 7-3-6-2-5-1-4 is also the number cycle for moods from the mode with the darkest mood to the mode with the brightest mood. See the mood cycle for major scale modes, below.

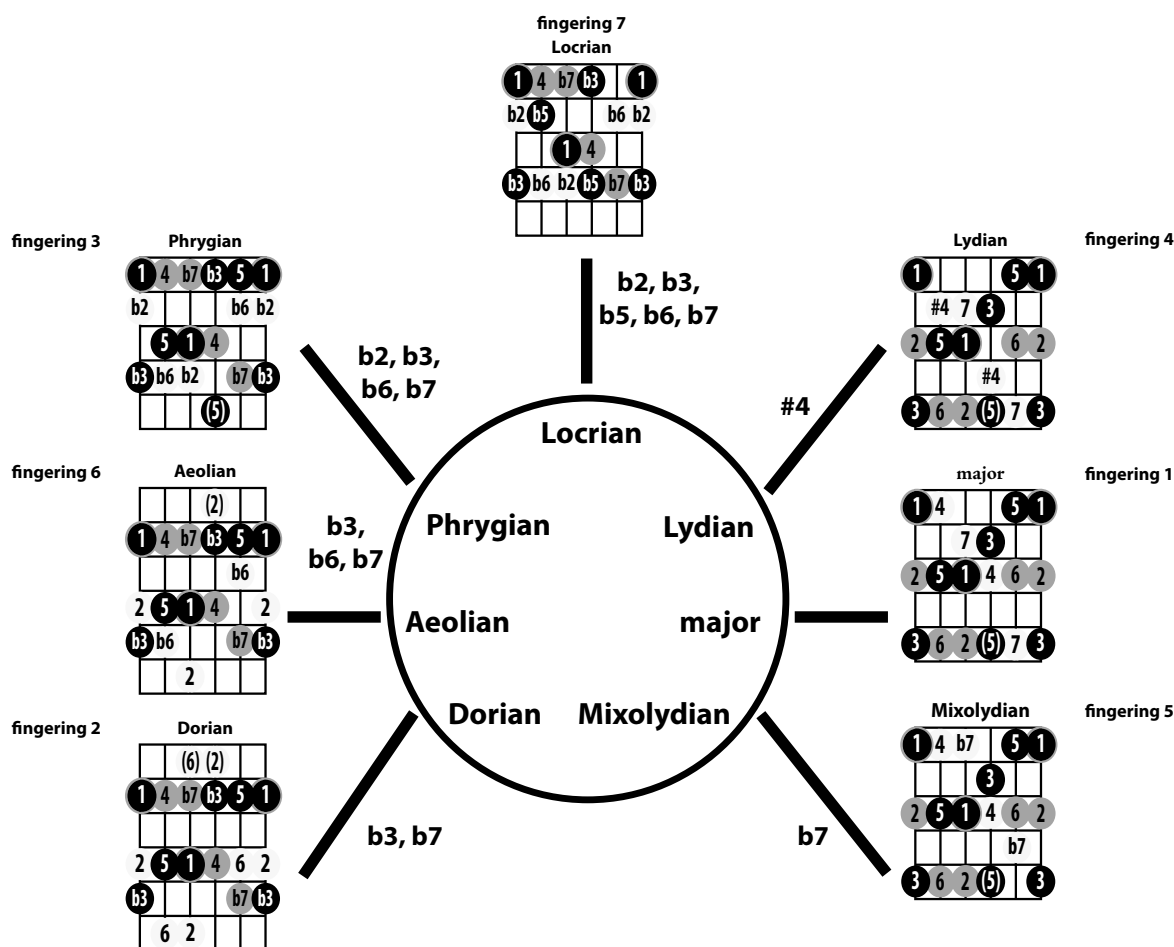
fingering 7	fingering 3	fingering 6	fingering 2	fingering 5	fingering 1	fingering 4

the mood cycle for major scale modes

To play a series of major scale fingerings to represent the seven modes of the same note, play each of the seven fingerings so the desired tone center is on the same string, fretted with the same finger. For

example, play the seven modes of “A” with the note “A” fretted on the sixth (largest) string with the index finger. In the sets of fingerings below, that would be “6-1”, indicating the tone center is on the sixth string fretted with the first (index) finger.

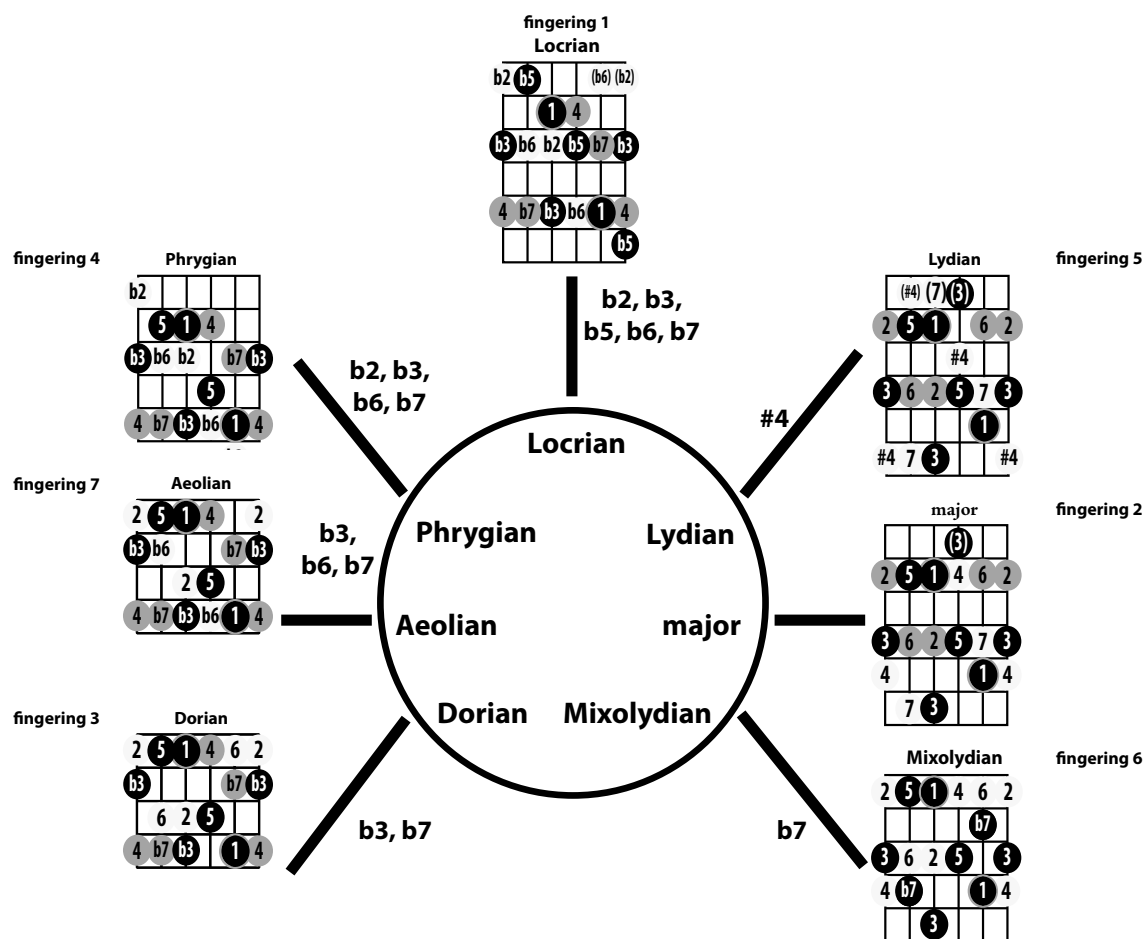
major scale modes, fingering 6-1



To play the modes above all in the key of “A”, play them with the “1” on the sixth string on the note “A”. The “A” note would be at the sixth string, fifth fret, fretted with the index finger (1). That would produce the following darkening cycle of major scale modes, going around the circle counter-clockwise:

major scale fingering	mode	location in parent major scale	altered tones of key scale
7	Locrian	step 7 of Bb major scale	A major scale with b7, b3, b6, b2, b5
3	Phrygian	step 3 of F major scale	A major scale with b7, b3, b6, b2
6	Aeolian	step 6 of C major scale	A major scale with b7, b3, b6
2	Dorian	step 2 of G major scale	A major scale with b7, b3
5	Mixolydian	step 5 of D major scale	A major scale with b7
1	major (Ionian)	step 1 of A major scale	A major scale unaltered
4	Lydian	step 4 of A major scale	A major scale with #4

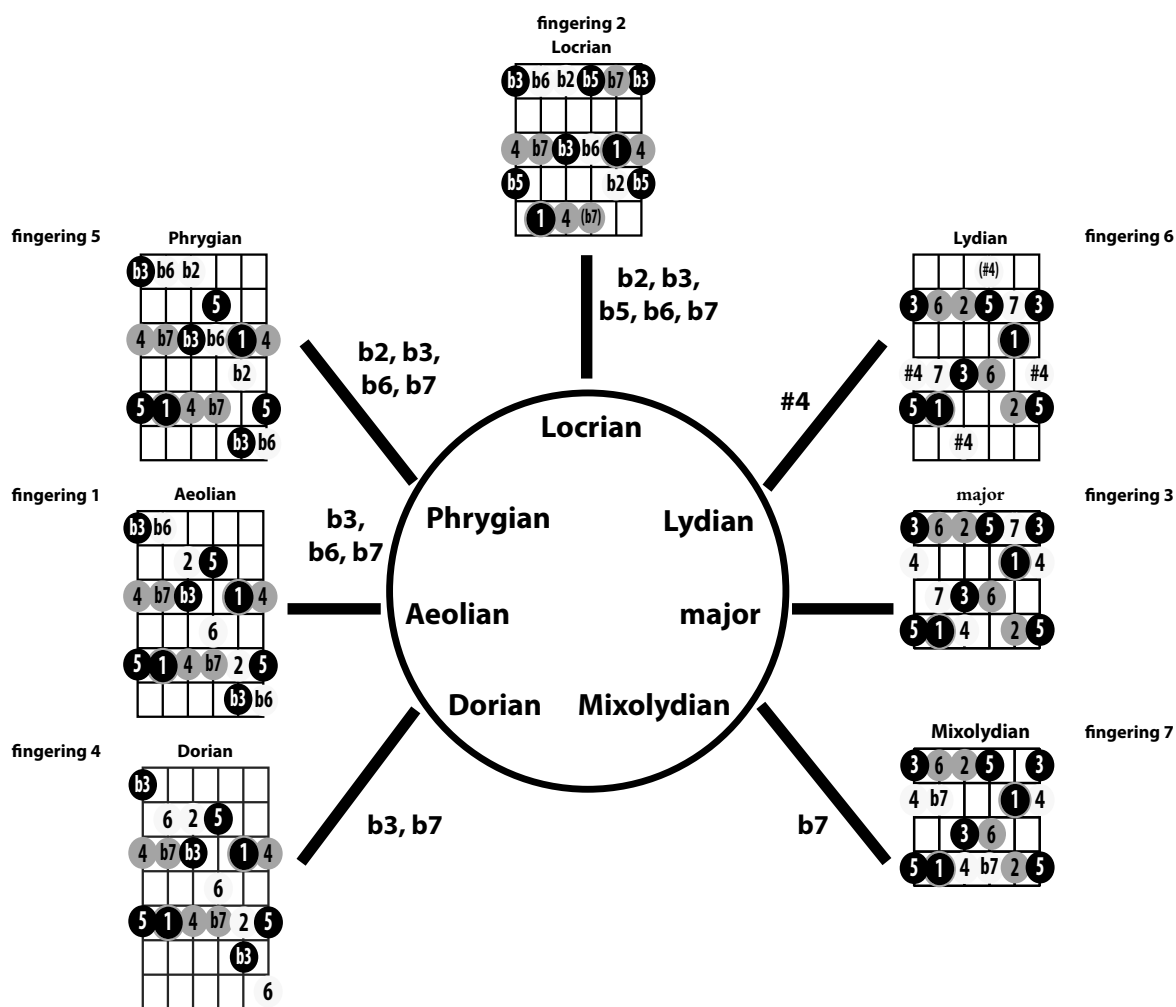
major scale modes, fingering 4-1



To play the modes above all in the key of "A", play them with the "1" on the fourth string on the note "A", fretted with the index finger (1). The "A" note would be at the fourth string, seventh fret. That would produce the following darkening cycle of major scale modes, going around the circle counter-clockwise:

major scale fingering	mode	location in parent major scale	altered tones of key scale
1	Locrian	step 7 of Bb major scale	A major scale with b7, b3, b6, b2, b5
4	Phrygian	step 3 of F major scale	A major scale with b7, b3, b6, b2
7	Aeolian	step 6 of C major scale	A major scale with b7, b3, b6
3	Dorian	step 2 of G major scale	A major scale with b7, b3
6	Mixolydian	step 5 of D major scale	A major scale with b7
2	major (Ionian)	step 1 of A major scale	A major scale unaltered
5	Lydian	step 4 of A major scale	A major scale with #4

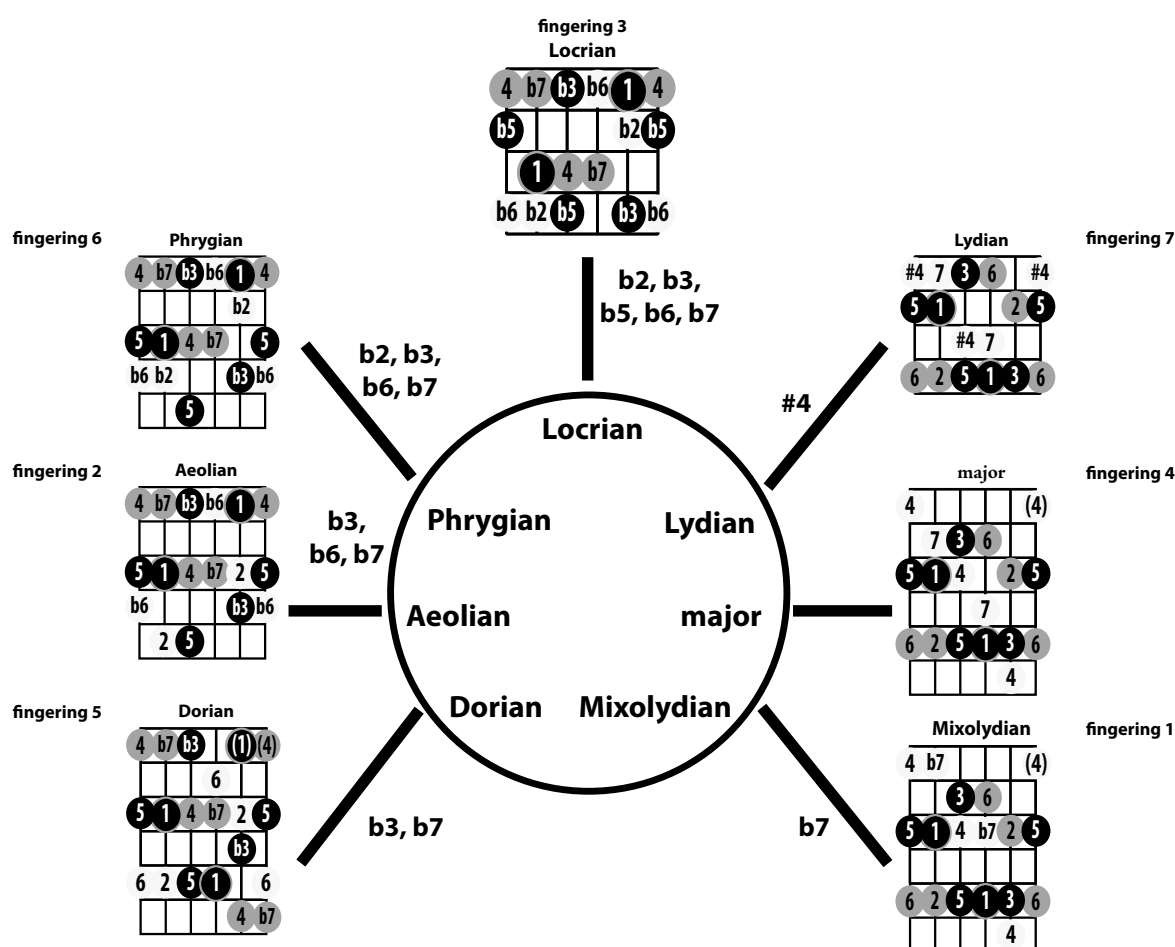
major scale modes, fingering 5-4



To play the modes above all in the key of “A”, play them with the “1” on the fifth string on the note “A”, fretted with the little finger (4). The “A” note would be at the fifth string, twelfth fret. That would produce the following darkening cycle of major scale modes, going around the circle counter-clockwise:

major scale fingering	mode	location in parent major scale	altered tones of key scale
2	Locrian	step 7 of Bb major scale	A major scale with b7, b3, b6, b2, b5
5	Phrygian	step 3 of F major scale	A major scale with b7, b3, b6, b2
1	Aeolian	step 6 of C major scale	A major scale with b7, b3, b6
4	Dorian	step 2 of G major scale	A major scale with b7, b3
7	Mixolydian	step 5 of D major scale	A major scale with b7
3	major (Ionian)	step 1 of A major scale	A major scale unaltered
6	Lydian	step 4 of A major scale	A major scale with #4

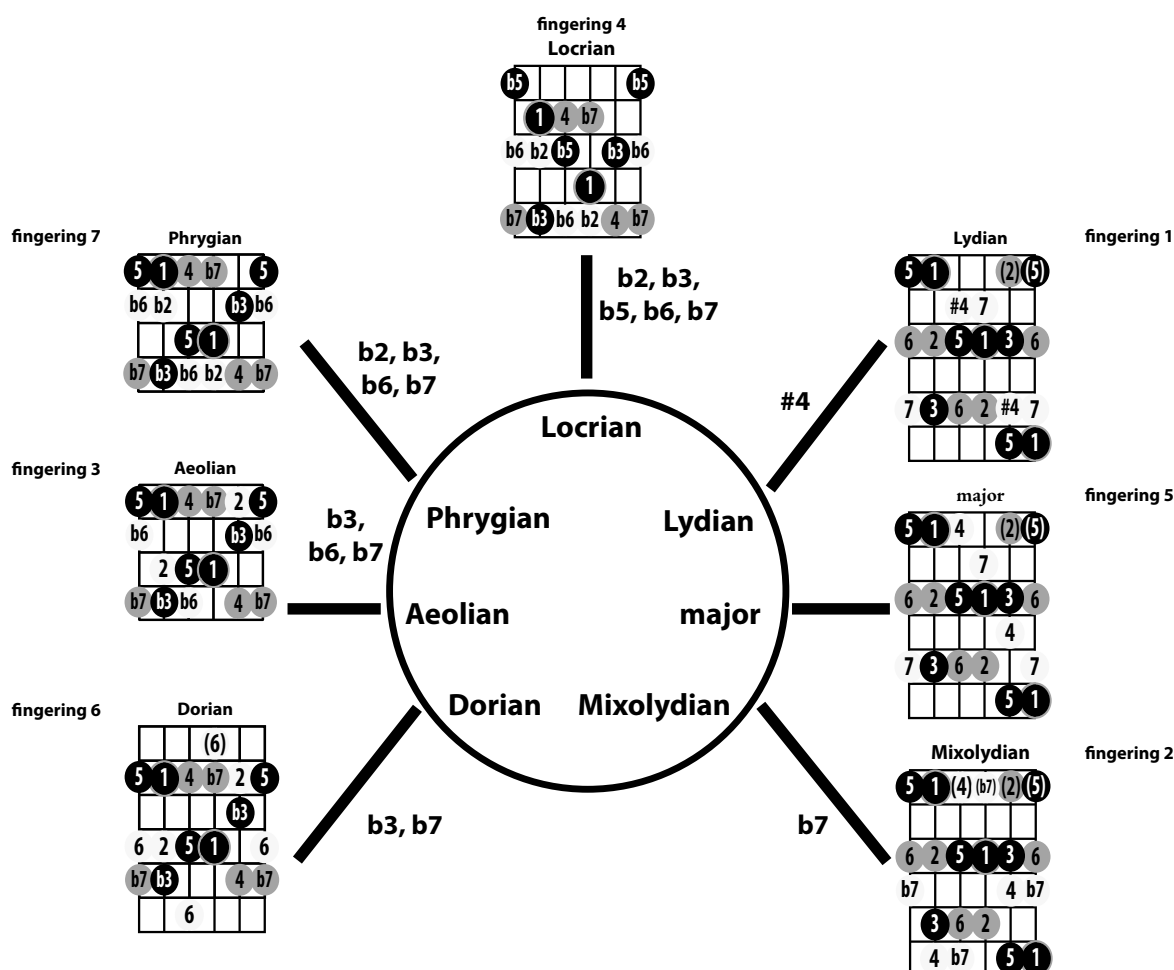
major scale modes, fingering 5-2



To play the modes above all in the key of "A", play them with the "1" on the fifth string on the note "A", fretted with the middle finger (4). The "A" note would be at the fifth string, twelfth fret. That would produce the following darkening cycle of major scale modes, going around the circle counter-clockwise:

major scale fingering	mode	location in parent major scale	altered tones of key scale
3	Locrian	step 7 of Bb major scale	A major scale with b7, b3, b6, b2, b5
6	Phrygian	step 3 of F major scale	A major scale with b7, b3, b6, b2
2	Aeolian	step 6 of C major scale	A major scale with b7, b3, b6
5	Dorian	step 2 of G major scale	A major scale with b7, b3
1	Mixolydian	step 5 of D major scale	A major scale with b7
4	major (Ionian)	step 1 of A major scale	A major scale unaltered
7	Lydian	step 4 of A major scale	A major scale with #4

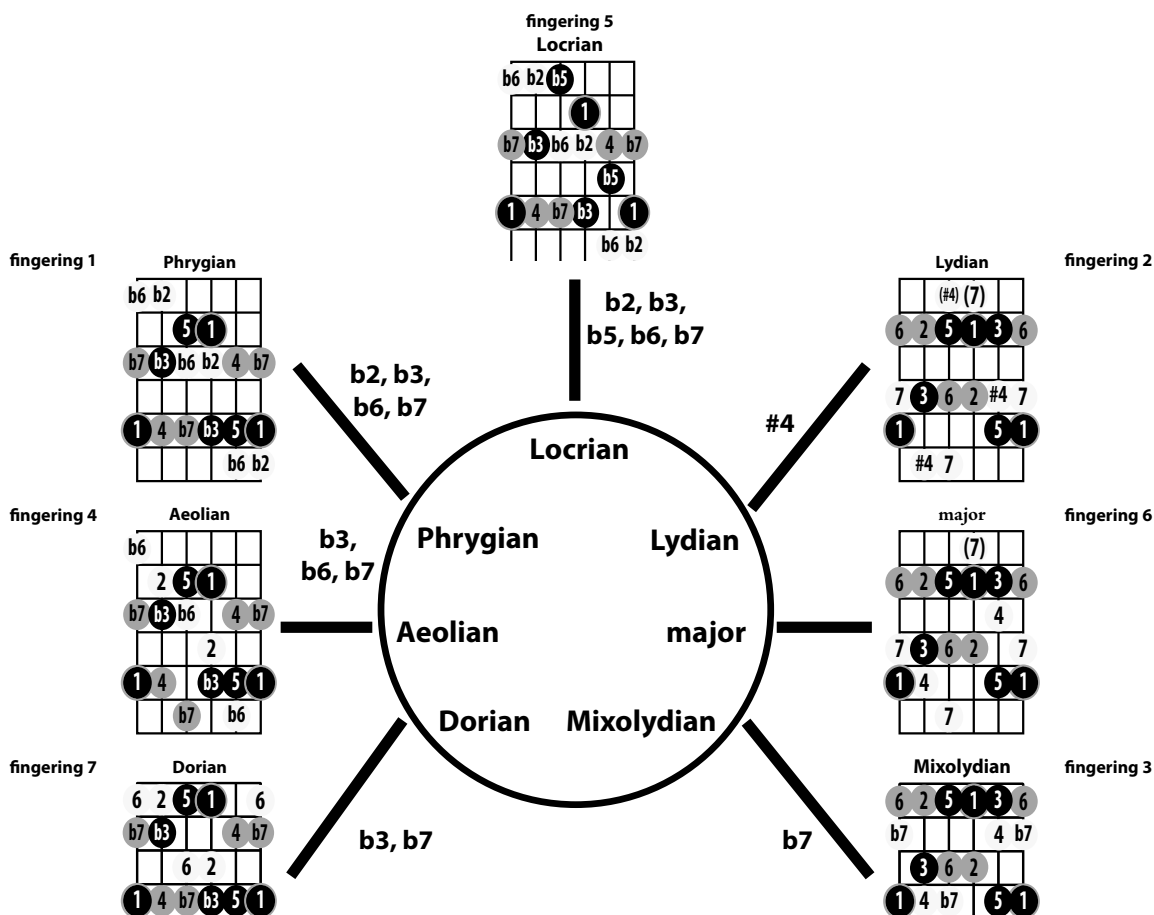
major scale modes, fingering 5-1



To play the modes above all in the key of “A”, play them with the “1” on the fifth string on the note “A”, fretted with the little finger (4). The “A” note would be at the fifth string, twelfth fret. That would produce the following darkening cycle of major scale modes, going around the circle counter-clockwise:

major scale fingering	mode	location in parent major scale	altered tones of key scale
4	Locrian	step 7 of Bb major scale	A major scale with b7, b3, b6, b2, b5
7	Phrygian	step 3 of F major scale	A major scale with b7, b3, b6, b2
3	Aeolian	step 6 of C major scale	A major scale with b7, b3, b6
6	Dorian	step 2 of G major scale	A major scale with b7, b3
2	Mixolydian	step 5 of D major scale	A major scale with b7
5	major (Ionian)	step 1 of A major scale	A major scale unaltered
1	Lydian	step 4 of A major scale	A major scale with #4

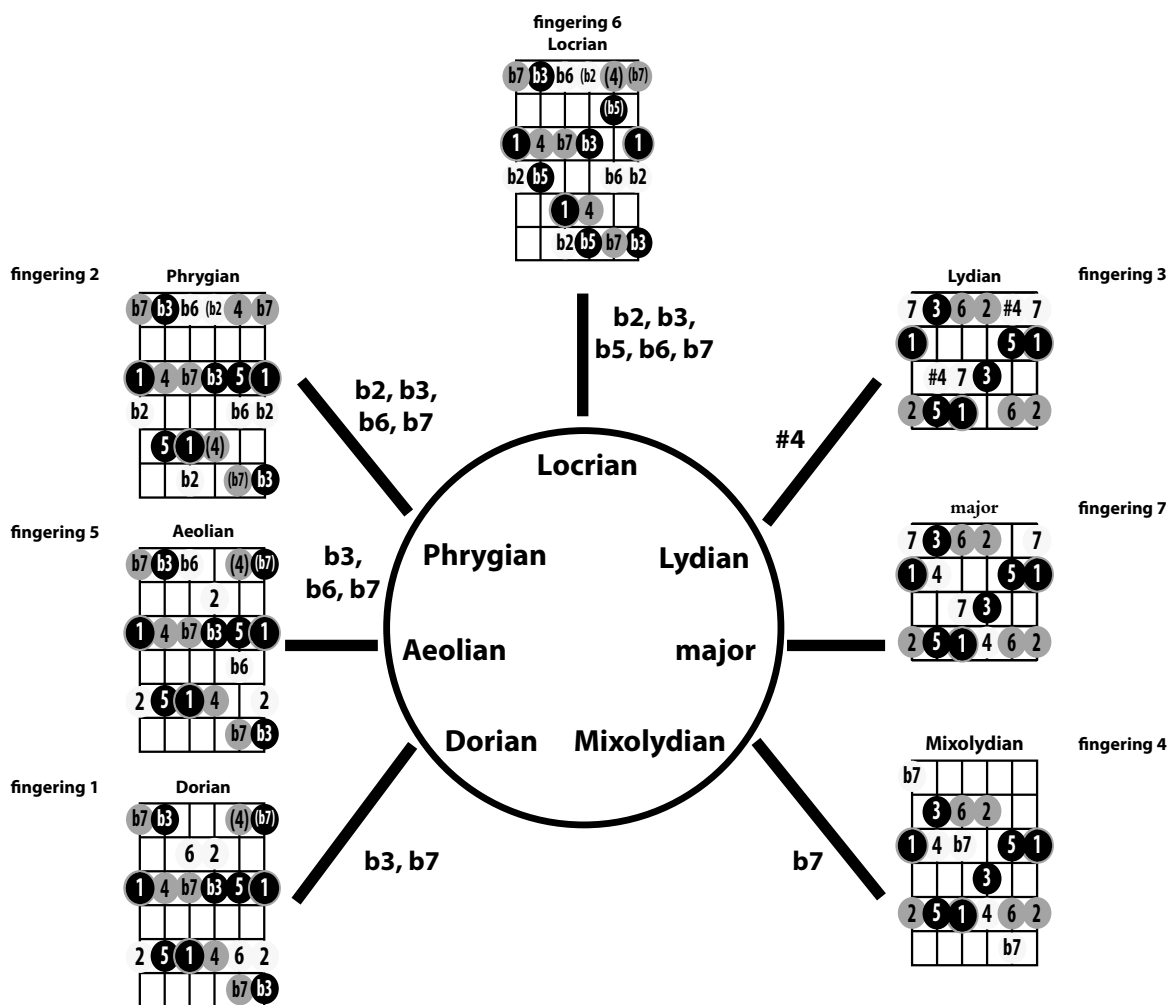
major scale modes, fingering 6-4



To play the modes above all in the key of “A”, play them with the “1” on the sixth string on the note “A”, fretted with the little finger (4). The “A” note would be at the sixth string, fifth fret. That would produce the following darkening cycle of major scale modes, going around the circle counter-clockwise:

major scale fingering	mode	location in parent major scale	altered tones of key scale
5	Locrian	step 7 of Bb major scale	A major scale with b7, b3, b6, b2, b5
1	Phrygian	step 3 of F major scale	A major scale with b7, b3, b6, b2
4	Aeolian	step 6 of C major scale	A major scale with b7, b3, b6
7	Dorian	step 2 of G major scale	A major scale with b7, b3
3	Mixolydian	step 5 of D major scale	A major scale with b7
6	major (Ionian)	step 1 of A major scale	A major scale unaltered
7	Lydian	step 4 of A major scale	A major scale with #4

major scale modes, fingering 6-2



To play the modes above all in the key of “A”, play them with the “1” on the sixth string on the note “A”, fretted with the middle finger (2). The “A” note would be at the sixth string, fifth fret. That would produce the following darkening cycle of major scale modes, going around the circle counter-clockwise:

major scale fingering	mode	location in parent major scale	altered tones of key scale
6	Locrian	step 7 of Bb major scale	A major scale with b7, b3, b6, b2, b5
2	Phrygian	step 3 of F major scale	A major scale with b7, b3, b6, b2
5	Aeolian	step 6 of C major scale	A major scale with b7, b3, b6
1	Dorian	step 2 of G major scale	A major scale with b7, b3
4	Mixolydian	step 5 of D major scale	A major scale with b7
7	major (Ionian)	step 1 of A major scale	A major scale unaltered
3	Lydian	step 4 of A major scale	A major scale with #4

coordinating the major scale fingering cycle with the mood cycle

To coordinate the major scale fingering cycle with the mood cycle, you need a point of reference. Choose the mode and the fingering you wish to use, following the instructions above. Once you determine the mode and fingering you will use, both of them will follow the 7-3-6-2-5-1-4 cycle (Locrian-Phrygian-Aeolian-Dorian-Mixolydian-major-Lydian, respectively).

This paragraph just discusses the modes, not the fingerings. The modes will brighten in the 7-3-6-2-5-1-4 order. The 7-3-6-2-5-1-4 cycle repeats (hence the name “cycle”). If you begin on mode 2, for example, the order of darkening modes would be 2-5-1-4 to the end of the 7-3-6-2-5-1-4 series, then would continue with 7-3-6 the beginning of the cycle. This would make the series of brightening modes 2-5-1-4, then at 7, it would jump to a dark mode (7 is Locrian), then continue brightening through modes 7-3-6 (Locrian-Aeolian-Dorian). Think of the 7-3-6-2-5-1-4 series as a cycle, where you can start at any point, but whenever you get to “4”, it is the brightest mode. Continuing after “4”, “7” would begin again with the darkest mode, Locrian.

If you now understand the brightening order of modes as described in the paragraph above, the order of fingerings will use the same 7-3-6-2-5-1-4 series. The mode series and the respective fingerings on a particular notes are only parallel when the tone center is on the sixth string, fretted with the index finger. Otherwise the cycle of brightening moods and the cycle of major scale fingerings use the same number cycle in an offset manner. You can see this coordinated order in the table below and in the cycle diagrams of fingerings on the previous pages.

table of respective major scale fingerings for the brightening cycle of modes

fingering for the low-octave tone center (string-finger)	major scale fingering series
6-1	7-3-6-2-5-1-4 respectively for modes 7-3-6-2-5-1-4
4-1	1-4-7-3-6-2-5 respectively for modes 7-3-6-2-5-1-4
5-4	2-5-1-4-7-3-6 respectively for modes 7-3-6-2-5-1-4
5-2	3-6-2-5-1-4-7 respectively for modes 7-3-6-2-5-1-4
5-2	4-7-3-6-2-5-1 respectively for modes 7-3-6-2-5-1-4
6-4	5-1-4-7-3-6-2 respectively for modes 7-3-6-2-5-1-4
6-2	6-2-5-1-4-7-3 respectively for modes 7-3-6-2-5-1-4

THE PREDOMINANCE OF MAJOR AND AEOLIAN

Since the beginning of the common practice period of European music in 1600, western music has predominantly used [the relative major and minor system](#). With the African-American influence in American music since 1900, Mixolydian and Dorian have come back into popularity. Mixolydian and Dorian were used off and on in the Middle East and Europe from around 500 BC until the common practice period. Mixolydian and Dorian were rarely used in the common practice period (1600 through 1900).

The predominance of major and Aeolian lingers. We still tend to imagine melodies in the key of the II minor chord of a major scale or in the key of the III minor chord of a major scale in Aeolian (the natural minor scale built on the sixth step of the major scale).

If you want to establish the Dorian mode as a key on the II minor chord of a major scale or to establish the Phrygian mode as a key on the III minor chord of a major scale, you have to go out of your way to make it really sound like that mode. Otherwise, our memories of thousands of songs in Aeolian mode will influence us to imagine the music in Aeolian mode.

The same is true of Lydian mode. If you don't go out of your way to establish Lydian as the mode, memories of thousands of songs in major mode (Ionian) will influence us to imagine the music in major mode.

As stated above, Mixolydian has been established by the African-American influence in American music and it can easily be established in blues, rock and jazz styles. Similarly, Dorian can be easily established in those genres as a minor key version to contrast a major key.

MODAL INTERCHANGE (CHANGE OF MODE)

Change of Mode on the Same Tone Center

Changing the mode on the same tone center is a direct manner of changing the mood. This is discussed in the next section “[The Expressive Use of Modes](#)”. Mode change on the same tone center can be conceived with all the modes of the four harmonizable seven-tone (heptatonic) scales (major, harmonic minor, melodic minor and harmonic major), as shown in the last section of this chapter “[Mode Families](#)”.

The tables shown in [Substitution](#)/Alternate Qualities of Large Arpeggios are repeated at the bottom of this section, since they are an effective overview of modal interchange on the same tone center.

Change of Mode with Changing Tone Centers

Changing the mode with different tone centers can use the “[The Expressive Use of Modes](#)” (in the next section) by changing which tone of a seven tone scale is the tone center and/or by changing to modes of another seven-tone (heptatonic) scale.

Subtitution and Ambiguity

The chapter “[Substitution](#)” shows many alternate chords, which can be used in a composition, rather than just in improvisation. Most of the substitutes discussed involve changing the tone center, but “Darkening” and Alternate Qualities of Large Arpeggios” imply changes of mode on the same tone center. The tables shown in [Substitution](#)/Alternate Qualities of Large Arpeggios are repeated at the bottom of this section, since they are an effective overview of modal interchange on the same tone center.

The chapter “Scale Ambiguity” shows modal interchange categorically by chord type.

Triad Modal Interchange

See the section “[Composing Triad Progression with Change of Mode](#)”, later in this chapter.

Summary of Chord Progression Types

The chapter “[Summary of Chord Progression Types with Improv](#)” shows most of the types of chord progression in use. Most of those progressions imply changes of mode.

Alternate Qualities of Large Arpeggios

	unaltered			flat five			sharp five		
ma9 <small>also see aug. scale</small>	ima9 major	ma13#11 Lydian	lma9 har. major	IVma7b5 Lydian			lma9#5 major #5	ma9#5 Phryg. b1	
formula	all nat.	#4	b6	#4			#5	flat all	
9	13 Mixolydian	13#11 Lydian dom.		IV9b5 Lydian dom.	7#5b5#9b9 super Locrian	7#9b9 super Phryg..	7b9/b13 V7b9, V7#5 Phryg. dom.	11b6 V9#5 Mixo. b6	13b9 Mixo. b2
formula	b7	#4, b7		#4, b7	flat all but 1 & 4	flat all but 1	b2, b6, b7	b6, b7	b2, b7
	also see diminished scale for 7#9b9 and whole tone scale for 9#5b5								
m9	m13 Dorian	m11 Aeolian	m13#11 Dorian #4	m11b5 Dorian b5	m11 Aeolian b5				
formula	b3, b7	b3, b6, b7	b3, #4, b7	b3, b5, b7	b3, b5, b6, b7				
m9 (ma7)	m9(ma7) mel. min.	m9(ma7) har. min.	m9(ma7) Lyd. dim.						
formula	b3	b3, b6	b3, #4						
	diminished seventh				diminished scale		whole tone scale	augmented scale	
harmonic minor	II°7	IV°7	bVI°7	VII°7	ascend	13#11b9#9	9b5#5	ma7	
	Locrian nat. 6 b2, b3, b5, b7	Dorian #4 b3, #4, b7	Lydian #2 #2, #4	Mixolydian #1, b7	half-whole	1, b2, #2, 3, #4, 5, 6, b7	1-2-3-b5-#5-b7	1-#2-3-5-b6-7	
major #5	maj. #5 VII	major #5 II	major #5 IV	major #5 #V	ascend	m6b5			
harmonic major	Dorian b5 2, b3, b5, b7	Lydian dim. b3, #4	Aeolian b1 b1, b3, b6, b7	Locrian bb7 b2, b3, b5, b6, bb7	whole-half	1-2-b3-4-b5- #5-6-7			

sources of the arpeggios above

MAJOR	Ima9	IIIm13	IIIm11b9	IVma13#11	V13	VIm11	VIIIm11b5b9
mode	major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
formula	all natural	b3, b7	b2, b3, b6, b7	#4	b7	b3, b6, b7	all flat but 1 & 4
de-emphasize			b9		11		b9
MAJOR #5	Ima9#5	IIIm13#4	IIIm7b9/b13 IIIm7b9, IIIm7#5	IVma13#11no9	#V°7 VIm/#V°7 usable descending	VIm9(ma7)	VII°7 VIm/VII°7
mode	major #5	Dorian #5	Phrygian dom.	Lydian #2	Mixolydian #1	harmonic min. Aeo. nat. 7	Locrian nat. 6
formula	all natural	b3, b7	b2, b3, b6, b7	#4	b7	b3, b6, b7	b2, b3, b5, b7
HARMONIC MINOR	bIIIma9#5	IVIm13#4	V7b9/b13 V7b9, V7#5	bVIma13#11no9	VII°7, Im/VII°7 usable descending	Im9(ma7)	II°7 Im/II°7
MELODIC MINOR	Im9(ma7)	IIIm13b9	bIIIma9#5	IV13#11	V11b6 V9#5	VIm11b5 VIm9b5	V&7#5b5#9b9 IV13#11 synonym
mode	major b3	Dorian b2	Phrygian b1	Lydian dom. Lydian b7	Mixolydian b6	Aeolian b5	super Locrian Locrian b5
formula	b3	b2, b3, b7	b1, b2, b3, b6, b7	#4, b7	b6, b7	b3, b5, b6, b7	all flat but 1
HARMONIC MAJOR	Ima9	IIIm13b5 II°7	IIIm11b9	IV°7, IV°9 or IVm9(ma7)	V13b9	bVI°7 or bVIma9#5b5	VII°7
mode	major b6	Dorian b5	super Phrygian Phrygian b4	Lydian dimin. Lydian b3	Mixolydian b2	Aeolian b1	Locrian bb7
formula	b6	b3, b5, b7	all flat but 1 & 5	b3, #4	b3, b7	b1, b3, b6, b7	b2, b3, b5, b6, bb7

THE EXPRESSIVE USE OF MODES

Modes In Order Of Darkening Moods

As notes are lowered chromatically (by flattening a note or by removing a sharp) in changing from one mode to another, they darken in mood. See [Major Scale Mode \(mood\) Cycles](#).

accidentals	#4		b7	b7-b3	b7-b3-b6	b7-b3-b6-b2	b7-b3-b6-b2-b5
	IV Lydian	I major	V Mixolydian	II Dorian	VI Aeolian	III Phrygian	VII Locrian
accumulating accidentals	#4		b7	b3	b6	b2	b5
mood	bright, exotic	bright, happy	bright, bluesy	dark, some bright colors (2 and 6)	dark, sad	dark, dramatic	dark, evil
styles	jazz, progressive rock, art rock	all styles	blues, funk, rock	blues, latin, rock	all styles	flamenco, middle-eastern	death metal, art rock

Mixolydian through Locrian modes accumulate the flatted numbers 73625.

Altering the Major Scale To Make Modes Of Other Seven Tone Scales

Major #5 variations: major #5, Dorian #4, Phrygian major third, Lydian #2, Mixolydian “#1”, Aeolian natural 7 (harmonic minor), Lydian #6.

Melodic minor variations: major b3, Dorian b2, Phrygian “b1”, Lydian b7, Aeolian dominant (also called Aeolian major or Mixolydian b6), Aeolian b5, super Locrian (Locrian b4).

The Expressive Series of Major Scale Modes by Alteration

Moving to the right in the expressive series of substitute modes tends to produce brighter, happier moods. Moving left in the expressive series tends to produce darker, sadder moods. The expressive series may be used melodically or harmonically. Melodic applications (in soloing or composition) involve movement to the right or left in changing the mode to more closely resemble the notes in the accompanying chords (accommodating chords). When melodically substituting for expressive purposes, the expressive series is more often used in “darkening” the mood by moving to the left, adding flats to the mode formula (except in changing from Lydian to major, which removes a sharp). Occasionally, movement to the right in the expressive series is used by melodically substituting Lydian mode for major or Dorian mode for Aeolian.

Other movement to the right (brightening moods) is rare in melodic mode substitution.

Harmonic Applications

The chord progression or other form of accompaniment part may involve movement in both directions in the series, darkening or brightening the mood.

Melodic Use of the Expressive Series

accommodating chords.

When the mode you're using now needs to accommodate more flats because of the upcoming chord(s) in the progression, move to the left in the expressive series from the present mode until you arrive at one which has the flats (in the scale formula) you need. When the present mode needs to accommodate more sharps (according to the upcoming chords), move to the right in the expressive series from the present mode until you get to one with the sharps (in the scale formula) you need.

Accommodating chords is not substituting modes, and is therefore not using the expressive series to alter the mood.

Substituting Modes For Expressive Purposes.

Bluesy substitutes. "Blues" is a feeling of melancholy, depression and despondency. Substituting to the left in the expressive series from major to Mixolydian or Dorian, or from Mixolydian to Dorian produces a bluesy mood or sound. If the present mode is major, you may substitute Mixolydian for a bluesy sound or Dorian for a very bluesy sound. If the present mode is Mixolydian, you may substitute Dorian for a more bluesy sound.

Harmonic Use of the Expressive Series

The expressive series of substitute modes can be used with chord progressions (or other forms of accompaniment parts) and may involve movement in both directions in the series, darkening or brightening the mood.

use of the expressive series in composing and arranging.

Composed and arranged accompaniment parts can be more intricate, while comping (improvising) and accompaniment part is more dependent on the musical expression of the other players. Temporary change of mode while using the same tone center may occur for as brief a time as a single beat or for an entire section of a song.

"comping" with the expressive series

In many situations, the accompanists have freedom of expression through changing modes also. They can alter part of the background to contrast against the rest of the band. One section can alter the arrangement by changing mode while the rest of the band remains in the mode originally intended.

Blues in C Darkened with Blue Notes

12 bar blues in C with chord scales, parent scales, key scales and blue scales

chords	C7 (I7)	C7 (I7)	C7 (I7)	C7 (I7)
chord scales	C Mixolydian (C major with b7)			
parent scales	F major			
key scales	C Mixolydian (same as chord scale)			
blue scales	C Dorian (flattening the third in addition to the seventh) with Bb major parent scale			
chords	F7 (IV7)	F7 (IV7)	C7 (I7)	C7 (I7)
chord scales	F Mixolydian		C Mixolydian	
parent scales	Bb major			
key scales	C Dorian (C major with b3, b7)			
blue scales	none		C Dorian with Bb parent scale	
chords	G7 (V7)	F7 (IV7)	C7 (I7)	G7 (V7)
chord scales	G Mixolydian	F Mixolydian	C Mixolydian	G Mixolydian
parent scales	C major	Bb major	F major	C major
key scales	C major (same as parent scale)	C Dorian (b3, b7)	C Mixolydian (b7)	C major
blue scales	C Mixolydian (same as F major parent)	none	C Dorian (same as Bb major parent)	C Mixolydian (same as F major parent)
very blue scale	C Dorian (same as Bb major parent)			C Dorian (same as Bb major parent)

darkening the I7 chord

Flat the third, changing C Mixolydian (with its C major 6/9 pentatonic subset) to C Dorian (with its Cm6/9 pentatonic subset and its Cm7/11 pentatonic subset). This makes the scale (or scales, including the pentatonic subsets) the same for I7 and IV7. Compared to a major scale, Dorian has flat three and flat seven.

If you also use the “very blue” option for the V7 chord, C Dorian (I Dorian), the scales are the same for the I, IV and V chords. This sets up the common situation of being able to play the Im7/11 pentatonic (Cm7/11 pentatonic) on all three of the chords (I7, IV7, and V7 or C7, F7, G7).

darkening the IV7 chord

Don't go there. If you were to flat the third of the IV chord by using a minor pentatonic chord scale (F minor pentatonic) or the F Dorian scale of which it is a subset, the key scale name of those same notes is C Aeolian, which has a flatted sixth. Flat six is associated with minor key jazz, middle eastern and Spanish music and draws too far away from what is usually thought of as major key blues (I IV V).

darkening the V7 chord

Flatting the seventh of the key and using I Mixolydian (C Mixolydian, with F major parent) darkens the V chord by making it sound minor. The chord scale name for the same notes is V Dorian (G Dorian, with F major parent). Compared to a major scale, Mixolydian has flat seven.

To darken even more, flat both the third and the seventh of the key with I Dorian (C Dorian, with Bb major parent) making the V chord sound minor and providing a note to make V augmented or V7#5. The chord scale name for the same notes is V Aeolian (G Aeolian, with Bb major parent).

THE VAGUENESS OF KEY SIGNATURES

The Major-Minor Key Signature System

The purpose of key signatures should be to show the set of notes that are used in a piece of music, especially when the piece uses only or predominantly seven different notes (two or more of the same note repeating in octaves would count as one note in this case).

As of the writing of *The Well-Tempered Clavier* by Johann Sebastian Bach in 1722, pieces of music would conform to the two tone center options in twelve keys (making 24 keys: twelve major and twelve minor). See [the key signature table](#). That worked for almost 200 years, until blues, jazz and other twentieth century music came along. In the twentieth century the other modes came back into use, especially Mixolydian to darken the major scale by flattening the seventh and Dorian mode to further darken the major scale by flattening both the third and the seventh. Bach wrote in six of the seven modes, as far as we know, excluding Locrian mode. He probably experimented with Locrian mode, being a thorough researcher.

Mixolydian

Mixolydian mode can be created by flattening the seventh of a major scale changes the numbered tones of the major scale to 1-2-3-4-5-6-b7-1. C major with flat seven has the letters C-D-E-F-G-A-Bb-C. Another way to conceive Mixolydian mode is using another major scale where the desired Mixolydian tone center is on the fifth of it. See [G Mixolydian](#). Using the [F major scale](#) (the major scale built of the fourth step of C major with the letters F-G-A-Bb-C-D-E-F) with the tone center on its fifth step also produces C Mixolydian with the letters C-D-E-F-G-A-Bb-C.

You can use either rule. Play a major scale and flat its seventh step or find the major scale where the desired tone center is on its fifth step.

Dorian

Flattening both the third and the seventh of a major scale changes the numbered tones of the major scale to 1-2-b3-4-5-6-b7-1. C major with flat three and flat seven has the letters C-D-Eb-F-G-A-Bb-C. Also conceive Dorian is by using another major scale where the desired Dorian tone center is on the second step of it. Using the [Bb major scale](#) (the major scale built of the flattened seventh step of C major with the letters Bb-C-D-Eb-F-G-A-Bb) with the tone center on its second step also produces C Dorian with the letters C-D-Eb-F-G-A-Bb-C.

Play a major scale and flat its third and seventh steps or find the major scale (on the flattened seventh of the major scale in the key you want to be Dorian) where the desired tone center is on its second step.

The Problem with the Key Signature System for Modes

the is no common specification for major or minor

Even if the key were to be on the traditional (1600-1900) first or sixth steps of the major scale, there is no common convention to tell the reader which one. Modern music doesn't necessarily end on the tone center, so you can't rely on judging by the final chord in a piece of music. It should specify in words above the key signature, "C" major or "A" Aeolian (or "F" major or "D" Aeolian for the F major scale, etc.). Wouldn't that be nice?

modal key signatures

In the same manner that verbal languages that are still in common use are constantly evolving with new words, new rules for sentence structure, etc., music notation should be more of a living language, including modern options for key signatures.

A modal key signature specifies the mode. See the examples below where the mode, such as "D" Dorian or "E" Phrygian is shown above the key signature.

the major modes are notated indiscriminately

The major-minor key signature system is commonly used to indicate the major modes major (Ionian mode), *Lydian mode* or *Mixolydian mode* by using the major key signature indiscriminately. The notes that are altered, such as Lydian mode having a sharped fourth compared to major in the same key or Mixolydian having a flatted seventh in the same key are only visible in the body of the music, where you will see certain notes flatted, sharped or made natural to raise or lower them as needed for the mode.

F Lydian is commonly shown with the F major key signature, rather than the smarter option of using the key signature for its parent scale, C major, with a specification above the key signature that the "F" note will be the tone center, using the text "F" Lydian or "F" Lydian mode.

the common practice key signature for F Lydian

The musical notation shows a 4-measure phrase in 4/4 time with a key signature of one sharp (F#). The notes are F4, A4, C5, E5, F#4, A4, C5, E5, F#4, A4, C5, E5, F#4, A4, C5, E5. Above the staff, the following chord symbols are written: F6add#11, G/B, C(add9), C6, F6add#11, and Fmaj9. Below the staff is a fretboard diagram for a guitar with 12 frets, showing the fret numbers for the notes: F (1), A (2), C (3), E (4), F# (5), A (6), C (7), E (8), F# (9), A (10), C (11), E (12).

the smarter modal key signature for F Lydian

"F" Lydian

1 F⁶add^{#11} G/B C^(add9) C⁶ F⁶add^{#11} F^{maj9}

T 0 1 0 3 3 0 3 0 0 1 0 3 0

A 1 1 2 3 1 1 1

B

G Mixolydian is commonly shown with the G major key signature, rather than the smarter option of using the key signature for its parent scale, C major, with a specification above the key signature that the "G" note will be the tone center, using the text "G" Mixolydian or "G" Mixolydian mode.

the common practice key signature for G Mixolydian

C G G F C G G F C G

T 0 1 3 3 1 0 3 0 1 3 0 3 1 0 3

A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

B

the smarter modal key signature for G Mixolydian

"G" Mixolydian

6 C G G F C G G F C G

T 0 1 3 3 1 0 3 0 1 3 0 3 1 0 3

A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

B

the minor modes are notated indiscriminately

The major-minor key signature system is commonly used to indicate the minor modes [Aeolian mode](#), [Dorian mode](#) or [Phrygian mode](#) or by using the major key signature indiscriminately. The notes that are altered, such as Dorian mode having a flattened third and seventh compared to major in the same key are only visible in the body of the music, where you will see certain notes flattened or made natural to lower them.

D Dorian is commonly shown with the F major key signature (implying its relative minor D Aeolian), rather than the smarter option of using the key signature for its parent scale, C major, with a specification above the key signature that the "D" note will be the tone center, using the text "D" Dorian or "D" Dorian mode.

the common practice key signature for D Dorian

Common practice key signature for D Dorian (B-flat major). The notation shows a melody in 4/4 time with chords Dm7, G7, F, C, Dm7, G7, F, C, and a final Dm7-C-Dm7. The guitar tablature below shows the fretting for each measure.

the smarter modal key signature for D Dorian

Smarter modal key signature for D Dorian (D major). The notation shows a melody in 4/4 time with chords Dm7, G7, F, C, Dm7, G7, F, C, and a final Dm7-C-Dm7. The guitar tablature below shows the fretting for each measure.

E Phrygian is rare, but using the common practice key signatures, it would be shown with the G major key signature (implying its relative minor E Aeolian), rather than the smarter option of using the key signature for its parent scale, C major, with a specification above the key signature that the “E” note will be the tone center, using the text “E” Phrygian or “E” Phrygian mode.

the common practice key signature for E Phrygian

Common practice key signature for E Phrygian (G major). The notation shows a melody in 3/4 time with chords Em, Am, Dm7, G, F, and Em. The guitar tablature below shows the fretting for each measure.

the smarter modal key signature for E Phrygian

Smarter modal key signature for E Phrygian (C major). The notation shows a melody in 3/4 time with chords Em, Am, Dm7, G, F, and Em. The guitar tablature below shows the fretting for each measure.

if there were a piece in Locrian mode, it would also be notated indiscriminately

B Locrian is very rare. Using common practice key signatures, it would be shown with the D major key signature (implying its relative minor B Aeolian), rather than the smarter option of using the key signature for its parent scale, C major, with a specification above the key signature that the “B” note will be the tone center, using the text “B” Locrian or “B” Locrian mode.

the common practice key signature for B Locrian

Common practice key signature for B Locrian (D major). The notation shows a treble clef with a key signature of two sharps (F# and C#). The melody is written in 4/4 time. Chords indicated above the staff are B° (B diminished), F (F major), Em (E minor), Dm (D minor), and B° (B diminished). The bass line is written on a grand staff (T, A, B) with fingerings: 0 1 0, 0 1, 0 1 3 0 1 2 0 1, 0 0 1 0 0 2, 0.

the smarter modal key signature for B Locrian

Smarter modal key signature for B Locrian (C major). The notation shows a treble clef with a key signature of no sharps or flats. The melody is written in 4/4 time. Chords indicated above the staff are B° (B diminished), F (F major), Em (E minor), Dm (D minor), and B° (B diminished). The bass line is written on a grand staff (T, A, B) with fingerings: 0 1 0, 0 1, 0 1 3 0 1 2 0 1, 0 0 1 0 0 2, 0.

Atonal Key Signatures

When a piece of music defies the sense of key and it is not clear which chord and tone center you expect it to end on, the word *atonal* can appear above the key signature, indicating that the piece is *not tonal*. The melodic example below uses Schoenberg's twelve tone row followed by retrograde inversion.

an atonal key signature - [click to play video](#)

Swing Eighths

atonal

Atonal key signature example (Schoenberg's twelve tone row). The notation shows a treble clef with a key signature of no sharps or flats. The melody is written in 4/4 time. The bass line is written on a grand staff (T, A, B) with fingerings: 3 2 0 4, 3 2 2 1 1 3, 1 1 2 2 3 4, 0 2 3, 3.

THE MODES OF ALL MAJOR SCALES

Table of Letter Names, Triads, Seventh Chords and Pentatonic Scales for Modes of All Major Scales

scale tone →	1	2	3	4	5	6	7
mode →	major scale	Dorian mode	Phrygian mode	Lydian mode	Mixolydian mode	Aeolian mode	Locrian mode
mode formula →	1-2-3-4-5-6-7	1-2-b3-4-5-6-b7	1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-7	1-2-3-4-5-6-b7	1-2-b3-4-5-b6-b7	1-b2-b3-4-b5-b6-b7
mood →	bright, happy	dark, some bright colors (2 and 6)	dark, dramatic	bright, exotic	bright, bluesy	dark, sad	dark, evil
styles →	all styles	blues, latin rock	flamenco, middle-eastern	jazz, progressive rock, art rock	blues, funk, rock	all styles	death metal, art rock
triad →	major	minor	minor	major	major	minor	diminished
seventh chord →	major seventh	minor seventh	minor seventh	major seventh	dominant seventh	minor seventh	min. seventh flat five
pentatonic scale →	major	minor	minor	major	major	minor	minor flat five
parent scale ↓							
C major	C Ionian mode C major triad C major 7 chord C maj. pent.	D Dorian mode D minor triad D minor 7 chord D minor pent.	E Phrygian E minor triad E minor 7 chord E minor pent.	F Lydian mode F major triad F major 7 chord F maj. pent.	G Mixolydian mode G major triad G dom. 7 chord G major pent.	A Aeolian mode A minor triad A minor 7 chord A minor pent.	B Locrian mode B dimin. triad Bm7b5 chord B min. pent. b5
F major (one flat)	F Ionian mode F major triad F major 7 chord F maj. pent.	G Dorian mode G minor triad G minor 7 chord G minor pent.	A Phrygian mode A minor triad A minor 7 chord A minor pent.	Bb Lydian mode Bb major triad Bb major 7 chord Bb maj. pent.	C Mixolydian mode C major triad C dom. 7 chord C major pent.	D Aeolian mode D minor triad D minor 7 chord D minor pent.	E Locrian mode E dimin. triad Em7b5 chord E min. pent. b5
Bb major (two flats)	Bb Ionian mode Bb major triad Bb major 7 chord Bb maj. pent.	C Dorian mode C minor triad C minor 7 chord C minor pent.	D Phrygian mode D minor triad D minor 7 chord D minor pent.	Eb Lydian mode Eb major triad Eb major 7 chord Eb maj. pent.	F Mixolydian mode F major triad F dom. 7 chord F major pent.	G Aeolian mode G minor triad G minor 7 chord G minor pent.	A Locrian mode A dimin. triad Am7b5 chord A min. pent. b5
Eb major (three flats)	Eb Ionian mode Eb major triad Eb major 7 chord Eb maj. pent.	F Dorian mode F minor triad F minor 7 chord F minor pent.	G Phrygian mode G minor triad G minor 7 chord G minor pent.	Ab Lydian mode Ab major triad Ab major 7 chord Ab maj. pent.	Bb Mixolydian mode Bb major triad Bb dom. 7 chord Bb major pent.	C Aeolian mode C minor triad C minor 7 chord C minor pent.	D Locrian mode D dimin. triad Dm7b5 chord D min. pent. b5
Ab major (four flats)	Ab Ionian mode Ab major triad Ab major 7 chord Ab maj. pent.	Bb Dorian mode Bb minor triad Bb minor 7 chord Bb minor pent.	C Phrygian mode C minor triad C minor 7 chord C minor pent.	Db Lydian mode Db major triad Db major 7 chord Db maj. pent.	Eb Mixolydian mode Eb major triad Eb dom. 7 chord Eb major pent.	F Aeolian mode F minor triad F minor 7 chord F minor pent.	G Locrian mode G dimin. triad Gm7b5 chord G min. pent. b5
Db major (five flats)	Db Ionian mode Db major triad Db major 7 chord Db maj. pent.	Eb Dorian mode Eb minor triad Eb minor 7 chord Eb minor pent.	F Phrygian mode F minor triad F minor 7 chord F minor pent.	Gb Lydian mode Gb major triad Gb major 7 chord Gb maj. pent.	Ab Mixo. mode Ab major triad Ab dom. 7 chord Ab major pent.	Bb Aeolian mode Bb minor triad Bb minor 7 chord Bb minor pent.	C Locrian mode C dimin. triad Cm7b5 chord C min. pent. b5
Gb major (six flats)	Gb Ionian mode Gb major triad Gb major 7 chord Gb maj. pent.	Ab Dorian mode Ab minor triad Ab minor 7 chord Ab minor pent.	Bb Phrygian mode Bb minor triad Bb minor 7 chord Bb minor pent.	Cb Lydian mode Cb major triad Cb major 7 chord Cb maj. pent.	Db Mixolydian mode Db major triad Db dom. 7 chord Db major pent.	Eb Aeolian mode Eb minor triad Eb minor 7 chord Eb minor pent.	F Locrian mode F dimin. triad Fm7b5 chord F min. pent. b5
G major (one sharp)	G Ionian mode G major triad G major 7 chord G maj. pent.	A Dorian mode A minor triad A minor 7 chord A minor pent.	Bb Phrygian mode B minor triad B minor 7 chord B minor pent.	C Lydian mode C major triad C major 7 chord C maj. pent.	D Mixolydian mode D major triad D dom. 7 chord D major pent.	E Aeolian mode E minor triad E minor 7 chord E minor pent.	F# Locrian mode F# dimin. triad F#m7b5 chord F# min. pent. b5
D major (two sharps)	D Ionian mode D major triad D major 7 chord D maj. pent.	E Dorian mode E minor triad E minor 7 chord E minor pent.	F# Phrygian mode F# minor triad F# minor 7 chord F# minor pent.	G Lydian mode G major triad G major 7 chord G maj. pent.	A Mixolydian mode A major triad A dom. 7 chord A major pent.	B Aeolian mode B minor triad B minor 7 chord B minor pent.	C# Locrian mode C# dimin. triad C#m7b5 chord C# min. pent. b5
A major (three sharps)	A Ionian mode A major triad A major 7 chord A maj. pent.	B Dorian mode B minor triad B minor 7 chord B minor pent.	C# Phrygian mode C minor triad C# minor 7 chord C# minor pent.	D Lydian mode D major triad D major 7 chord D maj. pent.	E Mixolydian mode E major triad E dom. 7 chord E major pent.	F# Aeolian mode F# minor triad F# minor 7 chord F# minor pent.	G# Locrian mode G# dimin. triad G#m7b5 chord G# min. pent. b5
E major (four sharps)	E Ionian mode E major triad E major 7 chord E maj. pent.	F# Dorian mode F# minor triad F# minor 7 chord F# minor pent.	G# Phrygian mode G minor triad G# minor 7 chord G# minor pent.	A Lydian mode A major triad A major 7 chord A maj. pent.	B Mixo. mode B major triad B dom. 7 chord B major pent.	C# Aeolian mode C minor triad C# minor 7 chord C# minor pent.	D# Locrian mode D# dimin. triad D#m7b5 chord D# min. pent. b5
B major (five sharps)	B Ionian mode B major triad B major 7 chord B maj. pent.	C# Dorian mode C# minor triad C# minor 7 chord C# minor pent.	D# Phrygian mode D minor triad D# minor 7 chord D# minor pent.	E Lydian mode E major triad E major 7 chord E maj. pent.	F# Mixolydian mode F# major triad F# dom. 7 chord F# major pent.	G# Aeolian mode G# minor triad G# minor 7 chord G# minor pent.	A# Locrian mode A# dimin. triad A#m7b5 chord A# min. pent. b5
F# major (six sharps)	F# Ionian mode F# major triad F# major 7 chord F# maj. pent.	G# Dorian mode G# minor triad G# minor 7 chord G# minor pent.	A# Phrygian mode A# minor triad A# minor 7 chord A# minor pent.	B Lydian mode B major triad B major 7 chord B maj. pent.	C# Mixolydian mode C# major triad C# dom. 7 chord C# major pent.	D# Aeolian mode D# minor triad D# minor 7 chord D# minor pent.	E# Locrian mode E# dimin. triad E#m7b5 chord E# min. pent. b5

CHORDS AND MODES BY NUMBERED TYPE

What's a V Type Chord?

A V type chord is one that uses the notes in itself, and in the music played during it from a seven-tone scale where the root of the chord is on the fifth step. A major chord may be a I type, IV type or V type, each using a different major scale. A minor chord may be a II type, a III type or a VI type, each using a different major scale.

In a blues in the key of C, the chords C7, F7 and G7 would be used. Each chord is a V type. C7 is on the fifth of an F major scale, F7 on the fifth of a Bb major scale and G7 on the fifth of a C major scale. Yet, you need to also be able to think in the key of "C", so you need to translate the numbered tones each one of those major scales where "C" is "1", which will cause flatted seven or flatted seven and flatted three. See Modes [On I IV V Blues](#).

Why Use a IV Chord as a "V Type"

If a song is in the key of C major and we're on "F", the IV chord, the parent scale would be C major. To change the mood, change the "F" chord quality or setup a chord progression, we can change the scale during the F chord. With the original C major scale, Fma7 has happiness (the F major triad on the root) and sadness (the A minor triad on the third). To darken the F chord, we could use the Bb major scale, making the F as a V type with a darker mood. The V type has components of happiness (the F major triad on the root of F7), depression (the A diminished triad on the third of F7) and the angry tritone (the interval made with the A and Eb notes of F7).

F	Am	Fmaj7	F	F dim	F tritone	F7
major is happy	minor is sad	adds the happy F major and the sad Am minor to make the romantic happy/sad composite, Fmaj7	major is happy	diminished is very sad	tritone is angry	combines happy, very sad and angry to make the complex dominant seventh
T A B	5 7 8	5 5 8	5 5 8	4 5 7	5 7	4 5 8

Making a IV chord a V type is typical of blues and of bluesy jazz. Bluesy jazz songs with IV7 (where the IV chord is a V7 type) include Willow Weep for Me, Sonnymoon for Two, Tenor Madness, All Blues, One For My Baby or There Is No Greater Love.

Determining the Numbered Type for a Chord

In accompaniment and melody both, the notes used during a particular chord are generally taken from a particular heptatonic (seven-tone) scale, like major (most common) or harmonic minor. The seven-tone scale is chosen to produce a particular mood and genre. Making a I or IV chord a V type makes it darker and bluesy. Making a II or II chord a VI type makes it sound like the traditional minor key built on the sixth step of major scales.

If you are analyzing a piece of music as to the numbered types of chords, determine the seven-tone scale used for each chord. Then number the type after the numbered tone that the chord root in question occurs on. If you are in the key of C and an “F” major scale is being used during the Dm chord, you would determine that “D” is on the sixth step of F major and therefore the Dm chord is a VI type.

Changing Key Scale Types

It is very common in contemporary music that the key scale type changes. In a three-chord major blues, each chord is used as a “V type”, meaning each uses a scale where the chords root is on the fifth step of some major scale. To think in the overall key, you need to re-number each major scale with the one note that is the name of the key.

	type	chord scale	chord elaboration	key scale	parent scale	mood/genre
F	I type	F major	Fma7, Fma9	C Mixolydian	F major	blues, folk
G	II type	G Dorian	Gm7, Gm9	C Mixolydian	F major	darkening, blues
C7	V type	C Mixolydian	C7, C9, C13	C Mixolydian	F major	darkening, blues
F7	V type	F Mixolydian	F7, F9, F13	C Dorian	Bb major	darkening, blues
Dm	VI type	D Aeolian	Dm7, Dm9	C Mixolydian	F major	traditional minor
Dm	harmonic minor	D har. minor	Dm(ma7), Dm9(ma7)	C Mixolydian	F major	traditional minor

Modes by Numbered Type

Each major scale mode is built on a particular numbered tone of a major scale. To think major scale modes by numbered type, use the number of the scale step on which the mode was built. Why not use the mode name? You can, but using the number may allow you to think faster.

With modes of harmonic minor and melodic minor, specific names are better.

C major scale modes

C	Ionian	I type
D	Dorian	II type
E	Phrygian	III type
F	Lydian	IV type
G	Mixolydian	V type
A	Aeolian	VI type
B	Locrian	VII type

A harmonic minor

C	major sharp five
D	Dorian sharp two
E	Phrygian major
F	Lydian sharp two
G#	G Mixolydian sharp one
A	harmonic minor
B	Locrian

C melodic minor

C	melodic minor (major b3)
D	Dorian flat two
E \flat	E Phrygian flat one
F	Lydian dominant (b7)
G	Mixolydian flat six
A	Aeolian flat five
B	Super Locrian (b4)

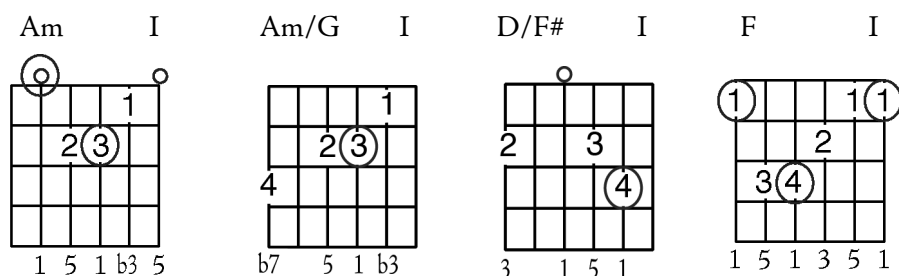
COMPOSING TRIAD PROGRESSION WITH CHANGING MODE

Notes That Change the Key Signature

Use consecutive chords that display the change in key signature when a chromatic voice is effective. Otherwise, disguise it by using avoiding use of the tone that is being altered chromatically (that is being changed chromatically with an accidental, but retaining the same letter or number).

Featuring a Chromatic Key Signature Change

For example, the A Dorian mode has F# as 6. In changing to A Aeolian, the F# which is 6 changes to F, which is b6. In *While My Guitar Gently Weeps*, this changing note is used to cause a chromatic bass part: note the chromatic sequence on the sixth string below (Am/G-D/F#-F). The D chord is in A Dorian with “6” while the F chord is A Aeolian with “b6”.



Disguising a Key Signature Change

Changes of key signatures occur with a change of the major scale. Key signature changes are often disguised, where the melody doesn't use the particular notes that change with the key signatures. Commonly, the change of key signature involves a chord brightening or darkening the mood.

brightening the mood

Brightening the mood can be accomplished by changing a minor chord in one key (Dm as IIm of the C major scale) to the major version of the same chord in another key signature (D major as V major of the G major scale).

[click to play](#)

example 1-Dm changed to D major

♩ = 100

C major scale

example 1 with C major scale-tone Dm changed to G major scale-tone D major

C major scale G major scale C major scale C major scale

darkening the mood

Changing a major chord in one key (F major as IV major of the C major scale) to the minor version of the same scale (Fm as a IIIm of Eb major) will darken the mood. Usually, the scale is chosen that changes the key signature the least.

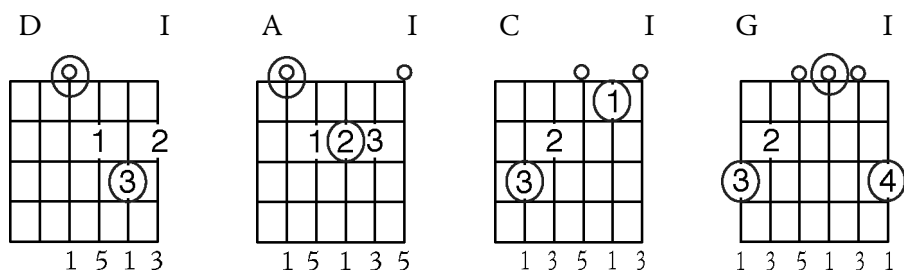
To disguise the key signature change, don't use consecutive chords that have roots with chromatically different versions of the same letter. For example, Bb major as IV of F major to Bm as IIIIm of G major would be conspicuous. Bb major as IV of F (with the note "Bb") progressing to G major as I of G (with the note "B") would be less conspicuous, if the chords had the roots "Bb" and "G" respectively in the bass.

[click to play](#)

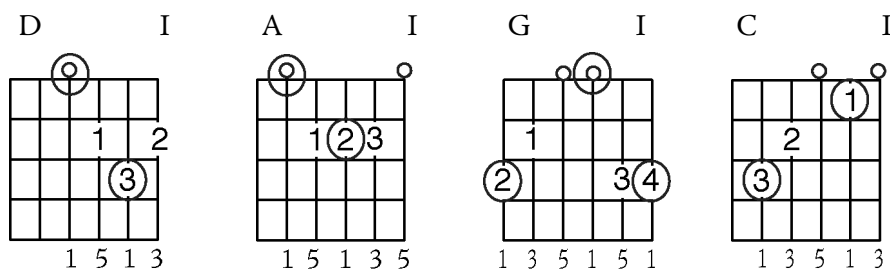
♩ = 90

C major scale C major scale Eb major scale C major scale

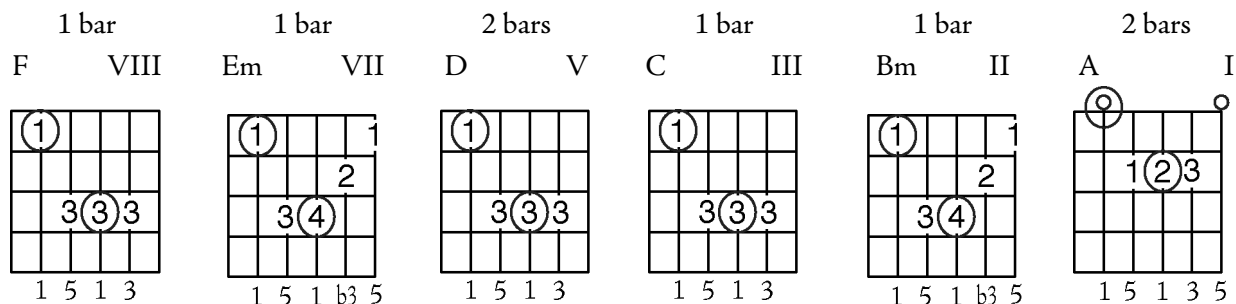
The “D-A-C-G” example below does not *conceal* the key signature change from D major to G major, with the “C#” note in the A chord and the “C” note in the C chord. Instead, it *features* the chromatic series “D-C#-C-B” on the second string. “D” and “A” are the I and V chords of D major, while “C” and “G” are the Iv and I chords of major.



The “D-A-Bm-C” example below makes it less obvious that the “C#” note in the A chord has changed to the “C” note in the C chord, since the A and C chords are not consecutive.



Triad chord progressions up or down stepwise do not include a chromatic key signature change. In the following stepwise sequence of C, G and D major scale-tone chords, changes are disguised. F-Em are IV-III^m of C major scale, D-C are V-IV of G major scale and Bm-A are VI-V of D major scale.



track the numbered tone in triad construction

Each letter that you’re trying to feature or avoid occurs in three triads. If you are aware of the parent scale number of the note you are feature or avoiding, you can determine which chords it is “3”, for example, that would be in the I triad (1-3-5), the III^m triad (3-5-7) and the VI^m triad (6-1-3).

ESTABLISHING A MINOR KEY

Most commonly, a minor key is established on the sixth step of a major scale, making Aeolian mode. A common alternative to the Aeolian mode is harmonic minor scale.

The Parent Major Scale for Aeolian

To determine the parent major scale for any key of Aeolian mode, answer the question, where “X” is the name of the Aeolian key: “if X is six, what is one?” The letter name of the parent major scale would be two letter higher in the musical alphabet and would an interval of one and a half steps (three frets) higher. The table below shows the note names in all major scales. Testing the formula above: “if A Aeolian is six (see in the “6” column, below), what is one?” As you can see, the answer would be C major scale.

table of modes of all major scales

scale tone →	1	2	3	4	5	6	7
mode →	major scale	Dorian mode	Phrygian mode	Lydian mode	Mixolydian mode	Aeolian mode	Locrian mode
parent scale ↓							
C major	C Ionian mode	D Dorian mode	E Phrygian	F Lydian mode	G Mixolydian mode	A Aeolian mode	B Locrian mode
F major (one flat)	F Ionian mode	G Dorian mode	A Phrygian mode	Bb Lydian mode	C Mixolydian mode	D Aeolian mode	E Locrian mode
Bb major (two flats)	Bb Ionian mode	C Dorian mode	D Phrygian mode	Eb Lydian mode	F Mixolydian mode	G Aeolian mode	A Locrian mode
Eb major (three flats)	Eb Ionian mode	F Dorian mode	G Phrygian mode	Ab Lydian mode	Bb Mixolydian mode	C Aeolian mode	D Locrian mode
Ab major (four flats)	Ab Ionian mode	Bb Dorian mode	C Phrygian mode	Db Lydian mode	Eb Mixolydian mode	F Aeolian mode	G Locrian mode
Db major (five flats)	Db Ionian mode	Eb Dorian mode	F Phrygian mode	Gb Lydian mode	Ab Mixo. mode	Bb Aeolian mode	C Locrian mode
Gb major (six flats)	Gb Ionian mode	Ab Dorian mode	Bb Phrygian mode	Cb Lydian mode	Db Mixolydian mode	Eb Aeolian mode	F Locrian mode
G major (one sharp)	G Ionian mode	A Dorian mode	Bb Phrygian mode	C Lydian mode	D Mixolydian mode	E Aeolian mode	F# Locrian mode
D major (two sharps)	D Ionian mode	E Dorian mode	F# Phrygian mode	G Lydian mode	A Mixolydian mode	B Aeolian mode	C# Locrian mode
A major (three sharps)	A Ionian mode	B Dorian mode	C# Phrygian mode	D Lydian mode	E Mixolydian mode	F# Aeolian mode	G# Locrian mode
E major (four sharps)	E Ionian mode	F# Dorian mode	G# Phrygian mode	A Lydian mode	B Mixo. mode	C# Aeolian mode	D# Locrian mode
B major (five sharps)	B Ionian mode	C# Dorian mode	D# Phrygian mode	E Lydian mode	F# Mixolydian mode	G# Aeolian mode	A# Locrian mode
F# major (six sharps)	F# Ionian mode	G# Dorian mode	A# Phrygian mode	B Lydian mode	C# Mixolydian mode	D# Aeolian mode	E# Locrian mode

For a more detailed version of this table with triads, sevenths and pentatonic scales, see [The Modes of All Major Scales](#), earlier in this chapter.

The Minor Key (Cm) V Chord (G)

Since Aeolian is built on major scale tone six, the parent major scale for C Aeolian would be Eb major. The V chord in the key of C Aeolian is G minor, IIIIm of the parent Eb major scale. To strengthen the progression (cadence) from Gm to Cm (Vm of Cm to Im of Cm), the Vm (Gm) can be changed to G major. This makes G a secondary dominant. See “[Secondary Dominant](#)”. Changing Gm7 of the

Eb parent scale to G7 is also a secondary dominant. Adding a harmony to G7, making G7b9 is also a secondary dominant.

As a four-note chord, the Vm7 (Gm7) is commonly changed to V7 (G7). In changing the parent Eb major scale to accommodate the V (G) or V7 (G7) chord, the parent Eb major scale would have sharp five. This creates Eb major sharp five (the sharpened fifth is B natural) with C harmonic minor on its sixth step and G Phrygian dominant on its third step.

Pentatonic Scale Exercises In a Minor Key

c minor pentatonic in sixteenths [click to play](#)

The image displays two systems of musical notation for C minor pentatonic scale exercises in sixteenths. The first system includes 'Swing Sixteenths' (♩ = 95) and 'Straight Sixteenths' (♩ = 95) for Cm7 and Abmaj7, each played 3 times. The second system includes 'Swing Sixteenths' (♩ = 95) and 'Straight Sixteenths' (♩ = 95) for Fm7, Cm, Bb, Ab, G, and Cm, with the last four chords played 4 times each. The notation includes treble and bass staves with fingerings (8, 10, 11) and a 'play 3 times' or 'play 4 times' instruction.

the Aeolian key minor triad (Cm) is part of IVm9 (Fm9)

emphasize 4, 5 and b7 of the Aeolian key minor pentatonic to sound parts of V7 and V7b9

the Aeolian Im7 (Cm7) is part of IVm11 (Fm11) and bVIIma9 (Abma9)

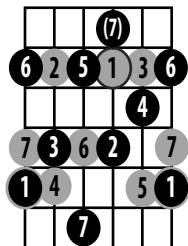
the Aeolian key minor 9 (Cm9) is part of IIIm13 (Fm13) and bVIIma9#11 (Abma9#11)

Six-Tone Scales

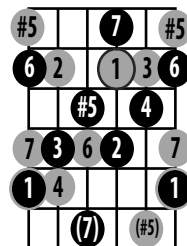
Use G minor pentatonic with natural three, add b2 to emphasize G major triad tones on the beat.

C Aeolian and C Harmonic Minor Scale and Arpeggio Exercises

Eb major scale
fingering 6 VII



Eb major sharp five
fingering 6 VII



The Eb major and Eb major sharp five scale fingerings above alternate notes with black and gray background to create thirds with which to build chords. Playing a major scale or other seven-tone scale in an every-other-note pattern creates thirds, since each note to the next is three scale tones, inclusively

Learn to think and play all major scale fingerings in such a structure, called *full tertian* scales. “Tertian” means “made of thirds”. All the triads, sevenths, ninth, eleventh and thirteenth arpeggios are embodied in tertian fingerings. See [“Scale-Tone Arpeggios and Pentatonics”/Major Scale-Tone Full-Tertian Arpeggios](#) and [“Prime Scales, Chords and Arpeggios”/Seven-Tone Scales In Seven Areas with Tertian Fingerings In Black and Gray](#).

The mode on III of Eb major sharp five is III (G) Phrygian dominant. Important subsets of (G) Phrygian dominant are:

1. G minor pentatonic with a natural third
2. G minor pentatonic with natural three, add b2
3. G7 arpeggio
4. G7b9 arpeggio
5. Bdim7=Ddim7=Fdim7=Abdim7 (synonyms)=G7b9 no root.

The three unique diminished sevenths for all twelve keys are spelled: ACEbF#, BDFG#(Ab) and EGBbC#.

Octatonic Scales

C Aeolian add natural seven to emphasize Cm7 tones on the beat. G Phrygian dominant add natural seven to emphasize G7 tones on the beat.

MODES ON I IV V BLUES

Predicting the Melody

The listener predicts the melody along with the composer or improviser, in that one should mainly compose or improvise what the listener expects. In doing that, the listener expects melodies to be based on a key, with various versions of scales named after the key.

To accommodate the various chords and moods that occur during a chord progression, a melody, commonly uses multiple scales. Every scale usually has the overall tone center (the tonic) in it.

The Common Twelve-Bar, I IV V Blues Chord Progression

C7 (I7)	C7 (I7)	C7 (I7)	C7 (I7)
F7 (IV7)	F7 (IV7)	C7 (I7)	C7 (I7)
G7 (V7)	F7 (IV7)	C7 (I7)	G7 (V7)

Key Scale, Chord Scale and Parent Scale in Blues

key scale blues

As music repertoire demonstrates overwhelmingly, key scales predominate over chord scales. Although it is important for the melody to harmonize with each chord in the accompaniment, it is more important to somehow simultaneously make consistent reference chords and scales named after the key. This aurally provides a focal point and harmonies of it for the listener. If the song is in the key of “C”, listeners have been trained to expect the focal point to be on the note “C” and to expect various types “C” chords and “C” scales to support it. The “C” chords may be part of other chords, such as C minor (C-Eb-G) being part of F9 (F-A-C-Eb-G).

blues darkens the I chord with flat seven of the key

The seventh chord built on the first step of a major scale is major seventh. Blues usually uses a I dominant seventh chord (I7, C7 in the key of C). The I7 has a flatted seventh, compared to a major scale. Major scale with flatted seventh makes Mixolydian mode. C major scale with flat seven is C Mixolydian.

blues darkens the IV chord with flat three of the key

Blues usually uses a IV7 version for its IV chord. IVma7 is 4-6-1-3 of the parent major scale (Fma7 is 4-6-1-3 of C major) and IV7 would be 4-6-1-b3 of the parent major scale (F7 is 4-6-1-b3 of C major, see All Scale-Tone Chords/Major Scale-Tone Chords). This is why IV7 (F7) uses a parent major scale

with a flat three. Since flattening only the third makes the melodic minor scale, not commonly used in blues, usually $b3$ and $b7$ are both used in blues, making a Dorian key scale. C major $b3$, $b7$ is C Dorian key scale, Bb major parent scale and F Mixolydian chord scale during an F7 chord in the key of C.

I-IV-V key-scale blues in C with Ima69, Im711, Vma69 - [click to play video](#)

Swing Sixteenths
♩ = 95

C7

5

F7

C7

9

G7

C7

I-IV-V key-scale blues in C with Ima69, Im69, V711 - [click to play video](#)

Swing Sixteenths
♩ = 95

C7

5

F7

C7

9

G7

C7

chord scale blues

The use of chord scales in building a melody can tend to segment the music, making melody in the key of each chord and segment the melody, losing the overall sense of key. However, it can be made to work, as has been done in surf instrumentals and blues instrumentals like Freddy King's Hideaway and Frank Virtue's Guitar Boogie Shuffle. To make chord melody work, it helps to use theme and variation, playing the same theme in the key of each chord to tie the chords together.

I-IV-V Chord Scale Blues with 7/11 Pentatonic - [click to play video](#) [rhythm track](#)

Swing Eighths

♩ = 160

solo 1

solo 2

I-IV-V chord scale blues example with I ma pent, IV ma pent, V ma pent - [click to play video](#)

This blues improv example uses scales in the key of each chord. During each chord the melody makes sense to the ear, but it doesn't establish the overall sense of key like the key scale blues examples after it.

Swing Sixteenths
♩ = 95

The musical score is divided into three systems, each representing a different chord: C7, F7, and G7. Each system includes a treble clef staff with a key signature of one sharp (F#) and a 4/4 time signature. Below each staff is a guitar fretboard diagram with two lines, T (Treble) and B (Bass). The first system is for a C7 chord, the second for an F7 chord, and the third for a G7 chord. The melody is written in eighth and sixteenth notes, often beamed together. The fretboard diagrams show fingerings for each note, with some notes marked with a 1/4 note value. The piece ends with a double bar line.

Scale Tone Seventh Chords

Four-note chords are built on each step of a major scale with an every-other-note design are called “seventh chords”. See [Scale-Tone Seventh Progression/Constructing Major Scale-Tone Seventh Chords](#). As you can see below, they include four qualities: Major seventh, minor seventh, dominant seventh and minor seventh flat five.

The seventh chord built on step five is a dominant seventh chord, confusingly given the common abbreviated quality name “seventh chord” in the archaic musical tradition. So, C7 is only part of the F major scale, built on the fifth of the F major scale. F7 is only part of the Bb major scale, built on the fifth of the Bb major scale. G7 is only part of the C major scale, built on the fifth of the C major scale.

- Built on step one of its parent major scale, 1-3-5-7, makes a major seventh chord.
- Built on step two of its parent major scale, 2-4-6-1, makes a minor seventh chord.
- Built on step three of its parent major scale, 3-5-7-2, makes a minor seventh chord.
- Built on step four of its parent major scale, 4-6-1-3, makes a major seventh chord.
- Built on step five of its parent major scale, 5-7-2-4, makes a dominant seventh chord.
- Built on step six of its parent major scale, 6-1-3-5, makes a minor seventh chord.
- Built on step seven of its parent major scale, 7-2-4-6, makes a minor seventh flat five chord.

Chord Scales

Key scales are more important perspectives than chord scales. Key scales are more complex, though and they are covered below after chord scales, which are conceptually more straight-forward. For chord scales, you make one modification to a major scale named after the chord.

Each of these seventh chords are constructed with tones 1, 3, 5 and b7 of a major scale named after the chord root. So, F7 uses 1-3-5-b7 or F-A-C-Eb of an F major scale. In each case, the scale is Mixolydian named after the chord root. C uses C Mixolydian, F uses F Mixolydian and G uses G Mixolydian.

12 bar blues in C with chord scales

C7 (I7)	C7 (I7)	C7 (I7)	C7 (I7)
C Mixolydian			
F7 (IV7)	F7 (IV7)	C7 (I7)	C7 (I7)
F Mixolydian		C Mixolydian	
G7 (V7)	F7 (IV7)	C7 (I7)	G7 (V7)
G Mixolydian	F Mixolydian	C Mixolydian	G Mixolydian

C Mixolydian for C7

F major with focus on “C” by starting and ending on C (the key of our blues) with the focus on C, the fifth step of a major scale, this can be called “C Mixolydian”

C major 6/9 pentatonic is a commonly-used subset of the C Mixolydian mode (scale)

C7/11 pentatonic is a commonly-used subset of the C Mixolydian scale. It is Cm7/11 pentatonic with a major third.

tones in C

1 1 1 1 3 1 3 2 3 1 4 1 4 4 1 4 1 3 1 2 3 1 3 1 1 2 3

8 6 7 8 10 8 10 8 9 10 8 11 12 8 6 8 10 8 9 10 8 10 8 6 7 8

F Mixolydian for F7

Bb major with focus on “F” by starting and ending on F (the key of our blues) with the focus on F, the fifth step of a major scale, this can be called “F Mixolydian”

tones in Bb 5 6 7 1 2 3 4 5 4 3 2 1 7 6 5

tones in F 1 2 3 4 5 6 b7 1 b7 6 5 4 3 2 1

fingers 2 4 1 2 4 1 3 4 3 1 4 2 1 4 2

TAB 8 10 7 8 10 7 8 10 8 7 10 8 7 10 8

F Mixolydian extended range

tones in Bb 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 4 3 2 1 7 6 5 4 3 2 1 7 6 5 4 3 2 3 4 5


tones in F 1 2 3 4 5 6 b7 1 2 3 4 5 6 b7 1 b7 6 5 4 3 2 1 b7 6 5 4 3 2 1 b7 6 5 6 b7 1

fingers 2 4 1 2 4 1 2 4 1 3 4 1 1 2 4 2 1 1 4 3 1 4 2 1 4 2 1 4 2 1 4 2 4 1 2

T			8 10 11 13 11	10 8		
A		7 8 10		11 10 8	10 8 7	
B	8 10					10 8 7
						10 8 6
						10 8
						10 6 8

G Mixolydian for G7

C major scale with focus on “G” by starting and ending on G with the focus on G, the fifth step of a major scale., called “G Mixolydian mode”.



tones in C 5 6 7 1 2 3 4 5 4 3 2 1 7 6 5

tones in G 1 2 3 4 5 6 b7 1 b7 6 5 4 3 2 1

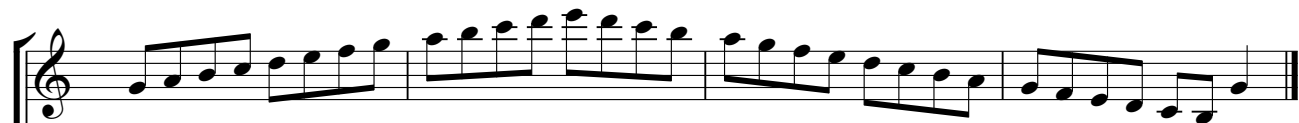
fingers 4 1 3 4 1 3 4 2 4 3 1 4 3 1 4

T 7 9 10 8

A 10 7 9 10 7 9 10 8

B 10 7 9 10 7 9 10 8

G Mixolydian extended range



tones in C 5 6 7 1 2 3 4 5 6 7 1 2 3 2 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1 7 5

tones in G 1 2 3 4 5 6 b7 1 2 3 4 5 6 5 4 3 2 1 b7 6 5 4 3 2 1 b7 6 5 4 3 1

fingers 4 1 3 4 1 2 3 1 3 4 1 3 4 3 1 4 3 1 4 3 1 4 3 1 4 2 1 4 2 1 4

T 7 9 10 8 10 7 8 10 12 10 8 7 10 8 10 9 7 10 9 7 10 8 7 10 8 7

A 10 7 9 10 7 9 10 8 10 7 8 10 12 10 8 7 10 8 10 9 7 10 9 7 10 8 7 10 8 7

B 10 7 9 10 7 9 10 8 10 7 8 10 12 10 8 7 10 8 10 9 7 10 9 7 10 8 7 10 8 7

Parent Scales For I-IV-V Blues

12 bar blues in C with chord scales and parent scales

chords	C7 (I7)	C7 (I7)	C7 (I7)	C7 (I7)
chord scales	C Mixolydian			
parent scales	F major			
chords	F7 (IV7)	F7 (IV7)	C7 (I7)	C7 (I7)
chord scales	F Mixolydian		C Mixolydian	
parent scales	Bb major		F major	
chords	G7 (V7)	F7 (IV7)	C7 (I7)	G7 (V7)
chord scales	G Mixolydian	F Mixolydian	C Mixolydian	G Mixolydian
parent scales	C major	Bb major	F major	C major

C major scale for two octaves and a third

tones in C 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 2 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1

fingers 2 4 1 2 4 1 3 4 1 2 3 1 3 4 1 3 4 3 1 4 3 1 3 2 1 4 3 1 4 2 1 4 2

T 8 10 7 8 10 7 9 10 7 9 10 8 10 12 8 10 12 10 8 12 10 8 10 9 7 10 9 7 10 8 7 10 8

A 8 10 7 8 10 7 9 10 7 9 10 8 10 12 8 10 12 10 8 12 10 8 10 9 7 10 9 7 10 8 7 10 8

B 8 10 7 8 10 7 9 10 7 9 10 8 10 12 8 10 12 10 8 12 10 8 10 9 7 10 9 7 10 8 7 10 8

F major scale for one octave

tones in F 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1

2 4 1 2 4 1 3 4 3 1 2 4 1 4 2

T 8 10 7 8 10 7 9 10 9 7 10 8 7 10 8

A 8 10 7 8 10 7 9 10 9 7 10 8 7 10 8

B 8 10 7 8 10 7 9 10 9 7 10 8 7 10 8

F major scale with extended upper and lower range

tones in F 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1 7 6 5 6 7 1

2 4 1 2 4 1 2 3 1 3 4 1 1 3 4 3 1 1 4 3 1 3 2 1 4 2 1 4 2 1 4 2 4 1 2

T 8 10 7 8 10 7 9 10 8 10 11 8 10 12 13 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 7 10 8 10 7 8

A 8 10 7 8 10 7 9 10 8 10 11 8 10 12 13 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 7 10 8 10 7 8

B 8 10 7 8 10 7 9 10 8 10 11 8 10 12 13 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 7 10 8 10 7 8

Bb major scale for two octaves and a fourth

tones in Bb 1 2 3 4 5 6 7 1 2 3 4 3 2 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1

1 2 4 1 2 4 1 2 4 1 1 3 1 3 4 1 3 4 3 1 4 3 1 3 1 1 4 2 1 4 2 1 4 2 1

TAB 6 8 10 6 8 10 7 8 10 8 10 11 8 10 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8 6

Parent scales show the notes used in a key scale or chord scale in the most familiar mode, the major scale. The notes of a major scale can be named after any one of the seven notes, as shown below.

Each of the seventh chords used in a I-IV-V blues (I7, IV7 and V7; C7-F7-G7 in the key of C) are constructed with tones 1, 3, 5 and b7 of a major scale named after the chord root. The seventh chord, used for every chord in this I IV V blues only occurs on the fifth step of a major scale, as shown in the bottom row of each table below.

modes of the C major parent scale

letter name	C	D	E	F	G	A	B
mode name	C Ionian or C major	D Dorian	E Phrygian	F Lydian	G Mixolydian	A Aeolian	B Locrian
scale-tone seventh	C major 7 (C-E-G-B)	D minor 7 (D-F-A-C)	E minor 7 (E-G-B-D)	F major 7 (F-A-C-E)	G7 (G-B-D-F)	A minor 7 (A-C-E-G)	Bm7b5 (B-D-F-A)

5, 7, 2. 4 of the C major scale makes G7 with G, B, D and F notes.. So does 1-3-5-b7 of the G major scale with notes G, B, D and F.

modes of the F major parent scale

letter name	F	G	A	Bb	C	D	E
mode name	F Ionian or F major	G Dorian	E Phrygian	Bb Lydian	C Mixolydian	D Aeolian	E Locrian
scale-tone seventh	F major 7 (F-A-C-E)	G minor 7 (G-Bb-D-F)	A minor 7 (A-C-E-G)	Bb major 7 (Bb-D-F-A)	C7 (C-E-G-Bb)	D minor 7 (D-F-A-C)	Em7b5 (E-G-Bb-D)

5, 7, 2, 4 of the F major scale makes C7 with C, E, G and Bb notes.. So does 1, 3, 5, b7 of the C major scale with notes C, E, G and Bb.

modes of the Bb major parent scale

letter name	Bb	C	D	Eb	F	G	A
mode name	Bb Ionian or Bb major	C Dorian	D Phrygian	Eb Lydian	F Mixolydian	G Aeolian	A Locrian
scale-tone seventh	Bb major 7 (Bb-D-F-A)	C minor 7 (C-Eb-G-Bb)	D minor 7 (D-F-A-C)	Eb major 7 (Eb-G-Bb-D)	F7 (FACEb)	G minor 7 (G-Bb-D-F)	Am7b5 (A-C-Eb-G)

5-7-2-4 of the Bb major scale makes F7 with C, E, G and Bb notes.. So does 1-3-5-b7 of the F major scale with notes C, E, G and Bb.

Therefore, using only the common major scales as a resource for notes, each seventh chord comes from a major scale where it is the fifth step of that major scale. So, for each chord (C7, F7 and G7), you need to figure out what major scale has the root of the chord on its fifth step.

Key Scales For I-IV-V Blues

As stated at the beginning of this Modes On I-IV-V Blues section:

The listener predicts the melody along with the composer or improviser, in that one should mainly compose or improvise what the listener expects. In doing that, the listener expects melodies to be based on a key, with various versions of scales named after the key.

To determine the key scales, find the tone center (C) in each one of the parent scales and use the mode name associated with the scale step on which it occurs.

Putting the focus on “C” satisfies the listeners need for a uniform key. This focus will be done in melody with various devices to emphasize the note C or notes in some kind of C chord. Those melodic devices include:

- ✦ putting the tone center (C) or notes in a tonic chord (some kind of C chord) on the beat, especially the first beat and secondly the beat at a simple division of the bar like half way through on the third beat of four beats
- ✦ ending phrases with the tone center (C)
- ✦ playing the tone center (C) often in the melody
- ✦ a pivot point, where every second note or every third note is the tone center (C)
- ✦ emulating cadences that resolve to C, like emphasizing the notes of a G7 chord which leads

to C, followed by emphasizing the notes of a C chord.

- ✦ playing familiar themes or “licks” that are aurally known to establish the tone center

To satisfy the listeners need for a uniform key by putting the focus on “C” in accompaniment (comping), harmonic devices include:

- ✦ frequent occurrence
- ✦ longer duration
- ✦ chord root (note after which a chord is named) movement up or down a scale to the tonic chord
- ✦ continual occurrence of the chord root of the tonic chord in the bass (even when the chord name is different, such as a G tonic chord combined with a C chord with a G bass)
- ✦ well-known chord sequences called cadences that we have known to establish a chord as a key

Sometimes there may ambiguously be two chords “fighting” for the sense of key, but usually one chord predominates as the tonic chord. Sometimes the ending does not sound final, and a piece may end with a deceptive cadence. In such a case, you are challenged to imagine what the ending chord should be to make the ending of the piece sound final and complete.

12 bar blues in C with chord scales, parent scales and key scales

chords	C7 (I7)	C7 (I7)	C7 (I7)	C7 (I7)
chord scales	C Mixolydian			
parent scales	F major			
key scales	C Mixolydian (same as chord scale)			
chords	F7 (IV7)	F7 (IV7)	C7 (I7)	C7 (I7)
chord scales	F Mixolydian		C Mixolydian	
parent scales	Bb major		F major	
key scales	C Dorian		C Mixolydian	
chords	G7 (V7)	F7 (IV7)	C7 (I7)	G7 (V7)
chord scales	G Mixolydian	F Mixolydian	C Mixolydian	G Mixolydian
parent scales	C major	Bb major	F major	C major
key scales	C major (same as parent scale)	C Dorian	C Mixolydian	C major

C Mixolydian for C7

F major with focus on “C” by starting and ending on C (the key of our blues) with the focus on C, the fifth step of a major scale, this can be called “C Mixolydian”

tones in C 1 2 3 4 5 6 $\flat 7$ 1 2 3 4 5 6 $\flat 7$ 1 2 3 2 1 $\flat 7$ 6 5 4 3 2 1 $\flat 7$ 6 5 4 3 2 1

2 4 1 2 4 1 2 4 1 2 3 1 3 4 1 3 4 3 1 4 3 1 3 2 1 4 2 1 4 2 1 4 2

T 8 10 7 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8

A 8 10 7 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 11 10 8 10 9 7 10 8 7 10 8

B 8 10 7 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 11 10 8 10 9 7 10 8 7 10 8

C major 6/9 pentatonic is a commonly-used subset of the C Mixolydian mode (scale)

tones in C 1 2 3 5 6 1 2 3 5 6 1 2 3 2 1 6 5 3 2 1 6 5 3 2 1

2 4 1 4 1 4 1 2 1 3 1 3 4 3 1 3 1 2 1 4 1 4 1 4 2

T 8 10 7 10 7 10 7 9 8 10 8 10 12 10 10 10 8 9 7 10 7 10 7 10 7 10 8

A 8 10 7 10 7 10 7 9 8 10 8 10 12 10 10 10 8 9 7 10 7 10 7 10 7 10 8

B 8 10 7 10 7 10 7 9 8 10 8 10 12 10 10 10 8 9 7 10 7 10 7 10 7 10 8

C7/11 pentatonic is a commonly-used subset of the C Mixolydian scale. It is Cm7/11 pentatonic with a major third.

tones in C 1 $\flat 3$ 3 4 5 $\flat 7$ 1 $\flat 3$ 3 4 5 $\flat 7$ 1 $\flat 3$ 3 1 $\flat 7$ 5 4 $\flat 3$ 3 1 $\flat 7$ 5 4 $\flat 3$ 3 1

1 1 1 1 3 1 3 2 3 1 4 1 4 4 1 4 1 3 1 2 3 1 3 1 1 2 3

T 8 11 12 8 6 8 10 8 9 10 8 11 12 8 6 8 10 8 9 10 8 10 8 10 8 6 7 8

A 8 11 12 8 6 8 10 8 9 10 8 11 12 8 6 8 10 8 9 10 8 10 8 10 8 6 7 8

B 8 11 12 8 6 8 10 8 9 10 8 11 12 8 6 8 10 8 9 10 8 10 8 10 8 6 7 8

C Dorian for F7

Bb major scale with focus on “C” by starting and ending on C (the key of our blues) with the focus on C, the second step of a major scale, this can be called “C Dorian”.

tones in C 1 2 $\flat 3$ 4 5 6 $\flat 7$ 1 2 $\flat 3$ 4 5 6 $\flat 7$ 1 2 $\flat 3$ 2 1 $\flat 7$ 6 5 4 $\flat 3$ 2 1 $\flat 7$ 6 5 4 $\flat 3$ 2 1

2 4 1 2 4 1 2 4 1 1 3 1 3 4 1 3 4 3 1 4 3 1 3 1 1 4 2 1 4 2 1 4 2

TAB: 8 10 6 8 10 7 8 10 7 8 10 8 10 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8

C minor 6/9 pentatonic is a commonly-used subset of the C Dorian mode (scale)

tones in C 1 2 $\flat 3$ 5 6 1 2 $\flat 3$ 5 6 1 2 $\flat 3$ 2 1 6 5 $\flat 3$ 2 1 6 5 $\flat 3$ 2 1

2 4 1 4 1 4 1 1 1 3 1 3 4 3 1 3 1 1 1 4 1 4 1 4 2

TAB: 8 10 6 10 7 10 7 8 8 10 8 10 11 10 8 10 8 8 7 10 7 10 6 10 8

Fingering

The most common area for improv (composing melody) in the key of C major (as in the blues in C we are considering) is seventh and eighth position. Those three scales are shown below in the seventh and eighth position area. Each major scale is shown first in its original state with the focus on major scale tone one, playing F for the F major scale and Bb to Bb for the Bb major scale. Afterward, each the F and Bb major scales are shown with the focus on the note “C”, which each of them include.

C major scale and subsets for Blues in C

C major scale for two octaves and a third

tones in C 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 2 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1

fingers 2 4 1 2 4 1 3 4 1 2 3 1 3 4 1 3 4 3 1 4 3 1 3 2 1 4 3 1 4 2 1 4 2

T 8 10 7 9 10 8 10 12 12 10 8 10 9 7 10 9 7 10 8 7 10 8

A 7 8 10 7 9 10 8 10 12 12 10 8 10 9 7 10 9 7 10 8 7 10 8

B 8 10 7 8 10 7 9 10 8 10 12 12 10 8 10 9 7 10 9 7 10 8 7 10 8

C major 6/9 pentatonic is a commonly-used subset of the C major scale

tones in C 1 2 3 5 6 1 2 3 5 6 1 6 5 3 2 1 6 5 3 2 1

fingers 2 4 1 4 1 4 1 2 1 3 1 3 1 2 1 4 1 4 1 4 2

T 8 10 7 10 7 10 7 9 8 10 8 10 8 9 7 10 7 10 7 10 8

A 8 10 7 10 7 10 7 9 8 10 8 10 8 9 7 10 7 10 7 10 8

B 8 10 7 10 7 10 7 9 8 10 8 10 8 9 7 10 7 10 7 10 8

G Mixolydian mode (scale) for G7. C major scale with focus on “G” by starting and ending on G with the focus on G, the fifth step of a major scale.

tones in C 5 6 7 1 2 3 4 5 4 3 2 1 7 6 5

tones in G 1 2 3 4 5 6 b7 1 b7 6 5 4 3 2 1

fingers 4 1 3 4 1 3 4 2 4 3 1 4 3 1 4

T 10 7 9 10 7 9 10 8 10 9 7 10 9 7 10

A 10 7 9 10 7 9 10 8 10 9 7 10 9 7 10

B 10 7 9 10 7 9 10 8 10 9 7 10 9 7 10

C Mixolydian scale and subsets for Blues in C

F major scale for one octave

tones in F 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1

2 4 1 2 4 1 3 4 3 1 2 4 1 4 2

T 8 10 7 8 10 7 9 10 9 7 10 8 7 10 8

A 8 10 7 8 10 7 9 10 9 7 10 8 7 10 8

B 8 10 7 8 10 7 9 10 9 7 10 8 7 10 8

F major scale with extended upper and lower range

tones in F 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1 7 6 5 6 7 1

2 4 1 2 4 1 2 3 1 3 4 1 1 3 4 3 1 1 4 3 1 3 2 1 4 2 1 4 2 1 4 2 4 1 2

T 8 10 7 8 10 7 9 10 8 10 11 8 10 12 13 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 10 7 8

A 8 10 7 8 10 7 9 10 8 10 11 8 10 12 13 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 10 7 8

B 8 10 7 8 10 7 9 10 8 10 11 8 10 12 13 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 10 7 8

C Mixolydian

F major with focus on "C" by starting and ending on C (the key of our blues) with the focus on C, the fifth step of a major scale, this can be called "C Mixolydian"

tones in C 1 2 3 4 5 6 b7 1 2 3 4 5 6 b7 1 2 3 2 1 b7 6 5 4 3 2 1 b7 6 5 4 3 2 1

2 4 1 2 4 1 2 4 1 2 3 1 3 4 1 3 4 3 1 4 3 1 3 2 1 4 2 1 4 2 1 4 2

T 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 10 7 8

A 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 10 7 8

B 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 11 10 8 10 9 7 10 8 7 10 8 7 10 8 10 7 8

C major 6/9 pentatonic is a commonly-used subset of the C Mixolydian mode (scale)

tones in C 1 2 3 5 6 1 2 3 5 6 1 2 3 2 1 6 5 3 2 1 6 5 3 2 1

2 4 1 4 1 4 1 2 1 3 1 3 4 3 1 3 1 2 1 4 1 4 1 4 2

T 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 10 10 8 9 7 10 7 10 7 10 7 10 8

A 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 10 10 8 9 7 10 7 10 7 10 7 10 8

B 8 10 7 8 10 7 9 10 8 10 11 8 10 12 10 8 10 10 8 9 7 10 7 10 7 10 7 10 8

C7/11 pentatonic is a commonly-used subset of the C Mixolydian scale. It is Cm7/11 pentatonic with a major third.

tones in C 1 $\flat 3$ 3 4 5 $\flat 7$ 1 $\flat 3$ 3 4 5 $\flat 7$ 1 $\flat 3$ 3 1 $\flat 7$ 5 4 $\flat 3$ 3 1 $\flat 7$ 5 4 $\flat 3$ 3 1

1 1 1 1 3 1 3 2 3 1 4 1 4 4 1 4 1 3 1 2 3 1 3 1 1 2 3

T 8 11 8 11 12 8 6 8 10 8 9 10 8 10 8 9 10 8 10 8 6 7 8

A 8 6 7 8 10 8 10 8 9 10 8 11 8 10 8 9 10 8 10 8 6 7 8

B 8 6 7 8 10 8 10 8 9 10 8 11 8 10 8 9 10 8 10 8 6 7 8

C Dorian scale and subsets for Blues in C

Bb major scale for two octaves and a fourth

tones in Bb 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 3 2 1 7 6 5 4 3 2 1 7 6 5 4 3 2 1

1 2 4 1 2 4 1 2 4 1 1 3 1 3 4 1 3 4 3 1 4 3 1 3 1 1 4 2 1 4 2 1 4 2 1

T 8 10 11 10 8 8 10 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8 6

A 6 8 10 6 8 10 7 8 10 7 8 10 8 10 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8 6

B 6 8 10 6 8 10 7 8 10 7 8 10 8 10 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8 6

C Dorian

Bb major scale with focus on "C" by starting and ending on C (the key of our blues) with the focus on C, the second step of a major scale, this can be called "C Dorian".

tones in C 1 2 $\flat 3$ 4 5 6 $\flat 7$ 1 2 $\flat 3$ 4 5 6 $\flat 7$ 1 2 $\flat 3$ 2 1 $\flat 7$ 6 5 4 $\flat 3$ 2 1 $\flat 7$ 6 5 4 $\flat 3$ 2 1

2 4 1 2 4 1 2 4 1 1 3 1 3 4 1 3 4 3 1 4 3 1 3 1 1 4 2 1 4 2 1 4 2

T 8 10 11 10 8 8 10 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8 6 10 8 6

A 8 10 6 8 10 7 8 10 7 8 10 8 10 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8 6

B 8 10 6 8 10 7 8 10 7 8 10 8 10 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8 6

C minor 6/9 pentatonic is a commonly-used subset of the C Dorian mode (scale)

tones in C 1 2 $\flat 3$ 5 6 1 2 $\flat 3$ 5 6 1 2 $\flat 3$ 2 1 6 5 $\flat 3$ 2 1 6 5 $\flat 3$ 2 1

2 4 1 4 1 4 1 1 1 3 1 3 4 3 1 3 1 1 1 4 1 4 1 4 2

T
A
B
8 10 6 10 7 10 7 8 8 10 8 10 11 10 8 10 8 7 10 7 10 6 10 8

C minor 7/11 pentatonic is a commonly-used subset of the C Dorian mode (scale)

tones in C 1 $\flat 3$ 4 5 $\flat 7$ 1 $\flat 3$ 4 5 $\flat 7$ 1 $\flat 3$ 1 $\flat 7$ 5 4 $\flat 3$ 1 $\flat 7$ 5 4 $\flat 3$ 1

3 1 3 3 1 3 1 3 1 4 1 4 1 4 1 3 1 3 1 3 1 1 3

T
A
B
8 6 8 10 8 10 8 10 8 6 8 11 8 6 8 10 8 10 8 10 8 6 8

F Mixolydian

B \flat major with focus on “F” by starting and ending on F (the key of our blues) with the focus on F, the fifth step of a major scale, this can be called “F Mixolydian”

tones in B \flat 5 6 7 1 2 3 4 5 4 3 2 1 7 6 5

tones in F 1 2 3 4 5 6 $\flat 7$ 1 $\flat 7$ 6 5 4 3 2 1

fingers 2 4 1 2 4 1 3 4 3 1 4 2 1 4 2

T
A
B
8 10 7 8 10 7 8 10 8 7 10 8 7 10 8

F Mixolydian extended range

tones in B \flat 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 4 3 2 1 7 6 5 4 3 2 1 7 6 5 4 3 2 3 4 5

tones in F 1 2 3 4 5 6 $\flat 7$ 1 2 3 4 5 6 $\flat 7$ 1 $\flat 7$ 6 5 4 3 2 1 $\flat 7$ 6 5 4 3 2 1 $\flat 7$ 6 5 6 $\flat 7$ 1

fingers 2 4 1 2 4 1 2 4 1 3 4 1 1 2 4 2 1 1 4 3 1 4 2 1 4 2 1 4 2 1 4 2 4 1 2

T
A
B
8 10 7 8 10 7 8 10 8 10 11 8 10 11 13 11 10 8 11 10 8 10 8 7 10 8 7 10 8 6 10 8 6 8

MODES ON JAZZ BLUES

(also called swing blues)

study [modes on I IV V blues](#) first

The Jazz Blues Chord Progression

C7 (I7)	F7 (IV7)	C7 (I7)	C7 (I7)
F7 (IV7)	F#dim.7 (#IVdim.7)	C7 (I7)	A7 (VI7)
Dm7 (IIIm7)	G7 (V7)	C7 (I7) A7(VI7)	Dm7 (IIIm7) G7(V7)

#IV Diminished Seventh

This common version of the jazz blues (swing blues) chord progression has a IV7 chord in bar 2. After a bar of IV7 in bar five, bar six is #@IVdim7. Sharp #IVdim7 has the same notes as IV7, but with a sharp root. The bass player could still play the root of the IV chord (not sharpened), since the chord could be interpreted as IV7b9, since IV9b9 with no root is #IVdim7.

C7 (I7)	F7 (IV7)	C7 (I7)	C7 (I7)
F7 (IV7)	F#dim.7 (#IVdim.7) = F7b9 (IV7b9) no root	C7 (I7)	A7 (VI7)
Dm7 (IIIm7)	G7 (V7)	C7 (I7) A7(VI7)	Dm7 (IIIm7) G7(V7)

The II-V Cadence

Instead of the V-IV cadence in bars nine and ten of the I-IV-V blues, the jazz blues uses IIIm7 V7. This typically suggests scales with brighter mood, like key major or key Mixolydian, since IIIm7-V7 is created directly from the major scale.

The VI-II-V-I Turnaround

To strengthen the II-V cadence, the jazz blues almost always (except for a few songs like Ray Charles' "It Should've Been Me") precedes the IIIm chord with a VI7. The VI7 is often treated as a V of a minor key, as if IIIm is Aeolian mode (or harmonic minor scale).

Typical Jazz Blues Chord Scales

C7 (I7)	F7 (IV7) F7(b9)	C7 (I7)	C7 (I7)
C Mixolydian	F Mixolydian F Mixolydian b2	C Mixolydian	
F7 (IV7)	F#dim.7 (#IVdim.7) = F7b9 (IV7b9) no root	C7 (I7)	A7 (VI7)
F Mixolydian	F Mixolydian b2	C Mixolydian	A Phrygian major
Dm7 (IIIm7)	G7 (V7)	C7 (I7) A7(VI7)	Dm7 (IIIm7) G7(V7)
C major		C major A Phry. major	D Dorian G Mixolydian

Mixolydian b2 as a chord scale for #IV diminished seventh

Mixolydian b2 is not a well-known scale, but in jazzy melody on a #IV diminished seventh, its notes are often used. If you are using IV Mixolydian (key scale Dorian) on a IV7 chord followed by a #IV diminished seventh or IV7b9 you will play the #4 tone of the key, which is the root of the #IVdim.7 and is the “b9” of the IV7b9. This would actually be using the chord scale IV (F) Mixolydian b2.

F Mixolydian b2 is an F major scale with b2 and b7. Here is an “evolution” of formulas from F major to F Mixolydian b2:

scale	formula	numbered and lettered scale tones.....							
F major scale	(all natural)	1	2	3	4	5	6	7	
		F	G	A	Bb	C	D	E	
F Mixolydian	b7	1	2	3	4	5	6	b7	
		F	G	A	Bb	C	D	Eb	
F Mixolydian b2	b2, b7	1	b2	3	4	5	6	b7	
		F	Gb	A	Bb	C	D	Eb	

The formula for F7b9 is 1-3-5-b7-b9. “b9” is the same as “b2”. “b9” implies “b2” should be voiced in the upper octave. As you can see by the table above, F Mixolydian b2 has all of the notes of F7b9.

Phrygian major as a chord scale for VI7

The VI7 chord will be treated as a V chord of the IIIm, as if the IIIm has a harmonic minor chord scale. The mode for the V chord in harmonic minor has the tones of a seventh chord: 1-3-5-b7. It also has the tones a half step above each note of its major triad basis (1-3-5): b2, 4 and 6 (which make a bII major triad in the key of the chord root).

We'll be using A Phrygian major as the chord scale for VI7. A Phrygian major is an A major scale with b2, b6 and b7. Here is an "evolution" of formulas from A major to A Phrygian major:

scale	formula	numbered and lettered scale tones.....						
A major scale	(all natural)	1	2	3	4	5	6	7
		A	B	C#	D	E	F#	G#
A Phrygian	b2, b3, b6, b7	1	2	b3	4	5	b6	b7
		A	Bb	C	D	E	F	G
A Phrygian major	b2, b6, b7	1	b2	3	4	5	6	b7
		A	Bb	C#	D	E	F	G

simple major modes as chord scales for IIm and V

At first, use the straightforward major modes for IIm and V: II Dorian for the II chord and V Mixolydian. Later, you can do more exotic things like playing a minor II V in their place, or additionally using a melodic minor-based [flat five substitute](#) for the V chord (bII7 instead of V7). See [Flat Five Substitute Chord Progression](#).

We'll be using D Dorian as the chord scale for IIm7 (Dm7). D Dorian is a D major scale with b3 and b7. Here is an "evolution" of formulas from D major to D Dorian:

scale	formula	numbered and lettered scale tones.....						
D major scale	(all natural)	1	2	3	4	5	6	7
		D	E	F#	G	A	B	C#
D Dorian	b3, b7	1	2	b3	4	5	b6	b7
		D	E	F	G	A	B	C

We'll be using G Mixolydian as the chord scale for V7 (G7). G Mixolydian is a G major scale with b7. Here is an "evolution" of formulas from G major to G Mixolydian:

scale	formula	numbered and lettered scale tones.....						
G major scale	(all natural)	1	2	3	4	5	6	7
		G	A	B	C	D	E	F#
G Mixolydian	b7	1	2	b3	4	5	b6	b7
		G	A	B	C	D	E	F

Jazz Blues Parent Scales

12 bar jazz blues in C with chord scales and parent scales

chords	C7 (I7)	F7 (I7)	C7 (I7)			
chord scales	C Mixolydian	F Mixolydian	C Mixolydian			
parent scales	F major	Bb major	F major			
chords	F7 (IV7)	F#dim7 (IV7)	C7 (I7)	A7 (VI7)		
chord scales	F Mixolydian	F Mixolydian b2	C Mixolydian	A Phrygian major		
parent scales	Bb major	Bb major b6	F major	F maj. sharp five		
chords	Dm7 (IIIm7)	G7 (V7)	C7 (I7)	A7 (IV7)	Dm7 (IIIm7)	G7 (V7)
chord scales	D Dorian	G Mixolydian	C Mixo.	A Phry. dom.	D Dorian	G Mixo.
parent scales	C major	C major	F major maj. #5	F	C major	C major

Jazz Blues Key Scales

12 bar jazz blues in C with chord scales, parent scales and key scales

chords	C7 (I7)	F7 (I7)	C7 (I7)			
chord scales	C Mixolydian	F Mixolydian	C Mixolydian			
parent scales	F major	Bb major	F major			
key scales	C Mixolydian	C Dorian	C Mixolydian			
chords	F7 (IV7)	F#dim7 (IV7)	C7 (I7)	A7 (VI7)		
chord scales	F Mixolydian	F# Mixolydian #1	C Mixolydian	A Phrygian major		
parent scales	Bb major	Bb major #5	F major	F major sharp five		
key scales	C Dorian	C Dorian #4	C Mixolydian	C# Mixolydian sharp one		
chords	Dm7 (IIIm7)	G7 (V7)	C7 (I7)	A7 (IV7)	Dm7 (IIIm7)	G7 (V7)
chord scales	D Dorian	G Mixolydian	C Mixo.	A Phry. dom.	D Dorian	G Mixo.
parent scales	C major	C major	F major	C major #1	C major	C major
key scales	C major	C major	C Mixolydian	C# Mixo. #1	C major	C major

review modes on I IV V blues

If necessary, review [parent scales for I IV V blues](#) before studying the parent scales for the other chords.

I Dorian sharp four for #IV diminished 7

The chord scale for #IV diminished 7 was IV Mixolydian sharp one major which is the mode on the fifth step of major sharp five. In the descending number pattern with the set of modes for major sharp five the modes would be:

mode:	I maj #5	II Dorian #4	III Phry nat3	IV Lyd. #2	#V Mixo. #1	VI Aeo nat.7	VII Loc nat.6
mode:	Bb maj #5	C Dorian #4	D Phry nat3	Eb Lyd. #2	F# Mixo. #1	G Aeo nat.7	A Loc nat.6

For melodic improv, recall blues melody for F7 and F Mixolydian and sharp the F notes. If you are building chords, recall F7 type chords (parts of F13) and sharp the F notes.

The mode on the sixth step of Bb major #5 is G harmonic minor (G Aeolian natural seven). Using this F# Mixolydian sharp one scale (G harmonic minor) can voice lead to the tones of the Gm triad, which is the root, third and fifth of C9 (bar 7), giving the impression that you are progressing to Gm, but actually to Gm as part of C9.

I Mixolydian sharp one scale for VI7

The chord scale for VI7 was Phrygian major which is the mode on the third step of major sharp five. In the descending number pattern with the set of modes for major sharp five the modes would be:

mode:	I maj #5	II Dorian #4	III Phry nat3	IV Lyd. #2	#V Mixo. #1	VI Aeo nat.7	VII Loc nat.6
mode:	F maj #5	G Dorian #4	A Phry nat3	B Lyd. #2	C# Mixo. #1	D Aeo nat.7	E Loc nat.6

For melodic improv, recall blues melody for C7 and C Mixolydian and sharp the C notes. If you are building chords, recall C7 type chords (parts of F13) and sharp the C notes.

The mode on the sixth step of F major #5 is D harmonic minor (D Aeolian natural seven). Using this C# Mixolydian sharp one scale (D harmonic minor) can voice lead to the tones of the Dm triad.

SCALE TONE CHORDS OF FOUR HEPTATONIC SCALES

The color codes are:

major	minor	dominant	diminished	augmented
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Major Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	3	4	5	6	7
mode	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
triad tones	major 1-3-5	minor 2-4-6	minor 3-5-7	major 4-6-1	major 5-7-2	minor 6-1-3	dimin. 7-2-4
seventh tones	ma7 1-3-5-7	m7 2-4-6-1	m7 3-5-7-2	ma7 4-6-1-3	7 5-7-2-4	m7 6-1-3-5	m7b5 7-2-4-6
ninth tones	ma9 1-3-5-7-2	m9 2-4-6-1-3	not acceptable	ma9 4-6-1-3-5	9 5-7-2-4-6	m9 6-1-3-5-7	not acceptable
secondary dominant	7 or 9	7 9 or 7#9	7 or 7b9	7 or 9	7, 7#5 or 7#5	7 9 or 7#9	7 or 7b9
key of C#	C#	D#m	E#m	F#	G#	A#m	B#dim
key of F#	F#	G#m	A#m	B	C#	D#m	E#dim.
key of B	B	C#m	D#m	E	F#	G#m	A#dim
key of E	E	F#m	G#m	A	B	C#m	D#dim
key of A	A	Bm	C#m	D	E	F#m	G#dim.
key of D	D	Em	F#m	G	A	Bm	C#dim.
key of G	G	Am	Bm	C	D	Em	F#dim.
key of C	C	Dm	Em	F	G	Am	Bdim.
key of F	F	Gm	Am	Bb	C	Dm	Edim.
key of Bb	Bb	Cm	Dm	Eb	F	Gm	Adim.
key of Eb	Eb	Fm	Gm	Ab	Bb	Cm	Ddim.
key of Ab	Ab	Bbm	Cm	Db	Eb	Fm	Gdim.
key of Db	Db	Ebm	Fm	Gb	Ab	Bbm	Cdim.
key of Gb	Gb	Abm	Bbm	Cb	Db	Ebm	Fdim.
key of Cb	Cb	Dbm	Ebm	Fb	Gb	Abm	Bbdim.

ascending root progression in fourths

	7	3	6	2	5	1	4
mode	Locrian	Phrygian	Aeolian	Dorian	Mixolydian	Ionian	Lydian
triad tones	dimin. 7-2-4	minor 3-5-7	minor 6-1-3	minor 2-4-6	major 5-7-2	major 1-3-5	major 4-6-1
seventh tones	m7b5 7-2-4-6	m7 3-5-7-2	m7 6-1-3-5	m7 2-4-6-1	7 5-7-2-4	ma7 1-3-5-7	ma7 4-6-1-3
ninth tones	not acceptable	not acceptable	m9 6-1-3-5-7	m9 2-4-6-1-3	9 5-7-2-4-6	ma9 1-3-5-7-2	ma9 4-6-1-3-5
secondary dominant	7 or 7b9	7 or 7b9	7 9 or 7#9	7 9 or 7#9	7 or 7#9	7 or 9	7 or 9
key of C#	B#dim.	E#m	A#m	D#m	G#	C#	F#
key of F#	E#dim.	A#m	D#m	G#m	C#	F#	B
key of B	A#dim.	D#m	G#m	C#m	F#	B	E
key of E	D#dim.	G#m	C#m	F#m	B	E	A
key of A	G#dim.	C#m	F#m	Bm	E	A	D
key of D	C#dim.	F#m	Bm	Em	A	D	G
key of G	F#dim.	Bm	Em	Am	D	G	C
key of C	Bdim.	Em	Am	Dm	G	C	F
key of F	Edim.	Am	Dm	Gm	C	F	Bb
key of Bb	Adim.	Dm	Gm	Cm	F	Bb	Eb
key of Eb	Ddim.	Gm	Cm	Fm	Bb	Eb	Ab
key of Ab	Gdim.	Cm	Fm	Bbm	Eb	Ab	Db
key of Db	Cdim.	Fm	Bbm	Ebm	Ab	Db	Gb
key of Gb	Fdim.	Bbm	Ebm	Abm	Db	Gb	Cb
key of Cb	Bbdim.	Ebm	Abm	Dbm	Gb	Cb	Fb

Harmonic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
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stepwise root movement

	1	2	b3	4	5	b6	7
mode	Aeolian	Locrian natural 6	Major #5	Dorian #4	Phrygian dominant	Lydian #2	Mixolyian #1
1	minor 1-b3-5	dimin. 2-4-b6	aug- mented b3-5-7	minor 4-b6-1	major 5-7-2	major b6-1-b3	dimin. 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7b5 2-4-b6-1	ma7#5 b3-5-7-2	m7 4-b6-1- b3	7 5-7-2-4	ma7 b6-1- b3-5	7 7-2-4-b6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7- 2-4	m9 4-b6-1- b3-5	7b9 5-7-2-4- b6	not acceptable	not acceptable
secondary dominant	7, 7#5, 9 or 7#9	7, 7#5 or 7b9	7, 7#5 or 9	7, 9, 7#9 or 7#11	7#9 or 7#5	7 or 7#9	n/a
key of A#m	A#m	B#dim.	C# aug	D#m	E#	F#	G##dim
key of D#m	D#m	E#dim.	F# aug	G#m	A#	B	C## dim
key of G#m	G#m	A#dim.	B aug	C#m	D#	E	F## dim
key of C#m	C#m	D#dim	E aug	F#m	G#	A	B# dim
key of F#m	F#m	G#dim.	A aug	Bm	C#	D	E# dim
key of Bm	Bm	C#dim.	D aug	Em	F#	G	A# dim
key of Em	Em	F#dim.	G aug	Am	B	C	D# dim
key of Am	Am	Bdim.	C aug	Dm	E	F	G#dim
key of Dm	Dm	Edim.	F aug	Gm	A	Bb	C# dim
key of Gm	Gm	Adim.	Bb aug	Cm	D	Eb	F# dim
key of Cm	Cm	Ddim.	Eb aug	Fm	G	Ab	B dim
key of Fm	Fm	Gdim.	Ab aug	Bbm	C	Db	E dim
key of Bbm	Bbm	Cdim.	Db aug	Ebm	F	Gb	A dim
key of Ebm	Ebm	Fdim.	Gb aug	Abm	Bb	Cb	D dim
key of Abm	Abm	Bbdim.	Cb aug	Dbm	Eb	Fb	G dim

ascending root progression in fourths

	7	b3	b6	2	5	1	4
mode	Mixolyian #1	Major #5	Lydian #2	Locrian natural 6	Phrygian domi- nant	Aeolian	Dorian #4
triad tones	dimin. 7-2-4	aug- mented b3-5-7	major b6-1-b3	dimin. 2-4-b6	major 5-7-2	minor 1-b3-5	minor 4-b6-1
seventh tones	7 7-2-4-b6	ma7#5 b3-5-7-2	ma7 b6-1- b3-5	m7b5 2-4-b6-1	7 5-7-2-4	m(ma7) 1-b3-5-7	m7 4-b6-1- b3
ninth tones	not acceptable	ma9#5 b3-5-7- 2-4	not acceptable	not acceptable	7b9 5-7-2-4- b6	m9(ma7) 1-b3-5-7-2	m9 4-b6-1- b3-5
secondary dominant	n/a	7, 7#5 or 9	7 or 7#9	7, 7#5 or 7b9	7#9 or 7#5	7, 7#5, 9 or 7#9	7, 9, 7#9 or 7#11
key of A#m	G##dim	C# aug	F#	B#dim.	E#	A#m	D#m
key of D#m	C## dim	F# aug	B	E#dim.	A#	D#m	G#m
key of G#m	F## dim	B aug	E	A#dim.	D#	G#m	C#m
key of C#m	B# dim	E aug	A	D#dim	G#	C#m	F#m
key of F#m	E# dim	A aug	D	G#dim.	C#	F#m	Bm
key of Bm	A# dim	D aug	G	C#dim.	F#	Bm	Em
key of Em	D# dim	G aug	C	F#dim.	B	Em	Am
key of Am	G#dim	C aug	F	Bdim.	E	Am	Dm
key of Dm	C# dim	F aug	Bb	Edim.	A	Dm	Gm
key of Gm	F# dim	Bb aug	Eb	Adim.	D	Gm	Cm
key of Cm	B dim	Eb aug	Ab	Ddim.	G	Cm	Fm
key of Fm	E dim	Ab aug	Db	Gdim.	C	Fm	Bbm
key of Bbm	A dim	Db aug	Gb	Cdim.	F	Bbm	Ebm
key of Ebm	D dim	Gb aug	Cb	Fdim.	Bb	Ebm	Abm
key of Abm	G dim	Cb aug	Fb	Bbdim.	Eb	Abm	Dbm

Melodic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
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stepwise root movement

	1	2	b3	4	5	6	7
mode	melodic minor	Dorian b2	Phrygian b1	Lydian dominant	Mixolydian b6	Aeolian b5	super Locrian
triad tones	minor 1-b3-5	minor 2-4-6	augmented b3-5-7	major 4-6-1	major 5-7-2	diminished 6-1-3	diminished 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7 2-4-6-1	ma7#5 b3-5-7-2	7 4-6-1-b3	7 5-7-2-4	m7b5 6-1-3-5	7#5, 7b5 or m7b5 7-2 or b3 -4-6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7-2-4	9 4-6-1-b3-5	9 5-7-2-4-6	m9b5 6-1-b3-5-7	9b5, 9#5 7-b3-4 or 5-6
secondary dominant	7 or 9	7 9 or 7#9	7, 7#5 or 9	7 or 9	7, 7#5 or 7#9	7b5 9 or 7#9	7 with b5, #5, b9 or #9
key of C#m	C#	D#m	E aug	F#	G#	A# dim	B#dim
key of F#m	F#	G#m	A aug	B	C#	D# dim	E#dim.
key of Bm	B	C#m	D aug	E	F#	G# dim	A#dim
key of Em	E	F#m	G aug	A	B	C# dim	D#dim
key of Am	A	Bm	C aug	D	E	F# dim	G#dim.
key of Dm	D	Em	F aug	G	A	B dim	C#dim.
key of Gm	G	Am	Bb aug	C	D	E dim	F#dim.
key of Cm	C	Dm	Eb aug	F	G	A dim	Bdim.
key of Fm	F	Gm	Ab aug	Bb	C	D dim	Edim.
key of Bbm	Bb	Cm	Db aug	Eb	F	G dim	Adim.
key of Ebm	Eb	Fm	Gb aug	Ab	Bb	C dim	Ddim.
key of Abm	Ab	Bbm	Cb aug	Db	Eb	F dim	Gdim.
key of Dbm	Db	Ebm	Fb aug	Gb	Ab	Bb dim	Cdim.
key of Gbm	Gb	Abm	Bbb aug	Cb	Db	Eb dim	Fdim.
key of Cbm	Cb	Dbm	Ebb aug	Fb	Gb	Abm	Bbdim.

ascending root progression in fourths

	7	b3	6	2	5	1	4
mode	Locrian	Phrygian b1	Aeolian b5	Dorian b2	Mixolydian b6	melodic minor	Lydian
triad tones	dimin. 7-2-4	aug- mented b3-5-7	dimin- ished 6-1-3	minor 2-4-6	major 5-7-2	minor 1-b3-5	major 4-6-1
seventh tones	m7b5 7-2-4-6	ma7#5 b3-5-7-2	m7b5 6-1-3-5	m7 2-4-6-1	7 5-7-2-4	m(ma7) 1-b3-5-7	ma7 4-6-1-3
ninth tones	not acceptable	ma9#5 b3-5-7- 2-4	m9b5 6-1-b3- 5-7	not acceptable	9 5-7-2-4-6	m9(ma7) 1-b3-5-7-2	ma7 4-6-1-3-5
secondary dominant	7 or 7b9	7, 7#5 or 9	7b5 9 or 7#9	7 9 or 7#9	7, 7#5 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E aug	A# dim	D#m	G#	C#	F#
key of F#	E#dim.	A aug	D# dim	G#m	C#	F#	B
key of B	A#dim	D aug	G# dim	C#m	F#	B	E
key of E	D#dim	G aug	C# dim	F#m	B	E	A
key of A	G#dim.	C aug	F# dim	Bm	E	A	D
key of D	C#dim.	F aug	B dim	Em	A	D	G
key of G	F#dim.	Bb aug	E dim	Am	D	G	C
key of C	Bdim.	Eb aug	A dim	Dm	G	C	F
key of F	Edim.	Ab aug	D dim	Gm	C	F	Bb
key of Bb	Adim.	Db aug	G dim	Cm	F	Bb	Eb
key of Eb	Ddim.	Gb aug	C dim	Fm	Bb	Eb	Ab
key of Ab	Gdim.	Cb aug	F dim	Bbm	Eb	Ab	Db
key of Db	Cdim.	Fb aug	Bbm	Ebm	Ab	Db	Gb
key of Gb	Fdim.	Bbb aug	Ebm	Abm	Db	Gb	Cb
key of Cb	Bbdim.	Ebb aug	Abm	Dbm	Gb	Cb	Fb

Harmonic Major Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
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stepwise root movement

	1	2	3	4	5	b6	7
mode	major b6	Dorian b5	super Phrygian	Lydian diminished	Mixolydian b2	Aeolian b1	Locrian bb7
triad tones	major 1-3-5 or aug. 1-3-b6	diminished 2-4-b6	minor 3-5-7 or aug. 3-b6-1	minor 4-b6-1 or dim. 4-b6-7	major 5-7-2	augmented b6-1-3 or dim b6-7-2	diminished 7-2-4
seventh tones	ma7 1-3-5-7	m7b5 2-4-b6-1 or dim7 2-4-b6-7	m7 3-5-7-2	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2	7 5-7-2-4	ma7 b6-1-3-#5 or dim7 b6-7-2-4	dim. 7 7-2-4-b6
ninth tones	ma9 1-3-5-7-2	m9b5 2-4-b6-7 or 1-3	not acceptable	m9(ma7) 4-b6-1-3-5	7b9 5-7-2-4- b6	not acceptable	not acceptable
secondary dominant	7 or 9	7b5 or 9b5	7 or 7b9	7 or 9	7b9 or 7#9	7, 7#5, 9 or 7#9	7 or 7b9
key of C#	C#	D# dim	E#m	F#m	G#	A aug or dim	B#dim
key of F#	F#	G# dim	A#m	Bm	C#	D aug or dim	E#dim.
key of B	B	C# dim	D#m	Em	F#	G aug or dim	A#dim
key of E	E	F# dim	G#m	Am	B	C aug or dim	D#dim
key of A	A	B dim	C#m	Dm	E	F aug or dim	G#dim.
key of D	D	E dim	F#m	Gm	A	Bb aug or dim	C#dim.
key of G	G	A dim	Bm	Cm	D	Eb aug or dim	F#dim.
key of C	C	D dim	Em	Fm	G	Ab aug or dim	Bdim.
key of F	F	G dim	Am	Bbm	C	Db aug or dim	Edim.
key of Bb	Bb	C dim	Dm	Ebm	F	Gb aug or dim	Adim.
key of Eb	Eb	F dim	Gm	Abm	Bb	Cb aug or dim	Ddim.
key of Ab	Ab	Bb dim	Cm	Dbm	Eb	Fb aug or dim	Gdim.
key of Db	Db	Eb dim	Fm	Gbm	Ab	Bbb aug or dim	Cdim.
key of Gb	Gb	Ab dim	Bbm	Cbm	Db	Ebb aug or dim	Fdim.
key of Cb	Cb	Db dim	Ebm	Fbm	Gb	Abb aug or dim	Bbdim.

ascending root progression in fourths

	7	3	b6	2	5	1	4
mode	Locrian bb7	super Phrygian	Aeolian b1	Dorian b5	Mixolydian b2	major b6	Lydian diminished
triad tones	diminished 7-2-4	minor 3-5-7 or aug. 3-b6-1	augmented b6-1-3 or dim b6-7-2	diminished 2-4-b6	major 5-7-2	major 1-3-5 or aug. 1-3-b6	minor 4-b6-1 or dim. 4-b6-7
seventh tones	dim. 7 7-2-4-b6	m7 3-5-7-2	ma7 b6-1-3-#5 or dim7 b6-7-2-4	m7b5 2-4-b6-1 or dim7 2-4-b6-7	7 5-7-2-4	ma7 1-3-5-7	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2
ninth tones	not acceptable	not acceptable	not acceptable	m9b5 2-4-b6-7 or 1-3	7b9 5-7-2-4- b6	ma9 1-3-5-7-2	m9(ma7) 4-b6-1-3-5
secondary dominant	7 or 7b9	7 or 7b9	7, 7#5, 9 or 7#9	7b5 or 9b5	7b9 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E#m	A aug or dim	D# dim	G#	C#	F#m
key of F#	E#dim.	A#m	D aug or dim	G# dim	C#	F#	Bm
key of B	A#dim	D#m	G aug or dim	C# dim	F#	B	Em
key of E	D#dim	G#m	C aug or dim	F# dim	B	E	Am
key of A	G#dim.	C#m	F aug or dim	B dim	E	A	Dm
key of D	C#dim.	F#m	Bb aug or dim	E dim	A	D	Gm
key of G	F#dim.	Bm	Eb aug or dim	A dim	D	G	Cm
key of C	Bdim.	Em	Ab aug or dim	D dim	G	C	Fm
key of F	Edim.	Am	Db aug or dim	G dim	C	F	Bbm
key of Bb	Adim.	Dm	Gb aug or dim	C dim	F	Bb	Ebm
key of Eb	Ddim.	Gm	Cb aug or dim	F dim	Bb	Eb	Abm
key of Ab	Gdim.	Cm	Fb aug or dim	Bb dim	Eb	Ab	Dbm
key of Db	Cdim.	Fm	Bbb aug or dim	Eb dim	Ab	Db	Gbm
key of Gb	Fdim.	Bbm	Ebb aug or dim	Ab dim	Db	Gb	Cbm
key of Cb	Bbdim.	Ebm	Abb aug or dim	Db dim	Gb	Cb	Fbm

MODES OF FOUR HEPTATONIC SCALES

Four Harmonize-able Heptatonic Scales

A “harmonize-able” heptatonic scale is one of only four heptaonic scales that can produce chords on each scale step by combining three or more notes in an every-other-note pattern (thirds).

The four harmonize-able heptatonic scales are major, harmonic minor, melodic minor and harmonic major. Traditionally, melodic minor is major scale flat three ascending and Aeolian (major scale flat 3, 6 and 7 descending. This course refers to the jazz and modern version of melodic minor that is major flat three ascending and descending.

mode formulas

A mode formula is a set of seven numbers that represent the comparison between a chord, scale or melody. C major scale is 1-2-3-4-5-6-7 and has all natural notes (C-D-E-F-G-A-B). C Mixolydian, by comparison has a “Bb” note instead of a “B”, so the formula for Mixolydian is 1-2-3-4-5-6-b7.

What are the names of the modes built on a major scale for tones 1-2-3-4-5-6-7 are respectively major (Ionian)-Dorian-Phrygian-Lydian-Mixolydian-Aeolian and Locrian. In order with the traditional Roman-numbered tone on which they are built, they are I major (Ionian), II Dorian, III Phrygian, IV Lydian, V Mixolydian, VI Aeolian and VII Locrian

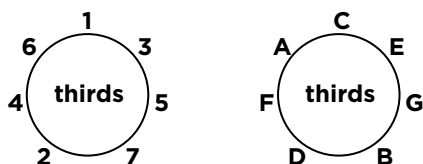
To figure out the modes built on each of the steps of the other three harmonize-able heptatonic scales, follow these four steps: (1) conceive harmonic minor as major scale sharp five and harmonic minor will be the mode on its sixth step; (2) conceive melodic minor as major scale flat three; (3) conceive harmonic major as major scale flat six; (4) use a descending number series in comparing each mode side-by-side with a major scale mode on the same numbered scale tone as shown in the table below.

the descending number series in harmonize-able heptatonic scales

In major sharp five, the descending number series is #5-#4-natural 3-#2-#1-natural 7-natural 6. In melodic minor (major flat three), the descending number series is b3-b2-flat one-b7-b6-b5-b4. In harmonic major (major flat six), the descending number series is b6-b5-b4-b3-b2-flat one.

the cycle for scale tone chords built in thirds

I^{ma}7 is 1357, II^m7 is 2461, III^m7 is 3572, IV^{ma}7 is 4613, V⁷ is 5724, VI^m7 is 46135, VII^m7b5 is 7246.



	1	2	3	4	5	6	7
major	major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
altered tones	none	b3, b7	b2, b3, b6, b7	#4	b7	b3, b6, b7	b2, b3, b5, b6, b7
seventh type	ma7	m7	m7	ma7	7 (dom.)	m7	m7b5
parent scale tones	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-6
major sharp five	major #5	Dorian #4	Phrygian nat. 3 (Phry. dom.)	Lydian #2	Mixolydian #1	Aeolian nat. 7 (harmonic mi.)	Locrian nat. 6
altered tones	#5	b3, #4, b7	b2, nat. 3, b6, b7	#2, #4	#1, b7	b3, b6, natural 7	b2, b3, b5, natural 6, b7
seventh type	ma7#5	m7 (or dim7)	7	ma7 (or dim7)	7 (or dim7)	m7	m7b5 (or dim7)
parent scale tones	1-3-#5-7	2-4-6-1	3-#5-7-2	4-6-1-3	#5-7-2-4	6-1-3-#5	7-2-4-6
melodic minor	major b3	Dorian b2	Phrygian b1 Lydian aug.	Lydian b7 (Lyd. dom.)	Mixolydian b6 Aeolian dom.	Aeolian b5	Locrian b4 (super Locrian)
altered tones	b3	b2, b3, b7	b1, b2, b3, b6, b7	#4, b7	b6, b7	b3, b5, b6, b7	b2, b3, b4, b5, b6, b7
seventh type	m(ma7)	m7	ma7#5	7	7 (dom.)	m7b5	m7b5
parent scale tones	1-b3-5-7	2-4-6-1	b3-5-7-2	4-6-1-b3	5-7-2-4	6-1-b3-5	7-2-4-6
harmonic major	major b6 har. major	Dorian b5	Phrygian b4 (super Phrygian)	Lydian b3 Lydian dimin.	Mixolydian b2	Aeolian b1	Locrian bb7
altered tones	b6	b3, b5, b7	b2, b3, b4, b6, b7	b3, #4	b2, b7	b1, b3, b6, b7	b2, b3, b5, b6, bb7
seventh type	ma7	m7b5 (or dim7)	m7	m(ma7) (or dim7)	7 (or dim7)	ma7#5	dim.7
parent scale tones	1-3-5-7	2-4-b6-1	3-5-7-2	4-b6-1-3	5-7-2-4	b6-1-3-5	7-2-4-b6

The color codes are:

major	minor	dominant	diminished	augmented
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How can I identify one of the twenty eight modes of the four harmonize-able heptatonic scales from a collection of seven notes? Answer if it is one of the twenty eight modes, first identify the triad and dominant basis as shown by the colors on the table above. Then narrow it down by the remaining formula. **Major triad basis:** major, Lydian, major b6. **Minor triad basis:** Dorian, Phrygian, Aeolian, melodic minor (major b3), Dorian b2 and Lydian b3 (Lydian diminished). **Dominant seventh basis:** Mixolydian, Phrygian b3 (Phrygian dominant), Lydian b7 (Lydian dominant), Mixolydian b6, Phrygian b4 (super Phrygian) and Mixolydian b2. **Diminished triad basis:** Locrian, Mixolydian #1, Locrian natural 6, Aeolian b5, Dorian flat five and Locrian bb7 (double-flat seven). **Augmented triad basis:** major #5, Phrygian flat one, Locrian b4 (super Locrian) and Aeolian flat one.

Conceive each chord as a summary chord, using four heptatonic scales. The summary chord of each table summarizes the scale-tone for each mode of each scale, such as “Ima9/6#5” beginning the second row in in major #5. *Get to know them.* They are very useful in comping and arranging.

odd-numbered chord names

Odd numbers 7 through 13 immediately after the letter name of a chord imply a dominant seventh (b7), with two exceptions: major (ma, maj, Δ) before the odd number implies a natural seven and diminished (dim, °) implies double flat seven (same as six).

Find the “sameness” of 4 heptatonic minor modes with a focus on their V chords:

- Vm7 (use on V7b9#9) of key Aeolian (V of target is Phrygian)
- V7b9(opt, #5) of key harmonic minor (V of target is Phrygian major). Aeolian’s bVII Mixolydian becomes VII Mixolydian #1.
- V7b9#9(opt.#5) of key Aeolian b1 (from major b6). Target is VI of major b6 scale. V of target is super Phrygian = Phrygian b4 (super Locrian with nat 5)
- V7b5#5b9#9 of key Phrygian b1 (melodic minor mode bIII) V of target is super Locrian

Major Scale Modes

see [“Major Scale Summary](#)

scale tones →	I	II	III	IV	V	VI	VII
mode names →	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
mode formula →	1-2-3-4-5-6-7	1-2b3-4-5-6-b-7	1-b2-b3-4-5-b6-b7	1-2-3-4-5-6-7	1-2-3-4-5-6-b7	1-2-b3-4-5-b6-b7	1-b2-b3-4-b5-b6-b7
mood →	bright, happy	dark, some bright colors	dark, dramatic	bright, exotic	bright, bluesy	dark, sad	dark, evil
styles →	all styles	blues, latin rock	flamenco, mid-eastern	jazz, prog. rock, art rock	blues, funk, jazz	all styles	death metal, art rock
summary	I ma9/6	IIIm13	IIIm7(/11)	IVma13#11	V9/6	VIIm11	VIIIm7b5(/11)
Ionian target	I of Ionian	2 of Ionian	3 of Ionian	4 of Ionian	5 of Ionian	6 of Ionian	7 of Ionian
Dorian target	b7 of Dorian	1 of Dorian	2 of Dorian	b3 of Dorian	4 of Dorian	5 of Dorian	6 of Dorian
Phrygian target	b6 of Phrygian	b7 of Phrygian	1 of Phrygian	b2 of Phrygian	b3 of Phrygian	4 of Phrygian	5 of Phrygian
Lydian target	5 of Lydian	6 of Lydian	7 of Lydian	I of Lydian	2 of Lydian	3 of Lydian	#4 of Lydian
Mixolydian target	4 of Mixo.	5 of Mixo.	6 of Mixo.	b7 of Mixo.	1 of Mixo.	2 of Mixo.	3 of Mixo.
Aeolian target	b3 of Aeolian	4 of Aeolian	5 of Aeolian	b6 of Aeolian	b7 of Aeolian	1 of Aeolian	2 of Aeolian
Locrian target	b2 of Locrian	b3 of Locrian	4 of Locrian	b5 of Locrian	b6 of Locrian	b7 of Locrian	1 of Locrian

Major Sharp Five and Harmonic Minor Modes

see "[Harmonic Minor Scale Summary](#)".

Harmonic minor is a mode on step six of major sharp five. If you know the modes of the major scale, thinking in major sharp five is a matter of altering one note in each mode. Note the descending number series of altered tones: major #5, Dorian #4, Phrygian natural 3 (raised from b3), Lydian #2, Mixolydian #1, Aeolian natural 7 (raised from b7 to produce harmonic minor) and Locrian natural 6.

mode names →	major #5	Dorian #4	Phrygian dominant (nat. 3)	Lydian #2	Mixolydian #1	Aeolian nat.7	Locrian nat.6
major #5 scale tones →	I	II	III	IV	#V	VI	VII
I major #5 chords	I _{ma} 9#5	II _m 13#11 or II _{dim} 7	III ₇ b9(/11)b13	IV _{ma} 7/6(#11) or bVI _{dim} 7	#V _{dim} 7	VI _m 9(ma7)	VII _m 7b5(/11) or VII _{dim} 7
C ma#5 chords	C _{ma} 9/6#5	D _m 13#11 or D _{dim} 7	E ₇ b9(/11)b13	F _{ma} 7/6(#11) or F _{dim} 7	G# _{dim} 7	A _m 9(ma7)	B _m 7b5(/11) or VII _{dim} 7
harmonic minor tones →	bIII	IV	V	bVI	VII	I	II
VI har. min. chords	bIII _{ma} 9#5	IV _m 13#11 or IV _{dim} 7	V ₇ b9(/11)b13	bVI _{ma} 7/6(#11) or bVI _{dim} 7	VII _{dim} 7	I _m 9(ma7)	II _m 7b5(/11) or II _{dim} 7
A harmonic minor chords	C _{ma} 9/6#5	D _m 13#11 or D _{dim} 7	E ₇ b9(/11)b13	F _{ma} 7/6(#11) or F _{dim} 7	G# _{dim} 7	A _m 9(ma7)	B _m 7b5(/11) or VII _{dim} 7

Melodic Minor Modes (Major Flat Three)

see "[Melodic Minor Scale Summary](#)".

Usually built on bVI of target, using mode IV13#11 on bII of target, VII7#9b9#5b5 on V of target. Note the descending number series of altered tones: major b3, Dorian b2, Phrygian b1, Lydian b7 (Lydian dominant), Mixolydian b6, Aeolian b5 and Locrian b4 (super Locrian).

scale tones →	I	II	bIII	IV	V	VI	VII
mode names →	major b3 melodic minor	Dorian b2	Phrygian b1 Lydian #5 Lydian augmented	Lydian b7 Lydian dominant	Mixo. b6 Aeolian dominant	Aeolian b5	Locrian b4 super Locrian
I mel. m. chords	I _m 9(ma7)/6	II _m 13no9	bIII _{ma} 9#5	IV 13#11	V11b13	VI _m 7b5 (m11b5)	VII7#5b5#9b9
C mel. m. chords	C _m 9(ma7)/6	D _m 13no9	E _b ma9#5	F13#11	G11b13	A _m 11b5	B7#5b5#9b9
bIII Phrygian	bVI _m 13no11	bVII _m 13no9	bI _{ma} 9#5	bII13#11	bIII11b13	IV _m 11b5	V7#5b5#9b9

Major Flat Six (Harmonic Major) Modes

see “[Harmonic Major Scale Summary](#)”.

Use for IIm9b5 V13b9 of target. Exclusively for major targets or relative major of targets. Note the descending number series of altered tones: major b6, Dorian b5, Phrygian b4 (“super” Phrygian), Lydian b3 (Lydian diminished), Mixolydian b2, Aeolian b1 and Locrian bb7 (double flat 7 = 6).

scale tones →	I	II	III	IV	V	bVI	VII
mode names →	major b6 har. major	Dorian b5	Phrygian b4 super Phrygian	Lydian b3 Lydian diminished	Mixo. b2	Aeolian b1 Lydian #2, #5 Lydian aug. #2	Locrian bb7
I maj. b6 chords	Ima9	IIm13b5 or IIdim7	III7±9b13 or IIIIm7	IVm9(ma7)/6 or IVdim7	V13b9	bVIIma9/6±5#9 or VIdim7	VIIIdim7
C maj. b6 chords	Cma9	Dm13b5 or Ddim7	E7±9b13 or Em7	Fm9(ma7)/6 or Fdim7	G13b9	bAma9/6±5#9 or Abdim7	Bdim7

MODAL CHORD SCALES OF FOUR HEPTATONIC SCALES

Chord Scale

A chord scale is the appropriate scale for the current chord, named after the chord root. All tones of the chord should be in the chord scale. The chord scales for groups of chords are commonly modes of the same parent scale. See the chapter [Key Scales, Parent Scales and Chord Scales](#).

In the tables of diagrams below the first diagram in each row is the key scale, the remaining six diagrams on each row show the chord scales on steps two through seven of the key scale. The major key scale can function as a chord scale also, but is shown as a key scale so as to relate the six chord scales on scale tones two through six to it.

Hypothetical Ninths for Melody Only

The Phrygian m7b9 (IIIIm7b9) and Locrian m7b5b9 (VIIIm7b5b9) are not currently accepted as chords. You won't find them in any of the forty or so fake books in circulation. They can be used melodically, however, as long as the flat nine is not sustained, but used as a neighboring tone or passing tone.

major scale fingering

	I major key scale	II Dorian	III Phrygian	IV Lydian	V Mixolydian	VI Aeolian	VII Locrian
	chord scale	chord scale	chord scale	chord scale	chord scale	chord scale	chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

major scale-tone ninth arpeggios

	I ma9 key scale	II m9 chord scale	III m7b9 chord scale	IV ma9 chord scale	V9 chord scale	VI m9 chord scale	VII m7b5b9 chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

major scale-tone triad plus two and six pentatonic

	I_{ma}+2+6 key scale	I_m+2+6 chord scale	III_m+b2+b6 chord scale	IV_{ma}+2+6 chord scale	V_{ma}+2+6 chord scale	VI_m+2+b6 chord scale	VII_{dim}+b2+b6 chord scale
finger 1							
finger 2							
finger 3							
finger 4							
finger 5							
finger 6							
finger 7							

major scale-tone triad plus four and seven pentatonic

	I ^{ma} +4+7 key scale	II ^m +4+b7 chord scale	III ^m +4+b7 chord scale	IV ^{ma} + [#] 4+7 chord scale	V ^{ma} +4+b7 chord scale	VI ^m +4+b7 chord scale	VII ^{dim} +4+b7 chord scale
fingerings 1							
fingerings 2							
fingerings 3							
fingerings 4							
fingerings 5							
fingerings 6							
fingerings 7							

harmonic minor scale fingering

	I har. min. key scale	II Locrian nat. 6 chord scale	bIII major #5 chord scale	IV Dorian #4 chord scale	V Phrygian dom. chord scale	bVI Lydian #2 chord scale	VII Mixo. #1 chord scale
major #5 fingering 1							
major #5 fingering 2							
major #5 fingering 3							
major #5 fingering 4							
major #5 fingering 5							
major #5 fingering 6							
major #5 fingering 7							

harmonic minor scale-tone ninth arpeggios

	Im9(ma7) key scale	IIIm7b5b9 chord scale	bIII7ma9#5 chord scale	IVm9 chord scale	V7b9 chord scale	bVIIma7#9 chord scale	VIIIdim7 chord scale
major #5 fingering 1							
major #5 fingering 2							
major #5 fingering 3							
major #5 fingering 4							
major #5 fingering 5							
major #5 fingering 6							
major #5 fingering 7							

harmonic minor scale-tone triad plus two and six pentatonic

	Im+2+b6 key scale	IIdim7b9 chord scale	bIIlaug+2+6 chord scale	IVm+2+6 chord scale	Vma+b2+b6 chord scale	bVIIma+#2+6 chord scale	VIIIdim+b2+b6 chord scale
major #5 fingering 1							
major #5 fingering 2							
major #5 fingering 3							
major #5 fingering 4							
major #5 fingering 5							
major #5 fingering 6							
major #5 fingering 7							

harmonic minor scale-tone triad plus four and seven pentatonic

	Im+4+7 key scale	Ildim+4+b7 chord scale	IIIlaug+4+7 chord scale	IVm+4+b7 chord scale	Vma+4+b7. chord scale	bVIIma+4+7 chord scale	VIIldim+b4+6- chord scale
major #5 fingering 1							
major #5 fingering 2							
major #5 fingering 3							
major #5 fingering 4							
major #5 fingering 5							
major #5 fingering 6							
major #5 fingering 7							

melodic minor scale fingering

	I mel. min. key scale	II Dorian b2	bIII Lydian augmented	IV Lydian dom.	V Aeolian dom.	VI Aeolian b5	VII super Locrian
	chord scale	chord scale	chord scale	chord scale	chord scale	chord scale	chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

melodic minor scale-tone ninth arpeggios

	Im9(ma7) key scale	IIIm7b9 chord scale	bIIIma9#5 chord scale	IV9 chord scale	V9 chord scale	VIIm9b5 chord scale	VIIIm7#5b9 chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

melodic minor scale-tone triad plus two and six pentatonic

	Im+2+6 key scale	IIIm+b2+6 chord scale	IIIlaug+2+6 chord scale	IVma+2+6 chord scale	Vma+2+b6 chord scale	VIIdim+2+b6 chord scale	VIIImab5+b2+b6 chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

melodic minor scale-tone triad plus four and seven pentatonic

	Im(ma7/11) key scale	IIIm+4+b7 chord scale	bIIIaug+#4+7 chord scale	IVma+#4+b7 chord scale	Vma+4+b7 chord scale	VI dim+4+b7 chord scale	VIIaug+b2+b3 chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

harmonic major scale fingering (Aeolian flat one is Lydian augmented #2)

	I har. major key scale	II Dorian b5 chord scale	III super Phrygian chord scale	IV Lydian dim.. chord scale	V Mixolydian b2 chord scale	VI Aeolian b1 chord scale	Locrian bb7 chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

harmonic major scale-tone ninth arpeggios

	I ^{ma} 9 key scale	II ^m 7b9 chord scale	III ⁷ b9 chord scale	IV ^m 9(ma7) chord scale	V ⁷ b9 chord scale	VI ^{ma} 7#5#9 chord scale	VII ^{dim} 7b2 chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

harmonic major scale-tone triad plus two and six pentatonic

	I ^{ma} +2+b6 key scale	II ^m +b2+6 chord scale	III ^{ma} +b2+b6 chord scale	IV ^m +2+6 chord scale	V ^{ma} +b2+6 chord scale	VI ^{aug} +#2+b6 chord scale	VII ^{dim} +4+bb7 chord scale
fingerings 1							
fingerings 2							
fingerings 3							
fingerings 4							
fingerings 5							
fingerings 6							
fingerings 7							

harmonic major scale-tone triad plus four and seven pentatonic

	I ^{ma} +4+7 key scale	II ^m +4+b7 chord scale	III ^{ma} +b2+b7 chord scale	IV ^m + [#] 4+7 chord scale	V ^{ma} +4+b7 chord scale	VI ^{aug} + [#] 4+7 chord scale	VII ^{dim} +4+bb7 chord scale
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

MAJOR SCALE MODE (MOOD) CYCLES

Expressive Modes in Order of Darkening

In the tables of diagrams below, the modes are shown in a darkening sequence from left to right. See the earlier section [The Expressive Use of Modes](#). As you progress through each row from left to right, first the sharp four in Lydian mode is made natural, lowering it chromatically (by a half step). This darkens the mood from the exceedingly bright mood of Lydian to the commonplace bright mood of major (Ionian) mode. Continuing to the right in each row flatted tones are accumulated in the order b7-b3-b6-b2-b5 (a numeric order of fourths), progressively darkening the mood.

The mode cycle shown in each row from left to right is major with #4 (Lydian), all natural (major or Ionian), then accumulating flats b7-b3-b6-b2-b5. The mode cycle is **4152637**, which is fifths (Lydian, major, Mixolydian, Dorian, Aeolian, Phrygian, Locrian). The mode cycle of major scale fingering numbers in each row is the same cycle fifths **4152637**. This succession of darkening modes is a common basis of composition, arranging and improvisation.

Use the All Favored playlist in the iReal app to practice loops or entire sections of songs. Here is a link to the file: [All Favored iReal](#) Ireal search criteria will find songs with long durations of the featured key. Also see the [jgleason6 Spotify profile](#). You may need help finding the bullet character. See the instructions below the mode table.

table of Spotify links and iReal "All Favored" playlist abbreviations.

Note that you can search All Favored iReal playlist for both mode and ninth, such as "iMa• ^9!"

mode with Spotify link	iReal mode search	ireal 9th search
major	iMa•	^9!
Dorian	iDor•	m9!!
Phrygian	iPhr•	none
Lydian	iLyd•	^9!
Mixolydian	iMx•	9!!
Mixolydian and Dorian	iMD•	9!! m9!!
Aeolian	iAeo•	m9!! (m9^7 for harmonic minor)
Dorian and Aeolian	iDA•	m9!! (and iDA•)
Locrian	iLoc•	m9b5!
melodic minor	imm•	m9^7
harmonic major	ihma•	^9!

typing the bullet (•) character

Computers. The bullet (•) character below is option+8 on a computer.

On iOS (iPhone or iPad), tap the 123 key to open the number keypad. Tap the #+= key to go to the second screen of the number keypad and select the bullet point symbol key at the end of the second row. On some versions of iOS, you'll need this alternate method: type and hold the hyphen key to evoke a palette with the bullet.

Android phones. Tap the ? 123 key on the keyboard.

Tap the =< key to go to the second set of symbols on the keyboard.

Select the bullet symbol (•) on the first row to insert it into the messaging or document app.

Hypothetical Ninths for Melody Only

The Phrygian m7b9 (IIIIm7b9) and Locrian m7b5b9 (VIIIm7b5b9) are not currently accepted as chords. You won't find them in any of the forty or so fake books in circulation. They can be used melodically, however, as long as the flat nine is not sustained, but used as a neighboring tone or passing tone.

Key Mixolydian and Dorian with Four Pentatonic Types

begin practice of the mode cycle by playing on I7 IV7 in Blues Styles

See [strict vertical position](#), [seven pentatonic scale types](#) and [reference major scales](#)

The 4152637 cycle. Begin this study by noticing that in any of the fingerings for Mixolydian below, the parent major scale fingering moves to the next number in the 4152637 cycle for Dorian. In changing from Mixolydian to Dorian, E form changed F5 to F2 (F1/2 or F2), D form changed F6 to F3, C form changed F7 to F4 (or F4/5), A form changed F2 to F6 and G form changed F3 to F7 (or F7/1).

7/11 pentatonic is minor pentatonic with a major third. In blues, the b3 is often played before the natural three, even when descending. In "ragtime blues style" the b3 and natural 3 are played with equal duration. In "modern" blues style, the b3 is a brief grace note. Eric Clapton mixes the two styles.

m6/9 pentatonic is major pentatonic with a flatted third.

F2 is fingering 2.

F1/2 is major scale three-note-per-string fingering 1/2.

assignment of scales

On I7, use I7/11 pent, Ima pent and I Mixolydian. On IV7, use I min. pent, I m6/9 & I Dorian

E form ma pent F2	/Mixolydian MS F4/5 (key on "5" for Mixolydian)
E form m6/9 F2	/Dorian MS F1/2 (key on "2" for Dorian)
E form min. pent F1	/Dorian MS F2 (key on "2" for Dorian)
E form 7/11 F1	/Mixolydian MS F5 (key on "5" for Mixolydian)
D form ma pent F3	/Mixolydian MS F6 (key on "5" for Mixolydian)
D form m6/9 F3	/Dorian MS F3 (key on "2" for Dorian)
D form min. pent F2	/Dorian MS F3 (key on "2" for Dorian)
D form 7/11 F2	/Mixolydian MS F6 (key on "5" for Mixolydian)
C form ma pent F4	/Mixolydian MS F7 (key on "5" for Mixolydian)
C form m6/9 F4	/Dorian MS F4 or 4/5 (key on "2" for Dorian)
C form min. pent F3	/Dorian MS F4/5 (key on "2" for Dorian)
C form 7/11 F3	/Mixolydian MS F7 or 7/1 (key on "5" for Mixolydian)
A form ma pent F5	/Mixolydian MS F1/2 (key on "5" for Mixolydian)
A form m6/9 F5	/Dorian MS F6 (key on "2" for Dorian), using a head reach on the third string
A form min. pent F4	/Dorian MS F6 (key on "2" for Dorian)
A form 7/11 F4	/Mixolydian MS F1/2 or 2 (key on "5" for Mixolydian)
G form ma pent F1	/Mixolydian MS F3 (key on "5" for Mixolydian)
G form m6/9 F1	/Dorian MS F7 (key on "2" for Dorian)
G form min. pent F5	/Dorian MS F7 or 7/1 (key on "2" for Dorian)
G form 7/11 F5	/Mixolydian MS F3 or 3/4 (key on "5" for Mixolydian)

Major Scale Mode Fingering

major basis	#4 Lydian	natural 4 major	b7 Mixolydian	b7, b3 Dorian	b7, b3, b6 Aeolian	b7, b3, b6, b2 Phrygian	b7, b3, b6, b2, b5 Locrian
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

Major Scale-Tone Ninth Arpeggios

major basis	#4 IVma9	natural 4 Ima9	b7 V9	b7, b3 IIIm9	b7, b3, b6 VIIm9	b7, b3, b6, b2 IIIm7b9	b7, b3, b6, b2, b5 VIIm7b5b9
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

Major Scale-Tone Triad Plus Two and Six Pentatonic

major basis	#4 IIIma+2+6	natural 4 IIma+2+6	b7 VIma+2+6	b7, b3 IIIm+2+6	b7, b3, b6 VIIm+2+b6	b7, b3, b6, b2 IIIm+b2+b6	b7, b3, b6, b2, b5 VIIIdim+b2+b6
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

Major Scale-Tone Triad Plus Four and Seven Pentatonic

major basis	IVma+#4+7	natural 4 Ima+4+7	b7 Vma+4+b7	b7, b3 IIIm+4+b7	b7, b3, b6 VIIm+4+b7 ¹	b7, b3, b6, b2 IIIm+4+b7	b7, b3, b6, b2, b5 VIIIdim+4+b7
fingering 1							
fingering 2							
fingering 3							
fingering 4							
fingering 5							
fingering 6							
fingering 7							

SUBSET SCALES AND SUBSET ARPEGGIOS OF MODES

E form

On all of the gray and black-backed diagrams, put the "1" on the desired tone center. On the fingering diagrams (on the far left of each row), put the circled note on the desired tone center. Notes with no colored background are in the mode, but not in the pentatonic. The octatonic version shows the seventh chord in black, the remaining tones are in the mode, except the added #5 or 7 is a chromatic tone. With ninth arpeggios, the middle or low octave is black and the other octave is gray.

The fingering numbers such as F1 or F1/2 refer to the *parent major scale*.

Lydian - E Form

	fingering	maj +2+6 ma6/9	maj +#4+7 ma7/#11	Lydian no b7 maj+2+6+#4	Lydian no 6 maj+#4+b7+2	Lyd. add #5 octatonic	ma9
F 3							

Lydian dominant - E Form

	fingering	maj+2+6 ma6/9	maj +#4+b7 7/#11	Lyd. dom. no b7 maj+2+6+#4	Lyd. dom. no 6 maj+#4+b7+2	Lyd. dom. & 7 octatonic	9
F 3/4							

major (Ionian) - E Form

	fingering	maj+2+6 ma6/9	maj+4+7 ma7/11	major no b7 maj+2+6+4	major no 6 maj+4+7+2	major add #5 octatonic	ma9
F 7							

melodic minor - E Form

	fingering	minor+2+6 m6/9	minor+4+7 m(ma7)/11	mel. min. no b7 min+2+6+4	mel. min. no 6 min+4+7+2	mel. m. add #5 octatonic	m9(ma7)
F 2							

Mixolydian - E Form

	fingering	maj+2+6 ma6/9	maj+4+b7 7/11	Mixo. no b7 maj+2+6+4	Mixo. no 6 maj+4+b7+2	Mixo. add 7 octatonic	9
F 4/5							

Dorian - E form

	fingering	min+2+6 m6/9	min+4+b7 m7/11	Dorian no b7 min+2+6+4	Dorian no 6 min+4+b7+2	Dor. add 7 octatonic	m9
F 1/2			use the fingering below		use the fingering below	use the fingering below	
F 2							

Aeolian - E form

	fingering	min+2+b6	min+4+b7 m7/11	Aeo. no b7 min+2+b6+4	Aeo. no b6 min+4+b7+2	Aeo. add 7 octatonic	m9
F 6							

harmonic minor (Aeolian natural seven) - E form

	fingering	min +2+b6	min+4+7 m(ma7)/11	har. m. no 7 min+2+b6+4	har. m. no b6 min+4+7+2	no scale #5 (b6) and natural 7 are already in use	m9(ma7)
F 6							

Aeolian dominant - E form

	fingering	maj+2+b6	maj+4+b7 7/11	Aeo. dom. no b7 maj+2+b6+4	Aeo. dom. no b6 maj+4+b7+2	Aeo. dom. add 7 octatonic	9
F 6							

Phrygian - E form

	fingering	min+b2+b6	min+4+b7 m7/11	Phry. no b7 min+b2+b6 +4	Phry no b6 min+4+b7+b2	Phry. add 7 octatonic	
F 3							m7b9 not acceptable

Phrygian dominant- E form

	fingering	maj+b2+b6	maj+4+b7 7/11	Phr. dom. no b7 maj+b2+b6 +4	Phr. dom. no b6 maj+4+b7+b2	Phr. dom. add 7 octatonic	7b9
F 3							

super Phrygian - E form

	fingering	min+b2+b6	min+b4+b7 (b4 = 3)	sup. Phr. no b7 min+b2+b6+b4	sup. Phr. no b6 min+b4+b7+b2	sup. Phr. add 7 octatonic	7#5b9 (b6=#5)
F 3							

Locrian - E form

	fingering	dim+b2+b6	dim+4+b7 m7/11b5	Locrian no b7 dim+b2+b6 +4	Locrian no b6 dim+4+b7+b2	Loc. add 7 octatonic	
F 7							m7b5b9 not acceptable

super Locrian - E form

	fingering	dim+b2+b6 (b4 = 3)	dim+b4+b7 (b4 = 3)	sup. Loc. no b7 dim+b2+b6+b4	sup. Loc. no b6 dim+b4+b7+b2	sup. Loc. add 7 octatonic	7b5b9
F 7							

A form

On all of the gray and black-backed diagrams, put the “1” on the desired tone center. On the fingering diagrams (on the far left of each row), put the circled note on the desired tone center. Notes with no colored background are in the mode, but not in the pentatonic. The octatonic version shows the seventh chord in black, the remaining tones are in the mode, except the added #5 or 7 is a chromatic tone. With ninth arpeggios, the middle or low octave is black and the other octave is gray.

The fingering numbers such as F1 or F1/2 refer to the parent major scale.

Lydian - A Form

	fingering	maj+2+6 ma6/9	maj+#4+b7 ma7/#11	Lydian no 7 maj+2+6+#4	Lydian no 6 maj+#4+b7+2	Lyd. add #5 octatonic	ma9
F 7							

	fingering	maj +2+6 ma6/9	maj +4+7 ma7/#11	Lydian no 7 ma6/9 + #4	Lydian no 6 ma7/#11 +2	Lyd. add #5 octatonic	ma9
F 7/1							

Lydian dominant - A Form

	fingering	maj +2+6 ma6/9	maj + #4+b7 7/#11	Lyd. dom. no b7 maj+2+6+#4	Lyd. dom. no 6 maj+#4+b7+2	Lyd. dom. & 7 octatonic	9
F 7							

major (Ionian) - A Form

	fingering	maj +2+6 ma6/9	maj +4+7 ma7/11	major no 7 maj+2+6+4	major no 6 maj+4+7+2	major add #5 octatonic	ma9
F 4/5							

melodic minor - A Form

	fingering	minor +2+6 m6/9	minor +4+7 m(ma7)/11	mel. min. no b7 min+2+6+4	mel. min. no 6 min+4+7+2	mel. m. add #5 octatonic	m9(ma7)
F 4/5							

Mixolydian - A Form

	fingering	maj +2+6 ma6/9	maj +4+b7 7/11	Mixo. no b7 maj+2+6+4	Mixo. no 6 maj+4+b7+2	Mixo. add 7 octatonic	9
F 1/2							
F 2		use the fingering below					

Dorian - A form

	fingering	min +2+6 m6/9	min +4+b7 m7/11	Dorian no b7 min+2+6+4	Dorian no 6 min+4+b7+2	Dor. add 7 octatonic	m9
F 6							

Aeolian - A form

	fingering	min +2+b6	min +4+b7 m7/11	Aeo. no b7 min+2+b6+4	Aeo. no b6 min+4+b7+2	Aeo. add 7 octatonic	m9
F 3							

harmonic minor (Aeolian natural seven) - A form

	fingering	min+2+b6	min+4+7 m(ma7)/11	har. m. no 7 min+2+b6+4	har. m. no b6 min+4+7+2	no scale #5 (b6) and natural 7 are already in use	m9(ma7)
F 3							

Aeolian dominant - A form

	fingering	maj+2+b6	maj+4+b7 7/11	Aeo. dom. no b7 maj +2+b6+4	Aeo. dom. no b6 maj+4+b7+2	Aeo. dom. add 7 octatonic	9
F 3							

Phrygian - A form

	fingering	min+b2+b6	min+4+b7 m7/11	Phry. no b7 min+b2+b6 +4	Phry no b6 min+4+b7+b2	Phry. add 7 octatonic	
F 7							m7b9 not acceptable

Phrygian dominant- A form

	fingering	maj+b2+b6	maj+4+b7 7/11	Phr. dom. no b7 maj+b2+b6 +4	Phr. dom. no b6 maj+4+b7+b2	Phr. dom. add 7 octatonic	7b9
F 7							

super Phrygian - A form

	fingering	min+b2+b6	min+b4+b7 (b4 = 3)	sup. Phr. no b7 min+b2+b6 +b4	sup. Phr. no b6 min+b4+b7+b2	sup. Phr. add 7 octatonic	7#5b9 (b6=#5)
F 7							

Locrian - A form

	fingering	dim+b2+b6	dim+4+b7 m7/11b5	Locrian no b7 dim+b2+b6 +4	Locrian no b6 dim+4+b7+b2	Loc. add 7 octatonic	
F4							m7b5b9 not acceptable
F 4/5							m7b5b9 not acceptable

super Locrian - A form

	fingering	dim+b2+b6 (b4 = 3)	dim+b4+b7 (b4 = 3)	sup. Loc. no b7 dim+b2+b6+b4	sup. Loc. no b6 dim+b4+b7+b2	sup. Loc. add 7 octatonic	7b5b9
F 4							
F 4/5							

D form

On all of the gray and black-backed diagrams, put the “1” on the desired tone center. On the fingering diagrams (on the far left of each row), put the circled note on the desired tone center. Notes with no colored background are in the mode, but not in the pentatonic. The octatonic version shows the seventh chord in black, the remaining tones are in the mode, except the added #5 or 7 is a chromatic tone. With ninth arpeggios, the middle or low octave is black and the other octave is gray.

The fingering numbers such as F1 or F1/2 refer to the *parent major scale*.

Lydian - D Form

	fingering	maj +2+6 ma6/9	maj +#4+7 ma7/#11	Lydian. no 7 maj+2+6+#4	Lydian no 6 maj+#4+b7+2	Lyd. add #5 octatonic	ma9
F 4/5							

Lydian dominant - D Form

	fingering	maj +2+6 ma6/9	maj +#4+b7 7/#11	Lyd. dom. no b7 maj+2+6+#4	Lyd. dom. no 6 maj+#4+b7+2	Lyd. dom. & 7 octatonic	9
F 4/5							

major (Ionian) - D Form

	fingering	maj +2+6 ma6/9	maj +4+7 ma7/11	major no 7 maj+2+6+4	major no 6 maj+4+7+2	major add #5 octatonic	ma9
F 2							
F 2/3							

melodic minor - D Form

	fingering	minor +2+6 m6/9	minor +4+7 m(ma7)/11	mel. min. no b7 min+2+6+4	mel. min. no 6 min+4+7+2	mel. m. add #5 octatonic	m9(ma7)
F 2							
F 2/3							

Mixolydian - D Form

	fingering	maj +2+6 ma6/9	maj +4+b7 7/11	Mixo. no b7 maj+2+6+4	Mixo. no 6 maj+4+b7+2	Mixo. add 7 octatonic	9
F 6							

Dorian - D form

	fingering	min +2+6 m6/9	min +4+b7 m7/11	Dorian no b7 min+2+6+4	Dorian no 6 min+4+b7+2	Dor. add 7 octatonic	m9
F 3							

Aeolian - D form

	fingering	min +2+b6	min +4+b7 m7/11	Aeo. no b7 min+2+b6+4	Aeo. no b6 min+4+b7+2	Aeo. add 7 octatonic	m9
F 7							
F 7/1							

harmonic minor (Aeolian natural seven) - D form

	fingering	min +2+b6	min+4+7 m(ma7)/11	har. m. no 7 min+2+b6+4	har. m. no b6 min+4+7+2	no scale	m9(ma7)
F 7						#5 (b6) and natural 7 are already in use	

Aeolian dominant - D form

	fingering	maj+2+b6	maj+4+b7 7/11	Aeo. dom. no b7 maj +2+b6+4	Aeo. dom. no b6 maj+4+b7+2	Aeo. dom. add 7 octatonic	9
F 7							

Phrygian - D form

	fingering	min+b2+b6	min+4+b7 m7/11	Phry. no b7 min+b2+b6 +4	Phry no b6 min+4+b7+b2	Phry. add 7 octatonic	
F 4							m7b9 not acceptable
F 4/5							m7b9 not acceptable

Phrygian dominant- D form

	fingering	maj+b2+b6	maj+4+b7 7/11	Phr. dom. no b7 maj+b2+b6 +4	Phr. dom. no b6 maj+4+b7+b2	Phr. dom. add 7 octatonic	7b9
F 4							

super Phrygian - D form

	fingering	min+b2+b6	min+b4+b7 (b4 = 3)	sup. Phr. no b7 min+b2+b6 +b4	sup. Phr. no b6 min+b4+b7+b2	sup. Phr. add 7 octatonic	7#5b9 (b6=#5)
F 4							

Locrian - D form

	fingering	dim+b2+b6	dim+4+b7 m7/11b5	Locrian no b7 dim+b2+b6 +4	Locrian no b6 dim+4+b7+b2	Loc. add 7 octatonic	
F 1							m7b5b9 not acceptable
F 1/2							m7b5b9 not acceptable

super Locrian - D form

	fingering	dim+b2+b6 (b4 = 3)	dim+b4+b7 (b4 = 3)	sup. Loc. no b7 dim+b2+b6+b4	sup. Loc. no b6 dim+b4+b7+b2	sup. Loc. add 7 octatonic	7b5b9
F 1							

G form

On all of the gray and black-backed diagrams, put the "1" on the desired tone center. On the fingering diagrams (on the far left of each row), put the circled note on the desired tone center. Notes with no colored background are in the mode, but not in the pentatonic. The octatonic version shows the seventh chord in black, the remaining tones are in the mode, except the added #5 or 7 is a chromatic tone. With ninth arpeggios, the middle or low octave is black and the other octave is gray.

The fingering numbers such as F1 or F1/2 refer to the *parent major scale*.

Lydian - G Form

	fingering	maj +2+6 ma6/9	maj +#4+7 ma7/#11	Lydian. no 7 maj+2+6+#4	Lydian no 6 maj+#4+b7+2	Lyd. add #5 octatonic	ma9
F 2							

Lydian dominant - G Form

	fingering	maj +2+6 ma6/9	maj +#4+b7 7/#11	Lyd. dom. no b7 maj+2+6+#4	Lyd. dom. no 6 maj+#4+b7+2	Lyd. dom. & 7 octatonic	9
F 2							

Major (Ionian) - G Form

	fingering	maj +2+6 ma6/9	maj +4+7 ma7/11	major no 7 maj+2+6+4	major no 6 maj+4+7+2	major add #5 octatonic	ma9
F 6							

melodic minor - G Form

	fingering	minor +2+6 m6/9	minor +4+7 m(ma7)/11	mel. min. no b7 min+2+6+4	mel. min. no 6 min+4+7+2	mel. m. add #5 octatonic	m9(ma7)
F 6							

Mixolydian - G Form

	fingering	major +2+6 ma6/9	maj +4+b7 7/11	Mixo. no b7 maj+2+6+4	Mixo. no 6 maj+4+b7+2	Mixo. add 7 octatonic	9
F 3							

Dorian - G form

	fingering	min +2+6 m6/9	min +4+b7 m7/11	Dorian no b7 min+2+6+4	Dorian no 6 min+4+b7+2	Dor. add 7 octatonic	m9
F 7							

Aeolian - G form

	fingering	min +2+b6	min +4+b7 m7/11	Aeo. no b7 min+2+b6+4	Aeo. no b6 min+4+b7+2	Aeo. add 7 octatonic	m9
F 4							
F 4/5							

harmonic minor (Aeolian natural seven) - G form

	fingering	min+2+b6	min+4+7 m(ma7)/11	har. m. no 7 min+2+b6+4	har. m. no b6 min+4+7+2	no scale #5 (b6) and natural 7 are already in use	m9(ma7)
F 4/5							

Aeolian dominant - G form

	fingering	maj+2+b6	maj+4+b7 7/11	Aeo. dom. no b7 maj+2+b6+4	Aeo. dom. no b6 maj+4+b7+2	Aeo. dom. add 7 octatonic	9
F 4							
F 4/5							

Phrygian - G form

	fingering	min+b2+b6	min+4+b7 m7/11	Phry. no b7 min+b2+b6 +4	Phry no b6 min+4+b7+b2	Phry. add 7 octatonic	
F 1							m7b9 not acceptable
F 1/2							m7b9 not acceptable

Phrygian dominant- G form

	fingering	maj+b2+b6	maj+4+b7 7/11	Phr. dom. no b7 maj+b2+b6 +4	Phr. dom. no b6 maj+4+b7+b2	Phr. dom. add 7 octatonic	7b9
F 1							

super Phrygian - G form

	fingering	min+b2+b6	min+b4+b7 (b4 = 3)	sup. Phr. no b7 min+b2+b6 +b4	sup. Phr. no b6 min+b4+b7+b2	sup. Phr. add 7 octatonic	7#5b9 (b6=#5)
F 1							
F 1/2							

Locrian - G form

	fingering	dim+b2+b6	dim+4+b7 m7/11b5	Locrian no b7 dim+b2+b6 +4	Locrian no b6 dim+4+b7+b2	Loc. add 7 octatonic	
F 5							m7b5b9 not acceptable

super Locrian - G form

	fingering	dim+b2+b6 (b4 = 3)	dim+b4+b7 (b4 = 3)	sup. Loc. no b7 dim+b2+b6+b4	sup. Loc. no b6 dim+b4+b7+b2	sup. Loc. add 7 octatonic	7b5b9
F 5							

C form

On all of the gray and black-backed diagrams, put the “1” on the desired tone center. On the fingering diagrams (on the far left of each row), put the circled note on the desired tone center. Notes with no colored background are in the mode, but not in the pentatonic. The octatonic version shows the seventh chord in black, the remaining tones are in the mode, except the added #5 or 7 is a chromatic tone. With ninth arpeggios, the middle or low octave is black and the other octave is gray. The fingering numbers such as F1 or F1/2 refer to the *parent major scale*.

Lydian - C Form

	fingering	maj +2+6 ma6/9	maj +#4+7 ma7/#11	Lydian. no 7 maj+2+6+#4	Lydian no 6 maj+#4+b7+2	Lyd. add #5 octatonic	ma9
F 6							

Lydian dominant - C Form

	fingering	maj +2+6 ma6/9	maj +#4+b7 7/#11	Lyd. dom. no b7 maj+2+6+#4	Lyd. dom. no 6 maj+#4+b7+2	Lyd. dom. & 7 octatonic	9
F 6							

major (Ionian) - C Form

	fingering	maj +2+6 ma6/9	maj +4+7 ma7/11	major no 7 maj+2+6+4	major no 6 maj+4+7+2	major add #5 octatonic	ma9
F 3							

melodic minor - C Form

	fingering	minor +2+6 m6/9	minor +4+7 m(ma7)/11	mel. min. no b7 min+2+6+4	mel. min. no 6 min+4+7+2	mel. m. add #5 octatonic	m9(ma7)
F 3							

Mixolydian - C Form

	fingering	maj +2+6 ma6/9	maj +4+b7 7/11	Mixo. no b7 maj+2+6+4	Mixo. no 6 maj+4+b7+2	Mixo. add 7 octatonic	9
F 7							

Dorian - C form

	fingering	min +2+6 m6/9	min +4+b7 m7/11	Dorian no b7 min+2+6+4	Dorian no 6 min+4+b7+2	Dor. add 7 octatonic	m9
F 4/5							

Aeolian - C form

	fingering	min +2+b6	min +4+b7 m7/11	Aeo. no b7 min+2+b6+4	Aeo. no b6 min+4+b7+2	Aeo. add 7 octatonic	m9
F 1/2							

harmonic minor (Aeolian natural seven) - C form

	fingering	min+2+b6	min+4+7 m(ma7)/11	har. min. no 7 min+2+b6+4	har. m. no b6 min+4+7+2	no scale	m9(ma7)
F 1						#5 (b6) and natural 7 are already in use	
F 1/2						#5 (b6) and natural 7 are already in use	

Aeolian dominant - C form

	fingering	maj+2+b6	maj+4+b7 7/11	Aeo. dom. no b7 maj+2+b6+4	Aeo. dom. no b6 maj+4+b7+2	Aeo. dom. add 7 octatonic	9
F 1							

Phrygian - C form

	fingering	min+b2+b6	min+4+b7 m7/11	Phry. no b7 min+b2+b6 +4	Phry no b6 m7/11 +b2	Phry. add 7 octatonic	
F 5							m7b9 not acceptable

Phrygian dominant- C form

	fingering	maj+b2+b6	maj+4+b7 7/11	Phr. dom. no b7 maj+b2+b6 +4	Phr. dom. no b6 maj+4+b7+b2	Phr. dom. add 7 octatonic	7b9
F 5							

super Phrygian - C form

	fingering	min+b2+b6	min+b4+b7 (b4= 3)	sup. Phr. no b7 min+b2+b6 +b4	sup. Phr. no b6 min+b4+b7+b2	sup. Phr. add 7 octatonic	7#5b9 (b6=#5)
F 5							

Locrian - C form

	fingering	dim+b2+b6	dim+4+b7 m7/11b5	Locrian no b7 dim+b2+b6 +4	Locrian no b6 dim+4+b7+b2	Loc. add 7 octatonic	
F 2							m7b5b9 not acceptable

super Locrian - C form

	fingering	dim+b2+b6 (b4 = 3)	dim+b4+b7 (b4 = 3)	sup. Loc. no b7 dim+b2+b6+b4	sup. Loc. no b6 dim+b4+b7+b2	sup. Loc. add 7 octatonic	7b5b9
F 2							

MODAL KEY-SCALE-CYCLE DIAGRAMS

Uses of These Diagrams

The diagrams in this section show the cycle of modes in the same key for the purpose of transcribing, composing, arranging and improvising. Build a strong awareness of these options.

Major Scale Fingering Numbers

In-position major scale fingerings shown below are numbered according to the number of lowest note fingered with the index finger on the sixth, fifth or fourth string. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on an adjacent string.

In-Position Fingerings

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall. Here are the three-note-per-string major scale fingerings:

Three Note-Per-String Fingerings

fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7	fingering 7/1

Three-note-per-string major scale fingerings shown above combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on.

Reference Major Scale Fingerings

in-position major scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
3 index reaches	2 pinky reaches	no reaches	2 index reaches	4 index reaches	1 pinky reach	no reaches

in-position major scale fingerings by formula

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
3 index reaches	2 pinky reaches	no reaches	2 index reaches	4 index reaches	1 pinky reach	no reaches

three-note-per-string major scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string major scale fingerings by formula

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

Root ID Versions of Major Scales in Twelve Positions

twelve in-position fingerings, numbered by scale tones and by formula

In this **root ID** naming system, the first number indicates the string where the lowest-octave tone center is located. The second number indicates the fretting hand finger that frets the tone center. 1 = index, 2 = middle, 3 = ring and 4 = little finger. "L" is shown after the number "1" when the index finger reaches one fret toward the head of the guitar for the low-octave tone center ("L" to indicate low pitch). A note in parenthesis indicates an optional location to fret a note on an adjacent string.

This is the most discreet system of positions for the major scale.

6-1 	6-1L 	4-1 	4-1L 	5-4 	5-3
5-2 	5-1 	5-1L 	6-4 	6-3 	6-2

Major Sharp Five & Harmonic Minor Scale Fingerings

in-position major sharp five scale fingerings, numbered by scale tones

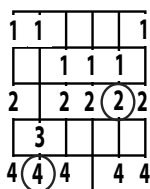
fingering 1	fingering 2	fingering 3	fingering 4	fingering #5	fingering 6	fingering 7

three-note-per-string major sharp five scale fingerings, numbered by scale tones

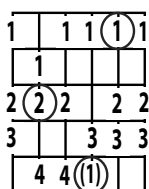
fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/#5	fingering #5/6	fingering 6/7

in-position harmonic minor scale fingerings, numbered by fingers

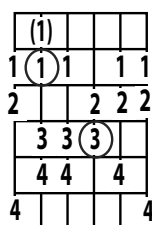
fingering 1



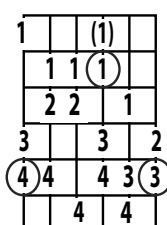
fingering 2



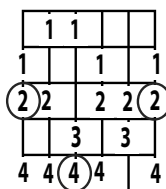
fingering 3



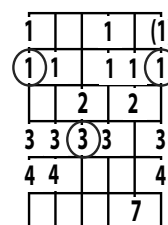
fingering 4



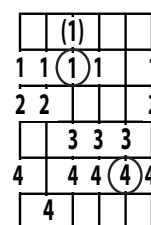
fingering 5



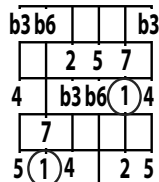
fingering 6



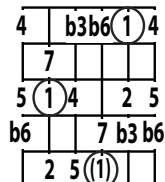
fingering 7

**in-position harmonic minor scale fingerings, numbered by scale tones**

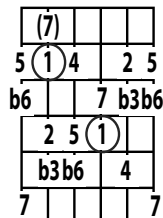
fingering 1



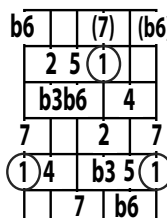
fingering 2



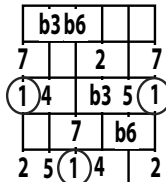
fingering 3



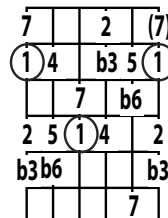
fingering 4



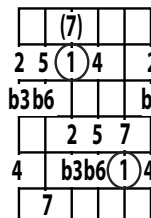
fingering 5



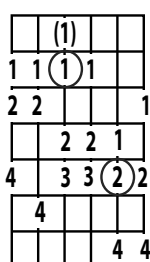
fingering 6



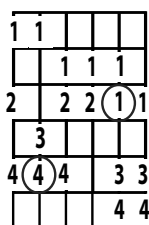
fingering 7

**three-note-per-string harmonic minor scale fingerings, numbered by fingers**

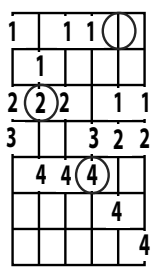
fingering 7/1



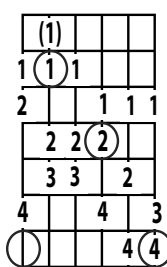
fingering 1/2



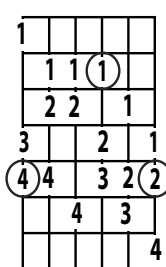
fingering 2/3



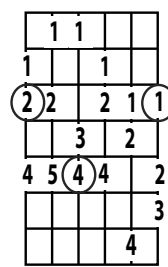
fingering 3/4



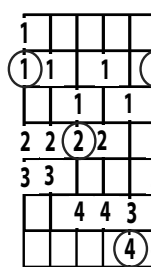
fingering 4/5



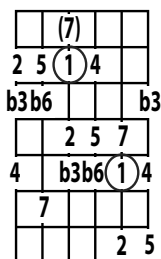
fingering 5/6



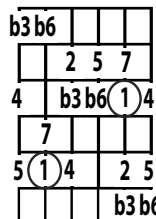
fingering 6/7

**three-note-per-string harmonic minor scale fingerings, numbered by scale tones**

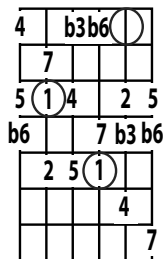
fingering 7/1



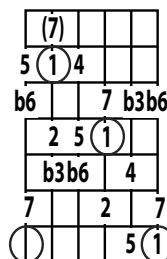
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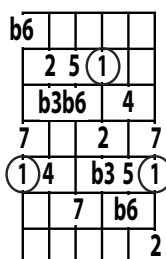
fingering 2/3



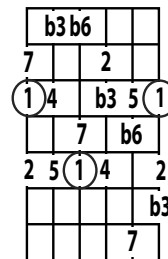
fingering 3/4



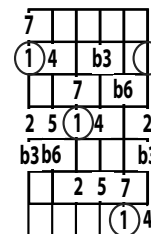
fingering 4/5



fingering 5/6



fingering 6/7



Melodic Minor Scale Fingerings

in-position melodic minor scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

in-position melodic minor scale fingerings by formula

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

three-note-per-string melodic minor scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string melodic minor scale fingerings by formula

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

Harmonic Major Scale Fingerings

in-position harmonic major (major flat six) scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

in-position harmonic major (major flat six) scale fingerings by formula

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

three-note-per-string harmonic major (major flat six) scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string harmonic major (major flat six) scale fingerings by formula

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

Key-Scale Mode Cycle Diagrams

The seven mode diagrams connected to each circle by bold lines are the fingering diagrams for the each of the seven modes of the major scale. The fingerings are primarily in-position versions and often show optional fingerings for tones in parenthesis. The numbers on the diagrams are numbered scale tones (or altered numbers such as b3). When a note is in parenthesis, it is an option for the same numbered tone on an adjacent string. “6-1” refers to the tone center on the sixth string, fretted with the index (“1”) finger. See [finger orientation](#). For fretting finger numbers in major scale fingerings, see [Prime Scales, Chords and Arpeggios/Major Scale Fingering](#).

the order of modes

As you progress around any of the cycle (circles) of mode diagrams, beginning with Lydian, the modes darken in mood, in the order Lydian, major (Ionian), Mixolydian, Dorian, Aeolian, Phrygian and Locrian. See [Modes In Order of Darkening Moods](#). Additional scales are shown on the far left, the far right and on the top at the right of Locrian. These are notable jazz improv scales.

formula numbers

The numbers within the mode diagrams represent the tones and altered tones of a major scale built on the tone center, in this case, on the C major scale. “b3” would represent “Eb”.

abbreviated formulas

The mode formulas are shown alongside the bold lines that connect them to the center circle. Major is the “model” to which the modes are related, so it has no altered numbers. Lydian has a #4 and Mixolydian has a b7. The remaining modes “accumulate” flats in their formula, as demonstrated in the “altered tones in formula” column in the chart below.

mode	formula	altered tones in formula
Mixolydian	1-2-3-4-5-6-b7	b7
Dorian	1-2-b3-4-5-6-b7	b7, b3
Aeolian	1-2-b3-4-5-b6-b7	b7, b3, b6
Phrygian	1-b2-b3-4-5-b6-b7	b7, b3, b6, b2
Locrian	1-b2-b3-4-b5-b6-b7	b7, b3, b6, b2, b5

finger orientation

In the center circle, just below the key name, two numbers are shown, separated with a hyphen. The first number is the string of the lowest octave tone center and the second number is the finger which frets the lowest octave tone center. “6-2”, for example means sixth string, second finger is the location of the lowest octave tone center. This tone center is common to all of the diagrams in the set around the circle.

Seven-Tone (Heptatonic) Scale Fingerings

The top half of each even-numbered page below (on the “left-facing” pages) shows the fingerings for twenty-eight seven-tone scales (heptatonic scales). There are two versions each of Phrygian dominant and super Phrygian (the second version of each features an augmented triad basis). The finger numbers for the left hand represent:

- 1 index finger
- 2 middle finger
- 3 ring finger
- 4 little finger

When a number is in parenthesis, it is an optional fingering for the same note on an adjacent string.

Subset Triads Elaborated to Ninth

The bottom half of each even-numbered page below (on the “left-facing” pages) shows formula numbers for the twenty-six seven-tone scales.

subset triads

Most of the modes are shown with their triad basis in black.

elaborating to sevenths and ninths

When the seventh and ninth are shown in grey, when they are usable. Arpeggios that have a minor or diminished basis (in black) and have a flat nine, are shown with a grey seven (or flat seven) and the ninth is plain (no black nor grey background). The notes should be conceived and played at first in order of thirds: 1-3-5-7-2. Some of the numbers may have accidentals, such as 1-b3-5-b7-2.

Lydian dominant flat five substitute

Lydian dominant is in the right column of fingerings, next to the top. The flat five substitute for Lydian dominant is based on an augmented triad with tones #4-b7-2 with its root on “#4”, which is equivalent to a flat five of one. The #IV7#5 arpeggio, “#4-b7-2-3” in the key of “1”, makes a 7#5 arpeggio on “#4” (1-3-#5-b7). The #IV7#5#9 arpeggio includes tones “#4-b7-2-3-6”. In the key of “#4”, these #IV arpeggios are in #IV super Locrian mode.

Mixolydian sharp one with a diminished seventh basis

Shown in the lower right corner of each block of fingerings, this shows a sharp one diminished seventh arpeggio (#1-3-5-b7) in black as part of Mixolydian sharp one.

Aeolian flat one with an augmented triad or diminished seventh basis

Shown in the upper right corner of each block of fingerings, Aeolian flat one is based on the “bI augmented triad, shown in black (b1-3-5).

The diagram immediately below “Aeolian flat one aug.” in each block is the same scale featuring diminished seventh arpeggio (#1-2-4-b6) in black. The bI diminished seventh arpeggio has four alternate names: bI dim7, IIdim7, IVdim7 or bVI dim 7.

Subset Triads Elaborated to Pentatonic Add Two and Six

Pentatonic scales based on the model of the common major pentatonic use a triad with an added two and six. The “two” may be two or flat two, the “six” may be six or flat six. Such scales can be called “six-nine” pentatonic scales, using chord-naming conventions. See the chapter “[Chord-Naming Conventions](#).” Major pentatonic is a major triad with an added two and six, which are the notes of a major 6/9 chord (1-2-3-5-6). With a flatted third, major pentatonic would be a *minor* triad with an added two and six, which would make a minor 6/9 chord (1-2-b3-5-6).

Subset Triads Elaborated to Pentatonic Add Four and Seven

Pentatonic scales based on the model of the common minor pentatonic use a triad with an added two and six. The “four” may be four, sharp four or flat four (flat four is the same pitch as three). The “seven” may be seven or flat seven. Such scales can be called “seven-eleven” pentatonic scales, using chord-naming conventions. See the chapter “[Chord-Naming Conventions](#).” Minor pentatonic is a minor triad with an added four and flat seven, which are the notes of a minor seventh chord (1-b3-4-5-b7). With a natural third, minor pentatonic would be a *major* triad with an added four and flatted seventh, which would make a 7/11 chord (1-3-4-5-b7).

“Synthetic” Pentatonic Scales

See the chapter [Scale-Tone Arpeggios and Pentatonics](#)/Modal Pentatonic Scales for examples of common pentatonic scales. Additional pentatonic scales can be conceived. This section (Modes/Modal Key Scale Diagrams) expands the library of pentatonic by basic two pentatonic scales on each of twenty six seven tone scales (an “add 2+6” version and an “add 4+7” version), making fifty-two pentatonic scale types, of which five or ten are in common use. The remaining forty-five or more pentatonic scales could be called “synthetic” pentatonic scales, since they were conceived but not derived from scales in common use.

Like the less common seven-tone scales, these synthetic pentatonic scales can be cautiously worked into your composition and improvisation, being careful to gradually introduce them to your listeners. Most people need familiarity to like the music they are listening to.

Commonality Tables of Subsets of 28 Heptatonic Scales

Each of the twenty eight heptatonic (seven-tone) scales below are shown with three categories of subsets: ninth arpeggios, pentatonic scales that add versions two and six to a triad and pentatonic scales that versions of four and seven to a triad. Subsets are described above, diagramed below in each of seven fingerings areas and listed on the tables immediately below. The first table is grouped by heptatonic scale, the next by ninth arpeggios, then triad+two+six, then triad+4+7. There are two versions each of Phrygian dominant and super Phrygian.

grouped by heptatonic scale

	heptatonic scale	ninth arp.	triad + two + six	triad + four + seven	parent
1	major scale	ma9	major+2+6	major+4+7	major
2	major sharp five scale	ma9#5	augmented+2+6	augmented+4+7	harmonic minor bIII
3	melodic minor scale	minor 9 (ma7)	minor+2+6	minor+4+7	major b3
4	harmonic major scale	ma9	major+2+b6	major+4+7	major b6
5	Mixolydian	9	major+2+6	major+4+b7	major V
6	Mixolydian sharp one	dim. 7	dim+b2+b6	dim+b4+6(bb7)	harmonic min. VII
7	Mixolydian flat two	7b9	major+b2+6	major+4+b7	harmonic maj. V
8	Dorian	m9	minor+2+6	minor+4+b7	major II
9	Dorian sharp four	m9	minor+2+6	minor+#4+b7	harmonic min. IV
10	Dorian flat five	m9b5	dim+2+6	dim+4+b7	harmonic maj. II
11	Dorian flat two	m7b9	minor+b2+6	minor+4+b7	melodic minor II
12	Aeolian	m9	minor+2+b6	minor+4+b7	major VI
13	Aeolian dominant	9	major+2+b6	major+4+b7	melodic minor V
14	Aeolian flat five	m9b5	dim+2+b6	dim+4+b7	melodic minor VI
15	Aeolian flat one	aug. triad	aug+#2+b6	aug+#4+7	harmonic maj. bVI
16	harmonic minor scale	minor 9 (ma7)	minor+2+b6	minor+4+7	harmonic minor I
17	Phrygian	m7b9	minor+b2+b6	minor+4+b7	major III
18	Phrygian dominant	7b9	major+b2+b6	major+4+b7	harmonic min. V
19	Phrygian dominant (aug.)	7#5b9	aug+b2+5	aug+4+b7	harmonic min. V
20	super Phrygian	7b9	major+b2+b6	major+b2+b7	harmonic maj. III
21	super Phrygian (aug.)	7#5b9	aug+b2+5	aug+b2+b3	harmonic maj. III
22	Lydian	ma9	major+2+6	major+#4+7	major IV
23	Lydian sharp two	ma7#9	major+#2+6	major+#4+7	harmonic minor bVI
24	Lydian dominant	9	major+2+6	major+#4+b7	melodic minor IV
25	Lydian augmented (Phyb1)	ma9#5	aug+2+6	aug+#4+7	melodic minor bIII
26	Lydian diminished (b3)	minor 9 (ma7)	minor+2+6	minor+#4+7	harmonic maj. IV
27	Locrian	m7b5b9	dim+b2+b6	dim+4+b7	major VII
28	Locrian natural six	m7b5b9	dim+b2+6	dim+4+b7	harmonic minor II
29	Locrian double flat 7	dim7b9	dim+b2+6	dim+4+bb7	harmonic major VII
30	super Locrian	7#5b9	mab5+b2+b6	mab5+b2+b3	melodic minor VII

grouped by ninths

	ninth arp.	heptatonic scale	triad + two + six	triad + four + seven^a	parent
1	ma9	major scale Lydian harmonic major	major+2+6 major+2+6 major+2+b6	major+4+7 major+#4+7 major+4+7	major major IV major b6
2	ma7#9	Lydian sharp two	major+#2+6	major+#4+7	harmonic minor bVI
3	ma9#5	major sharp five scale Lydian augmented	augmented+2+6 aug+2+6	augmented+4+7 aug+#4+7	harmonic minor bIII melodic minor bIII
4	ma7#5#9	Aeolian flat one	aug+#2+b6	aug+#4+7	harmonic maj. bVI
5	9	Mixolydian Lydian dominant Aeolian dominant	major+2+6 major+2+6 major+2+b6	major+4+b7 major+#4+b7 major+4+b7	major V melodic minor IV melodic minor V
6	7b9	Phrygian dominant super Phrygian Mixolydian flat two	major+b2+b6 major+b2+b6 major+b2+6	major+4+b7 major+b2+b7 major+4+b7	harmonic min. V harmonic maj. III harmonic maj. V
7	7#5b9	super Locrian Phrygian dominant (aug.) super Phrygian (aug.)	mab5+b2+b6 aug+b2+5 aug+b2+5	mab5+b2+b3 aug+4+b7 aug+b2+b3	melodic minor VII harmonic min. V harmonic maj. III
8	m9	Dorian Aeolian Dorian sharp four	minor+2+6 minor+2+b6 minor+2+6	minor+4+b7 minor+4+b7 minor+#4+b7	major II major VI harmonic min. IV
9	m7(b9)	Phrygian Dorian flat two	minor+b2+b6 minor+b2+6	minor+4+b7 minor+4+b7	major III melodic minor II
10	minor 9 (ma7)	melodic minor scale harmonic minor Lydian diminished	minor+2+6 minor+2+b6 minor+2+6	minor+4+7 minor+4+7 minor+#4+7	major b3 major #5 VI harmonic maj. IV
11	m9b5	Dorian flat five Aeolian flat five	dim+2+6 dim+2+b6	dim+4+b7 dim+4+b7	harmonic maj. II melodic minor VI
12	m7b5b9	Locrian	dim+b2+b6	dim+4+b7	major VII
13	dim7b9	Mixolydian sharp one Locrian double flat seven	dim+b2+b6 dim+b2+6	dim+b4+6(bb7) dim+4=bb7	harmonic min. #V harmonic major VII

grouped by triad + two + six

	triad + two + six	heptatonic scale	triad + four + seven	ninth arp.	parent
1	major+2+6	major scale Lydian Mixolydian Lydian dominant	major+4+7 major+#4+7 major+4+b7 major+#4+b7	ma9 ma9 9 9	major major IV major V melodic minor IV
2	major+#2+6	Lydian sharp two	major+#4+7	ma7#9	harmonic minor bVI
3	major+2+b6	harmonic major Aeolian dominant	major+4+7 major+4+b7	ma9 9	major b6 melodic minor V
4	major+b2+6	Mixolydian flat two	major+4+b7	7b9	harmonic major V
5	major+b2+b6	Phrygian dominant	major+4+b7	7b9	harmonic minor V
6	aug+2+6	major sharp five Lydian augmented	aug+#4+7 aug+#4+7	9#5 9#5	melodic minor bIII melodic minor bIII
7	aug+#2+b6	Aeolian flat one	aug+#4+7	aug. triad	harmonic maj. bVI
8	aug+b2+b6	Phrygian dominant (aug.) super Phrygian (aug.)	aug+4+b7 aug+b2+b3	7#5b9 7#5b9	harmonic minor V harmonic maj. III
9	mab5+b2+b6	super Locrian	mab5+b2+b3	7#5b9	melodic minor VII
10	minor+2+6	Dorian Dorian sharp four melodic minor scale Lydian diminished	minor+4+b7 minor+#4+b7 minor+4+7 minor+#4+7	m9 m9 minor 9 (ma7) minor 9 (ma7)	major II harmonic minor IV major b3 harmonic maj. IV
11	minor+2+b6	Aeolian harmonic minor	minor+4+b7 minor+4+7	m9 minor 9 (ma7)	major VI major #5 VI
12	minor+b2+6	Dorian flat two	minor+4+b7	m7	melodic minor II
13	minor+b2+b6	Phrygian super Phrygian	minor+4+b7 major+b4+b7	m7 7b9	major III harmonic major III
14	dim+2+6	Dorian flat five	dim+4+b7	m9b5	harmonic maj. II
15	dim+2+b6	Aeolian flat five	dim+4+b7	m9b5	melodic minor VI
16	dim+b2+b6	Locrian Locrian double flat seven Mixolydian sharp one	dim+4+b7 dim+4+bb7 dim+b4+6(bb7)	m7b5 dim7b9 dim. 7	major VII harmonic major VII harmonic min. #V

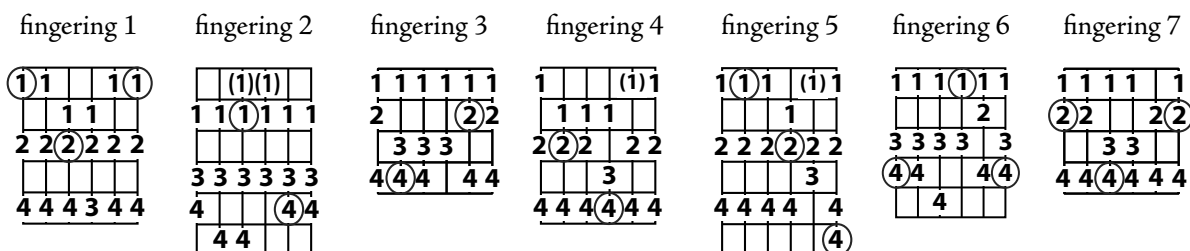
grouped by triad + four + seven

	triad + four + seven	triad + two + six	heptatonic scale	ninth arp.	parent
1	major+4+7	major+2+6	major scale	ma9	major
		major+2+b6	harmonic major	ma9	major b6
		major+#2+6	Lydian sharp two	ma7#9	harmonic minor bVI
2	major+4+b7	major+2+6	Mixolydian	7b9	harmonic major V
		major+b2+6	Mixolydian flat two	9	major V
		major+2+b6	Aeolian dominant	9	melodic minor V
		major+b2+b6	Phrygian dominant	7b9	harmonic minor V
3	major+#4+7	major+2+6	Lydian	ma9	major iV
	major+#4+b7	major+2+6	Lydian dominant	9	melodic minor IV
4	major+b2+b7	major+b2+b6	super Phrygian	7b9	harmonic major III
5	aug+#4+7	aug+2+7	Phrygian flat one	ma9#5	melodic minor bIII
		aug+2+6	Lydian augmented	9#5	melodic minor bIII
		aug+#2+b6	Aeolian flat one	aug. triad	harmonic major bVI
7	mab5+b2+b3	mab5+b2+b6	super Locrian	7#5b9	melodic minor VII
8	minor+4+7	minor+2+6	melodic minor scale	minor 9 (ma7)	major b43
		minor+2+b6	harmonic minor	minor 9 (ma7)	major #5 VI
		minor+2+6	Dorian	m9	major II
		minor+2+b6	Aeolian	m9	major VI
		minor+b2+6	Dorian flat two	m7	melodic minor II
		minor+b2+b6	Phrygian	m7	major III
9	minor+#4+7	minor+2+6	Lydian diminished	minor 9 (ma7)	harmonic major IV
10	minor+#4+b7	minor+2+6	Dorian sharp four	m9	harmonic minor IV
11	dim+4+b7	dim+2+6	Dorian flat five	m9b5	harmonic major II
		dim+2+b6	Aeolian flat five	m9b5	melodic minor VI
		dim+b2+b6	Locrian	m7b5b9	major VII
		dim+b2+6	Locrian natural six	m7b5b9	harmonic minor II
12	dim+b4+6(bb7)	dim+b2+b6	Mixolydian sharp one	dim7b9	harmonic min. #V
13	dim+4+bb7	dim+b2+6	Locrian double flat seven	dim7b9	harmonic major VII

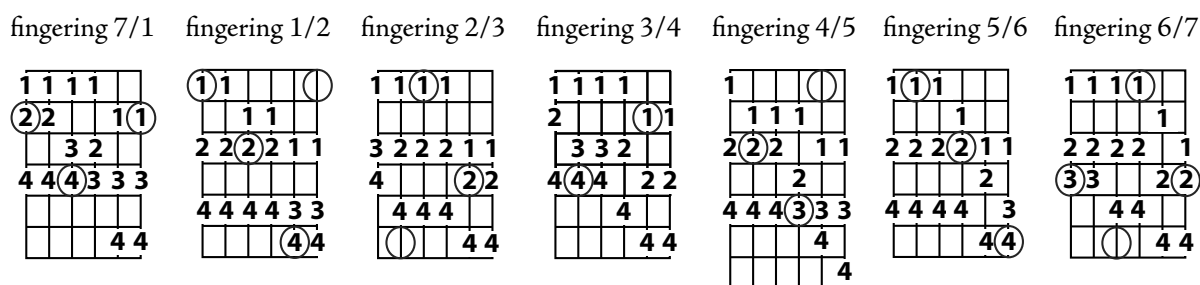
Modal Key Scale Cycle Diagram Pages Named by Major Fingering

The pages of Modal Key Scale Cycle Diagrams below are primarily named by the in-position major scale fingering shown on each half page to the right of the center of the circle, labeled :major". See [Major Scale Fingering/In-Position and Three-Note-Per-String Fingerings](#). In fingering 4, the fingerings are sometimes the three-note-per-string version fingering 4/5.

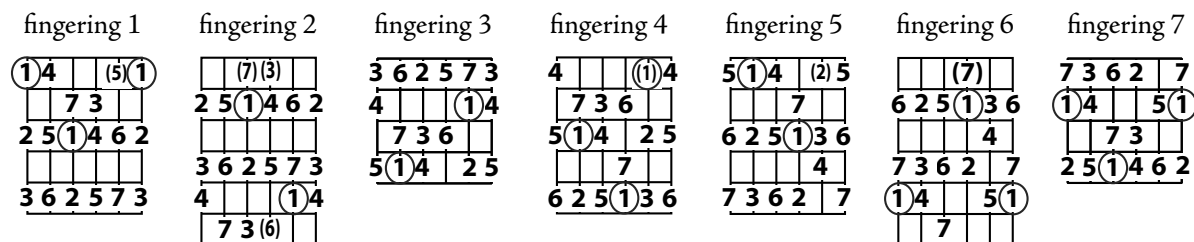
in-position fingerings, numbered by fingers



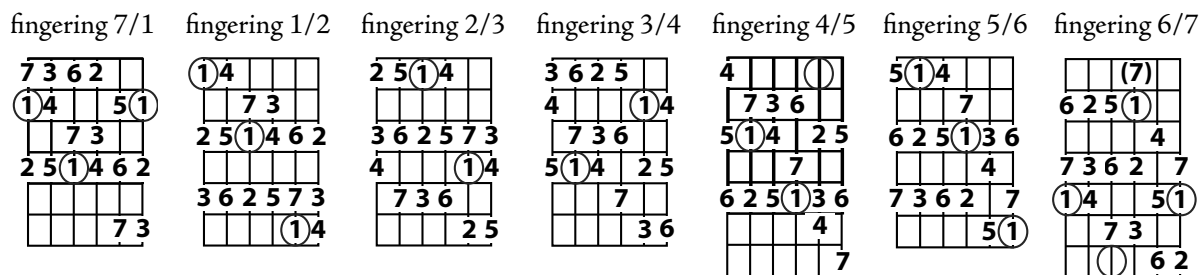
three-note-per-string fingerings, numbered by fingers



in-position fingerings, numbered by scale tones



three-note-per-string fingerings, numbered by scale tones



Mode Variants of Major Scale Fingering 1

Aeolian flat one aug.

super Phryg. (aug.)

Phry. dom. (aug.)

Locrian natural six

Locrian

super Locrian

Locrian double flat 7

Lydian augmented

Lydian diminished

harmonic major

super Phrygian

Phrygian dominant

Phrygian

harmonic minor

Aeolian flat five

Aeolian dominant

Aeolian

Dorian flat two

Dorian flat five

Dorian sharp four

Dorian

b7, b3, b6, b2, b5

b7, b3, b6

b7, b3

b7

Lydian

Lydian dominant

Lydian #2

major

major sharp five

melodic minor

Mixolydian

Mixolydian sharp one

Mixolydian flat two

FINGERING

Aeolian flat one aug.

super Phryg. (aug.)

Phry. dom. (aug.)

Locrian natural six

Locrian

super Locrian

Locrian double flat 7

Lydian augmented

Lydian diminished

harmonic major

super Phrygian

Phrygian dominant

Phrygian

harmonic minor

Aeolian flat five

Aeolian dominant

Aeolian

Dorian flat two

Dorian flat five

Dorian sharp four

Dorian

b7, b3, b6, b2, b5

b7, b3, b6

b7, b3

b7

Lydian

Lydian dominant

Lydian #2

major

major sharp five

melodic minor

Mixolydian

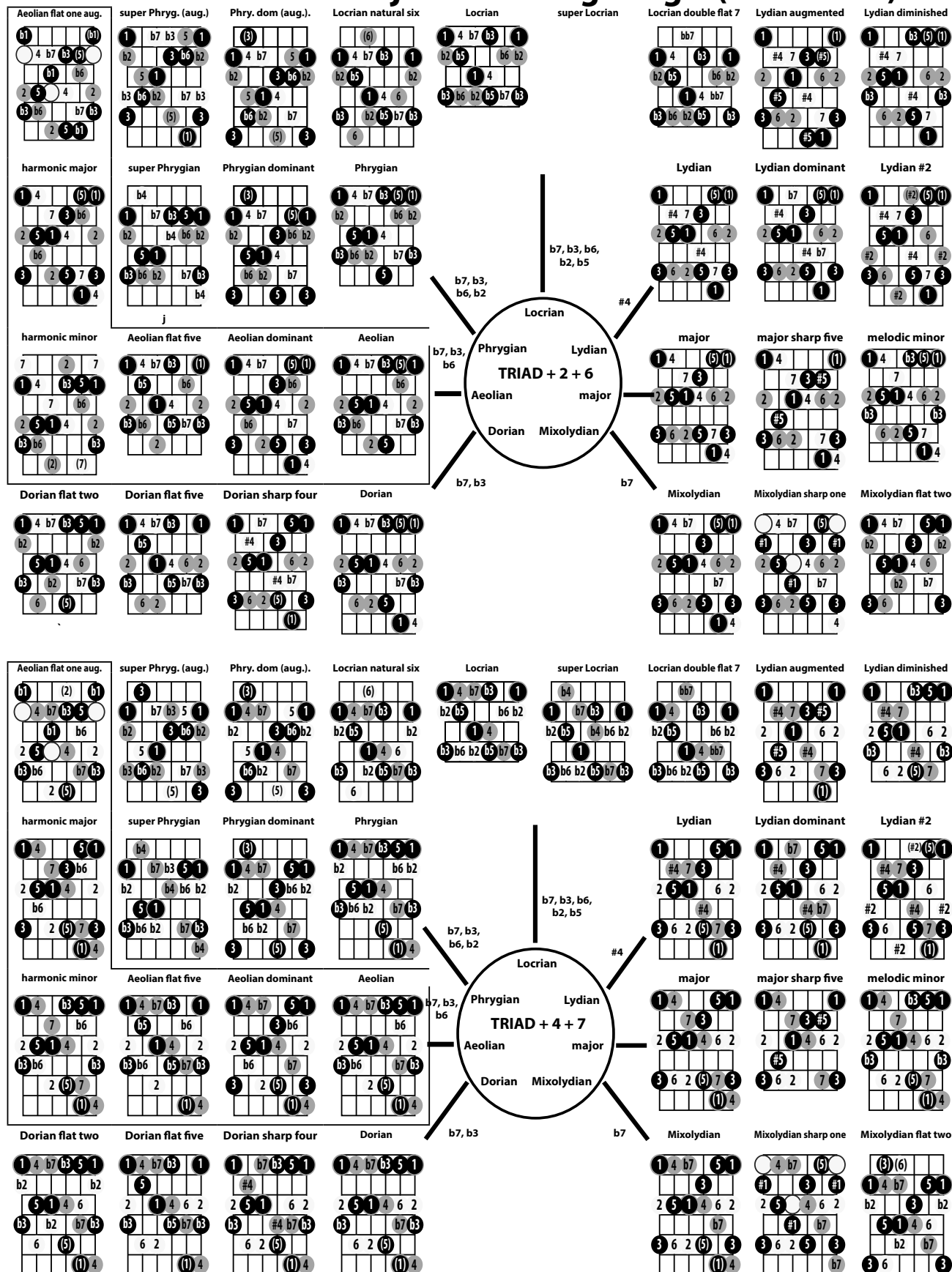
Mixolydian sharp one

Mixolydian flat two

NINTH

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Mode Variants of Major Scale Fingering 1 (continued)



Mode Variants of Major Scale Fingering 2

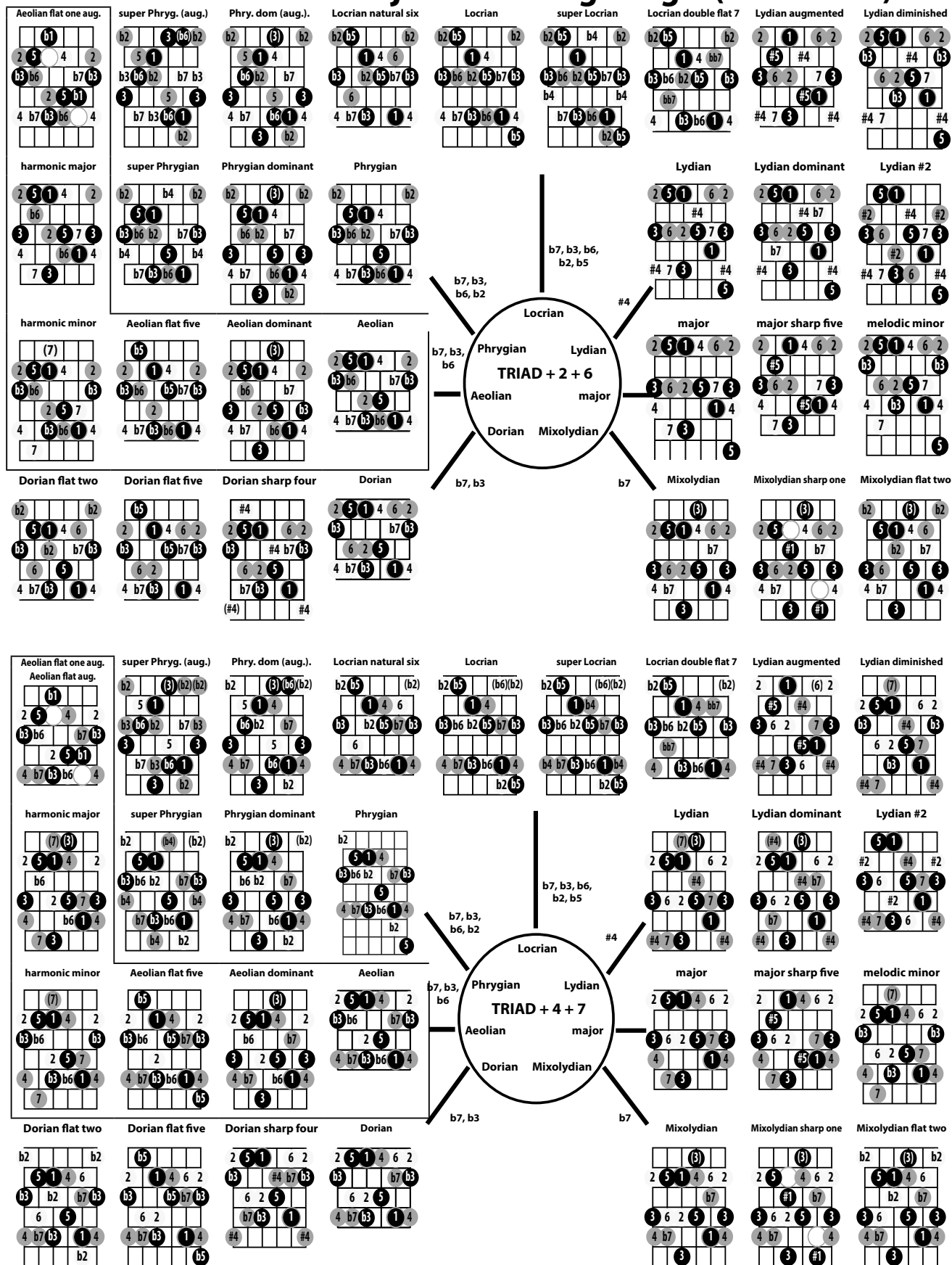
This page displays two sets of fingering charts for 12 modes, arranged around a central circle. The top set is labeled "FINGERING" and the bottom set is labeled "NINTH". Each mode has a corresponding chart showing fingerings for the scale, with some notes circled to indicate specific fingering techniques. The modes are: Aeolian flat one aug., super Phryg. (aug.), Phry. dom. (aug.), Locrian natural six, Locrian, super Locrian, Locrian double flat 7, Lydian augmented, Lydian diminished, Lydian, Lydian dominant, Lydian #2, major, major sharp five, melodic minor, Dorian flat two, Dorian flat five, Dorian sharp four, Dorian, Mixolydian, Mixolydian sharp one, and Mixolydian flat two. The central circle for each set lists the modes and their associated alterations: b7, b3, b6, b2, b5, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30, #31, #32, #33, #34, #35, #36, #37, #38, #39, #40, #41, #42, #43, #44, #45, #46, #47, #48, #49, #50, #51, #52, #53, #54, #55, #56, #57, #58, #59, #60, #61, #62, #63, #64, #65, #66, #67, #68, #69, #70, #71, #72, #73, #74, #75, #76, #77, #78, #79, #80, #81, #82, #83, #84, #85, #86, #87, #88, #89, #90, #91, #92, #93, #94, #95, #96, #97, #98, #99, #100.

FINGERING

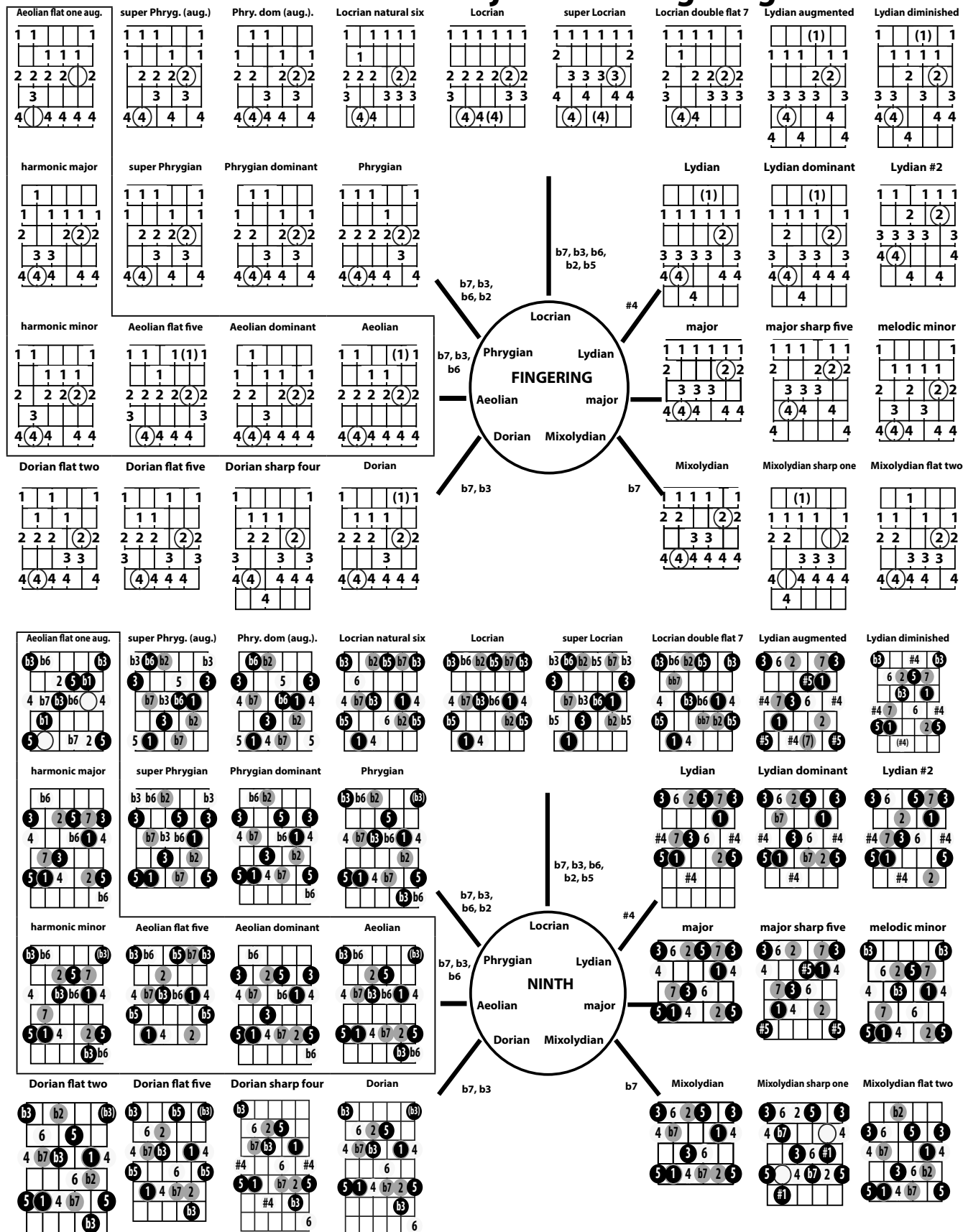
NINTH

Alterations: b7, b3, b6, b2, b5, #4, #5, #6, #7, #8, #9, #10, #11, #12, #13, #14, #15, #16, #17, #18, #19, #20, #21, #22, #23, #24, #25, #26, #27, #28, #29, #30, #31, #32, #33, #34, #35, #36, #37, #38, #39, #40, #41, #42, #43, #44, #45, #46, #47, #48, #49, #50, #51, #52, #53, #54, #55, #56, #57, #58, #59, #60, #61, #62, #63, #64, #65, #66, #67, #68, #69, #70, #71, #72, #73, #74, #75, #76, #77, #78, #79, #80, #81, #82, #83, #84, #85, #86, #87, #88, #89, #90, #91, #92, #93, #94, #95, #96, #97, #98, #99, #100.

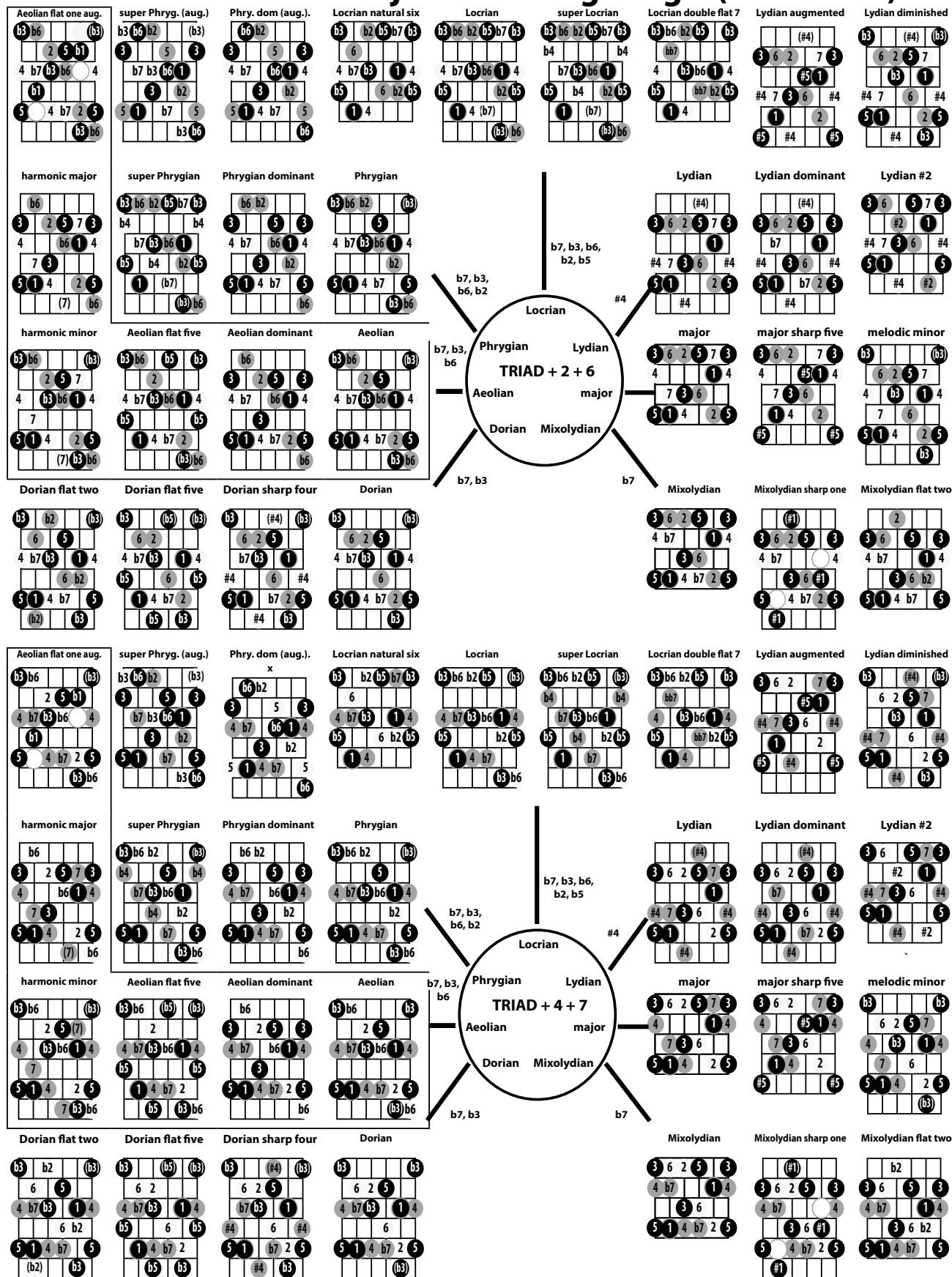
Mode Variants of Major Scale Fingering 2 (continued)



Mode Variants of Major Scale Fingering 3



Mode Variants of Major Scale Fingering 3 (continued)



Mode Variants of Major Scale Fingering 4

Aeolian flat one aug.

super Phryg. (aug.)

Phry. dom. (aug.)

Locrian natural six

Locrian

super Locrian

Locrian double flat 7

Lydian augmented

Lydian diminished

harmonic major

super Phrygian

Phrygian dominant

Phrygian

harmonic minor

Aeolian flat five

Aeolian dominant

Aeolian

Dorian flat two

Dorian flat five

Dorian sharp four

Dorian

Lydian

Lydian dominant

Lydian #2

major

major sharp five

melodic minor

Mixolydian

Mixolydian sharp one

Mixolydian flat two

Aeolian flat one aug.

super Phryg. (aug.)

Phry. dom. (aug.)

Locrian natural six

Locrian

super Locrian

Locrian double flat 7

Lydian augmented

Lydian diminished

harmonic major

super Phrygian

Phrygian dominant

Phrygian

harmonic minor

Aeolian flat five

Aeolian dominant

Aeolian

Dorian flat two

Dorian flat five

Dorian sharp four

Dorian

Lydian

Lydian dominant

Lydian #2

major

major sharp five

melodic minor

Mixolydian

Mixolydian sharp one

Mixolydian flat two

Aeolian flat one aug.

super Phryg. (aug.)

Phry. dom. (aug.)

Locrian natural six

Locrian

super Locrian

Locrian double flat 7

Lydian augmented

Lydian diminished

harmonic major

super Phrygian

Phrygian dominant

Phrygian

harmonic minor

Aeolian flat five

Aeolian dominant

Aeolian

Dorian flat two

Dorian flat five

Dorian sharp four

Dorian

Lydian

Lydian dominant

Lydian #2

major

major sharp five

melodic minor

Mixolydian

Mixolydian sharp one

Mixolydian flat two

Aeolian flat one aug.

super Phryg. (aug.)

Phry. dom. (aug.)

Locrian natural six

Locrian

super Locrian

Locrian double flat 7

Lydian augmented

Lydian diminished

harmonic major

super Phrygian

Phrygian dominant

Phrygian

harmonic minor

Aeolian flat five

Aeolian dominant

Aeolian

Dorian flat two

Dorian flat five

Dorian sharp four

Dorian

Lydian

Lydian dominant

Lydian #2

major

major sharp five

melodic minor

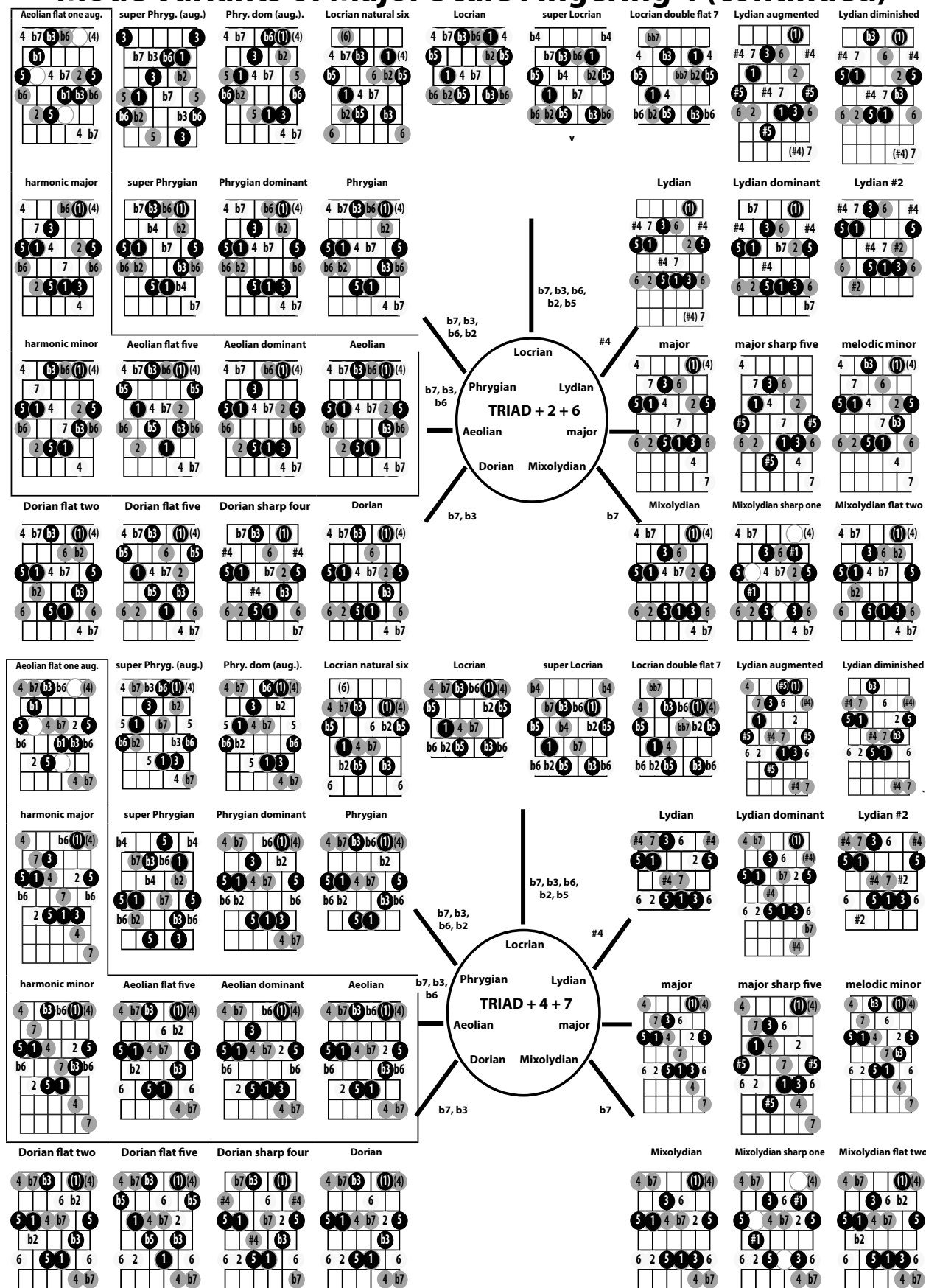
Mixolydian

Mixolydian sharp one

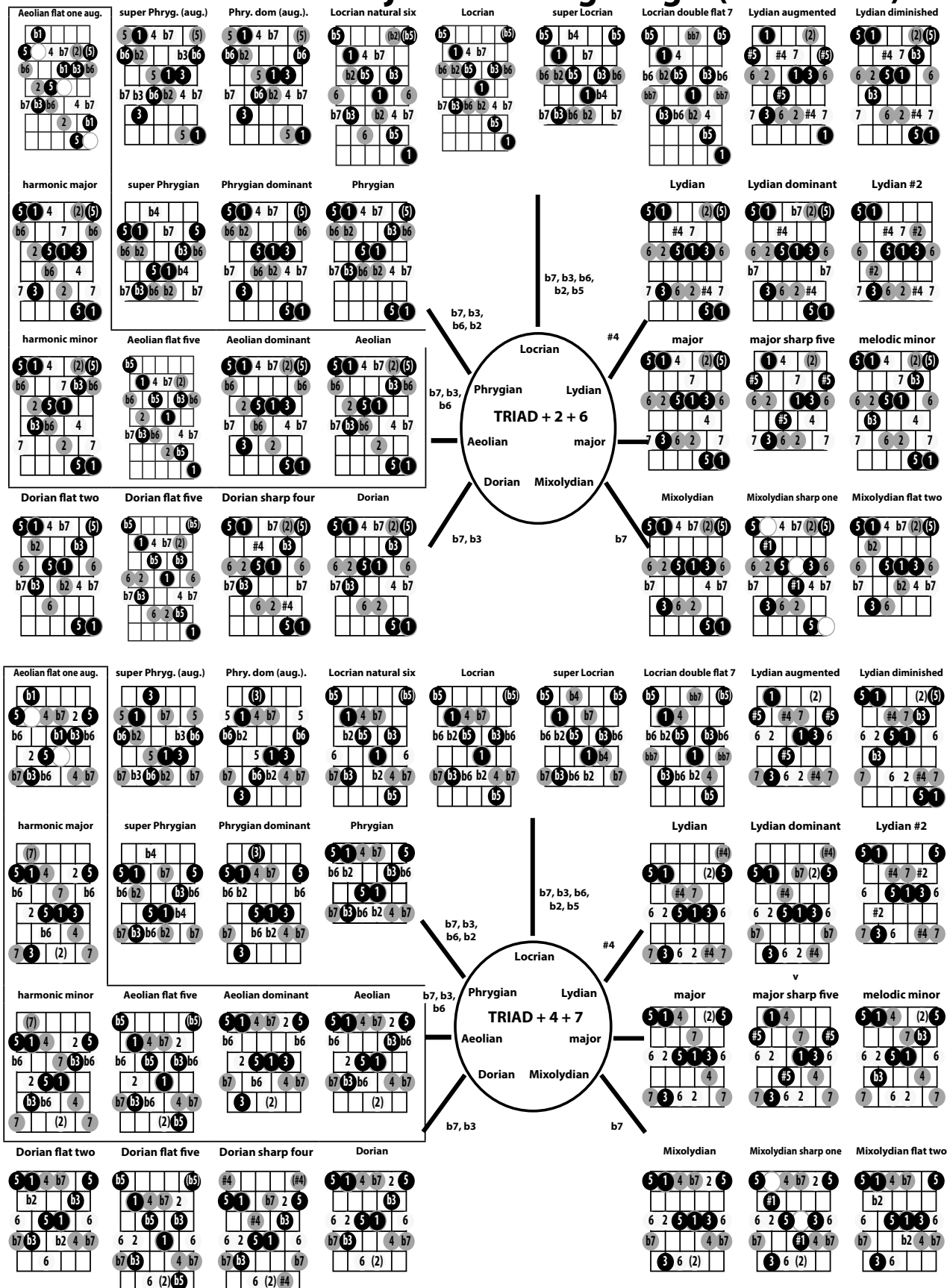
Mixolydian flat two

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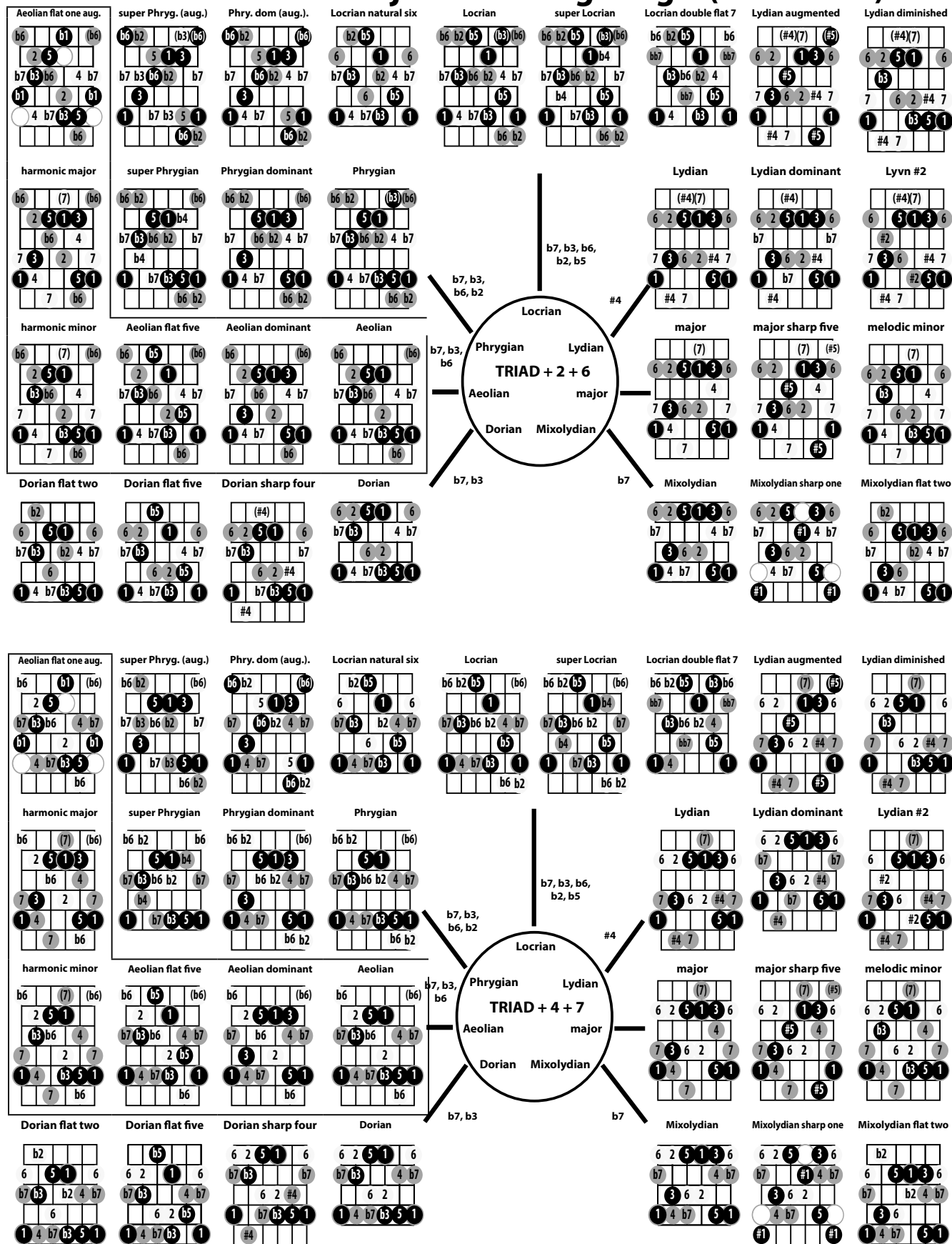
Mode Variants of Major Scale Fingering 4 (continued)



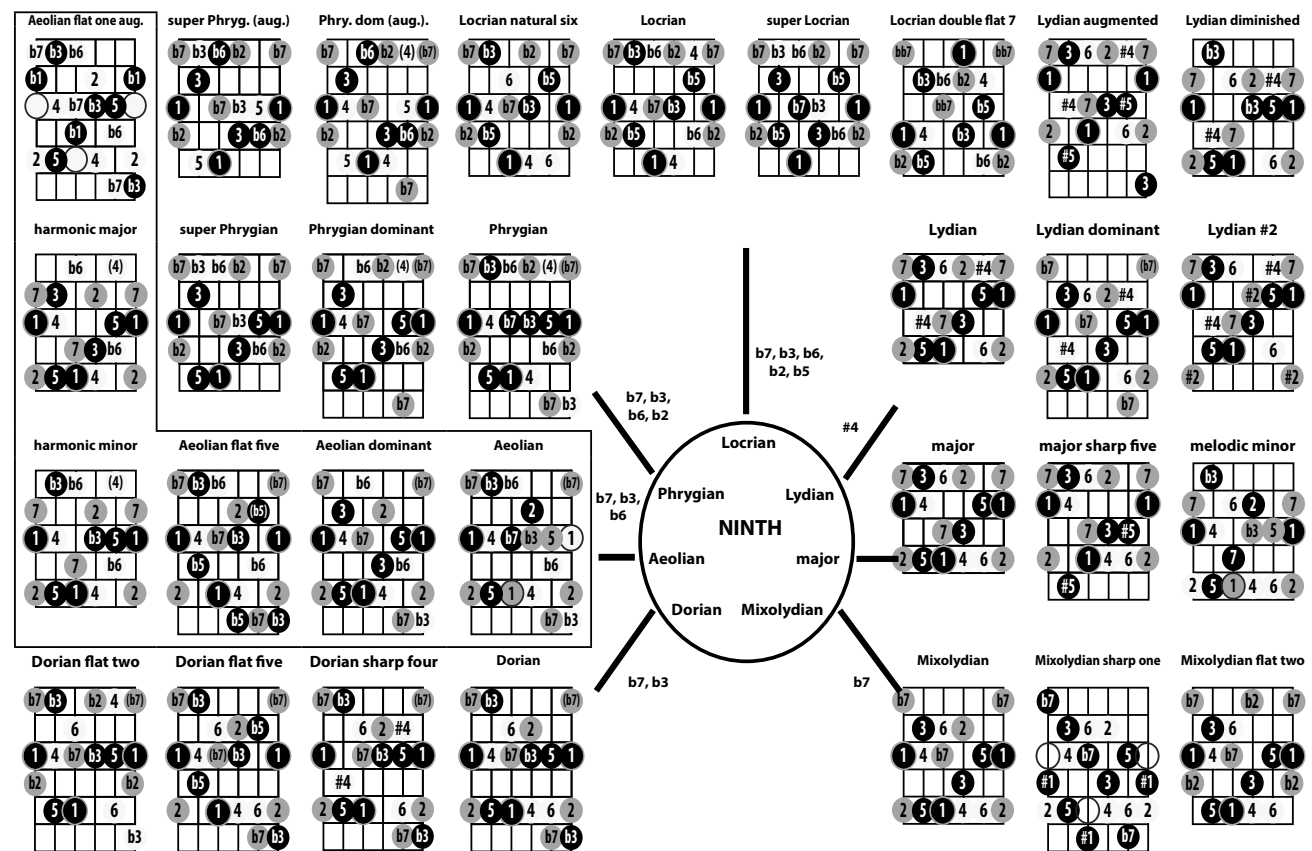
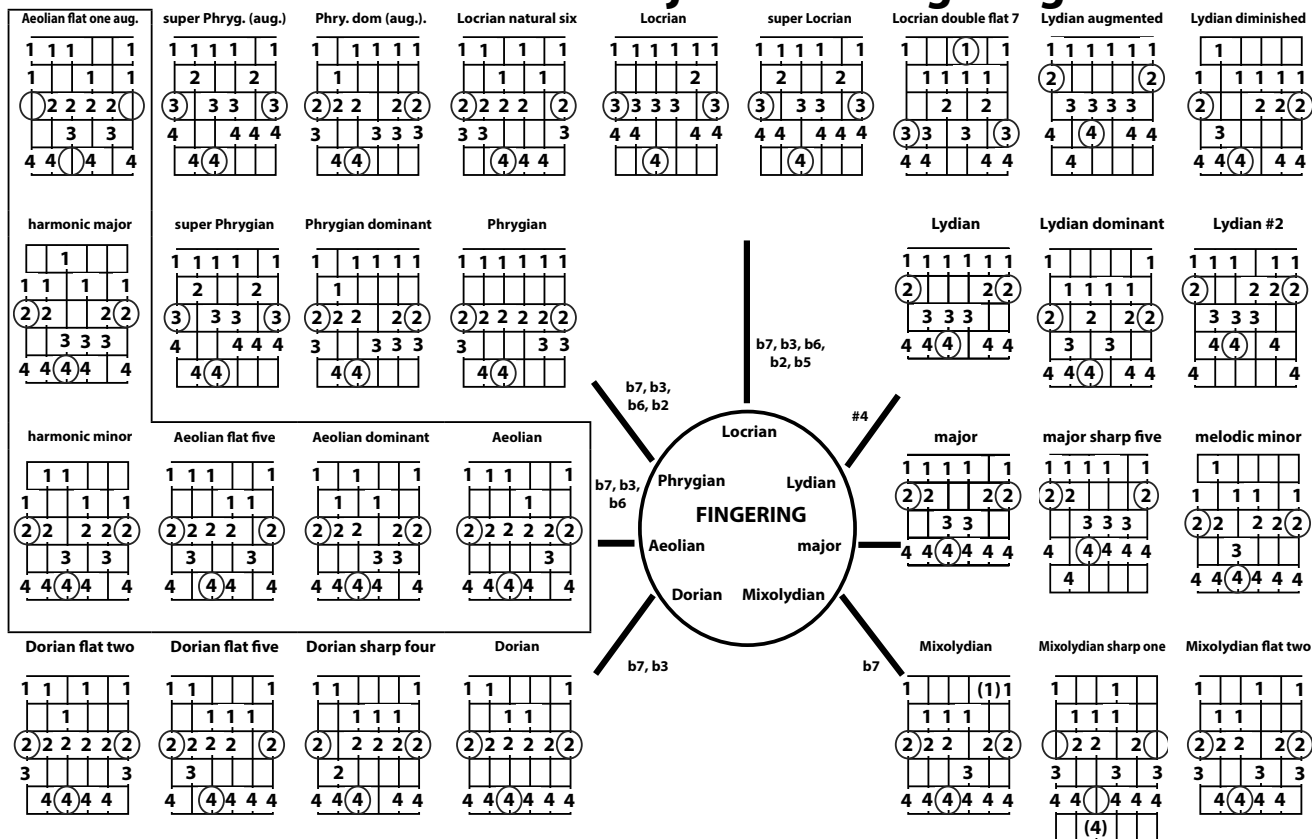
Mode Variants of Major Scale Fingering 5 (continued)



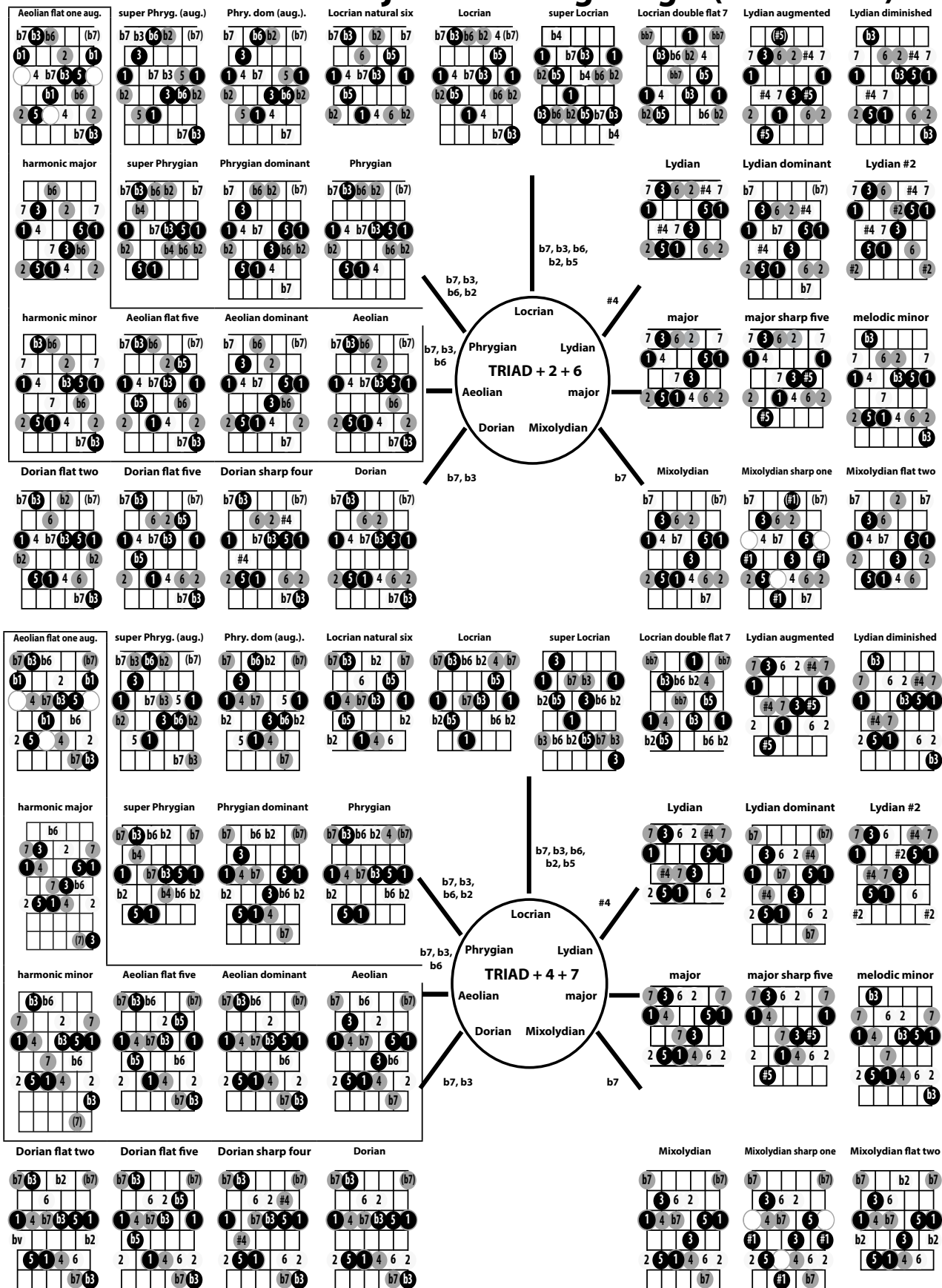
Mode Variants of Major Scale Fingering 6 (continued)



Mode Variants of Major Scale Fingering 7



Mode Variants of Major Scale Fingering 7 (continued)



MODE FAMILIES

The Aeolian Family

The Aeolian Family is in the “L” shaped box on the upper left of each circle of diagrams in the [Modal Key Scale Cycle Diagrams](#) in the previous section above.

Aeolian Mode Family Study

Songs in this study are:

- The Beatles’ *While My Guitar Gently Weeps*
- Bach’s *Bouree in Em* transposed to Am
- Miles’ version of *Summertime* in Am
- Van Morrison’s *Moondance*
- The Creedence Clearwater version of *I Put a Spell on You* in Em
- Santo and Johnny’s *Sleepwalk* in A
- *Black Orpheus* (*Manha De Carnival*) in Am (written by Luiz Bonfá, popular recordings by Stan Getz, by Astrud Gilberto and by Luiz Bonfá)

Chord progressions for each are shown at the end of this section, with a link to each above.

This illustrates modes in the A Aeolian family, as shown in the “L” shaped area on the left of the circle in [Modal Key Scale Cycle Diagrams](#), the previous section above.

Aeolian, Dorian and harmonic minor

The verses of *While My Guitar Gently Weeps* and Van Morrison’s *Moondance* can both use A Aeolian (b3, b6, b7) in improvising, while the chord progressions in each digresses to other modes of A (as long as the “F” note of A Aeolian is not sustained too long against the “F#” note of A Dorian <b3, b6, b7> or A Melodic minor <b3m nat. 6, nat. 7>). *While My Guitar* verse is A Aeolian during the Am-Am/G and Fm7 chords; A Dorian during the D7 chord; A harmonic minor during the “E” chord; and A major during section B. Dorian is Aeolian with natural six. Harmonic minor is Aeolian with natural seven.

melodic minor

Bach’s *Bouree in Em* transposed to Am uses A melodic minor in ascending and descending form, as shown in the bracketed area of bar 2.

Miles' version of Summertime in Am uses chord from A melodic minor (Am6-E7/), while improv could use A Aeolian or A harmonic minor, as long as the "F" note of A Aeolian or A harmonic minor is not sustained too long against the "F#" note of A melodic minor.

Van Morrison's Moondance uses A Dorian during the Am7-Bm7 chords, while improvisers would typically could use A Aeolian or A harmonic minor, as long as the "F" note of A Aeolian or A harmonic minor is not sustained too long against the "F#" note of A Dorian.

Aeolian flat five

A Aeolian flat five could be used for mood darkening during any of these A minor progressions.

Dorian sharp four (mode IV of harmonic minor)

Dorian sharp four could be used during the Am chord in I Put a Spell on You.

Aeolian flat one (synonym of Lydian sharp two, sharp five)

A Aeolian flat one could be used during the "E" chord at the end of section B of While My Guitar Gently Weeps as a secondary root on the E chord, thinking of A Aeolian flat one as its enharmonic "G#" with the scale type Lydian #2, #5,

harmonic major

A harmonic major could be used during the Dm chord of Sleepwalk in A.

Aeolian dominant

A Aeolian dominant could be used during Em7b5 and A7 in the fifth and six bars of section B in Black Orpheus.

chord progression to The Beatles' *While My Guitar Gently Weeps*

in 4/4	| A- |	| A- /G |	| D ₇ |	| F _{Δ7} |
	| A- |	| G |	| D |	| E |
A	| A- |	| A- /G |	| D ₇ |	| F _{Δ7} |
	| A- |	| G |	| D |	| E |
A	| A- |	| A- /G |	| D ₇ |	| F _{Δ7} |
	| A- |	| G |	| C |	| E ||
B	| A |	| C [#] -	F [#] -	C [#] -
	| B- |	| ∴ |	| E |	| ∴ } ∴

two-part arrangement of Bach's *Bouree in Em* transposed to Am

$\text{♩} = 140$

A mel. min. ascending A mel. min. descending (same as A Aeolian)

The musical score is written for two staves in 4/4 time. It begins with a tempo marking of quarter note = 140. The key signature has one sharp (F#), indicating the key of A major or its relative minor, F# minor. The piece is a two-part arrangement of Bach's Bouree in E minor, transposed to A minor. The first system includes annotations for 'A mel. min. ascending' and 'A mel. min. descending (same as A Aeolian)'. The third system features a triplet of eighth notes marked with '2' and '3'. The fourth system has a triplet of eighth notes marked with '3'. The piece concludes with a double bar line in the sixth system.

chord progression to Miles' version of *Summertime* in Am

130 BPM

$\frac{4}{4}$ || **A⁻⁶ E₇_{/B}** | **A_{/C}⁻⁷ E₇_{/B}** | **A⁻⁶ E₉_{/B}** | **A_{/C}⁻⁷ E₇_{/B}** |

| **D₋₇** | **F₉** | **E₇ B₇** | **E₇** |

| **A⁻⁶ E₇_{/B}** | **A_{/C}⁻⁷ E₇_{/B}** | **A⁻⁶ E₇_{/B}** | **A_{/C}⁻⁷ D₉** |

| **C_{Δ7} A₋₇** | **D₋₇ F₉** | **A⁻⁶ E₇_{/B}** | **A_{/C}⁻⁷ E₇_{/B}** ||

chord progression to Van Morrison's *Moondance*

A

4/4

A₋₇ B₋₇_{/E} | :/ | :/ | :/ |

A₋₇ B₋₇_{/E} | :/ | :/ | :/ }

B

D₋₇ A₋₇ | :/ | :/ |

D₋₇ A₋₇ D₋₇ E_{7b13} ||

C

A₋₇ D₇ | :/ | :/ | :/ |

A₋₇ D₇ | :/ | :/ | E_{7b13} ⊕ ||

⊕

A₋₇ B₋₇_{/E} | :/ | :/ | :/ }

Open until cue

A₋ G | F E₋ | D₋ E_{7b13} A₋ ||

chord progression to Screaming Jay Hawkins' *I Put a Spell on You* in Em

A 12/8 E-	| A-	| E-	| E-	|
| A-	| A-	| B ₇	| B ₇	|
| E-	| E-	| A-	| A-	|
| E-	| B ₇	| E- A-	| E- B ₇ } 6x	|
E-	||			

chord progression to Santo and Johnny's *Sleepwalk* in A

$\frac{4}{4}$ | A F[#] | D₋ E₁₃ | A F[#] | D₋ E₁₃ |

A { A F[#] | D₋ E₁₃ | A F[#] | D₋ E₁₃ |

| A F[#] | D₋ E₁₃ | ^{1.} A F[#] | D₋ E } :

B | D_{Δ7} | D_{-Δ7} | ^{2.} A D | A A₇ ||

| D_{Δ7} | D_{-Δ7} | A D | A A₇ |

| D_{Δ7} | D_{-Δ7} | E G | E ||

_{I69} _{I711}

chord progression to *Black Orpheus (Manha De Carnival)* in Am (written by Luiz Bonfá, popular recordings by Stan Getz, by Astrud Gilberto and by Luiz Bonfá)

(Bossa Nova)

Luiz Bonfá

A

$\frac{4}{4}$ || A_- | $B_{\emptyset 7} E_{7\flat 9}$ | A_- | $B_{\emptyset 7} E_{7\flat 9}$ |

| A_- | $D_{-7} G_7$ | $C_{\Delta 7}$ | $A_{7\flat 9}$ |

| D_{-7} | G_7 | $C_{\Delta 7}$ | $F_{\Delta 7}$ |

| $B_{\emptyset 7}$ | $E_{7\flat 9}$ | A_- | $E_{7\flat 9} E_{7\flat 9}$ ||

B

|| A_- | $B_{\emptyset 7} E_{7\flat 9}$ | A_- | ⌵ |

| $E_{\emptyset 7}$ | $A_{7\flat 9}$ | D_- | ⌵ |

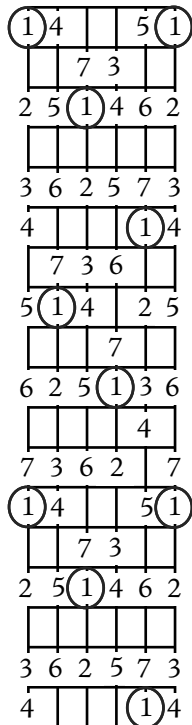
| $D_{-7} D_{-7}^{\text{C}}$ | $B_{\emptyset 7} E_{7\flat 9}$ | $A_- A_{-7}$ | $F_{\Delta 7}$ |

| $B_{\emptyset 7}$ | $E_{7\flat 9}$ | A_- \oplus | $B_{\emptyset 7} E_{7\flat 9}$ ||

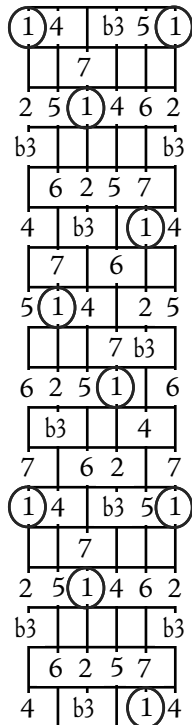
\oplus | \hat{A}_- | $D_{-7} A_{-7}$ | $D_{-7} A_{-7}$ | $D_{-7} E_{-7}$ | \hat{A}_- ||

FULL-FRETBOARD HEPTATONIC SCALE DIAGRAMS

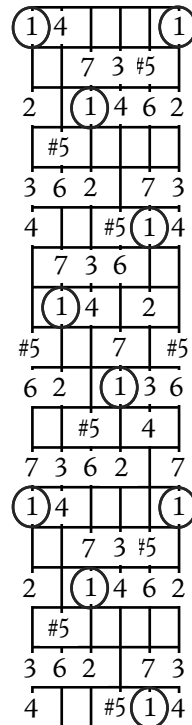
major scale



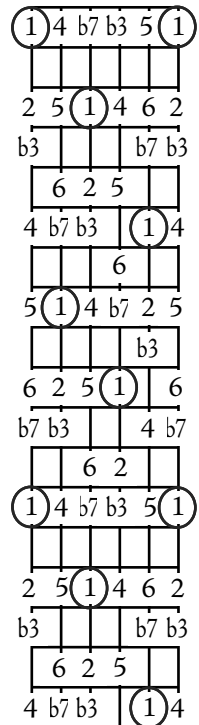
melodic minor



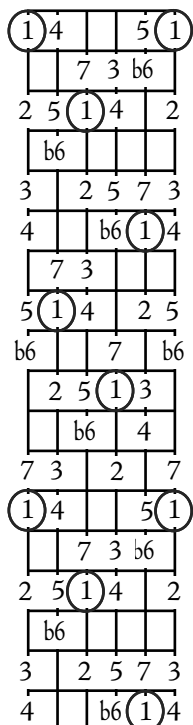
major sharp five



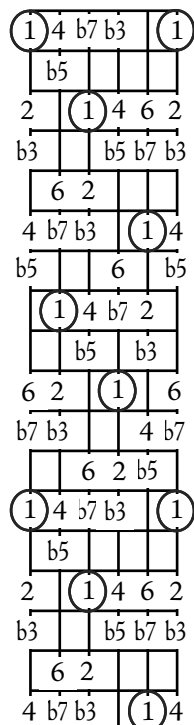
Dorian



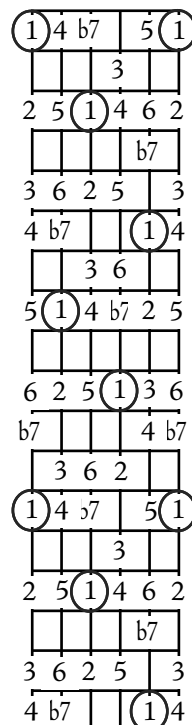
major flat six



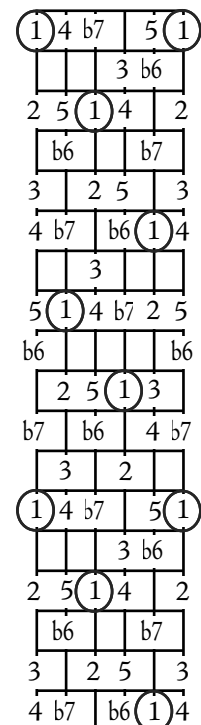
Dorian flat five



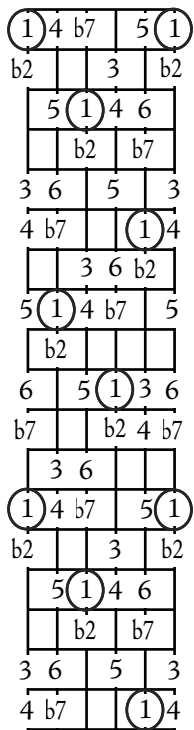
Mixolydian



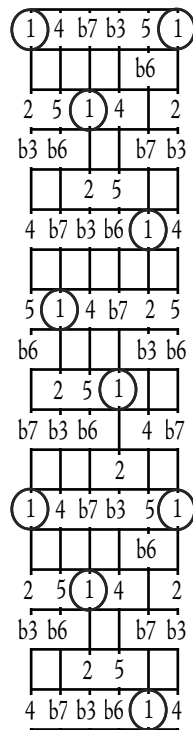
Mixolydian flat six



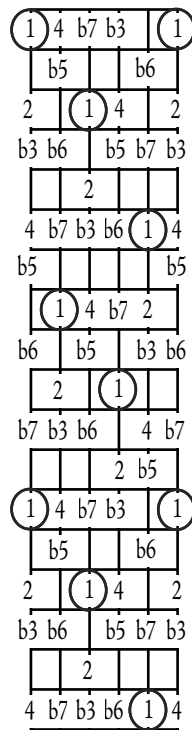
Mixolydian flat two



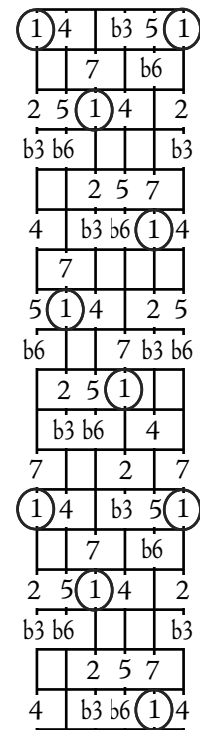
Aeolian



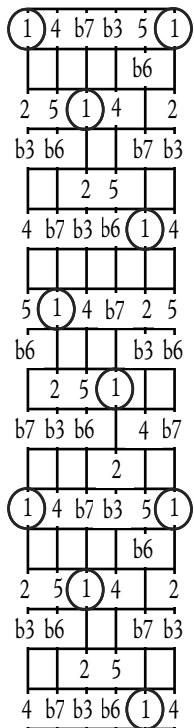
Aeolian flat five



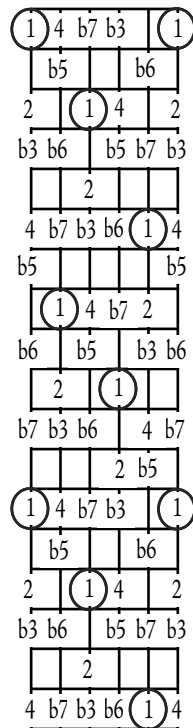
harmonic minor



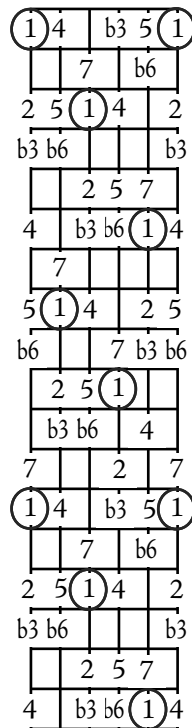
Aeolian



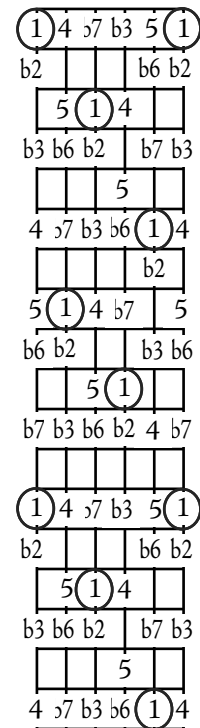
Aeolian flat five



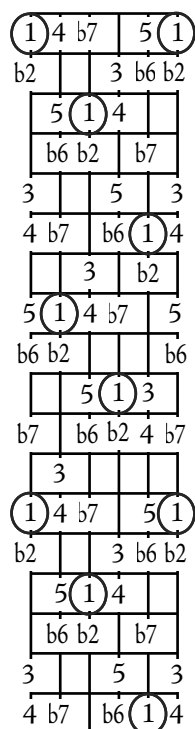
harmonic minor



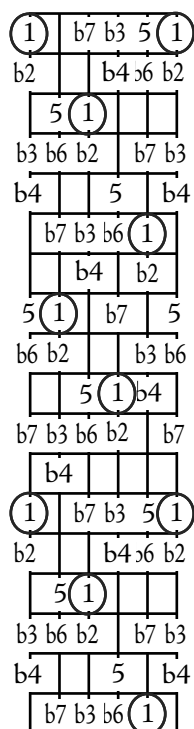
Phrygian



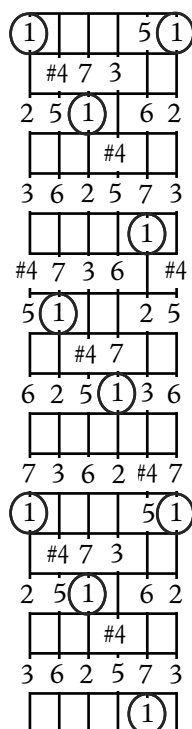
Phrygian major



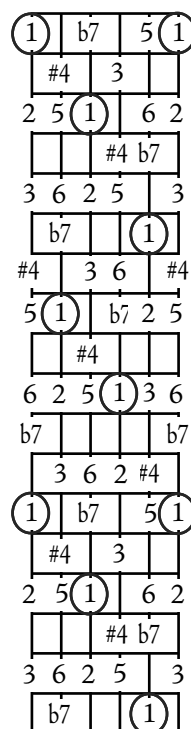
super Phrygian



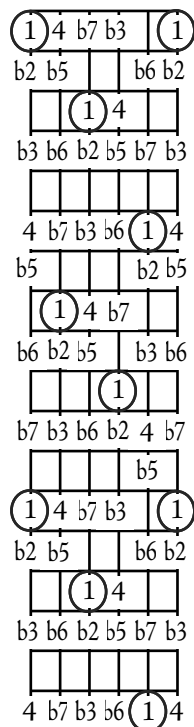
Lydian



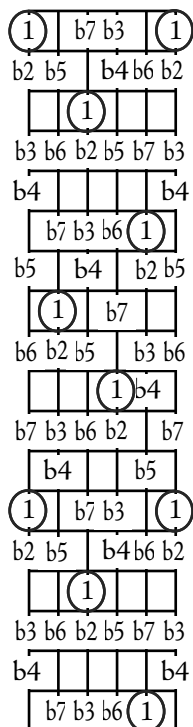
Lydian dominant



Locrian



super Locrian



Parent Scale Improv

- **Using Modes in Improv**
- **Parent Scale and Arpeggio Fingering**
- **Modal Scales and Arpeggios in All Keys**
- **Incorporate Rhythms, Slurs, Decoration and Melodic Cells**
- **Use the Scales and Arpeggios in These Ways**
- **Improv with Four-Pulse Rhythms**
- **Chords and Scales by Numbered Type**

USING MODES IN IMPROV

mode, tone center, key, tonic chord

A chord progression is a group of chords played in a defined order. A mode uses a single note as a (tone center) tonal focus, making a tone center on that note, based on a major or minor chord named after the note (the tonic chord). The tone center is constantly in the listener's mind, establishing a key. The chord progression provides a varying harmonic background, while the tone center is a constant harmonic theme expected to sound at the end. The set of notes used along with the tone center create a seven-note scale called a mode. Start your improv studies on chord progressions that use one unchanging tone center and one unchanging mode. Chord progressions can change tone center and can change mode.

Determine the Key and Mode

Major uses the key (tone center) on "1" of a major scale, Dorian on "2", Mixolydian on "5" and Aeolian on "6". If you're playing in "A Aeolian", the key is "A" and "A" needs to be on "6" of a major scale ("A" is on the "6" of C major scale). If you're playing in "A Dorian", the key is A (it may be called A minor, but can be specified as "A Dorian", which is a specific minor mode). In A Dorian, the tone center is on two of a major scale ("A" is on the "2" of the "G" major scale. See the chapter [Modes](#).

To look up all these modes of major scales, see the Table of Modes Of Parent Major Scales below. It is also in the chapter [Modes/Discovering the Parent Major Scale for a Given Mode/A Tone Center As a Different Numbered Tone In Seven Major Scales](#).

tonic chord

Many chord progressions that can be melodically represented with a tonic chord. The tonic chord the key is the chord you would expect the chord progression to end on to sound final in a traditional sense, like the ending of an nineteenth century symphony (like Beethoven's Fifth Symphony). A tonic chord may have three or more unique notes. A triad is a chord with three unique letter-named notes (C-Eb-G). The simple three-note triad versions of a tonic chord on the four common major scale modes are:

- a major triad arpeggio used for major mode, named after the note on step one of the parent major scale
- a minor triad arpeggio used for Dorian mode, named after the note on step two of the parent major scale
- a major triad arpeggio used for Mixolydian mode, named after the note on step five of the parent major scale
- a minor triad arpeggio used for Aeolian mode, named after the note on step six of the parent major scale

“summary chord”

The tonic triad can be used as a “summary chord” throughout many chord progressions, by basing a melody on its notes. For the summary chord (tonic chord) to work, the listener must be enabled to keep the summary chord in mind while experiencing the entire chord progression. To enable the summary chord it must share many notes with most of the chords. Any chords it doesn't share many notes with need to be relatively brief, well under half the time duration of the progression. The duration of a chord that doesn't share two or more notes with the summary chord is best at two seconds or less in duration.

Start improving on chord progressions that support a summary chord, as described above. Choose progressions with a prominent tonic chord. When you try playing the tonic triad arpeggio (A minor for A Dorian or A Aeolian, a major for A major or A Mixolydian), it should sound okay over the entire progression.

Table of Modes of Parent Major Scales

Scale tone →	1	2	3	4	5	6	7
mode →	major scale	Dorian mode	Phrygian mode	Lydian mode	Mixolydian mode	Aeolian mode	Locrian mode
mode formula →	1-2-3-4-5-6-7	1-2-b3-4-5-6-b7	1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-7	1-2-3-4-5-6-b7	1-2-b3-4-5-b6-b7	1-b2-b3-4-b5-b6-b7
mood →	bright, happy	dark, some bright colors (2 and 6)	dark, dramatic	bright, exotic	bright, bluesy	dark, sad	dark, evil
styles →	all styles	blues, latin rock	flamenco, middle-eastern	jazz, progressive rock, art rock	blues, funk, rock	all styles	death metal, art rock
triad →	major	minor	minor	major	major	minor	diminished

parent scale ↓							
C major scale	C major scale C major triad	D Dorian D minor triad	E Phrygian E minor triad	F Lydian F major triad	G Mixolydian G major triad	A Aeolian A minor triad	B Locrian B diminished
F major scale	F major scale F major triad	G Dorian G minor triad	A Phrygian A minor triad	Bb Lydian Bb major triad	C Mixolydian C major triad	D Aeolian D minor triad	E Locrian E diminished
Bb major scale	Bb major scale Bb major triad	C Dorian C minor triad	D Phrygian D minor triad	Eb Lydian Eb major triad	F Mixolydian F major triad	G Aeolian G minor triad	A Locrian A diminished
Eb major scale	Eb major scale Eb major triad	F Dorian F minor triad	G Phrygian G minor triad	Ab Lydian Ab major triad	Bb Mixolydian Bb major triad	C Aeolian C minor triad	D Locrian D diminished
Ab major scale	Ab major scale Ab major triad	Bb Dorian Bb minor triad	C Phrygian C minor triad	Db Lydian Db major triad	Eb Mixolydian Eb major triad	F Aeolian F minor triad	G Locrian G diminished
Db major scale	Db major scale Db major triad	Eb Dorian Eb minor triad	F Phrygian F minor triad	Gb Lydian Gb major triad	Ab Mixolydian Ab major triad	Bb Aeolian Bb minor triad	C Locrian C diminished
Gb major scale	Gb major scale Gb major triad	Ab Dorian Ab minor triad	Bb Phrygian Bb minor triad	Cb Lydian Cb major triad	Db Mixolydian Db major triad	Eb Aeolian Eb minor triad	F Locrian F diminished
G major scale	G major scale G major triad	A Dorian A minor triad	B Phrygian B minor triad	C Lydian C major triad	D Mixolydian D major triad	E Aeolian E minor triad	F# Locrian F# diminished
D major scale	D major scale D major triad	E Dorian E minor triad	F# Phrygian F# minor triad	G Lydian G major triad	A Mixolydian A major triad	B Aeolian B minor triad	C# Locrian C# diminished
A major scale	A major A major triad	B Dorian B minor triad	C# Phrygian C# minor triad	D Lydian D major triad	E Mixolydian E major triad	F# Aeolian F# minor triad	G# Locrian G# diminished
E major (scale)	E major E major triad	F# Dorian F# minor triad	G# Phrygian G# minor triad	A Lydian A major triad	B Mixolydian B major triad	C# Aeolian C# minor triad	D# Locrian D# diminished
B major scale	B major B major triad	C# Dorian C# minor triad	D# Phrygian D# minor triad	E Lydian E major triad	F# Mixolydian F# major triad	G# Aeolian G# minor triad	A# Locrian A# diminished
F# major scale	F# major F# major triad	G# Dorian G# minor triad	A# Phrygian A# minor triad	B Lydian B major triad	C# Mixolydian C# major triad	D# Aeolian D# minor triad	E# Locrian E# diminished

build your basic scale and arpeggio performance ability

First, develop your ability to ascend and descend arpeggios through an increasing range of pitch, starting with an octave or less. Practice these scales and arpeggios, in E form and A form tone centers for the desired mode first:

- Triad arpeggios for the chosen mode, shown on [Parent Scale and Key Scale Fingerings](#), in the pentatonci row, playing only the numbered notes with black-circled background.
- Pentatonic scales for the chosen mode, shown on [Parent Scale and Key Scale Fingerings](#), in the pentatonic row, playing the numbered notes with black-circled background and the notes with gray-circled background.
- Seven-tone scales (heptatonic scales) for the chosen mode, shown on [Parent Scale and Key Scale Fingerings](#), in the seveth arpeggio row playing all the notes: those numbered with black-circled background, gray-circled background and those with no background.
- Ninth-chord arpeggios on [Parent Scale and Key Scale Fingerings](#), in the ninth arpeggio row, ascending and descending in order of pitch the notes in black and the notes in gray separately first. Once you are comfortable playing the black and gray tones separately, (1) ascend one set (black or gray) to its highest pitch, descend one scale tone to the lowest tone of the other set and ascend that second set and (2) descend one set (black or gray) to its highest pitch, ascend one scale tone to the highest tone of the other set and descend that second set.

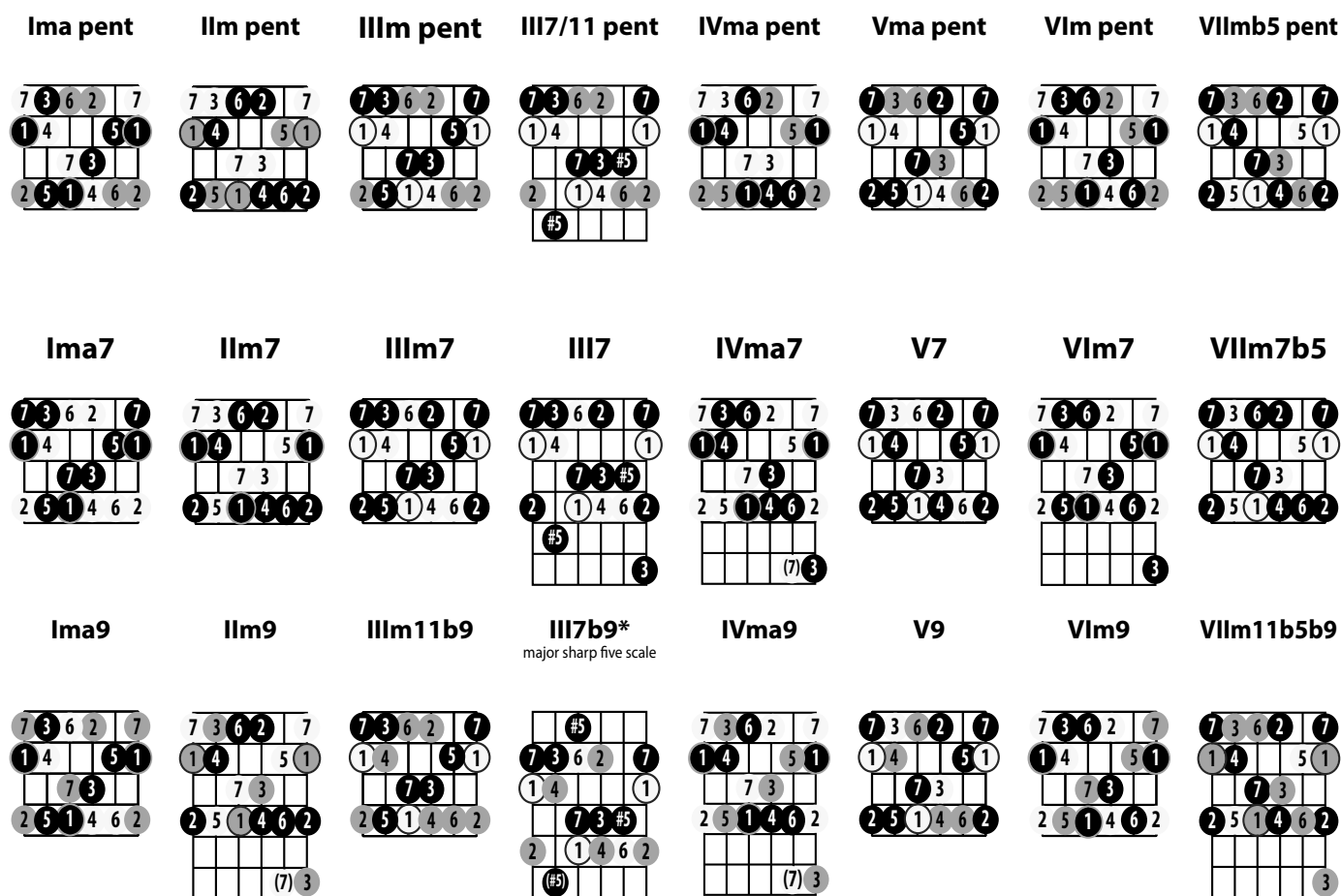
PARENT SCALE AND ARPEGGIO FINGERING

These are numbered in the key of the parent major scale, not by the key of the pentatonic scale or the arpeggio. Notice that the numbered tones are identical in all the diagrams in the same row, except the III7 column which uses major scale sharp five. In the pentatonic row, the black-backed notes are the triad arpeggio and the combined black-backs *and* gray-backs are the pentatonic scale. In the seventh arpeggio rows, the black tones are the seventh arpeggios. In the ninth arpeggio rows, the black-backed versus gray-backed notes show the ninth arpeggios in different octaves.

On the ninth arpeggio rows, III7b9 without its root is a diminished seventh, which can be named after any of its remaining four notes shown in gray: #Vdim7, VIIdim7, IIdim7 or IVdim7.

Also see [Key Scales, Parent Scales & Chord Scales/Parent Scale and Key Scale Fingerings](#) and see Voice Leading Improv with Arpeggio Cadences/Graphically Voice Leading Improv with Arpeggio Cadences/[Scale-Tone Seventh Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale](#) (includes secondary dominants).

E form parent scale



D form parent scale

Ima pent major scale	IIm pent major scale	IIIm pent major scale	III7/11 pent major sharp five scale	IVma pent major scale	Vma pent major scale	VIIm pent major scale	VIIImb5 pent major scale
Ima7	IIm7	IIIm7	III7	IVma7	V7	VIIm7	VIIIm7b5
Ima9	IIm9	IIIm11b9	III7b9*	IVma9	V9	VIIm9	VIIIm11b5b9

C form parent scale

Ima pent	IIm pent	IIIm pent	III7/11 pent	IVma pent	Vma pent	VIIm pent	VIIImb5 pent
Ima7	IIm7	IIIm7	III7	IVma7	V7	VIIm7	VIIIm7b5
Ima9	IIm9	IIIm11b9	III7b9* major sharp five scale	IVma9	V9	VIIm9	VIIIm11b5b9

A form parent scale

Ima pent	IIIm pent	IIIm pent	III7/11 pent	IVma pent	Vma pent	VIIm pent	VIIImb5 pent
Ima7	IIIm7	IIIm7	III7	IVma7	V7	VIIm7	VIIIm7b5
Ima9	IIIm9	IIIm11b9	III7b9*	IVma9	V9	VIIm9	VIIIm11b5b9

G form parent scale

Ima pent	IIIm pent	IIIm pent	III7/11 pent	IVma pent	Vma pent	VIIm pent	VIIImb5 pent
Ima7	IIIm7	IIIm7	III7	IVma7	V7	VIIm7	VIIIm7b5
Ima9	IIIm9	IIIm11b9	III7b9* major sharp five scale	IVma9	V9	VIIm9	VIIIm11b5b9

parent major scale form	VII^m11b5b9	III^m11b9	III7b9	VI^m9	II^m9	V9	I^ma9	IV^ma9
	this is arguably a usable chord, but definitely a	this is arguably a usable chord, but definitely a	this common arpeggio uses parent major					

III7b9
this common
arpeggio uses
parent major
sharp five scale

IVma9

7	3	6	2		7
1	4			5	1
		7	3		
2	5	1	4	6	2
				(7)	3

2	5	1	4	6	2
3	6	2	5	7	3
4				1	4
	7	3			
					5

3	6	2	5	7	3
4				1	4
	7	3	6		
5	1	4		2	5

6	2	5	1	3	6
				4	
7	3	6	2		7
1	4			5	1
		7			

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MODAL SCALES AND ARPEGGIOS IN ALL KEYS

VI to VIII position area

parent ↓ I B major II C# Dorian III D# Phrygian IV E Lydian V F# Mixolydian VI G# Aeolian VII A# Locrian

fing. 7
VII pos.

parent ↓ I Bb major II C Dorian III D Phrygian IV Eb Lydian V F Mixolydian VI G Aeolian VII A Locrian

fing. 2
VIII pos.

parent ↓ I A major II B Dorian III C# Phrygian IV D Lydian V E Mixolydian VI F# Aeolian VII G# Locrian

fing. 2
VI pos.

parent ↓ I Ab major II Bb Dorian III C Phrygian IV Db Lydian V Eb Mixolydian VI F Aeolian VII G Locrian

fing. 3
VII pos.

parent ↓ I G major II A Dorian III B Phrygian IV C Lydian V D Mixolydian VI E Aeolian VII F# Locrian

fing. 3
VII pos.

parent ↓ I Gb major II Ab Dorian III Bb Phrygian IV Cb Lydian V Db Mixolydian VI Eb Aeolian VII F Locrian

fing. 4/5 VI pos.

parent ↓ I F# major II G# Dorian III A# Phrygian IV B Lydian V E Mixolydian VI F# Aeolian VII G# Locrian

fing. 3 VI pos.

parent ↓ I F major II G Dorian III A Phrygian IV Bb Lydian V C Mixolydian VI D Aeolian VII E Locrian

fing. 4/5 VI pos.

parent ↓ I Fb major II Gb Dorian III Ab Phrygian IV Bbb Lydian V Cb Mixolydian VI Db Aeolian VII Eb Locrian

fing. 6 VIII pos.

parent ↓ I E major II F# Dorian III G# Phrygian IV A Lydian V B Mixolydian VI C# Aeolian VII D# Locrian

fing. 4/5 V pos.

parent ↓ I Eb major II F Dorian III G Phrygian IV Ab Lydian V Bb Mixolydian VI C Aeolian VII D Locrian

fing. 6 VII pos.

parent ↓ I D major II E Dorian III F# Phrygian IV G Lydian V A Mixolydian VI B Aeolian VII C# Locrian

fing. 6 VII pos.

parent ↓ I C# major II D# Dorian III E# Phrygian IV F# Lydian V G# Mixolydian VI A# Aeolian VII B# Locrian

fing. 6 V pos.

parent ↓ I Db major II Eb Dorian III F Phrygian IV Gb Lydian V Ab Mixolydian VI Bb Aeolian VII C Locrian

fing. 7 VIII pos.

parent ↓ I C major II D Dorian III E Phrygian IV F Lydian V G Mixolydian VI A Aeolian VII B Locrian

fing. 7 VII pos.

parent ↓ I Cb major II Db Dorian III Eb Phrygian IV Fb Lydian V Gb Mixolydian VI Ab Aeolian VII Bb Locrian

fing. 2 VIII pos.

INCORPORATE RHYTHMS, SLURS, DECORATION AND MELODIC CELLS

The mode is commonly on I, II^m, V or VI^m of a parent major scale. The example in “build your ability to play these arpeggios and scales” is in the key of VI minor, where the key is E^m and the parent scale is G major.

build your ability to play these arpeggios and scales:

- The E^m triad arpeggio (black notes only on [Parent Scale and Key Scale Fingerings](#) in the VI^m7/11 pentatonic column and in the C form parent section).
- E^m pentatonic (notes with a black circle and notes with a gray circle on [Parent Scale and Key Scale Fingerings](#) in the VI minor pentatonic column and in the C form parent section).
- E Aeolian (all notes on [Parent Scale and Key Scale Fingerings](#) in the VI pent. column and in the C form parent section).
- E minor ninth arpeggio on [Parent Scale and Key Scale Fingerings](#) in the ninth arpeggio row (the gray notes show one octave and the black notes show another). Ascending and descend sequences of only notes with a black circle, then only notes with a gray circle. When combining them, ascend up to “7” (6-1-3-5-7) in (black or gray). You can begin the other octave (in the other color) by descending one note to “6” and ascending 6-1-3-5-7 from it. Or you can descend to begin the other octave descending one color to “6” (7-5-3-1-6), ascending one note to “7”, then descending 7-5-3-1-6 on the other color.

USE THE SCALES AND ARPEGGIOS IN THESE WAYS

1. linearly, up and down the scale or arpeggio with regular metronomic rhythm, build your speed playing 2, 3 then four notes per beat (you may need to leave 4 notes per beat for later).
2. Add varied rhythm (see [Improv with Four-Pulse Rhythms](#) below).
3. Add slurring with hammers, pull-offs, slides and bends. Use pentatonic scales with bends (optional), especially bending to chord tones 1, b3 and 5. See Pentatonic Bend Exercises, below.
4. Bebop Ornamentation (see [Core Melody with Baroque-Bebop Ornamentation/Bebop Ornamentation Slurring Rules](#)).
5. Add more [Melodic Cells](#), like [Chromatized Arpeggios](#).

Pentatonic Bend Exercise - [link to video](#)

Bends occur only on the first three strings in this exercise. Each note bends to the next higher scale tone, except any note fretted with the index finger that would have to bend three frets (a step and a half) doesn't bend. Unbent notes are still played, since they are the reference pitch for the next bent note.

- Likewise, releases should be carefully sustained, so they can be reference pitches for the next note (except not the last bend).
- Two-fret (whole step) bends on the first two strings with the index finger are substituted with the middle finger (optionally aided by the first finger). Substituting the ring finger for the index finger should not be done in the exercise, since it puts you in the next lower-numbered fingering the cycle of fingerings 1-2-3-4-5-1 etc. (fingering 2 would change to fingering 1 and fingering 1 would change to fingering 5).
- From about the fifth fret or higher, the index finger can perform a two fret bend on the third string, with a lever action, using the base of the index finger as a fulcrum point. Below the fifth fret on the third string, the middle finger (optionally aided by the index finger) could be substituted.

fingering 1

fingering 2

fingering 3

fingering 4

fingering 5

Major Scale Bending Exercise

Bends occur only on the first three strings in this exercise. Each note bends to the next higher scale tone.

- The index finger can perform half step bends on any string.
- Two-fret (whole step) bends on the first two strings with the index finger are substituted with the middle finger (optionally aided by the first finger). Substituting the ring finger for the index finger should not be done in the exercise, since it puts you in the next lower fingering in the 1-2-3-4-5-6-7-1 cycle (fingering 3 would change to fingering 2, fingering 2 would change to fingering 1 and fingering 1 would change to fingering 7).
- From about the fifth fret or higher, the index finger can perform a two fret bend on the third string, with a lever action, using the base of the index as a fulcrum point. Below the fifth fret on the third string, the index (optionally aided by the middle finger) could be substituted.

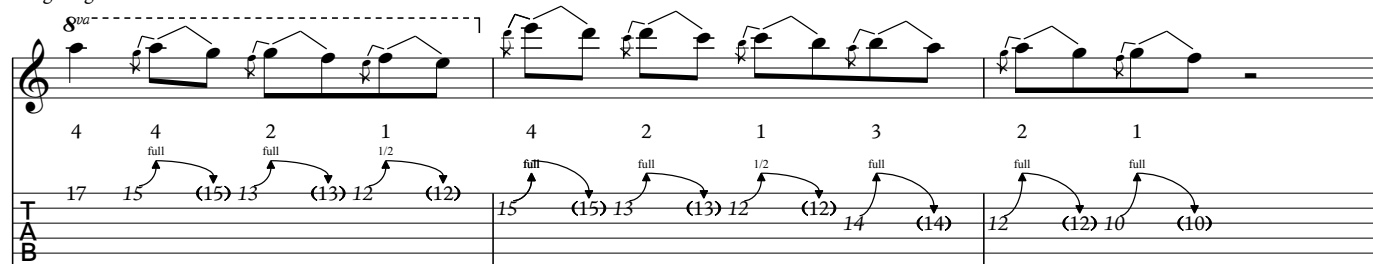
fingering 6

fingering 7

fingering 1

fingering 2

fingering 3



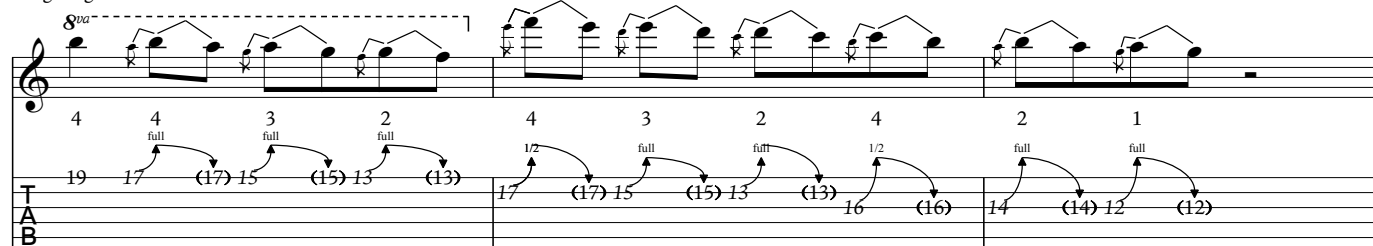
8va

4 4 2 1 4 2 1 3 2 1

17 15 (15) 13 (13) 12 (12) 15 (15) 13 (13) 12 (12) 14 (14) 12 (12) 10 (10)

TAB

fingering 4



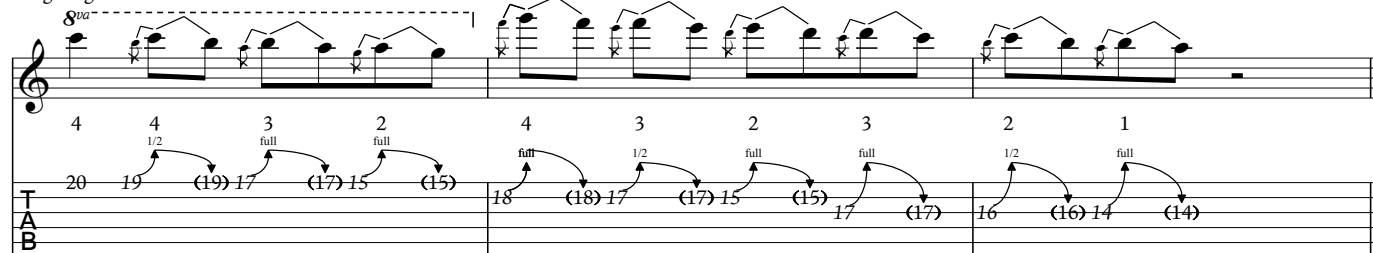
8va

4 4 3 2 4 3 2 4 2 1

19 17 (17) 15 (15) 13 (13) 17 (17) 15 (15) 13 (13) 16 (16) 14 (14) 12 (12)

TAB

fingering 5



8va

4 4 3 2 4 3 2 3 2 1

20 19 (19) 17 (17) 15 (15) 18 (18) 17 (17) 15 (15) 17 (17) 16 (16) 14 (14)

TAB

IMPROV WITH FOUR-PULSE RHYTHMS

Play along with these 4-pulse rhythms below, each strummed in the video on an A chord changing to a D chord. Use these rhythms to play the scale in preparation of improv:

Each of the rhythms below use six notes, so they are good for playing changing the rhythm of two triplets into eighth notes or sixteenth notes.

all four / "2-3"

all four 2 3

1 2 3 4 2 3

1 + 2 + 1 + 2 +

1 e + a 1 e + a

all four / "2-4"

all four 2 4

1 2 3 4 2 4

1 + 2 + 1 + 2 +

1 e + a 1 e + a

gallop / jingle bells

gallop jingle bells

1 3 4 1 2 3

1 + 2 + 1 + 2 +

1 e + a 1 e + a

gallop / Creedence

gallop Creedence

1 3 4 1 2 4

1 + 2 + 1 + 2 +

1 e + a 1 e + a

gallop / "2-3-4"

gallop "2-3-4"

1 3 4 2 3 4

1 + 2 + 1 + 2 +

1 e + a 1 e + a

jingle bells / gallop

jingle bells gallop

1 2 3 1 3 4

1 + 2 + 1 + 2 +

1 e + a 1 e + a

jingle bells / Creedence

jingle bells Creedence

1 2 3 1 2 4

1 + 2 + 1 + 2 +

1 e + a 1 e + a

jingle bells / "2-3-4"

jingle bells "2,3,4"

1 2 3 2 3 4

1 + 2 + 1 + 2 +

1 e + a 1 e + a

Creedence / gallop

Creedence gallop

1 2 4 1 3 4

1 + 2 + 1 + 2 +

1 e + a 1 e + a

Creedence / jingle bells

Creedence jingle bells

1 2 4 1 2 3

1 + 2 + 1 + 2 +

1 e + a 1 e + a

Creedence / "2-3-4"

Creedence "2,3,4"

1 2 4 2 3 4

1 + 2 + 1 + 2 +

1 e + a 1 e + a

1. strum one of the pairs of four-pulse rhythms (i.e all four/2-3) on muted strings, using rhythmic strumming, where your hand is moving continuously down-up and you are selecting from that metronomic rhythm which strokes you are hitting the strings in order to make the desired rhythm/

2. Next, use the same rhythmic strumming directions to perform rhythmic picking on a single note. If you have trouble looping it (repeating it seamlessly), go back and forth from strumming muted strings to picking a single string until you are comfortable with rhythmic picking on a single string.
3. Then, use the same rhythmic picking directions to play a sequence of two or three notes on a single string.
4. Now, use the same rhythmic picking to play a sequence of three or four changing notes (i.e. E-F-G-F on the second string each time) on one string and the same number of changing notes on an adjacent string (i.e. A-B-C-B on the first string each time) and alternate between the two strings. You could be progressive by playing the sequence twice in a row on each string, then once one each string. No pausing, of course.
5. Next, play a continuous sequence of five notes in a major scale between two strings (i.e. V pos. second and first string ascend E-F-G-A-B-C, descend B-A-G-F, repeat).
6. Then expand the exercise to progressively more strings until you can play a major scale fingering through all six strings in a single position. Don't necessarily design the exercise to start each instance on the same note each time, yet it may be a good idea to start on the same note each time at first, since you are multi-tasking. Let it be more random. In an improvisation, there should be some repeated design and some variation.

CHORDS AND SCALES BY NUMBERED TYPE

Numbered Type

parent scales other than major

Parent scales may be one of three variants of the major scale:

- ✦ melodic minor (major scale with flat three)
- ✦ major sharp five (its mode VI is harmonic minor)
- ✦ major flat six (also called harmonic major)

Along with the major scale, this makes four seven-note (heptatonic) scales. All of them are harmonizable, meaning they can be played in thirds (groups of three or more notes in an ever-other-note sequence such as 1-3-5 or 2-4-6) to make chords. They do not have two consecutive half steps (Hungarian minor has two half steps with #4-5-b6: 1-2-b3-#4-5-b6-7-1).

Prefer Summary Chords

Generally use more summary chords in your improv, where you are playing over two or more chords (or an entire chord progression) with the tonic chord, used to summarize the key. See [Summary Chord](#).

a variable number of summary chords for a given chord progression

A chord progression can be interpreted different ways. You may, for example, be able to use single summary chord for an entire progression or split the progression up and use the key summary chord for part of it and a temporary key summary chord for another part. For example, in Breezin', the chord progression is: Dma7-Bm7-Em7-A7. You could either use D major chord and D major scale for the entire progression or use D major for Dma7-Bm7 and use and E minor chord and E Dorian for Em7-A7.

using the relative minor option

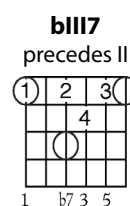
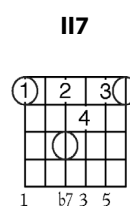
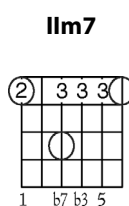
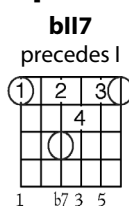
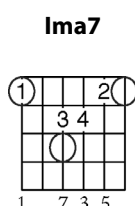
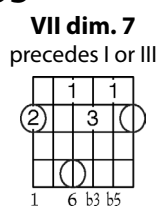
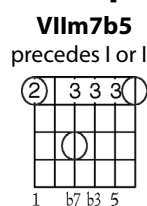
Even though a song is in major, based on I major of a major scale (D major for Breezin'), you could treat it as if it was in its relative minor key on VI minor of the major scale. Breezin' could be treated as if it were on Bm and B Aeolian VIm of a D major scale, instead of on I of a D major scale this works because there are versions of the I chord D and the VIm chord Bm that have the same notes. D6 and Bm7 share the same notes. This produces a darker, cooler mood. See [Substitution/Shared Thirds: Secondary Roots](#).

Table of Chords and Scales By Numbered Type

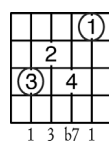
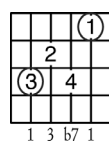
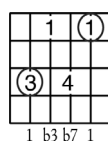
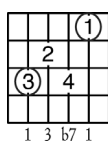
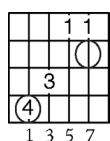
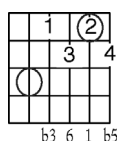
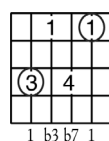
chords, scales and arpeggios in five octave shapes

chords

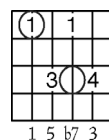
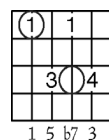
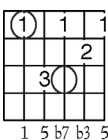
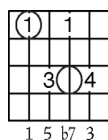
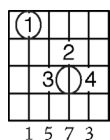
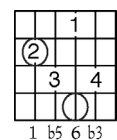
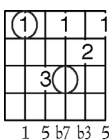
E form root



C form root

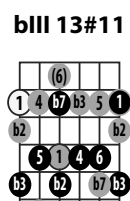
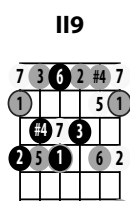
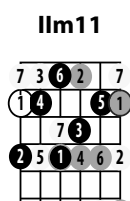
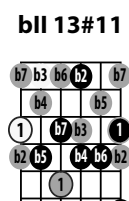
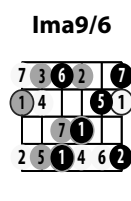
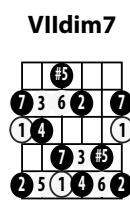
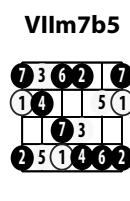
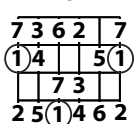


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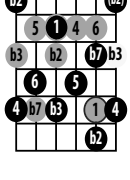
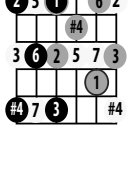
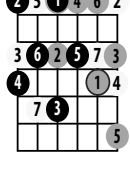
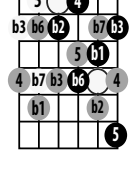
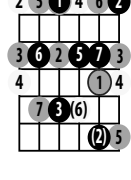
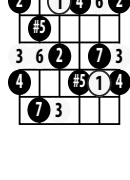
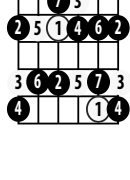
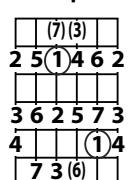


arpeggios

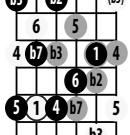
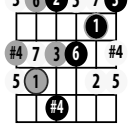
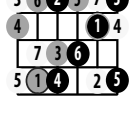
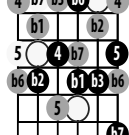
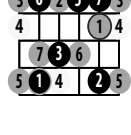
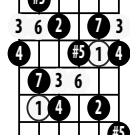
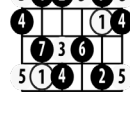
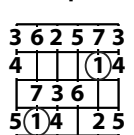
E form parent



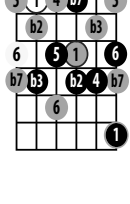
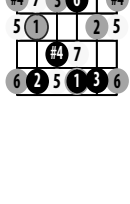
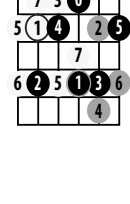
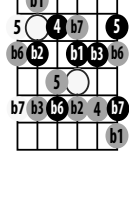
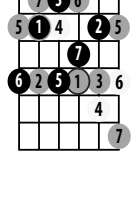
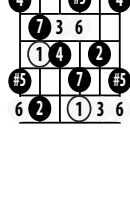
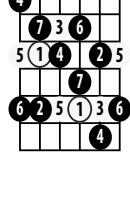
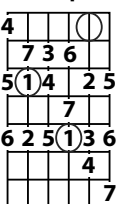
D form parent



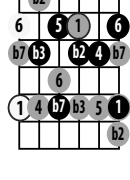
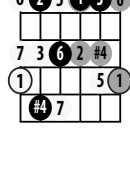
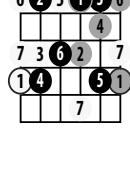
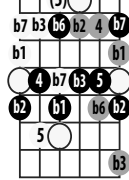
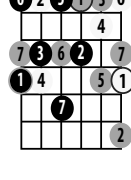
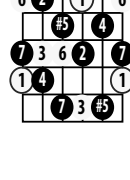
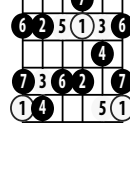
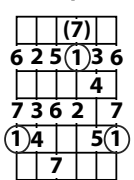
C form parent



A form parent



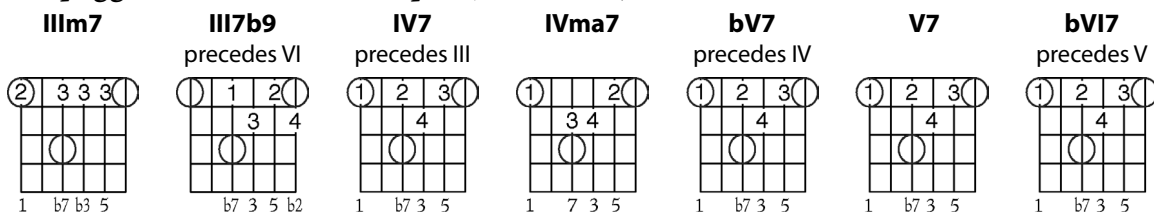
G form parent



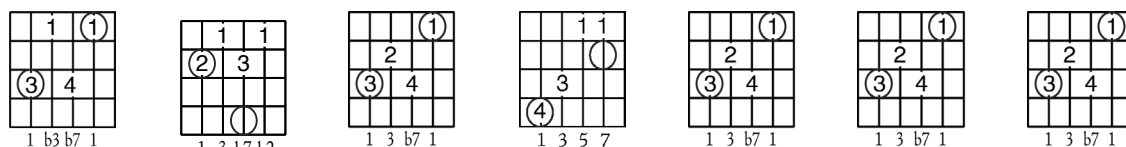
chords, scales and arpeggios in five octave shapes (continued)

chords

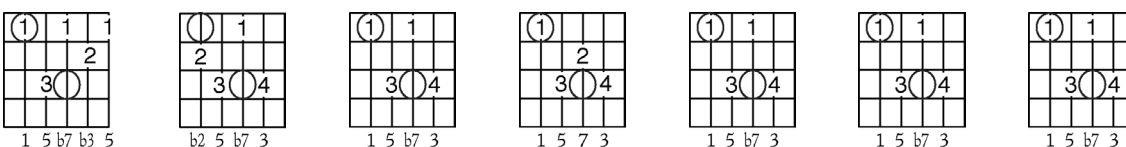
E form root



C form root

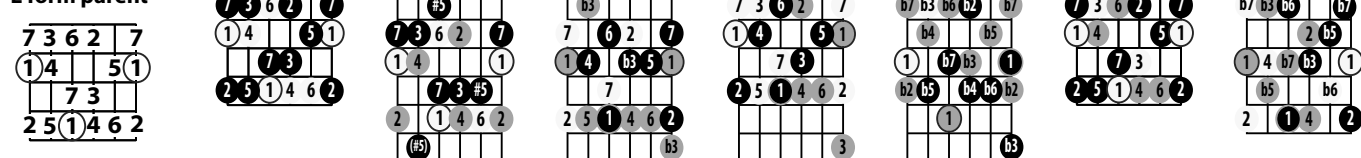


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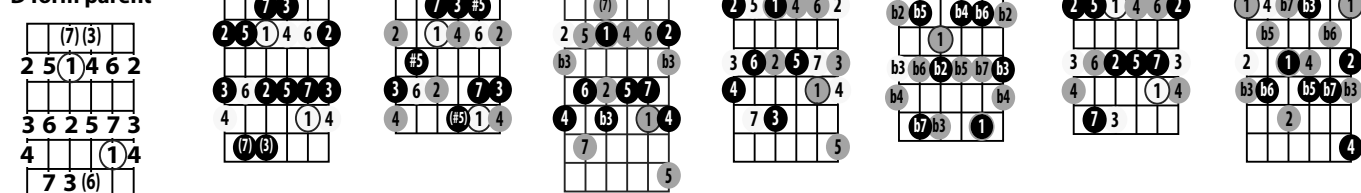


arpeggios

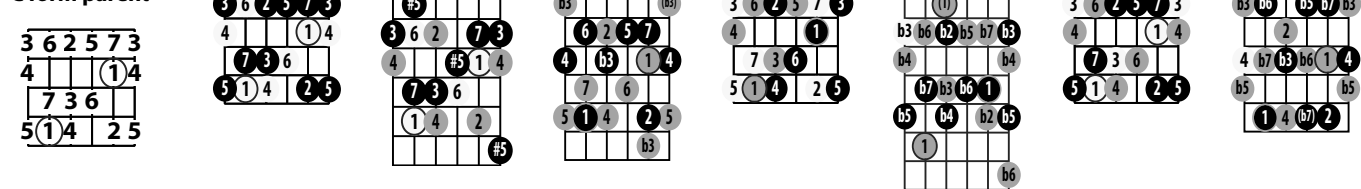
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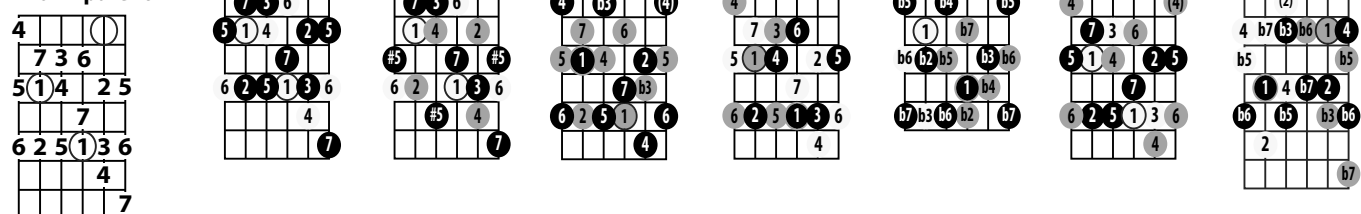
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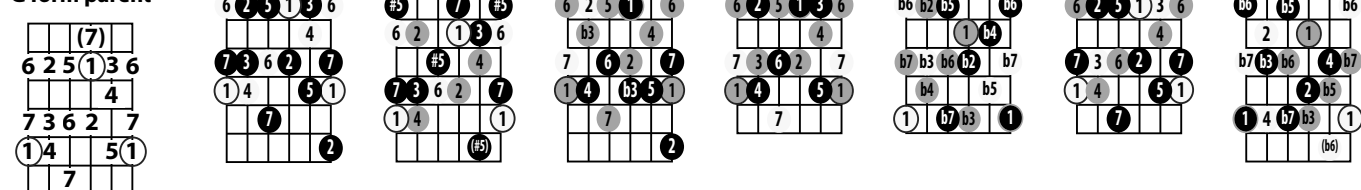
C form parent



A form parent



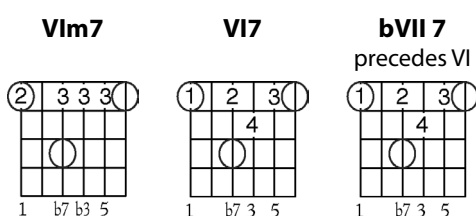
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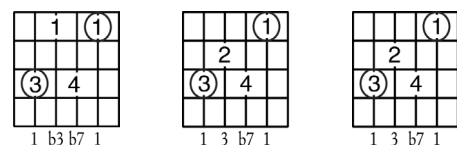
chords, scales and arpeggios in five octave shapes (continued)

chords

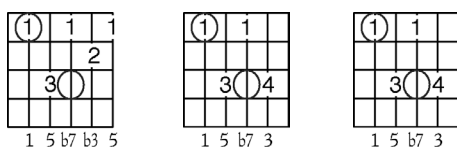
E form root



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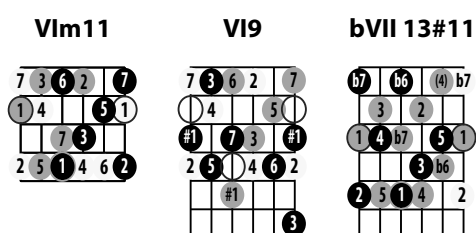
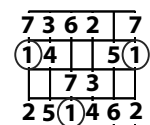


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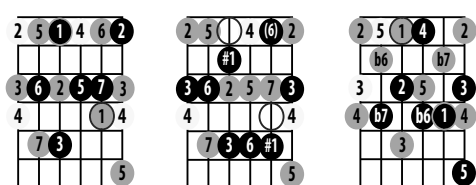
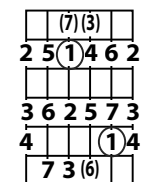


arpeggios

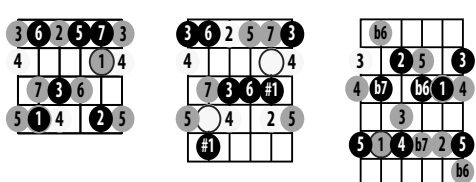
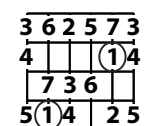
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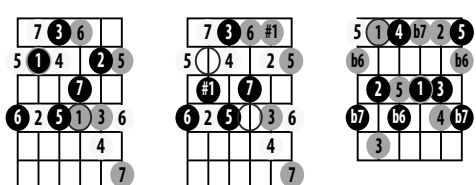
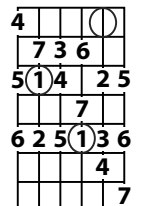
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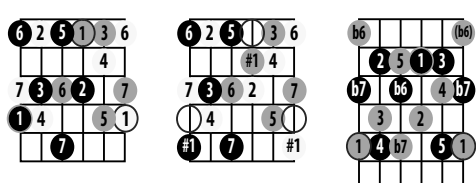
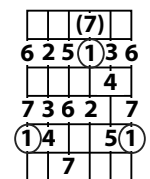
C form parent



A form parent



G form parent



Key Scales, Parent Scales & Chord Scales

- **Scale Synonyms (Modes)**
- **Key Scale, Parent Scale and Chord Scale**
- **Parent Scale and Key Scale Fingerings**
- **The Order of Melodic Importance**
- **Determining the Scale**
- **Seventh Chords in 28 Modes**
- **Largest Tertian Chords in 28 Modes**
- **Modal Key Scales**
- **Dominant and Diminished Connecting Chords**
- **Scale Fingerings**

SCALE SYNONYMS (MODES)

Scales are shown with formula numbers, which are scale-tone numbers in relation to a major scale named after the tone center (in this case, "C"). Arpeggios and chord fingerings are shown in this course with finger numbers on the grid, formula numbers below.

Scale Synonyms of Major Scale Modes Shown with Fingerings

The C major scale is shown below, illustrated in the traditional manner by playing up and down an octave from C to C.

C major (Ionian mode) for one octave

T														
A														
B	8	5	7	8	5	7	4	5	4	7	5	8	7	5

By playing the C major scale in a range of two octaves, you can then extract portions that range from each note up and down an octave and create the modes of C major.

C major (Ionian mode) for two octaves

T																										
A																										
B	8	5	7	8	5	7	9	5	7	5	6	8	5	7	8	7	5	8	6	5	7	5	9	7	5	8

D Dorian mode

T														
A														
B	5	7	8	5	7	9	5	7	5	9	7	5	8	7

E Phrygian mode

T														
A														
B	7	8	5	7	9	5	7	5	7	5	9	7	5	8

F Lydian mode

The F Lydian mode scale is shown in treble clef, spanning from F4 to F5. The notes are F, G, A, B, C, D, E, F. Below the staff is a fretboard diagram for the F Lydian mode, showing the scale across four frets (F, G, A, B, C, D, E, F) on strings T, A, and B.

T							
A	8	5	7	9	5	7	5 6
B						5 7 5 9	7 5 8

G Mixolydian mode

The G Mixolydian mode scale is shown in treble clef, spanning from G4 to G5. The notes are G, A, B, C, D, E, F, G. Below the staff is a fretboard diagram for the G Mixolydian mode, showing the scale across four frets (G, A, B, C, D, E, F, G) on strings T, A, and B.

T							
A	5	7	9	5	7	5 6 8	6 5 7 5
B							9 7 5

A Aeolian mode

The A Aeolian mode scale is shown in treble clef, spanning from A4 to A5. The notes are A, B, C, D, E, F, G, A. Below the staff is a fretboard diagram for the A Aeolian mode, showing the scale across four frets (A, B, C, D, E, F, G, A) on strings T, A, and B.

T							
A	7	9	5	7	5	6 8 5	8 6 5 7
B							5 9 7

B Locrian mode

The B Locrian mode scale is shown in treble clef, spanning from B4 to B5. The notes are B, C, D, E, F, G, A, B. Below the staff is a fretboard diagram for the B Locrian mode, showing the scale across four frets (B, C, D, E, F, G, A, B) on strings T, A, and B.

T							
A	9	5	7	5	6 8 5 7	5 8 6 5	7 5 9
B							

Shared Chords Built in Each Mode of the C Major Scale

As you can see below, the triads (three-note-chords) built on each step of the C major scale are the same triads used for each mode of C major.

triads of C major for one octave

Triads of C major for one octave:

Chord	Notes	Triad Structure (T, A, B)
C	C-E-G	1-3-5
Dm	D-F-A	2-4-6
Em	E-G-B	3-5-7
F	F-A-C	4-6-1
G	G-B-D	5-7-2
Am	A-C-E	6-1-3
B°	B-D-F	7-2-4
C	C-E-G	1-3-5
B°	B-D-F	7-2-4
Am	A-C-E	6-1-3
G	G-B-D	5-7-2
F	F-A-C	4-6-1
Em	E-G-B	3-5-7
Dm	D-F-A	2-4-6
C	C-E-G	1-3-5

triads of C major for two octaves

Triads of C major for two octaves:

Chord	Notes	Triad Structure (T, A, B)
C	C-E-G	1-3-5
Dm	D-F-A	2-4-6
Em	E-G-B	3-5-7
F	F-A-C	4-6-1
G	G-B-D	5-7-2
Am	A-C-E	6-1-3
B°	B-D-F	7-2-4
C	C-E-G	1-3-5
Dm	D-F-A	2-4-6
Em	E-G-B	3-5-7
F	F-A-C	4-6-1
G	G-B-D	5-7-2
Am	A-C-E	6-1-3
B°	B-D-F	7-2-4
C	C-E-G	1-3-5
B°	B-D-F	7-2-4

Triads of C major for two octaves:

Chord	Notes	Triad Structure (T, A, B)
Am	A-C-E	6-1-3
G	G-B-D	5-7-2
F	F-A-C	4-6-1
Em	E-G-B	3-5-7
Dm	D-F-A	2-4-6
C	C-E-G	1-3-5
B°	B-D-F	7-2-4
Am	A-C-E	6-1-3
G	G-B-D	5-7-2
F	F-A-C	4-6-1
Em	E-G-B	3-5-7
Dm	D-F-A	2-4-6
C	C-E-G	1-3-5

triads of D Dorian

Triads of D Dorian:

Chord	Notes	Triad Structure (T, A, B)
Dm	D-F-A	2-4-6
Em	E-G-B	3-5-7
F	F-A-C	4-6-1
G	G-B-D	5-7-2
Am	A-C-E	6-1-3
B°	B-D-F	7-2-4
C	C-E-G	1-3-5
Dm	D-F-A	2-4-6
C	C-E-G	1-3-5
B°	B-D-F	7-2-4
Am	A-C-E	6-1-3
G	G-B-D	5-7-2
F	F-A-C	4-6-1
Em	E-G-B	3-5-7
Dm	D-F-A	2-4-6

triads of E Phrygian

Triads of E Phrygian:

Chord	Notes	Triad Structure (T, A, B)
Em	E-G-B	3-5-7
F	F-A-C	4-6-1
G	G-B-D	5-7-2
Am	A-C-E	6-1-3
B°	B-D-F	7-2-4
C	C-E-G	1-3-5
Dm	D-F-A	2-4-6
Em	E-G-B	3-5-7
Dm	D-F-A	2-4-6
C	C-E-G	1-3-5
B°	B-D-F	7-2-4
Am	A-C-E	6-1-3
G	G-B-D	5-7-2
F	F-A-C	4-6-1
Em	E-G-B	3-5-7

triads of F Lydian

Triad	T	A	B
F	5	4	8
G	3	4	5
Am	5	5	7
B°	6	7	9
C	3	5	5
Dm	5	6	7
Em	7	8	9
F	8	10	10
Em	7	8	9
Dm	5	6	7
C	3	5	5
B°	6	7	9
Am	5	5	7
G	3	4	5
F	5	4	8

triads of G Mixolydian

Triad	T	A	B
G	3	5	5
Am	5	5	7
B°	6	7	9
C	3	5	5
Dm	5	6	7
Em	7	8	9
F	8	10	10
G	10	12	12
F	8	10	10
Em	7	8	9
Dm	5	6	7
C	3	5	5
B°	6	7	9
Am	5	5	7
G	3	4	5

triads of A Aeolian

Triad	T	A	B
Am	5	5	7
B°	6	7	9
C	3	5	5
Dm	5	6	7
Em	7	8	9
F	8	10	10
G	10	12	12
Am	12	13	14
G	10	12	12
F	8	10	10
Em	7	8	9
Dm	5	6	7
C	3	5	5
B°	6	7	9
Am	5	5	7

triads of B Locrian

Triad	T	A	B
B°	6	7	9
C	3	5	5
Dm	5	6	7
Em	7	8	9
F	8	10	10
G	10	12	12
Am	12	13	14
B°	13	15	16
Am	12	13	14
G	10	12	12
F	8	10	10
Em	7	8	9
Dm	5	6	7
C	3	5	5
B°	6	7	9

Four Harmonize-able Seven Tone Scales

heptatonic scale

A *heptatonic* scale is a seven-tone scale.

harmonize-able heptatonic scales

Only four heptatonic scales can produce currently acceptable chords on each scale step by combining three or more notes in an every-other-note pattern (thirds). They are major, harmonic minor, melodic minor and harmonic major. Traditionally, melodic minor is major scale flat three ascending and Aeolian (major scale flat 3, 6 and 7 descending. This course refers to the jazz and modern version of melodic minor that is major flat three ascending and descending.

formulas

A set of seven numbers that represent the comparison between a chord, scale or melody. C major scale is 1-2-3-4-5-6-7 and has all natural notes (C-D-E-F-G-A-B). C Mixolydian, by comparison has a "Bb" note instead of a "B", so the formula for Mixolydian is 1-2-3-4-5-6-b7.

modes of the four harmonize-able heptatonic scales

What are the names of the modes built on a major scale? Answer: modes 1-2-3-4-5-6-7 are respectively major (Ionian)-Dorian-Phrygian-Lydian-Mixolydian-Aeolian and Locrian. In order with the traditional Roman-numbered tone on which they are built, they are I major (Ionian), II Dorian, III Phrygian, IV Lydian, V Mixolydian, VI Aeolian and VII Locrian.

To figure out the modes built on each of the steps of the other three harmonize-able heptatonic scales, follow these four steps: (1) Conceive harmonic minor as major scale sharp five and harmonic minor will be the mode on its sixth step; (2) conceive melodic minor as major scale flat three; (3) conceive harmonic major as major scale flat six; (4) use a descending number series in comparing each mode side-by-side with a major scale mode on the same numbered scale tone as shown in the table below.

the descending number series

There is a descending number series in harmonize-able heptatonic modes other than major. In major sharp five, the descending number series is #5-#4-natural 3-#2-#1-natural 7-natural 6. In melodic minor (major flat three), the descending number series is b3-b2-flat one-b7-b6-b5-b4. In harmonic major (major flat six), the descending number series is b6-b5-b4-b3-b2-flat one.

	1	2	3	4	5	6	7
major mode altered tones	major none	Dorian b3,, b7	Phrygian b2, b3, b6, b7	Lydian #4	Mixolydian b7	Aeolian b3, b6, b7	Locrian b2, b3, b5, b6, b7
major sharp 5 mode altered tones	major #5 #5	Dorian #4 b3, #4, b7	Phrygian natural 3 b2, nat. 3, b6, b7	Lydian #2 #2, #4	Mixolydian #1 #1, b7	Aeolian natural 7 (harmonic min.) b3, b6, natural 7	Locrian natural 6 b2, b3, b5, natural 6, b7
melodic minor mode altered tones	major b3 b3	Dorian b2 b2, b3, b7	Phrygian flat one flat one, b2, b3, b6, b7	Lydian b7 (Lydian dominant") #4, b7	Mixolydian b6 b6, b7	Aeolian b5 b3, b5, b6, b7	Locrian b4 "super Locrian" b2, b3, b4, b5, b6, b7
harmonic major mode altered tones	major b6 b6	Dorian b5 b3, b5, b7	Phrygian b4 "super Phrygian" b2, b3,b4, b6, b7	Lydian b3 "Lydian diminished" b3, #4	Mixolydian b2 b2, b7	Aeolian flat one flat one, b3, b6, b7	Locrian bb7 b2, b3, b5, b6, bb7

The color codes are:

major	minor	dominant	diminished	augmented
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Major Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
-------	-------	----------	------------	-----------

stepwise root movement

	1	2	3	4	5	6	7
mode	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
triad tones	major 1-3-5	minor 2-4-6	minor 3-5-7	major 4-6-1	major 5-7-2	minor 6-1-3	dimin. 7-2-4
seventh tones	ma7 1-3-5-7	m7 2-4-6-1	m7 3-5-7-2	ma7 4-6-1-3	7 5-7-2-4	m7 6-1-3-5	m7b5 7-2-4-6
ninth tones	ma9 1-3-5-7-2	m9 2-4-6-1-3	not acceptable	ma9 4-6-1-3-5	9 5-7-2-4-6	m9 6-1-3-5-7	not acceptable
secondary dominant	7 or 9	7 9 or 7#9	7 or 7b9	7 or 9	7, 7#5 or 7#5	7 9 or 7#9	7 or 7b9
key of C#	C#	D#m	E#m	F#	G#	A#m	B#dim.
key of F#	F#	G#m	A#m	B	C#	D#m	E#dim.
key of B	B	C#m	D#m	E	F#	G#m	A#dim.
key of E	E	F#m	G#m	A	B	C#m	D#dim.
key of A	A	Bm	C#m	D	E	F#m	G#dim.
key of D	D	Em	F#m	G	A	Bm	C#dim.
key of G	G	Am	Bm	C	D	Em	F#dim.
key of C	C	Dm	Em	F	G	Am	Bdim.
key of F	F	Gm	Am	Bb	C	Dm	Edim.
key of Bb	Bb	Cm	Dm	Eb	F	Gm	Adim.
key of Eb	Eb	Fm	Gm	Ab	Bb	Cm	Ddim.
key of Ab	Ab	Bbm	Cm	Db	Eb	Fm	Gdim.
key of Db	Db	Ebm	Fm	Gb	Ab	Bbm	Cdim.
key of Gb	Gb	Abm	Bbm	Cb	Db	Ebm	Fdim.
key of Cb	Cb	Dbm	Ebm	Fb	Gb	Abm	Bbdim.

Harmonic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
-------	-------	----------	------------	-----------

stepwise root movement

	1	2	b3	4	5	b6	7
mode	Aeolian	Locrian natural 6	Major #5	Dorian #4	Phrygian dominant	Lydian #2	Mixolyian #1
1	minor 1-b3-5	dimin. 2-4-b6	augmented b3-5-7	minor 4-b6-1	major 5-7-2	major b6-1-b3	dimin. 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7b5 2-4-b6-1	ma7#5 b3-5-7-2	m7 4-b6-1-b3	7 5-7-2-4	ma7 b6-1-b3-5	7 7-2-4-b6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7-2-4	m9 4-b6-1-b3-5	7b9 5-7-2-4-b6	not acceptable	not acceptable
secondary dominant	7, 7#5, 9 or 7#9	7, 7#5 or 7b9	7, 7#5 or 9	7, 9, 7#9 or 7#11	7#9 or 7#5	7 or 7#9	n/a
key of A#m	A#m	B#dim.	C# aug	D#m	E#	F#	G##dim
key of D#m	D#m	E#dim.	F# aug	G#m	A#	B	C## dim
key of G#m	G#m	A#dim.	B aug	C#m	D#	E	F## dim
key of C#m	C#m	D#dim	E aug	F#m	G#	A	B# dim
key of F#m	F#m	G#dim.	A aug	Bm	C#	D	E# dim
key of Bm	Bm	C#dim.	D aug	Em	F#	G	A# dim
key of Em	Em	F#dim.	G aug	Am	B	C	D# dim
key of Am	Am	Bdim.	C aug	Dm	E	F	G#dim
key of Dm	Dm	Edim.	F aug	Gm	A	Bb	C# dim
key of Gm	Gm	Adim.	Bb aug	Cm	D	Eb	F# dim
key of Cm	Cm	Ddim.	Eb aug	Fm	G	Ab	B dim
key of Fm	Fm	Gdim.	Ab aug	Bbm	C	Db	E dim
key of Bbm	Bbm	Cdim.	Db aug	Ebm	F	Gb	A dim
key of Ebm	Ebm	Fdim.	Gb aug	Abm	Bb	Cb	D dim
key of Abm	Abm	Bbdim.	Cb aug	Dbm	Eb	Fb	G dim

Melodic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
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stepwise root movement

	1	2	b3	4	5	6	7
mode	melodic minor	Dorian b2	Phrygian b1	Lydian dominant	Mixolydian b6	Aeolian b5	super Locrian
triad tones	minor 1-b3-5	minor 2-4-6	augmented b3-5-7	major 4-6-1	major 5-7-2	diminished 6-1-3	diminished 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7 2-4-6-1	ma7#5 b3-5-7-2	7 4-6-1-b3	7 5-7-2-4	m7b5 6-1-3-5	7#5, 7b5 or m7b5 7-2 or b3 -4-6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7-2-4	9 4-6-1-b3-5	9 5-7-2-4-6	m9b5 6-1-b3-5-7	9b5, 9#5 7-b3- 4 or 5-6
secondary dominant	7 or 9	7 9 or 7#9	7, 7#5 or 9	7 or 9	7, 7#5 or 7#9	7b5 9 or 7#9	7 with b5, #5, b9 or #9
key of C#m	C#	D#m	E aug	F#	G#	A# dim	B#dim
key of F#m	F#	G#m	A aug	B	C#	D# dim	E#dim.
key of Bm	B	C#m	D aug	E	F#	G# dim	A#dim
key of Em	E	F#m	G aug	A	B	C# dim	D#dim
key of Am	A	Bm	C aug	D	E	F# dim	G#dim.
key of Dm	D	Em	F aug	G	A	B dim	C#dim.
key of Gm	G	Am	Bb aug	C	D	E dim	F#dim.
key of Cm	C	Dm	Eb aug	F	G	A dim	Bdim.
key of Fm	F	Gm	Ab aug	Bb	C	D dim	Edim.
key of Bbm	Bb	Cm	Db aug	Eb	F	G dim	Adim.
key of Ebm	Eb	Fm	Gb aug	Ab	Bb	C dim	Ddim.
key of Abm	Ab	Bbm	Cb aug	Db	Eb	F dim	Gdim.
key of Dbm	Db	Ebm	Fb aug	Gb	Ab	Bb dim	Cdim.
key of Gbm	Gb	Abm	Bbb aug	Cb	Db	Eb dim	Fdim.
key of Cbm	Cb	Dbm	Ebb aug	Fb	Gb	Abm	Bbdim.

Harmonic Major Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
-------	-------	----------	------------	-----------

stepwise root movement

	1	2	3	4	5	b6	7
mode	major b6	Dorian b5	super Phrygian	Lydian diminished	Mixolydian b2	Aeolian b1	Locrian bb7
triad tones	major 1-3-5 or aug. 1-3-b6	diminished 2-4-b6	minor 3-5-7 or aug. 3-b6-1	minor 4-b6-1 or dim. 4-b6-7	major 5-7-2	augmented b6-1-3 or dim b6-7-2	diminished 7-2-4
seventh tones	ma7 1-3-5-7	m7b5 2-4-b6-1 or dim7 2-4-b6-7	m7 3-5-7-2	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2	7 5-7-2-4	ma7 b6-1-3-#5 or dim7 b6-7-2-4	dim. 7 7-2-4-b6
ninth tones	ma9 1-3-5-7-2	m9b5 2-4-b6-7 or 1-3	not acceptable	m9(ma7) 4-b6-1-3-5	7b9 5-7-2-4-b6	not acceptable	not acceptable
secondary dominant	7 or 9	7b5 or 9b5	7 or 7b9	7 or 9	7b9 or 7#9	7, 7#5, 9 or 7#9	7 or 7b9
key of C#	C#	D# dim	E#m	F#m	G#	A aug or dim	B#dim
key of F#	F#	G# dim	A#m	Bm	C#	D aug or dim	E#dim.
key of B	B	C# dim	D#m	Em	F#	G aug or dim	A#dim
key of E	E	F# dim	G#m	Am	B	C aug or dim	D#dim
key of A	A	B dim	C#m	Dm	E	F aug or dim	G#dim.
key of D	D	E dim	F#m	Gm	A	Bb aug or dim	C#dim.
key of G	G	A dim	Bm	Cm	D	Eb aug or dim	F#dim.
key of C	C	D dim	Em	Fm	G	Ab aug or dim	Bdim.
key of F	F	G dim	Am	Bbm	C	Db aug or dim	Edim.
key of Bb	Bb	C dim	Dm	Ebm	F	Gb aug or dim	Adim.
key of Eb	Eb	F dim	Gm	Abm	Bb	Cb aug or dim	Ddim.
key of Ab	Ab	Bb dim	Cm	Dbm	Eb	Fb aug or dim	Gdim.
key of Db	Db	Eb dim	Fm	Gbm	Ab	Bbb aug or dim	Cdim.
key of Gb	Gb	Ab dim	Bbm	Cbm	Db	Ebb aug or dim	Fdim.
key of Cb	Cb	Db dim	Ebm	Fbm	Gb	Abb aug or dim	Bbdim.

Shared Chords in Different Modes of the Same Major Scale

Compositions in the modes of a major scale can use the same chords for different modes, as you can see and hear with the “Shared Chords in C major and A Aeolian” example below. The same is true for all modes of any major scale. All the modes can use the same chords. Compositions in each mode establish the key on the tone center of that mode in various ways. See [Establishing a Key/Establishing Keys with Melody and Chord Progression](#).

Shared Chords in C Major and A Aeolian - [click to play video](#)

♩ = 120

C major

A Aeolian

6 Am G F 7 8 Am G/B C 9 G 10 Am

TAB: T A B

KEY SCALE, PARENT SCALE AND CHORD SCALE

Key and Chord Root

What does that mean a song is said to be in a key? It means there is a main note that is the focal point of the whole piece of music. It can be defined in various ways, but a favorite is: “the root of the chord you would expect the piece to end on (in a traditional sense, as in the common practice period of classical music from 1600 to 1900)”.

A chord “root” is the lowest imaginable note in a chord. You can play a “C” major chord with a “G” in the bass (one of its three notes), but if you imagine the lowest note played in the bass in a classic ending, the lowest imaginable note would be “C”. For common chords (triads,, sevenths, ninths), organizing the notes of the chords in thirds (F-A-C-E-G-B-D-F, etc.) would show the chord root as the lowest pitch.

C with G or its root “C” in the bass [link to video](#)

C/G

C major chord with "G" in the bass

C major chord with the root "C" in the bass

T
A
B

authentic and deceptive cadences

What is meant by “you would expect the piece to end on”? A cadence is a chord progression of two or three chords that establishes a key or temporary sense of key. An authentic cadence sounds finished and progresses from a chord built on the fifth step of the key (G major) to one built on the first step (C major). A deceptive cadence can end on an unexpected chord, like ending on an “F” chord in the key of “C”. In a deceptive cadence, the melody usually ends on a note that is in the expected chord *and* in the alternate chord.

In the Deceptive Cadence example below, the melody progresses to the note “E” at the C#m chord, where you would have expected an E chord. The melody note “E” is ambiguous, since it is in E and C#m. This progression to C#m is a deceptive cadence. The piece ends with an authentic cadence, repeating the last phrase ending on “E” in the melody, this time on the expected “E” chord.

deceptive cadence [link to video](#)

Three systems of musical notation for a deceptive cadence in E major. Each system shows a treble staff with notes and a guitar fretboard diagram below. The first system covers measures 1-4, the second measures 5-8, and the third measures 9-10. Chords are labeled above the staff: E, G#m, A, B(sus4), E, G#m, A, B7, A, B7, C#m, A, B7, E. The guitar diagrams show fingerings for the right hand (T, A, B) and left hand (0, 2, 4, 6, 7, 5, 2, 0, 2, 4, 1, 2). A 'deceptive cadence' bracket spans measures 7-8, and an 'authentic cadence' bracket spans measures 9-10.

Deceptive cadences have been used often enough in pop music the twentieth century and later that it may be difficult to conceive an authentic cadence that ends on the chord the key is named after. To gain this sense of a final ending, listen to old music from the baroque and classical period of western art music. For the baroque period, listen to music by Antonio Vivaldi, Johann Sebastian Bach and George Frideric Handel. For the classical period, listen to Joseph Haydn, Wolfgang Amadeus Mozart and Ludwig van Beethoven.

Key Scale

The key is named after the note that you expect to be the bass note of the ending chord (in a traditional sense, see [Key and Chord Root](#) above and see the chapter “[Establishing a Key](#)”). A key scale is the appropriate scale for the current chord group that is named after the key. Most tones in the chord group should be in the key scale.

Using the key scale concept retains your focus on the eventual target chord that the key is named after for both you and the listener. By continually thinking in terms of one major scale, you'll be able to more effectively retain the sense of key. The examples in this study are therefore shown in relation to the C major parent scale. The key is C major or A minor ("A" is relative minor or "C"). During the VII III VI part of the chord progression, the key is VI minor (A minor).

Parent Scale

Parent scales uses the major scale as the common basis of all of its modes. See [Scale Synonyms \(Modes\)](#) and the [Modes](#) chapter.

A parent scale is the major scale (or of one of the three other harmonize-able seven-tone scales) which is the origin of a key scale or chord scale.

A "I" chord (a "one chord") would always have the same chord scale and key scale. This allows you to think in the most familiar context for fingerings and structures like scale-tone chords. See also [Key Signatures/ the relative major and minor system](#), Scales for Songs in All Keys/[Parent Scale](#); Introduction to Improvisation/Using Scales and Chords in Improv/[Key Scales, Parent Scales and Chord Scales](#); Modes/[Key Scale, Parent Scale and Chord Scale/Parent Scale](#); Modes/Modes on I-IV-V Blues/[Key Scale, Chord Scale and Parent Scale in Blues](#); Key Scales/[Key Scale, Chord Scale and Parent Scale](#); Substitution/Five Categories of Substitute Chords/[Identify the Parent Major Scale](#).

Parent Scales for Secondary Dominants and for Flat Five Substitutes

On the following pages, parent scales are shown in five octaves shapes (E form, D form, C form, A form and G form) with the secondary dominant and melodic minor variants of each parent major scale.

Secondary dominants can occur on each parent major scale tone except scale tone V, where it is already a dominant chord. For each secondary dominant a different tone of the parent major scale is altered, such as major scale sharp five to make a III7b9/Phrygian major dominant.

Lydian dominant is used a a flat two of a target, such as F13#11 to target Em7. In each case, a modal synonym can be conceived, so you can still think in key scale. See Secondary Dominant/[The Flat Five Substitute of a Secondary Dominant](#).

Chord Scale

A chord scale is the appropriate scale for the current chord, named after the chord root. All tones of the chord should be in the chord scale. The chord scales for groups of chords are commonly modes of the same parent scale.

PARENT SCALE AND KEY SCALE FINGERINGS

Legend of Symbols on Parent Scale and Key Scale Fingerings

the header row

E form parent	LOCRIAN	PHRYGIAN	AEOLIAN	DORIAN	MIXOLYDIAN	MAJOR	LYDIAN
	VIIIm7/11b5 pentatonic	IIIIm7/11 pentatonic	VIIm7/11 pentatonic	IIIm7/11 pentatonic	V ma 6/9 pentatonic	I ma 6/9 pentatonic	IV ma 6/9 pentatonic
	VII dim.	III minor	VI minor	II minor	V major	I major	IV major

The gray box at the left of this row shows the octave shape of the parent scale tone center. See “[Note Sets, Structure and Design](#)”/Octave Shapes and [Key Scale, Parent Scale and Chord Scale](#) in this chapter.

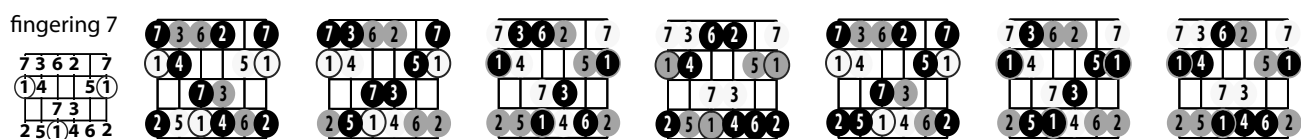
The top of each cell in the header row (other than the gray cell) lists one of the seven modes of the major scale (Locrian). Below the mode name is the common pentatonic scale name for that mode (VIIIm711b5 pentatonic). See “[Pentatonic Scales and Octave Shapes](#)”. The Roman numeral (VII) is the scale tone on which the pentatonic scale is built, followed by the descriptive name of the pentatonic scale in the form of a chord name, as described in “[Pentatonic Scales and Octave Shapes](#)”.

The bottom of every cell in the header row (except the gray one) on left-facing page names the scale tone triad for that step by number and quality. “VII dim.” is a diminished triad built on the seventh step of the parent major scale.

numbering each left versus right facing page

The numbering of each tone on left-facing pages are in terms of the parent scale. On each right-facing page, the numbers are shown with the chord root or tone center as “1”. For the C major parent scale, “D” in D Dorian would be “2” on the left facing page and would be “1” on the right-facing page.

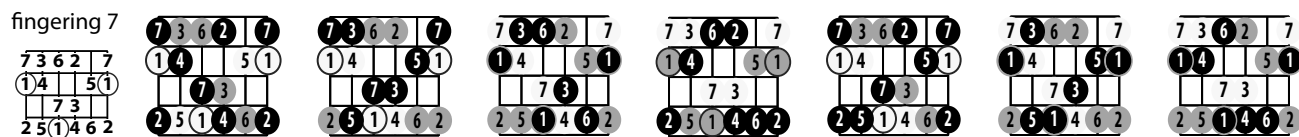
the first row of diagrams -triad, pentatonic and mode



In this first row of diagrams, the diagram at the far left with no black nor grey backgrounds is the parent major scale, Where “1” (C) is the tone center of the parent major scale (C major). The black-backed numbers in each diagram are the triad tones, as named the bottom of the header cell (VII diminished). The gray-backed numbers are the tones added to the triad to complete the pentatonic scale. So, the black and gray notes combined makeup the pentatonic scale. The remaining notes without black nor gray

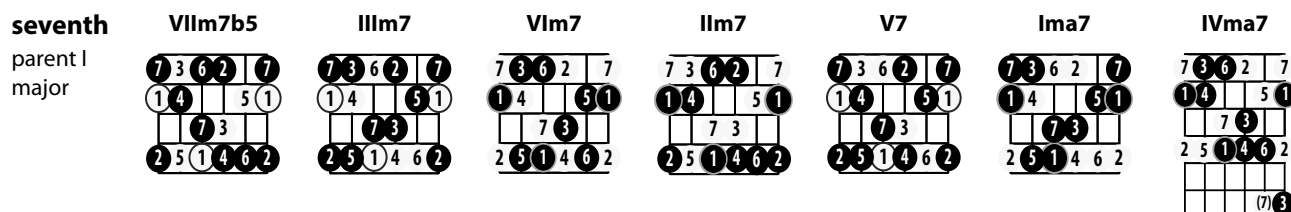
background complete the major scale mode (VII Locrian). For an example the mode, play an octave from one tone center to another, in numbered order.

the second row of diagrams - six-tone scales



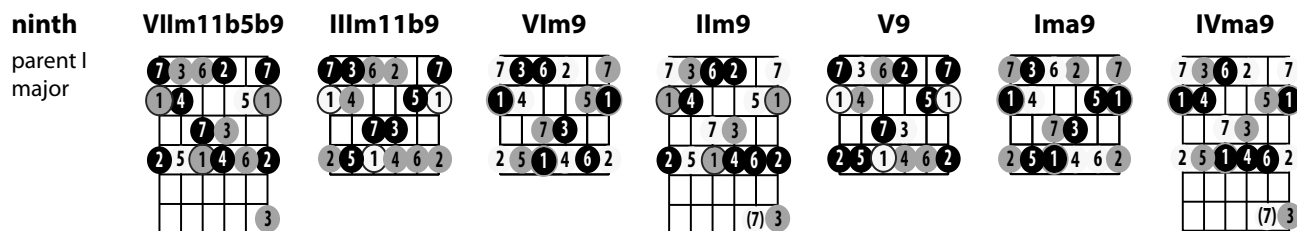
The second row of diagrams is the same as the first, except an extra gray note completes a six-tone (sextatonic) scale rather than a pentatonic scale. These are used to harmonically establish a triad. See [“Six-Tone Scales”](#).

the third row of diagrams - seventh arpeggios



The third row of diagrams shows the major scale-tone seventh arpeggios with black background and the remaining tones with no background. See [“All Scale-Tone Chords”](#)/[Major Scale-Tone Chords](#). All numbered tones with or without black backgrounds make up the parent major scale and its mode. To play an example of the mode, play one octave up or down from one tone center to another. For Mixolydian on a left-facing page, play from “5” to “5”. For Mixolydian on a right-facing page, play from “1” to “1” in the diagram below “V7”.

the fourth row of diagrams - ninth arpeggios

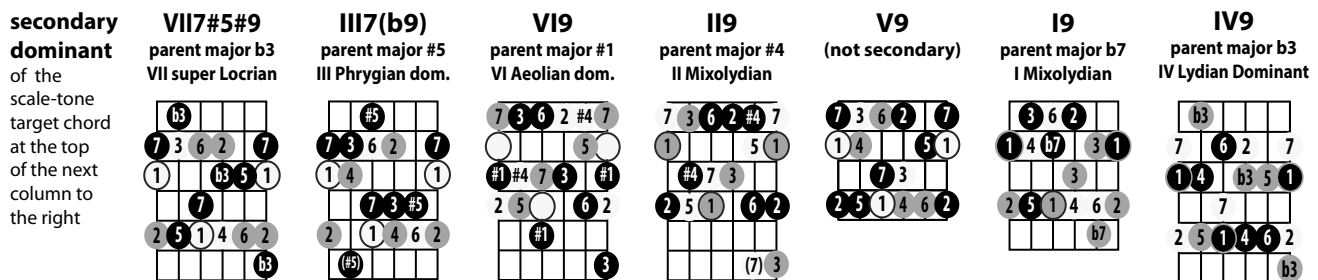


The fourth row of diagrams shows the major scale-tone ninth arpeggios with black background in one range from root to ninth (or partial range) and ninth arpeggios with gray background in another range from root to ninth. On a left-facing page, ascend from the root (“6” for VIIm9) in gray or black. When you reach the ninth (the fifth note), descend one scale tone to begin the next-higher octave in the other

color. The procedure is the same on a right-facing page, except the root is “1” and the ninth is “9”. When descending, go down to the root, then up one scale tone to find the ninth of the lower octave and descend in the other color.

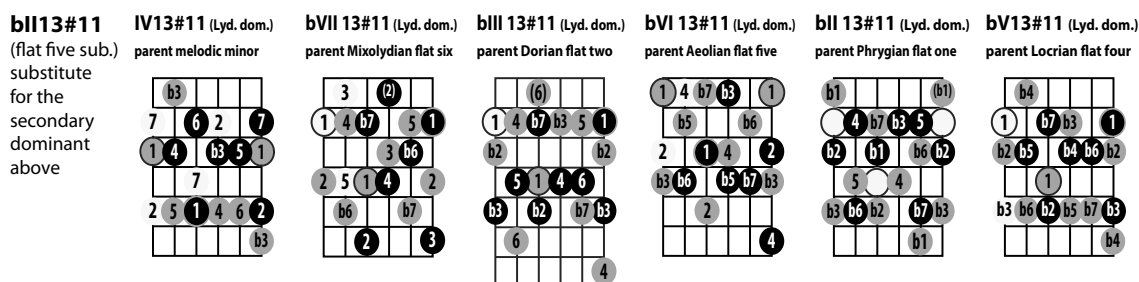
The remaining tones with no background complete the mode. See “[All Scale-Tone Chords](#)”/Major Scale-Tone Chords. All numbered tones with or without black backgrounds make up the parent major scale and its mode. The VIIIm11b5 and IIIIm11b9 arpeggios in the first two columns are hypothetical and not in common use as chords.

the fifth row of diagrams - secondary dominant arpeggios



The fifth row of diagrams shows secondary dominants, which dramatize the progression to the next chord to the right (VI9 goes to IIIm). IV9 can progress to VIIIdim, but rarely. Each secondary dominant becomes a V of the target chord to its right. See “[Secondary Dominant](#)”.

the sixth (bottom) row of diagrams - flat five substitute

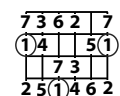


The bottom row of diagrams shows arpeggios for flat five substitute chords, which are substitutes for the secondary dominants shown the the row above. They effectively become a “flat two of target”, rather than a “V of target”. If “C” is the target, “G” is the secondary dominant root (V of C), while “Db” is the flat five substitute root for “G” (Db is bII of C).

Scales and arpeggios are in perfect fourth order. See the [legend](#) at the beginning of this section.

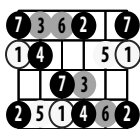
E form parent

fingering 7



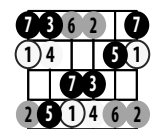
LOCRIAN

VII m7/11 b5
pentatonic
VII dim.



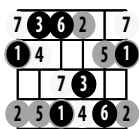
PHRYGIAN

III m7/11
pentatonic
III minor



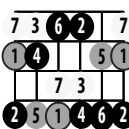
AEOLIAN

VI m7/11
pentatonic
VI minor



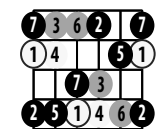
DORIAN

II m7/11
pentatonic
II minor



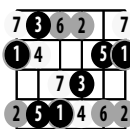
MIXOLYDIAN

V ma 6/9
pentatonic
V major



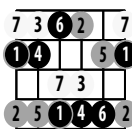
MAJOR

I ma 6/9
pentatonic
I major



LYDIAN

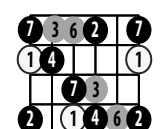
IV ma 6/9
pentatonic
IV major



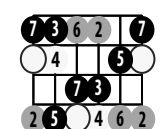
six-tone

parent I
major

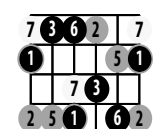
VII m711b5 add b2



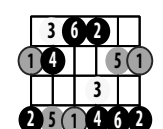
III m pent add b2



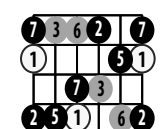
VI m pent add 2



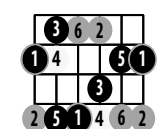
II m pent add 2



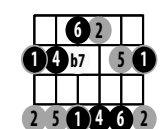
V ma pent add 4



I ma pent add 4



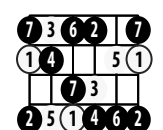
IV ma pent add 4



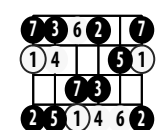
seventh

parent I
major

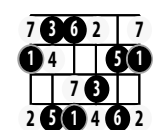
VII m7b5



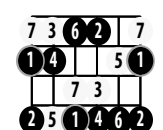
III m7



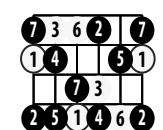
VI m7



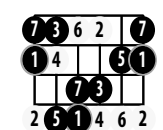
II m7



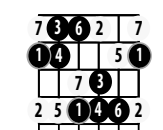
V7



I ma7



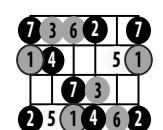
IV ma7



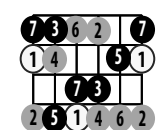
ninth

parent I
major

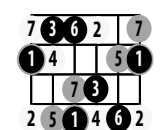
VII m11b5b9



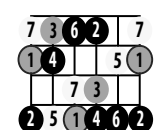
III m11b9



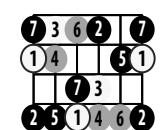
VI m9



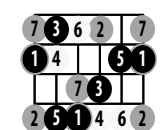
II m9



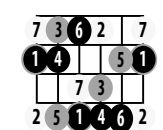
V9



I ma9



IV ma9



secondary dominant

of the
scale-tone
target chord
at the top
of the next
column to
the right

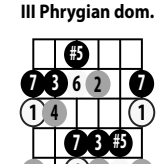
VII7#5#9

parent major b3
VII super Locrian



III7(b9)

parent major #5
III Phrygian dom.



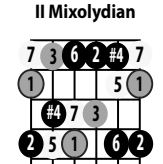
VI9

parent major #1
VI Aeolian dom.



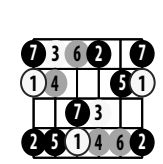
II9

parent major #4
II Mixolydian



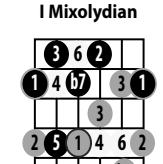
V9

(not secondary)



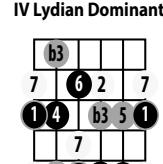
I9

parent major b7
I Mixolydian



IV9

parent major b3
IV Lydian Dominant

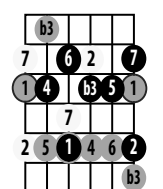


bII13#11

(flat five sub.)
substitute
for the
secondary
dominant
above

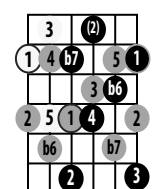
IV13#11 (Lyd. dom.)

parent melodic minor



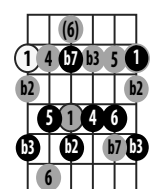
bVII13#11 (Lyd. dom.)

parent Mixolydian flat six



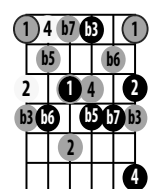
bIII13#11 (Lyd. dom.)

parent Dorian flat two



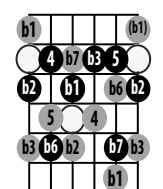
bVI13#11 (Lyd. dom.)

parent Aeolian flat five



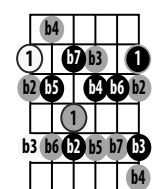
bII13#11 (Lyd. dom.)

parent Phrygian flat one



bV13#11 (Lyd. dom.)

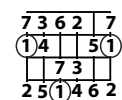
parent Locrian flat four



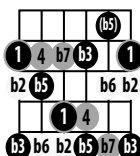
Scales and arpeggios are in perfect fourth order. See the [legend](#) at the beginning of this section.

key scales
(in the key of
each chord)
for E form
parent scales

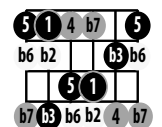
fingering 7



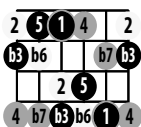
LOCRIAN
VII^m7b5
pentatonic
VII dim.



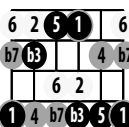
PHRYGIAN
III^m7/11
pentatonic
III minor



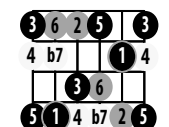
AEOLIAN
VI^m7/11
pentatonic
VI minor



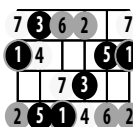
DORIAN
II^m7/11
pentatonic
II minor



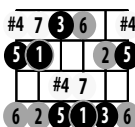
MIXOLYDIAN
V^m6/9
pentatonic
V major



MAJOR
I^m6/9
pentatonic
I major

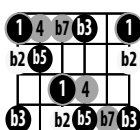


LYDIAN
IV^m6/9
pentatonic
IV major

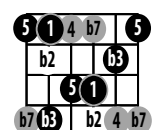


six-tone
numbered
in the key of
the chord

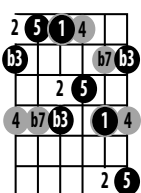
VII^m711b5 add b2



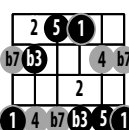
III^m7 pent add b2



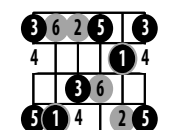
VI^m7 pent add 2



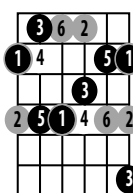
II^m7 pent add 2



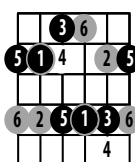
V^m6/9 pent add 4



I^m6/9 pent add 4

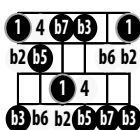


IV^m6/9 pent add 4

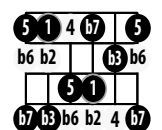


seventh
numbered
in the key of
the chord

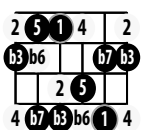
VII^m7b5



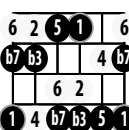
III^m7



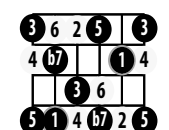
VI^m7



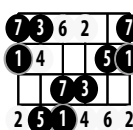
II^m7



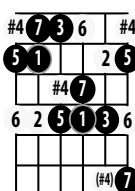
V7



I^m7

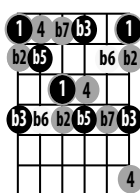


IV^m7

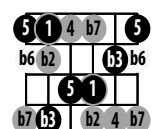


ninth
numbered
in the key of
the chord

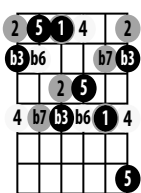
VII^m11b5b9



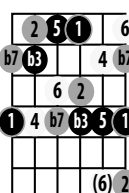
III^m11b9



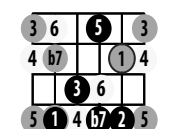
VI^m9



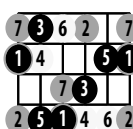
II^m9



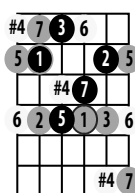
V9



I^m9

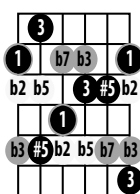


IV^m9

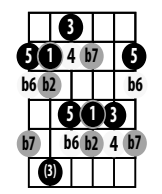


secondary dominant
of the
scale-tone
target chord
at the top
of the next
column to the
right

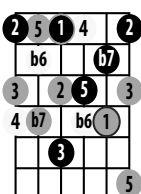
VII7#5#9
parent major b3
VII super Locrian
III Phrygian flat one



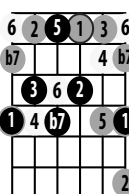
III7(b9)
parent major #5
III Phrygian dom.
VI harmonic minor



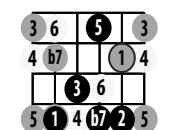
VI9
parent major #1
VI Aeolian dom.
II melodic minor



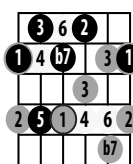
II9
parent major #4
II Mixolydian
V major



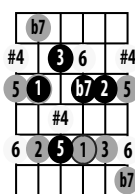
V9
(not secondary)



I9
parent major b7
I Mixolydian

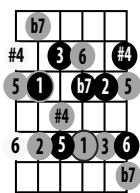


IV9
parent major b3
IV melodic minor
IV Lydian dominant

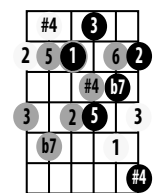


bII13#11
(flat five sub.)
substitute for
the secondary
dominant
above

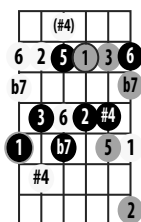
IV13#11 (Lyd. dom.)
parent melodic minor



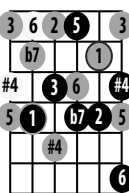
bVII13#11 (Lyd. dom.)
parent melodic minor



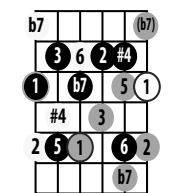
bIII13#11 (Lyd. dom.)
parent melodic minor



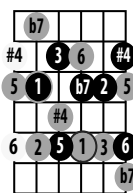
bVI13#11 (Lyd. dom.)
parent melodic minor



bII13#11 (Lyd. dom.)
parent melodic minor



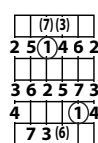
bV13#11 (Lyd. dom.)
parent melodic minor



Scales and Arpeggios are in Perfect Fourth Order. See the [legend](#) at the beginning of this section.

D form parent

fingering 2

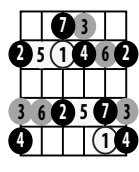


six-tone

parent
I major
(parent I
Mixo. for
IVma pent
add 4)

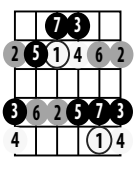
LOCRIAN

VII m7/11b5
pentatonic
VII dim.



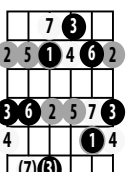
PHRYGIAN

III m7/11
pentatonic
III minor



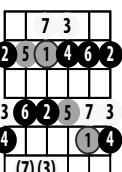
AEOLIAN

VI m7/11
pentatonic
VI minor



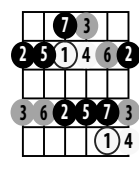
DORIAN

II m7/11
pentatonic
II minor



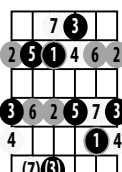
MIXOLYDIAN

V ma 6/9
pentatonic
V major



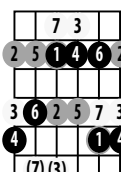
MAJOR

I ma 6/9
pentatonic
I major



LYDIAN

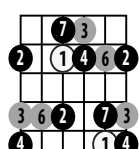
IV ma 6/9
pentatonic
IV major



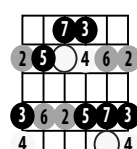
seventh

parent I
major

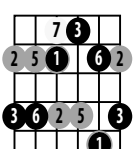
VII m7b5



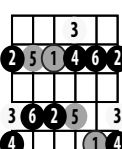
III m7



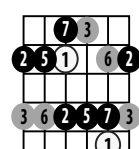
VI m7



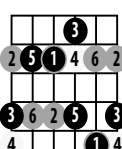
II m7



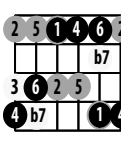
V7



I ma7



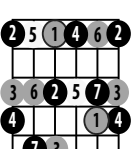
IV ma7



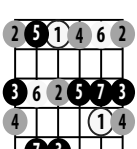
ninth

parent I
major

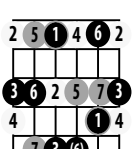
VII m11b5b9



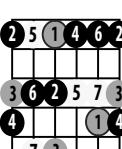
III m11b9



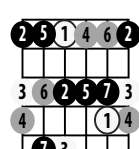
VI m9



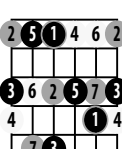
II m9



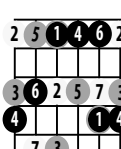
V9



I ma9



IV ma9

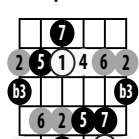


secondary dominant

of the
scale-tone
target chord
at the top
of the next
column to the
right

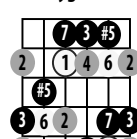
VII7#5#9

parent major b3
VII super Locrian



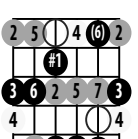
III7(b9)

parent major #5
III Phrygian dom.



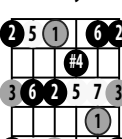
VI9

parent major #1
VI Aeolian dom.

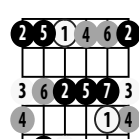


II9

parent major #4
II Mixolydian

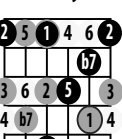


V9 (not secondary)



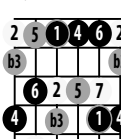
I9

parent major b7
I Mixolydian



IV9

parent major b3
IV Lydian Dominant

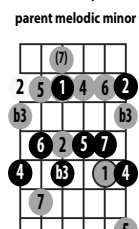


bII13#11

(flat five sub.)
substitute
for the
secondary
dominant
above

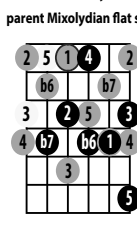
IV13#11 (Lyd. dom.)

parent melodic minor



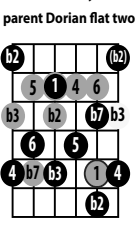
bVII13#11 (Lyd. dom.)

parent Mixolydian flat six



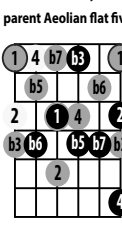
bIII13#11 (Lyd. dom.)

parent Dorian flat two



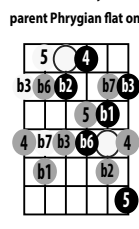
bVI13#11 (Lyd. dom.)

parent Aeolian flat five



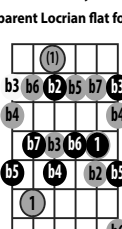
bII13#11 (Lyd. dom.)

parent Phrygian flat one



bV13#11 (Lyd. dom.)

parent Locrian flat four



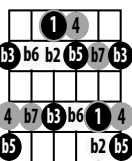
Scales and Arpeggios are in Perfect Fourth Order. See the [legend](#) at the beginning of this section.

key scales
key of each chord)
for D form
parent scales

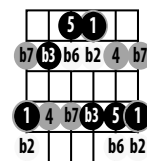
fingering 2



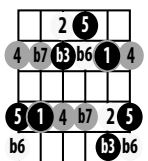
LOCRIAN
VII m7b5
pentatonic
VII dim.



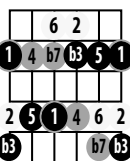
PHRYGIAN
III m7/11
pentatonic
III minor



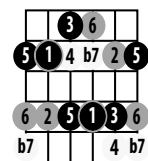
AEOLIAN
VI m7/11
pentatonic
VI minor



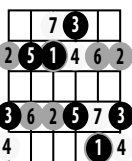
DORIAN
II m7/11
pentatonic
II minor



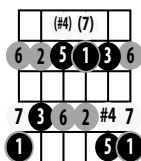
MIXOLYDIAN
V ma 6/9
pentatonic
V major



MAJOR
I ma 6/9
pentatonic
I major

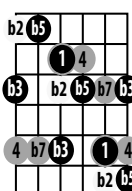


LYDIAN
IV ma 6/9
pentatonic
IV major

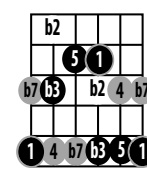


six-tone
numbered
in the key of
the chord

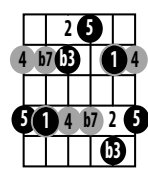
VII m711b5 add b2



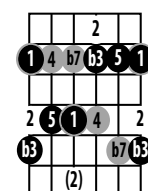
III m pent add b2



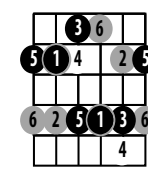
VI m pent add 2



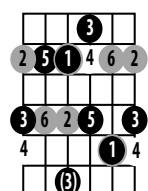
II m pent add 2



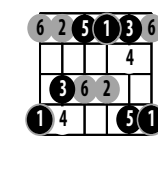
V ma pent add 4



I ma pent add 4

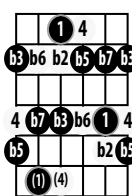


IV ma pent add 4

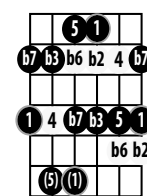


seventh
numbered
in the key of
the chord

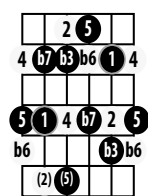
VII m7b5



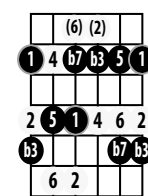
III m7



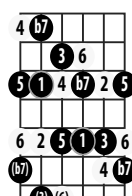
VI m7



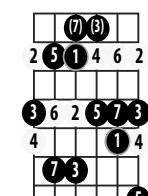
II m7



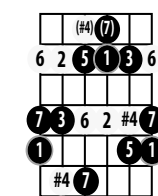
V7



I ma7

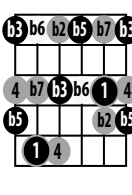


IV ma7

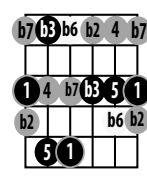


ninth
numbered
in the key of
the chord

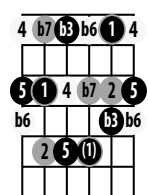
VII m11b5b9



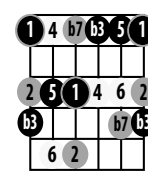
III m11b9



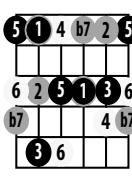
VI m9



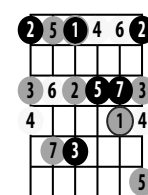
II m9



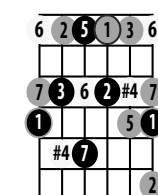
V9



I ma9

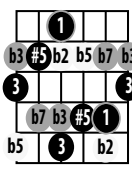


IV ma9

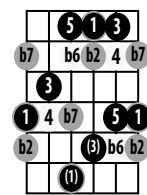


secondary dominant
of the
scale-tone
target chord
at the top
of the next
column to the
right

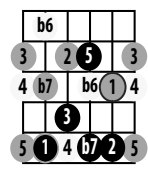
VII7#5#9
parent major b3
VII super Locrian
III Phrygian flat one



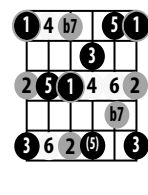
III7(b9)
parent major #5
III Phrygian dom.
VI harmonic minor



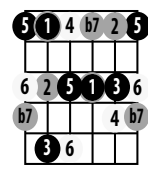
VI9
parent major #1
VI Aeolian dom.
II melodic minor



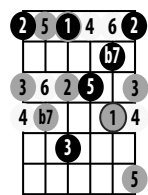
II9
parent major #4
II Mixolydian
V major



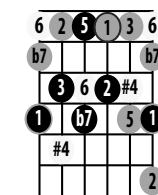
V9
(not secondary)



I9
parent major b7
I Mixolydian
IV major

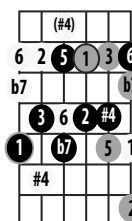


IV9
parent major b3
I melodic minor
IV Lydian dominant

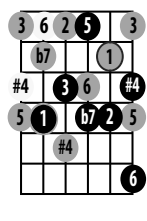


bII13#11
(flat five sub.)
substitute for
the secondary
dominant
above

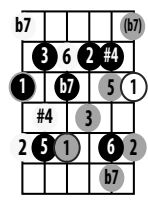
IV13#11 (Lyd. dom.)
parent melodic minor



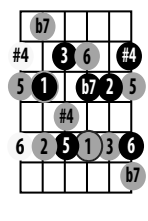
bVII 13#11 (Lyd. dom.)
parent melodic minor



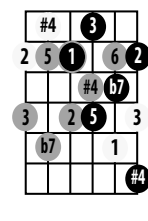
bIII 13#11 (Lyd. dom.)
parent melodic minor



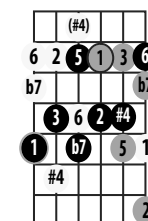
bVI 13#11 (Lyd. dom.)
parent melodic minor



bII 13#11 (Lyd. dom.)
parent melodic minor



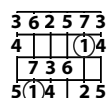
bV13#11 (Lyd. dom.)
parent melodic minor



Scales and arpeggios are in perfect fourth order. See the [legend](#) at the beginning of this section.

C form parent

fingering 3



six-tone

parent I major (parent I Mixo. for IVma pent add 4)

seventh

parent I major

ninth

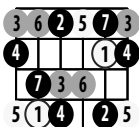
parent I major

secondary dominant

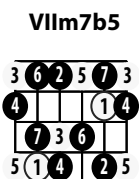
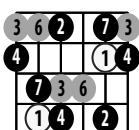
of the scale-tone target chord at the top of the next column to the right

bII13#11 (flat five sub.) substitute for the secondary dominant above

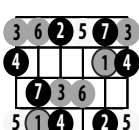
LOCRIAN
VIIIm7/11b5 pentatonic
VII dim.



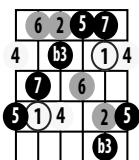
VIIIm711b5 add b2



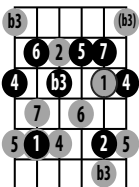
VIIIm11b5b9



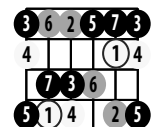
VII7#5#9
parent major b3
VII super Locrian



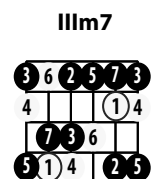
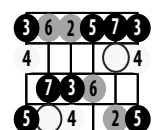
IV13#11 (Lyd. dom.)
parent melodic minor



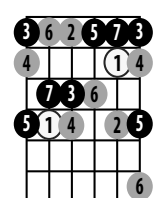
PHRYGIAN
IIIIm7/11 pentatonic
III minor



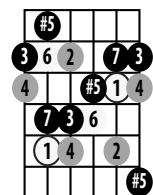
IIIIm pent add b2



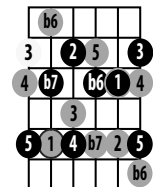
IIIIm11b9



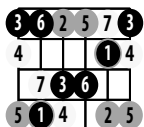
III7(b9)
parent major #5
III Phrygian dom.



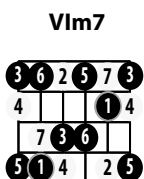
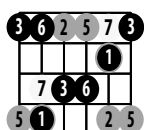
bVII13#11 (Lyd. dom.)
parent Mixolydian flat six



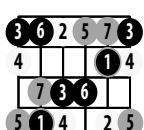
AEOLIAN
VIIm7/11 pentatonic
VI minor



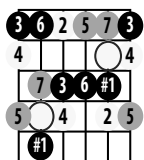
VIIm pent add 2



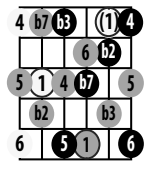
VIIm9



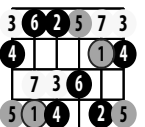
VI9
parent major #1
VI Aeolian dom.



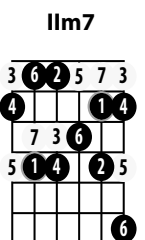
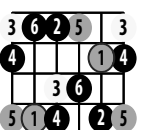
bIII13#11 (Lyd. dom.)
parent Dorian flat two



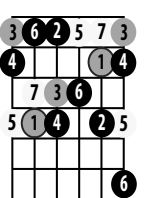
DORIAN
IIIm7/11 pentatonic
II minor



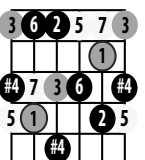
IIIm pent add 2



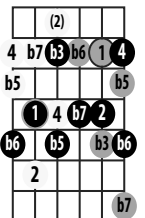
IIIm9



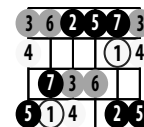
II9
parent major #4
II Mixolydian



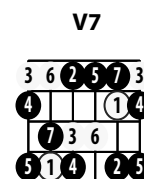
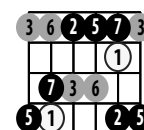
bVI13#11 (Lyd. dom.)
parent Aeolian flat five



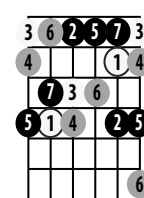
MIXOLYDIAN
Vma 6/9 pentatonic
V major



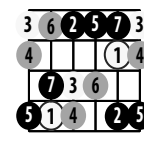
Vma pent add 4



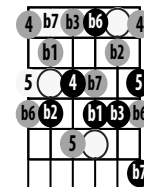
V9



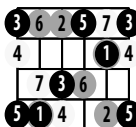
V9
(not secondary)



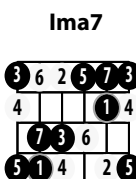
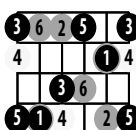
bII13#11 (Lyd. dom.)
parent Phrygian flat one



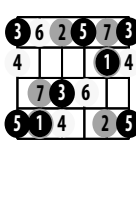
MAJOR
I ma 6/9 pentatonic
I major



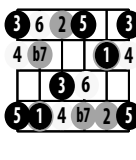
I ma pent add 4



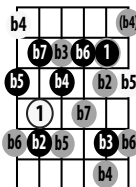
Ima9



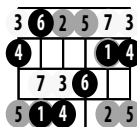
I9
parent major b7
I Mixolydian



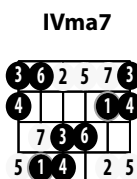
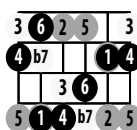
bV13#11 (Lyd. dom.)
parent Locrian flat four



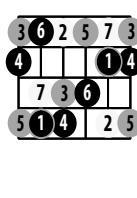
LYDIAN
IV ma 6/9 pentatonic
IV major



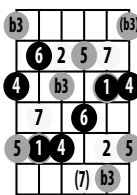
IVma pent add 4



IVma9



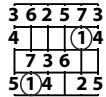
IV9
parent major b3
IV Lydian Dominant



Scales and arpeggios are in perfect fourth order. See the [legend](#) at the beginning of this section.

key scales
(in the key of
each chord)
for **C** form
parent scales

fingering 3



six-tone
numbered
in the key of
the chord

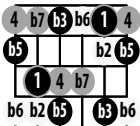
seventh
numbered
in the key of
the chord

ninth
numbered
in the key of
the chord

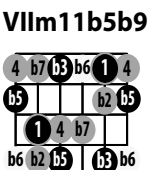
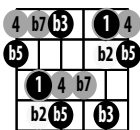
**secondary
dominant**
of the
scale-tone
target chord
at the top
of the next
column to the
right

bII13#11
(flat five sub.)
substitute for
the secondary
dominant
above

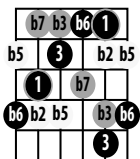
LOCRIAN
VIIIm7b5
pentatonic



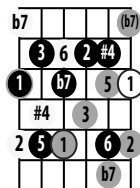
VIIIm711b5 add b2



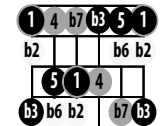
VII7#5#9
parent major b3
VII super Locrian
III Phrygian flat one



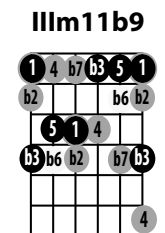
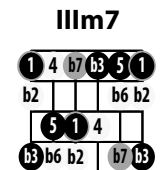
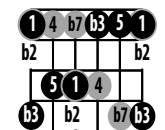
IV13#11 (Lyd. dom.)
parent melodic minor



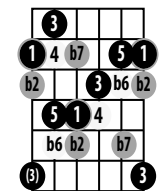
PHRYGIAN
IIIIm7/11
pentatonic



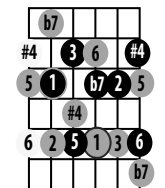
IIIIm pent add b2



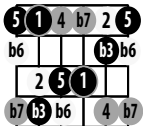
III7(b9)
parent major #5
III Phrygian dom.
VI harmonic minor



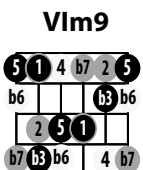
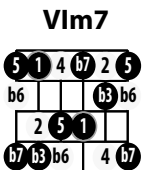
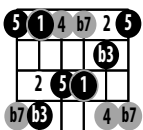
bVII 13#11 (Lyd. dom.)
parent melodic minor



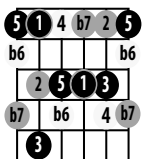
AEOLIAN
VIIm7/11
pentatonic



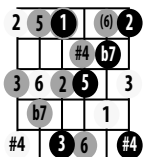
VIIm pent add 2



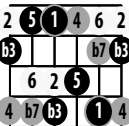
VI9
parent major #1
VI Aeolian dom.
II melodic minor



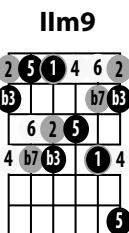
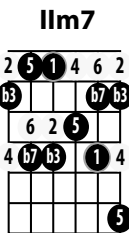
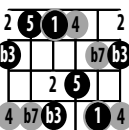
bIII 13#11 (Lyd. dom.)
parent melodic minor



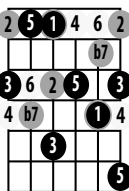
DORIAN
IIIm7/11
pentatonic



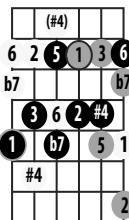
IIIm pent add 2



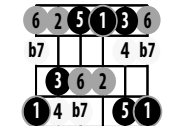
II9
parent major #4
II Mixolydian
V major



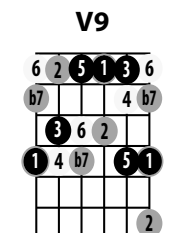
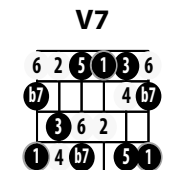
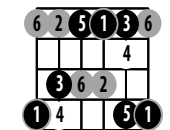
bVI 13#11 (Lyd. dom.)
parent melodic minor



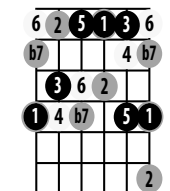
MIXOLYDIAN
V ma 6/9
pentatonic



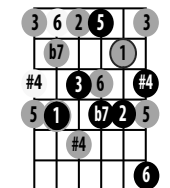
Vma pent add 4



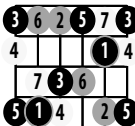
V9
(not secondary)



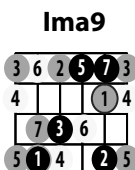
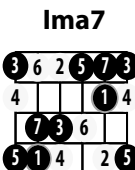
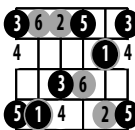
bII 13#11 (Lyd. dom.)
parent melodic minor



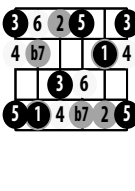
MAJOR
I ma 6/9
pentatonic



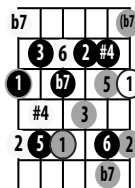
Ima pent add 4



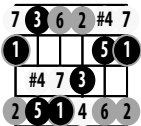
I9
parent major b7
I Mixolydian
IV major



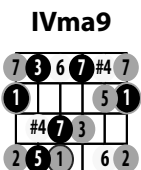
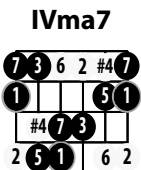
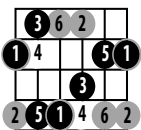
bV13#11 (Lyd. dom.)
parent melodic minor



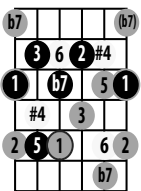
LYDIAN
IV ma 6/9
pentatonic



IVma pent add 4



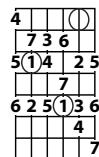
IV9
parent major b3
I melodic minor
IV Lydian dominant



Scales and arpeggios are in perfect fourth order. See the [legend](#) at the beginning of this section.

A form parent

fingering 4



six-tone

parent
I major
(parent I
Mixo. for
IVma pent
add 4)

seventh

parent I
major

ninth

parent I
major

secondary dominant

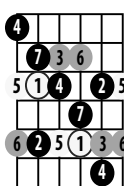
of the
scale-tone
target chord
at the top
of the next
column to the
right

bII13#11
(flat five sub.)
substitute
for the
secondary
dominant
above

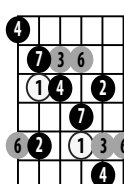
LOCRIAN

VII m7/11 b5
pentatonic

VII dim.



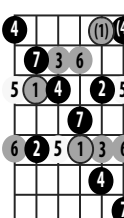
VII m7/11 b5 add b2



VII m7 b5



VII m11 b5 b9



VII7#5#9
parent major b3
VII super Locrian



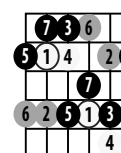
IV13#11 (Lyd. dom.)
parent melodic minor



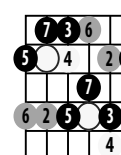
PHRYGIAN

III m7/11
pentatonic

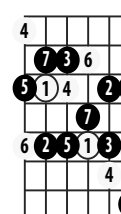
III minor



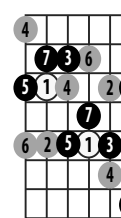
III m pent add b2



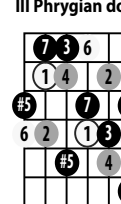
III m7



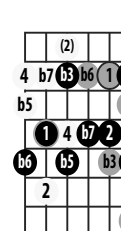
III m11 b9



III7(b9)
parent major #5
III Phrygian dom.



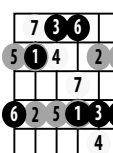
bVII13#11 (Lyd. dom.)
parent Mixolydian flat six



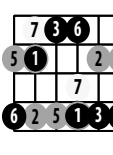
AEOLIAN

VI m7/11
pentatonic

VI minor



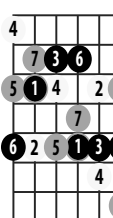
VI m pent add 2



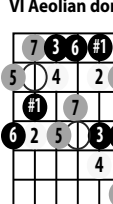
VI m7



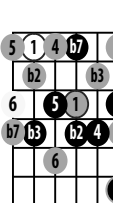
VI m9



VI9
parent major #1
VI Aeolian dom.



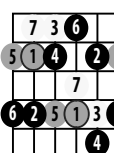
bIII13#11 (Lyd. dom.)
parent Dorian flat two



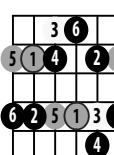
DORIAN

II m7/11
pentatonic

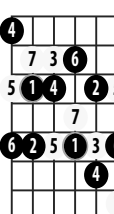
II minor



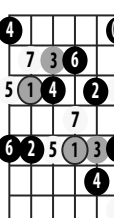
II m pent add 2



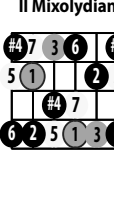
II m7



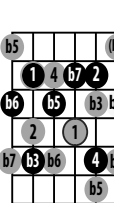
II m9



II9
parent major #4
II Mixolydian



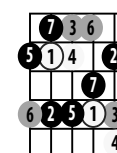
bVI13#11 (Lyd. dom.)
parent Aeolian flat five



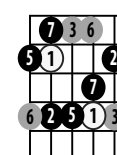
MIXOLYDIAN

V ma 6/9
pentatonic

V major



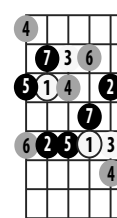
V ma pent add 4



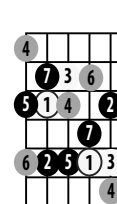
V7



V9



V9
(not secondary)



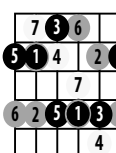
bII13#11 (Lyd. dom.)
parent Phrygian flat one



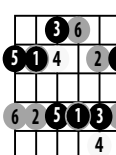
MAJOR

I ma 6/9
pentatonic

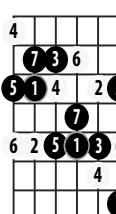
I major



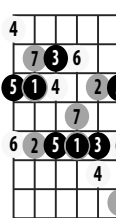
I ma pent add 4



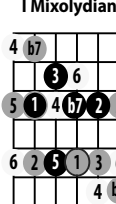
I ma7



I ma9



I9
parent major b7
I Mixolydian



bV13#11 (Lyd. dom.)
parent Locrian flat four



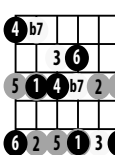
LYDIAN

IV ma 6/9
pentatonic

IV major



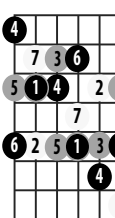
IV ma pent add 4



IV ma7



IV ma9



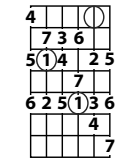
IV9
parent major b3
IV Lydian Dominant



Scales and arpeggios are in perfect fourth order. See the [legend](#) at the beginning of this section.

key scales
key of each chord)
for A form
parent scales

fingering 4



six-tone
numbered
in the key of
the chord

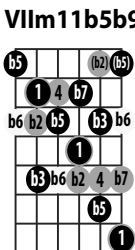
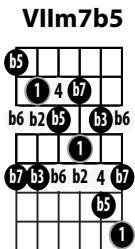
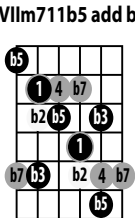
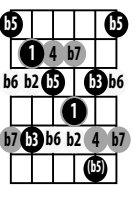
seventh
numbered
in the key of
the chord

ninth
numbered
in the key of
the chord

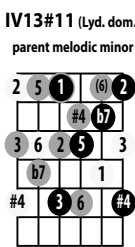
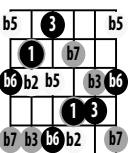
**secondary
dominant**
of the
scale-tone
target chord
at the top
of the next
column to the
right

bII13#11
(flat five sub.)
substitute for
the secondary
dominant
above

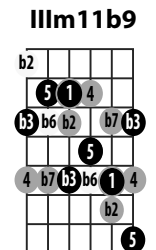
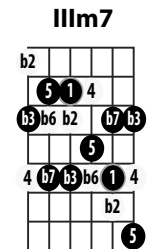
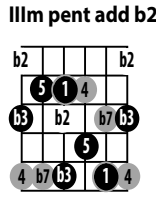
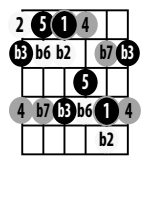
LOCRIAN
VIIIm7b5
pentatonic
VII dim.



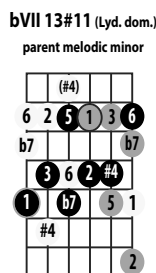
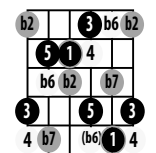
VII7#5#9
parent major b3
VII super Locrian
III Phrygian flat one



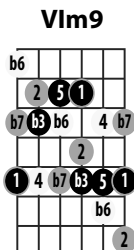
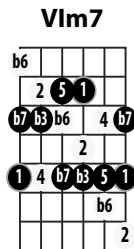
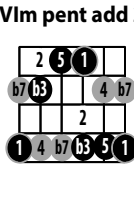
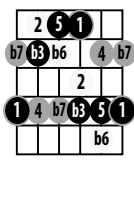
PHRYGIAN
IIIIm7/11
pentatonic
III minor



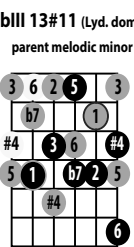
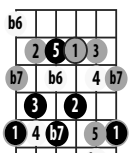
III7(b9)
parent major #5
III Phrygian dom.
VI harmonic minor



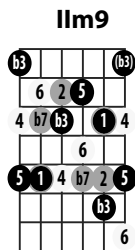
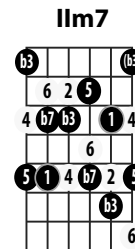
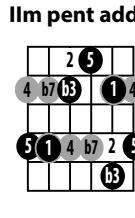
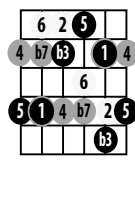
AEOLIAN
VIIm7/11
pentatonic
VI minor



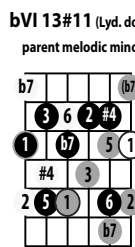
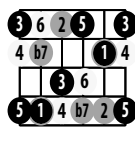
VI9
parent major #1
VI Aeolian dom.
II melodic minor



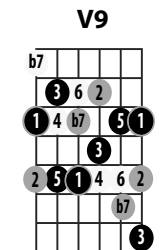
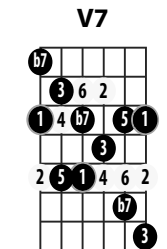
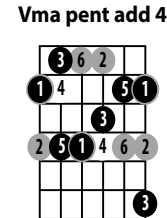
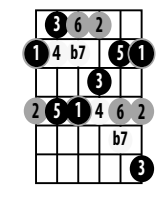
DORIAN
IIIm7/11
pentatonic
II minor



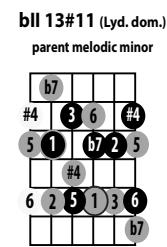
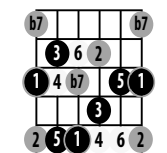
II9
parent major #4
II Mixolydian
V major



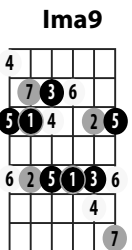
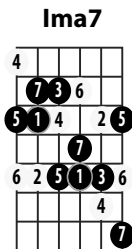
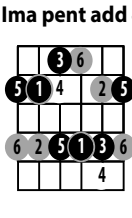
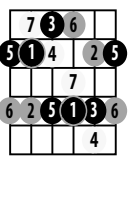
MIXOLYDIAN
Vma 6/9
pentatonic
V major



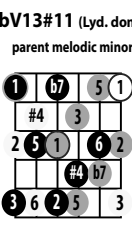
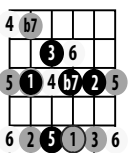
V9
(not secondary)



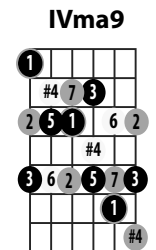
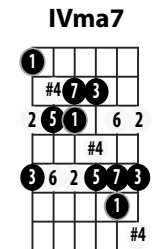
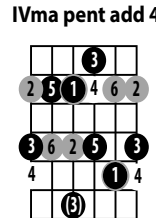
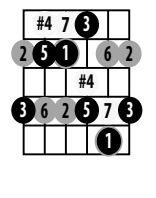
MAJOR
I ma 6/9
pentatonic
I major



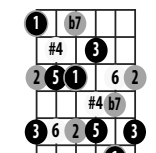
I9
parent major b7
I Mixolydian
IV major



LYDIAN
IV ma 6/9
pentatonic
IV major



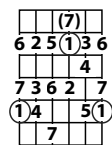
IV9
parent major b3
I melodic minor
IV Lydian dominant



Scales and arpeggios are in perfect fourth order. See the [legend](#) at the beginning of this section.

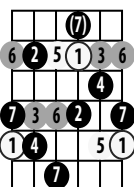
G form parent

fingering 6



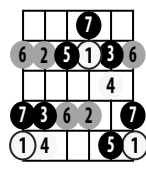
LOCRIAN

VIIIm7/11b5 pentatonic
VII dim.



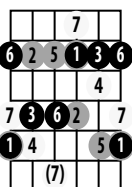
PHRYGIAN

IIIIm7/11 pentatonic
III minor



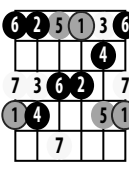
AEOLIAN

VIIm7/11 pentatonic
VI minor



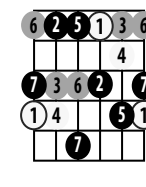
DORIAN

IIIm7/11 pentatonic
II minor



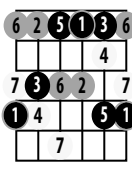
MIXOLYDIAN

Vma 6/9 pentatonic
V major



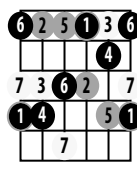
MAJOR

I ma 6/9 pentatonic
I major



LYDIAN

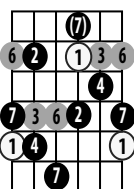
IV ma 6/9 pentatonic
IV major



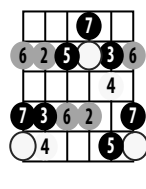
six-tone

parent
I major
(parent I
Mixo. for
IVma pent
add 4)

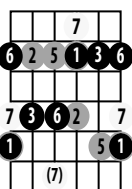
VIIIm711b5 add b2



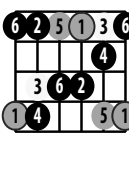
IIIIm pent add b2



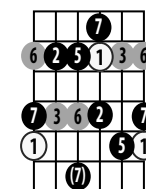
VIIm pent add 2



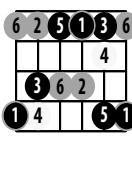
IIIm pent add 2



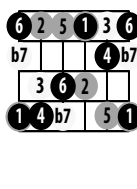
Vma pent add 4



Ima pent add 4



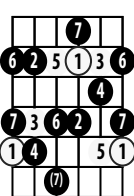
IVma pent add 4



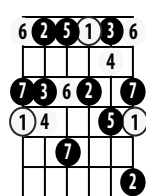
seventh

parent I
major

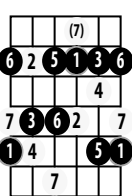
VIIIm7b5



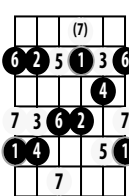
IIIIm7



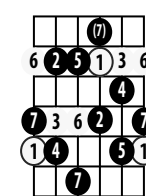
VIIm7



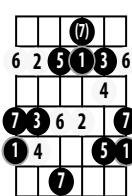
IIIm7



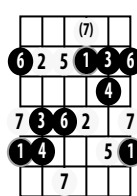
V7



Ima7



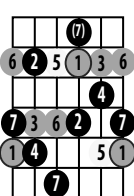
IVma7



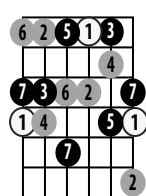
ninth

parent I
major

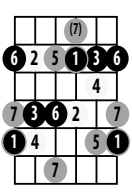
VIIIm11b5b9



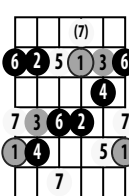
IIIIm11b9



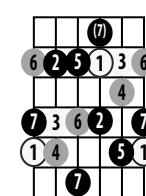
VIIm9



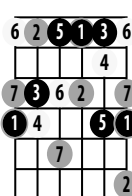
IIIm9



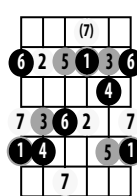
V9



Ima9



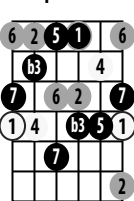
IVma9



secondary
dominant
of the
scale-tone
target chord
at the top
of the next
column to
the right

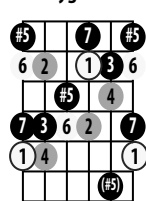
VII7#5#9

parent major b3
VII super Locrian



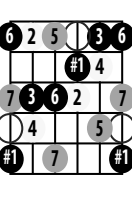
III7(b9)

parent major #5
III Phrygian dom.



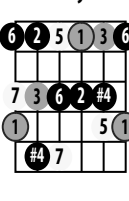
VI9

parent major #1
VI Aeolian dom.



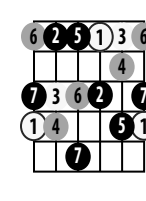
II9

parent major #4
II Mixolydian



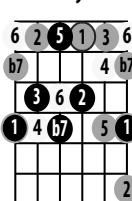
V9

(not secondary)



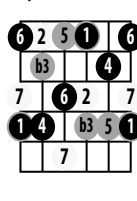
I9

parent major b7
I Mixolydian



IV9

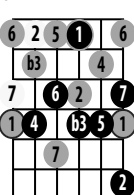
parent major b3
IV Lydian Dominant



bII13#11
(flat five sub.)
substitute
for the
secondary
dominant
above

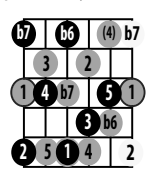
IV13#11 (Lyd. dom.)

parent melodic minor



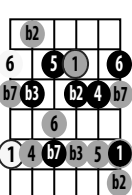
bVII 13#11 (Lyd. dom.)

parent Mixolydian flat six



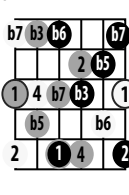
bIII 13#11 (Lyd. dom.)

parent Dorian flat two



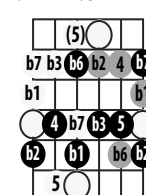
bVI 13#11 (Lyd. dom.)

parent Aeolian flat five



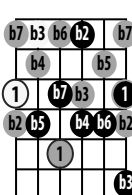
bII 13#11 (Lyd. dom.)

parent Phrygian flat one



bV13#11 (Lyd. dom.)

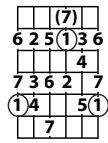
parent Locrian flat four



Scales and arpeggios are in perfect fourth order. See the [legend](#) at the beginning of this section.

key scales
key of each chord
for G form
parent scales

fingering 6



six-tone

numbered
in the key of
the chord

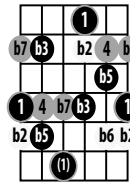
seventh
numbered
in the key of
the chord

ninth
numbered
in the key of
the chord

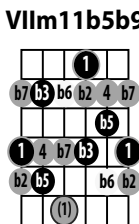
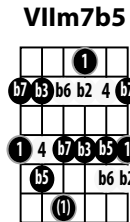
**secondary
dominant**
of the
scale-tone
target chord
at the top
of the next
column to the
right

bII13#11
(flat five sub.)
substitute for
the secondary
dominant
above

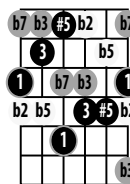
LOCRIAN
VIIIm7b5
pentatonic
VII dim.



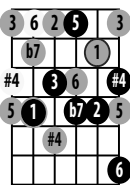
VIIIm7b5 add b2



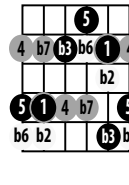
VII7#5#9
parent major b3
VII super Locrian
III Phrygian flat one



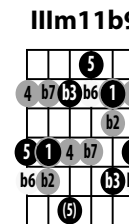
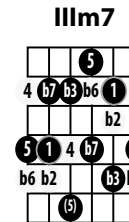
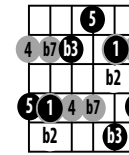
IV13#11 (Lyd. dom.)
parent melodic minor



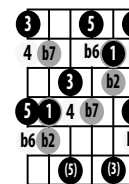
PHRYGIAN
IIIIm7/11
pentatonic
III minor



IIIIm pent add b2



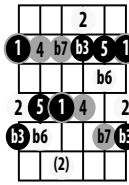
III7(b9)
parent major #5
III Phrygian dom.
VI harmonic minor



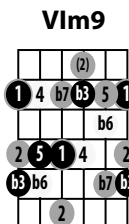
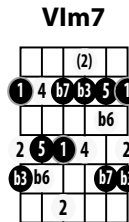
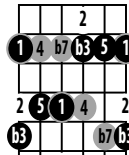
bVII 13#11 (Lyd. dom.)
parent melodic minor



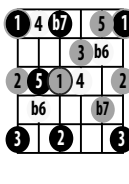
AEOLIAN
VIIm7/11
pentatonic
VI minor



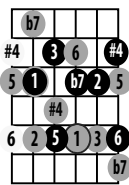
VIIm pent add 2



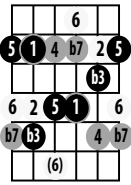
VI9
parent major #1
VI Aeolian dom.
II melodic minor



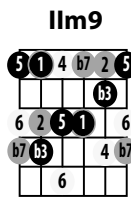
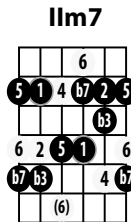
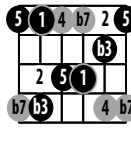
bIII 13#11 (Lyd. dom.)
parent melodic minor



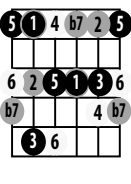
DORIAN
IIIm7/11
pentatonic
II minor



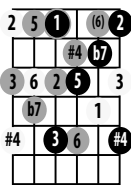
IIIm pent add 2



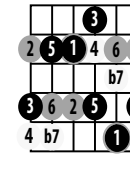
II9
parent major #4
II Mixolydian
V major



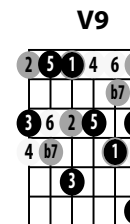
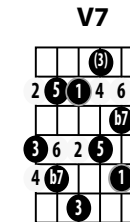
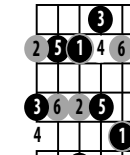
bVI 13#11 (Lyd. dom.)
parent melodic minor



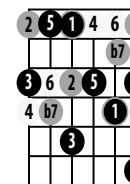
MIXOLYDIAN
Vma 6/9
pentatonic
V major



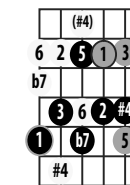
Vma pent add 4



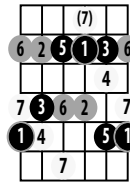
V9
(not secondary)



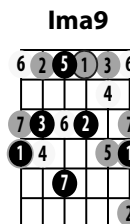
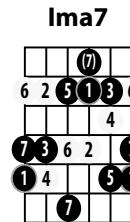
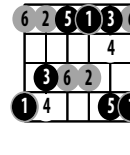
bII 13#11 (Lyd. dom.)
parent melodic minor



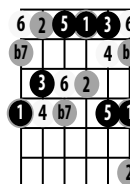
MAJOR
I ma 6/9
pentatonic
I major



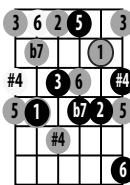
I ma pent add 4



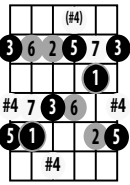
I9
parent major b7
I Mixolydian
IV major



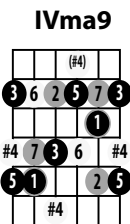
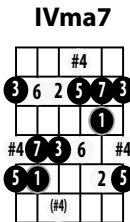
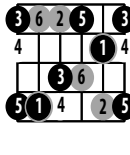
bV13#11 (Lyd. dom.)
parent melodic minor



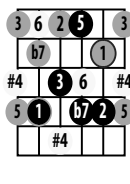
LYDIAN
IV ma 6/9
pentatonic
IV major



IVma pent add 4



IV9
parent major b3
I melodic minor
IV Lydian dominant



THE ORDER OF MELODIC IMPORTANCE

A song is a journey along a melodic path through periodic harmonic environments. The key is the root of the journey's harmonic essence, as in a pilgrimage to mecca.

As a musician, it is important to make sense to your audience. People can relate better to melody in a vocal context which implies that melody should be structured more in terms of key scale than chord scale.

order of melodic importance

Heinrich Schenker, probably the most notable music analyst of the twentieth century, developed a layered structural analysis of music now called Schenkerian analysis. When I first came across his work in the 1980's, I was thrilled, since it closely paralleled the way I thought about music. There is a foreground, middle ground and background (or more layers could be conceived), where music is given an order of melodic importance.

In chordal music, such as American jazz and pop this order of melodic importance works like this: In the foreground, the primary chord tones are implied. In the middle ground, the subtle shades of the chords color are defined. In the background, the remaining scale tones function as neighboring tones. Further back, are the remaining chromatic tones. The definition of each layer is flexible and can be conceived in regards to key scales and chord scales.

importance of the middle ground

It is particularly effective to develop your ability to paint tonal color in the middle ground. This requires an extensive knowledge and technical facility with arpeggios and pentatonic scales. Pentatonic scales often get a bad reputation by jazz musicians because of their common use in blues and pop. However, if you look at them as versions of arpeggios and consider a great number of types, they are indispensable tools. Great players like Chick Corea, John McLaughlin and Herbie Hancock would agree with the appreciation for the value of a great variety of pentatonic scale types, I guarantee you.

In my Encyclopedia Of Licks that follows, there are twenty pentatonic scale types. Those types are based on two models: the triad plus four and seven; and the triad plus two and six.

establishing the key scale

Practice improvising or composing a melody with key scales and separately, practice making a melody with chord scales. Can you hear the compartmentalization caused by chord scales and the unity provided by key scales? Listen to great improvisers such as John Coltrane, Miles Davis, Chick Corea and George Benson with the key scale versus chord scale in mind.

When chords have many common tones, it is easier to establish a key scale melody. When chords do not have many common tones, such as Im7 to IIm7 or Im to V7b9, versions of the chords can be conceived

that do cause common tones. On Im7 to IIIm7, for example Im9 provides a “2” common to the IIIm7 chord. Im7/11 provides a “4” common to the IIIm7. IIIm7/11 provides a “5” common to the Im7.

The most universal common tone is “5”. It is in: I major, minor and dominant types (not those with #5 or b5); IIIm7/11 or II7sus4; IIIIm7; IVm9 or IV9; all type of V; VIm7 or VI7.

“2” Is a good common tone. It’s Ima9, Im9 and I9; II, all types; IIIIm7 or III7; IV6; V minor and dominant types (not #5 or b5); VIm7/11 or VI7sus4; VIIIm7b5 or VIIIm7.

In major key swing music, “6” is a good common tone: it is in I6 or Im6; IIIm7 or II7; IIIIm7/11 or II7/111; IV major or dominant; V9 or Vm9; all types of VI; VIIIm7b5 and VIIIm7.

“4” can be a common tone to: IIIm7; III7b9; all types of IV; V7 or Vm7; VIIIm7b5.

DETERMINING THE SCALE

Adding the 2, 4 and 6 to Seventh Chords

the most important modes are circled

major scale	major Ima7 2-4-6 (Ionian)	Dorian IIIm7 2-4-6	Phrygian IIIIm7 b2-4b6	Lydian IVma7 2-#4-6	Mixolydian V7 2-4-6	Aeolian VIIm7 2-4-b6	Locrian VIIIm7b5 b2-4b6
major sharp five	major #5 Ima7#5	Dorian #4 IIIm7	Phrygian ma3 III7	Lydian #2 IVma7	Mixo. #1 #Vdim7.	Aeolian ma7 VIIm(ma7)	Locrian b6 VIIIm7b5
harmonic minor	bIIIIma7#5 2-4-6	IVm7 2-#4-6	V7 b2-4-b6	bVIIma7 #2-#4-6	VII°7 b2-b4-b6	Im(ma7) 2-4,-b6	IIIm7b5 b2-4-6
major flat three melodic minor	major b3 Dorian b7 Im(ma7) 2-4-6	Dorian b2 Phrygian b6 IIIm7 b2-4-6	Phrygian b1 Lydian #5 bIIIIma7#5 2-4- b6	Lydian b7 Mixo. #4 IV7 2-#4-6	Mixo. b6 Aeolian b3 V7 2-4-6	Aeolian b5 Locrian b2 VIIm7b5 2-4-b6	Locrian b4 major #1 VIIIm7b5 b2-b4- b6
major flat six harmonic major	major b6 Ima7 2-4-b6 (aug.)	Dorian b5 IIIm7b5 2-4-6 (m6b5 = °7)	Phrygian b4 III7 b2-#2-b6 (b4 = 3, aug.)	Lydian b3 IVm7 2-#4-6 (m6b5 = °7)	Mixo. b2 V7 b2-4-6	Aeolian b1 bVIIma7#5 #2-#4-6 (aug. °7)	Locrian bb7 VII°7 b2-4-6 (°7)

Scale Determined by Seventh and 2, 4, 6

chord	2-4-6	2-4-b6	2-4-b6	2-#4-6	b2-4-6
ma7	major*	major b6		Lydian*	
7	Mixolydian*	Mixolydian b6	Phrygian dominant	Lydian b7	Mixo. b2
m7	Dorian*	Aeolian*	Phrygian*	Dorian #4	
m7b5	Dorian b5	Aeolian b5	Locrian*		
m(ma7)	melodic minor	harmonic minor			

* major scale modes may use quartal or quintal harmony

Scales for Altered Dominant Chords

b5 Lydian dominant (Lydian b7, mel. min. mode IV), using the #4 scale tone as a b5 chord tone
#5 Mixolydian b6 (melodic minor mode V), using the b6 scale tone as a #5 chord tone
 b5.#5 whole tone scale (9b5#5)
b9 Phrygian dominant (harmonic minor V)
#9.... Mixolydian in low range of pitch, Dorian in high range
b9.#9.... Diminished half-whole scale (13 b9#9#11)
#5.b9 Phrygian dominant (harmonic minor V), using the b6 scale tone as a #5 chord tone
 b5b9.#9.... Diminished half-whole scale (13b9#9#11), using the #4 scale tone as a b5 chord tone
 b5.#5.b9.#9.... Locrian b4 (melodic minor VII)

Scales for Diminished Chords

modes of harmonic minor or harmonic major

Modes II, IV, bVI and VII of harmonic minor or of harmonic major, (which is major flat six) can be used over diminished seventh chords.

The diminished seventh modes of harmonic minor are equivalent to major sharp five modes #V, VII, II and IV. The diminished seventh modes of harmonic major are bVI, VII, II and IV.

diminished half/whole scale

The harmonized version of this scale would make the chord I13b9#9#11 (C13b9#9#11) and can make two diminished chord sounds. Either Im6b5 (Cm6b5 is another name for C diminished seventh that implies the melodic use of the flatted third, flatted fifth and the sixth), or I7b9 no root (C7b9 no root equals Db dim7, E dim7, G dim7 and Bb dim7).

- ✦ The diminished scale could be conceived as a diminished seventh arpeggio with a lower chromatic embellishment to each tone to make a Im6b5 sound.
- ✦ The diminished scale could be conceived as a diminished seventh arpeggio a diminished seventh chord build on the tone a half step above the tone center of the diminished scale to make a I7b9 no root chord sound. This would be used where the diminished half/whole scale (C diminished half/whole scale) is a “V type” scale, where C diminished half/whole scale would be used as C13b9#9#11, a “V chord” in the key of “F”.

SEVENTH CHORDS IN 28 MODES

	1	b 2	2	b 3	3	4	#4/b5	5	#5/b6	6	b7	7
major scale	major Ima7		Dorian IIIm7		Phrygian IIIIm7	Lydian IVma7		Mixo. V7		Aeolian VIIm7		Locrian VIIIm7b5
Dorian	IIIm7		IIIm7	IVma7		V7		VIIm7		VIIIm7b5	Ima7	
Phrygian	IIIIm7	IVma7		V7		VIIm7		VIIIm7b5	Ima7		IIIm7	
Lydian	IVma7		V7		VIIm7		VIIIm7b5	Ima7		IIIm7		IIIIm7
Mixolydian	V7		VIIm7		VIIIm7b5	Ima7		IIIm7		IIIIm7	IVma7	
Aeolian	VIIm7		VIIIm7b5	Ima7		IIIm7		IIIIm7	IVma7		V7	
Locrian	VIIIm7b5	Ima7		IIIm7		IIIIm7	IVma7		V7		VIIm7	
major # 5	1 maj. #5 Ima7#5	b 2	2 Dor.#4 IIIm7	b 3	3 Phy. #3 III7	4 Lyd.#2 IVma7	#4/b5	5	#5/b6 Mix.#1 #V°7	6 har.min. VIIm(ma7)	b7	7 Loc.#5 VIIIm7b5
Dorian #4	IIIm7		III7	IVma7			#V°7	VIIm(ma7)		VIIIm7b5	Ima7#5	
Phrygian maj	III7	IVma7			#V°7	VIIm(ma7)		VIIIm7b5	Ima7#5		IIIm7	
Lydian # 2	IVma7			#V°7	VIIm(ma7)		VIIIm7b5	Ima7#5		IIIm7		III7
Mixolydian #1	#V°7	VIIm(ma7)		VIIIm7b5	Ima7#5		IIIm7		III7	IVma7		
Aeo. #7 (har. min.)	VIIm(ma7)		VIIIm7b5	Ima7#5		IIIm7		III7	IVma7			#V°7
Locrian	VIIIm7b5	Ima7#5		IIIm7		III7	IVma7			#V°7		VIIm(ma7)
melodic minor	1 major b3 Im(ma7)	b 2	2 Dorian b2 IIIm7	b 3	3 Phyg.b1 bIIIIma7#5	4 Lydian b7 IV7	#4/b5	5 Mixo. b6 V7	#5/b6	6 Aeo. b5 VIIm7b5	b7	7 Loc.b4 (maj.#1) VII7b5#5b9#9
Dorian b2	IIIm7	bIIIIma7#5		IV7		V7		VIIm7b5		VII7#5b5#9b9	Im(ma7)	
Phrygian b1	bIIIIma7#5		IV7		V7		VIIm7b5		VII7b5#5b9#9		Im(ma7)	IIIm7
Lydian b7	IV7		V7		VIIm7b5		VII7b5#5b9#9	Im(ma7)		IIIm7	bIIIIma7#5	
Aeolian dominant	V7		VIIm7b5		VII7b5#5b9#9	Im(ma7)		IIIm7	bIIIIma7#5		IV7	
Aeolian b5	VIIm7b5		VII7#5b5#9b9	Im(ma7)		IIIm7	bIIIIma7#5		IV7		V7	
super Locrian = major #1	VII7b5#5b9#9	Im(ma7)	VII7#5b5#9b9	IIIm7	bIIIIma7#5	bIIIIma7#5	IV7	IV7		V7		VIIm7b5
harmonic maj.	1 major b6 Ima7	b 2	2 Dorian b5 IIIm7b5	b 3	3 Phrygian b4 IIIIm7	4 Lydian 3 IVm(ma7)	#4/b5	5 Mixo. 2 V7	#5/b6	6 Aeolian b1 bVIIma7#5	b7	7 Locrian bb7 VII°7
Dorian b5	IIIm7b5		IIIIm7	IVm(ma7)		V7	bVIIma7#5		VII°7	Ima7		
Phrygian b4	III7	IVm(ma7)		V7	bVIIma7#5			VII°7	Ima7		IIIIm7b5	
Lydian b3	IVm(ma7)		V7	bVIIma7#5			VII°7	Ima7		IIIm7b5		IIIIm7
Mixolydian b2	V7	bVIIma7#5			VII°7	Ima7		IIIm7b5		IIIIm7	IVm(ma7)	
Aeolian b1	bVIIma7#5			VII°7	Ima7		IIIIm7b5		IIIIm7	IVm(ma7)		V7
Locrian bb7	VII°7	Ima7		IIIm7b5		IIIIm7	IVm(ma7)		V7	bVIIma7#5		

LARGEST TERTIAN CHORDS IN 28 MODES

	1	b 2	2	b 3	3	4	#4/b5	5	#5/b6	6	b7	7
major scale	major Ima9/6		Dorian IIIm13		Phrygian IIIm7/11	Lydian		Mixo. V13		Aeolian VIm11		Locrian VIIIm7/11b5
Dorian	IIIm13		IIIm7/11	IVma13#11		V13		VIm11		VIIIm7/11b5	Ima9/6	
Phrygian	IIIm7/11	IVma13#11		V13		VIm11		VIIIm7/11b9	Ima9/6		IIIm13	
Lydian	IVma13#11		V13		VIm11		VIIIm7/11b5	Ima7		IIIm13		IIIm7/11
Mixolydian	V13		VIm11		VIIIm7/11b5	Ima9/6		IIIm13		IIIm7/11	IVma13#11	
Aeolian	VIm11		VIIIm7/11b5	Ima9/6		IIIm13		IIIm7/11	IVma13#11		V13	
Locrian	VIIIm7/11b5	Ima9/6		IIIm13		IIIm7/11	IVma13#11		V13		VIm7	
major #5	1 maj. #5 Ima9#5	b 2	2 Dor.#4 IIIm13 #11	b 3	3 Phy. n3 IIIm7/11b9b13	4 Lyd.#2 IVma7/6/#11	#4/b5	5 Mix.#1 #V°7	#5/b6	6 har.min. VIm9(ma7)	b7	7 Loc.n 6 VIIIm7/11b5
Dorian #4	IIIm13 #11		IIIm7/11b9b13	IVma7/6/#11			#V°7	VIm9(ma7)	VIIIm7/11b5		Ima9#5	
Phrygian b 3	IIIm7/11b9b13		IVma7/6/#11		#V°7	VIm9(ma7)			VIIIm7/11b5	Ima9#5		IIIm13 #11
Lydian #2	IVma7/6/#11		#V°7	VIm9(ma7)		VIIIm7/11b5	Ima9#5		IIIm13 #11		IIIm7/11b9b13	
Mixolydian #1	#V°7	VIm9(ma7)		VIIIm7/11b5	Ima9#5		IIIm13 #11		IIIm7/11b9b13	IVma7/6/#11		
Aeo. b 7 (har. min.)	VIm9(ma7)		VIIIm7/11b5	Ima9#5		IIIm13 #11		IIIm7/11b9b13	IVma7/6/#11			#V°7
Locrian b 6	VIIIm7/11b5	Ima9#5		IIIm13 #11		IIIm7/11b9b13	IVma7/6/#11		#V°7	VIm9(ma7)		
melodic minor	1 major b3 Im9/6(ma7)	b 2	2 Dorian b2 IIIm13n9	b 3	3 Phyg. b1 bIIIma9#5	4 Lydian b7 IV13#11	#4/b5	5 Mixo. b6 V11b13	#5/b6	6 Aeo. b5 VIm11b5	b7	7 Loc. b4 VII7±5±9
Dorian b2	IIIm13n9	bIIIma9#5		IV13#11		V11b13		VIm11b5		VII7±5±9	Im9/6(ma7)	
Phrygian b1	bIIIma9#5		IV13#11		V11b13		VIm11b5		VII7±5±9	Im9/6(ma7)		IIIm13n9
Lydian b7	IV13#11		V11b13		VIm11b5		VII7±5±9	Im9/6(ma7)		IIIm13n9	bIIIma9#5	
Aeolian dominant	V11b13		VIm11b5		VII7±5±9	Im9/6(ma7)		IIIm13n9	bIIIma9#5		IV13#11	
Aeolian b5	VIm11b5		VII7±5±9	Im9/6(ma7)		IIIm13n9	bIIIma9#5		IV13#11		V11b13	
super Locrian	VII7±5±9	Im9/6(ma7)		IIIm13n9	bIIIma9#5		IV13#11		V11b13		VIm11b5	
harmonic maj.	1 major b6 Ima9b13	b 2	2 Dorian b5 IIIm13b5	b 3	3 Phrygian b4 IIIm7±9b13	4 Lydian b3 IVm13(ma7)#11	#4/b5	5 Mixo. b2 V7	#5/b6	6 Aeolian b1 bVIma7#5	b7	7 Locrian bb7 VII°7
Dorian b5	IIIm13b5		IIIm7±9b13	IVm13(ma7)#11		V7	bVIma7#5		VII°7	Ima9b13		Ima9b13
Phrygian b4	IIIm7±9b13	IVm13(ma7)#11		V7	bbVIma7#5			VII°7	Ima9b13		IIIm13b5	
Lydian b3	IVm13(ma7)#11		V7	bVIma7#5			VII°7	Ima9b13		IIIm13b5	IIIm7±9b13	
Mixolydian b2	V7	bVIma7#5			VII°7	Ima9b13		IIIm13b5		IIIm7±9b13	IVm13(ma7)#11	
Aeolian b1	bVIma7#5			VII°7	Ima9b13		IIIm13b5		IIIm7±9b13	IVm13(ma7)#11		V7
Locrian bb7	VII°7	Ima9b13		IIIm13b5		IIIm7±9b13	IVm13(ma7)#11		V7	bVIma7#5		

MODAL KEY SCALES

Key Scales of Major (Ionian) Mode

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
one				
I ^{ma} 7 (2, 4, 6)	major	I major	I major	1 2 3 4 5 6 7
two				
II ^m 7 (2, 4, 6)	Dorian	I major	I major	1 2 3 4 5 6 7
three				
III ^m 7 (b2, 4, b6)	Phrygian	I major	I major	1 2 3 4 5 6 7
four				
IV ^{ma} 7 (2, #4, 6)	Lydian	I major	I major	1 2 3 4 5 6 7
five				
V ⁷ (2, 4, 6)	Mixolydian	I major	I major	1 2 3 4 5 6 7
six				
VI ^m 7 (2, 4, b6)	Aeolian	I major	I major	1 2 3 4 5 6 7
seven				
VII ^m 7b5 (b2, 4, b6)	Locrian	I major	I major	1 2 3 4 5 6 7

Key Scales of Dorian Mode

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
one				
I ^m 7 (2, 4, 6)	Dorian	I Dorian	bVII major	1 2 b3 4 5 6 b7
two				
II ^m 7 (b2, 4, b6)	Phrygian	I Dorian	bVII major	1 2 b3 4 5 6 b7
flat three				
bIII ^{ma} 7 (2, #4, 6)	Lydian	I Dorian	bVII major	1 2 b3 4 5 6 b7
four				
IV ⁷ (2, 4, 6)	Mixolydian	I Dorian	bVII major	1 2 b3 4 5 6 b7
five				
V ^m 7 (2, 4, b6)	Aeolian	I Dorian	bVII major	1 2 b3 4 5 6 b7
six				
VI ^m 7b5	Locrian	I Dorian	bVII major	1 2 b3 4 5 6 b7
flat seven				
bVII ^{ma} 7 (2, 4, 6)	major	I Dorian	bVII major	1 2 b3 4 5 6 b7

Key Scales of Mixolydian Mode

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
one				
I7 (2, 4, 6)	Mixolydian	I Mixolydian	IV major	1 2 3 4 5 6 b7
two				
IIIm7 (2, 4, b6)	Aeolian	I Mixolydian	IV major	1 2 3 4 5 6 b7
three				
IIIIm7b5	Locreian	I Mixolydian	IV major	1 2 3 4 5 6 b7
four				
IVma7 (2, 4, 6)	major	I Mixolydian	IV major	1 2 3 4 5 6 b7
five				
Vm7 (2, 4, 6)	Dorian	I Mixolydian	IV major	1 2 3 4 5 6 b7
six				
VIm7 (b2, b6)	Phrygian	I Mixolydian	IV major	1 2 3 4 5 6 b7
flat seven				
bVIIma7 (2, #4, 6)	Lydian	I Mixolydian	IV major	1 2 3 4 5 6 b7

Key Scales of Aeolian Mode

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
one				
Im7 (2, 4, b6)	Aeolian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
two				
IIIm7b5	Locrian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
flat three				
bIIIma7	major	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
four				
IVm7 (2, 4, 6)	Dorian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
five				
Vm7 (b2, 4, b6)	Phrygian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
flat six				
bVIIma7 (#4)	Lydian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
flat seven				
bVII7 (2, 4, 6)	Mixolydian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7

Key Scales of All Major Scale Modes

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
one				
I ^{ma} 7 (2, 4, 6)	major	I major	I major	1 2 3 4 5 6 7
I ^{ma} 7 (2, #4, 6)	Lydian	I Lydian	V major	1 2 3 #4 5 6 7
I7 (2, 4, 6)	Mixolydian	I Mixolydian	IV major	1 2 3 4 5 6 b7
I ^m 7 (2, 4, 6)	<u>Dorian</u>	I Dorian	bVII major	1 2 b3 4 5 6 b7
I ^m 7 (2, 4, b6)	Aeolian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
I ^m 7 (b2, 4, b6)	Phrygian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
I ^m 7b5 (b2, 4, b6)	Locrian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
flat two				
bII ^Δ 7 (2, 4, 6)	major	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
bII ^Δ 7 (2, #4, 6)	Lydian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
two				
II7 (2, 4, 6)	Mixolydian	I Lydian	V major	1 2 3 #4 5 6 7
II ^m 7 (2, 4, 6)	Dorian	I major	I major	1 2 3 4 5 6 7
II ^m 7 (2, 4, b6)	Aeolian	I Mixolydian	bVII major	1 2 3 4 5 6 b7
II ^m 7 (b2, 4, b6)	Phrygian	I Dorian	bVII major	1 2 b3 4 5 6 b7
II ^m 7b5	Locrian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
flat three				
bIII ^{ma} 7	major	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
bIII ^{ma} 7 (2, #4, 6)	Lydian	I Dorian	bVII major	1 2 b3 4 5 6 b7
bIII7	Mixolydian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
bIII ^m 7 (2, 4, 6)	Dorian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
three				
III ^m 7 (b2, 4, b6)	Phrygian	I major	I major	1 2 3 4 5 6 7
III ^m 7 (2, 4, b6)	Aeolian	I Lydian	V major	1 2 3 #4 5 6 7
III ^m 7b5	Locrian	I Mixolydian	IV major	1 2 3 4 5 6 b7
four				
IV ^{ma} 7 (2, #4, 6)	Lydian	I major	I major	1 2 3 4 5 6 7
IV ^{ma} 7 (2, 4, 6)	major	I Mixolydian	IV major	1 2 3 4 5 6 b7
IV7 (2, 4, 6)	Mixolydian	I Dorian	bVII major	1 2 b3 4 5 6 b7
IV ^m 7 (2, 4, 6)	Dorian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
IV ^m 7 (2, 4, b6)	Aeolian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
IV ^m 7 (b2, 4, b6)	Phrygian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
flat five				
bVma7 (2, #4, 6)	Lydian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
bVm7b5 (b2,4,b6)	Locrian	I Lydian	V major	1 2 3 #4 5 6 7
five				
Vma7 (2, 4, 6)	major	I Lydian	V major	1 2 3 #4 5 6 7
V7 (2, 4, 6)	Mixolydian	I major	I major	1 2 3 4 5 6 7
Vm7 (2, 4, 6)	Dorian	I Mixolydian	IV major	1 2 3 4 5 6 b7
Vm7 (2, 4, b6)	Aeolian	I Dorian	bVII major	1 2 b3 4 5 6 b7
Vm7 (b2, 4, b6)	Phrygian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
Vm7b5	Locrian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
flat six				
bVIma7	major	I Phrygian	bVI major	1 b2 3 4 5 b6 b7
bVIma7 (#4)	Lydian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
bVI7 (2, 4, 6)	Mixolydian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
six				
VIm7 (2, 4, 6)	Dorian	I Lydian	V major	1 2 3 #4 5 6 7
VIm7 (2, 4, b6)	Aeolian	I major	I major	1 2 3 4 5 6 7
VIm7 (b2, b6)	Phrygian	I Mixolydian	IV major	1 2 3 4 5 6 b7
VIm7b5	Locrian	I Dorian	bVII major	1 2 b3 4 5 6 b7
flat seven				
bVIIma7 (2, 4, 6)	major	I Dorian	bVII major	1 2 b3 4 5 6 b7
bVIIma7 (2, #4, 6)	Lydian	I Mixolydian	IV major	1 2 3 4 5 6 b7
bVII7 (2, 4, 6)	Mixolydian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
bVIIIm7 (2, 4, 6)	Dorian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
bVIIIm7 (2, 4, b6)	Aeolian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
seven				
VIIIm7 (b2, 4, b6)	Phrygian	I Lydian	V major	1 2 3 #4 5 6 7
VIIIm7b5 (b2, 4, b6)	Locrian	I major	I major	1 2 3 4 5 6 7

Key Scales of Harmonic Minor Modes

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
one				
I _{ma} 7#5 (2, 4, 6)	major #5	I major #5	I major #5	1 2 3 4 #5 6 7
I7 (b2, 4, b6)	Phrygian dominant	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
I _m (ma7) (2, 4, b6)	harmonic minor	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
flat two				
bIIΔ7 (#2, #4, 6)	Dorian #2	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
bII _{dim} 7 (ma7 #2, #4, 6)	Lydian #4	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
two				
II _m 7 (b2, #4, b6)	Dorian #4	I major #5	I major #5	1 2 3 4 #5 6 7
II _m 7b5	Locrian nat. 4	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
flat three				
bIII _{ma} 7#5 (2, 4, 6)	major #5	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
three				
III7 (b2, 4, b6)	Phrygian dominant	I major #5	I major #5	1 2 3 4 #5 6 7
III _{dim} 7 (b2, b4, b6)	Mixolydian #1	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
four				
IV _{ma} 7 (#2, #4, 6)	Lydian #2	I major #5	I major #5	1 2 3 4 #5 6 7
IV _m 7 (2, #4, 6)	Dorian #4	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
IV _m (ma7) (b2, 4, b6)	harmonic minor	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
flat five				
bV _m 7b5 (b2, 4, 6)	Locrian nat. 6	I Lydian #2	V major #5	1 #2 3 #4 5 6 7
five				
V7 (b2, 4, b6)	Phrygian dominant	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
V _m 7b5 (n6)	Locrian nat. 6	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
V _{dim} 7 (m7b5 b2, 4, n6)	Locrian nat. 6	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
flat six				
bVI _{ma} 7 (#2, #4, 6)	Lydian #2	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
bVI _{dim} 7 (b2, b4, b6)	Mixolydian #1	I major #5	I major #5	1 2 3 4 #5 6 7
six				
VI7 (b2, 4, b6)	Phrygian dominant	I Mixolydian #1	IV major #5	#1 2 3 4 5 6 b7
VI _m (ma7) (2, 4, b6)	harmonic minor	I major #5	I major #5	1 2 3 4 #5 6 7
flat seven				
bVII _{dim} 7 (m7 2, #4, 6)	Dorian #4	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
seven				
VII7 (b2, 4, b6)	Phrygian dominant	I Lydian #2	V major #5	1 #2 3 #4 5 6 7
VIIIm7b5 (b2, 4, 6)	Locrian nat. 6	I major #5	I major #5	1 2 3 4 #5 6 7
VIIIdim7 (b2, b4, b6)	Mixolydian #1	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7

Key Scales of Melodic Minor Modes

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
one				
I7b5#5b9#9	super Locrian	I super Locrian	bII melodic minor	1 b2 b3 b4 b5 b6 b7
Im(ma7) (2, 4, 6)	melodic minor	I melodic minor	I melodic minor	1 2 b3 4 5 6 7
Im7b5 (2, 4, b6)	Aeolian b5	I Aeolian b5	bIII melodic minor	1 2 b3 4 b5 b6 b7
flat two				
bII7 (2, #4, 6)	Lydian b7	I Phrygian b1	bVI melodic minor	b1 b2 b3 4 5 b6 b7
bII7b5 (bII7 2, #4, 6)	Lydian b7	I Phrygian b1	bVI melodic minor	b1 b2 b3 4 5 b6 b7
bII7b5#5b9#9	Super Locrian	I major #1	II melodic minor	#1 2 3 4 5 6 7
two				
II7b5#5b9#9	super Locrian	I Aeolian b5	bIII melodic minor	1 2 b3 4 b5 b6 b7
IIIm7 (b2, 4, 6)	Dorian b2	I melodic minor	I melodic minor	1 2 b3 4 5 6 7
flat three				
bIIIIma7#5 (2, #4, 6)	Phrygian b1	I melodic minor	I melodic minor	b1 b2 b3 4 5 b6 b7
bIII7 (2, #4, 6)	Lydian b7	I Dorian b2	bVII melodic minor	1 b2 b3 4 5 6 b7
bIIIIm(ma7) (2, 4, 6)	melodic minor	I Aeolian b5	bIII melodic minor	1 2 b3 4 b5 b6 b7
three				
III7b5#5b9#9	super Locrian	I Aeolian dominant	IV melodic minor	1 2 3 4 5 b6 b7
four				
IV7 (2, #4, 6)	Lydian b7	I melodic minor	I melodic minor	1 2 b3 4 5 6 7
IVm(ma7) (2, 4, 6)	melodic minor	I Aeolian dominant	IV melodic minor	1 2 3 4 5 b6 b7
IVdim7 (2, 4, b7)	Lydian b3	I major b6	I major b6	1 2 3 4 5 b6 7
flat five				
bV7 (2, #4, 6)	Lydian b7	I super Locrian	bII melodic minor	1 b2 b3 b4 b5 b6 b7
five				
V7 (2, 4, b6)	Aeolian dominant	I melodic minor	I melodic minor	1 2 b3 4 5 6 7
V7#5 (V7 2, 4, b6)	Aeolian dominant	I melodic minor	I melodic minor	1 2 b3 4 5 6 7
V7 (2, #4, 6)	Lydian b7	I major #I	II melodic minor	#1 2 3 4 5 6 7
V7b5#5b9#9	Locarian b4	I Phrygian b1	bVI melodic minor	b1 b2 b3 4 5 b6 b7

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
sharp five (flat six)				
bVI7 (2, #4, 6)	Lydian b7	I Aeolian b5	bIII melodic minor	1 2 b3 4 b5 b6 b7
six				
VI7 (2, 4, b6)	Aeolian dominant	I major #1	II melodic minor	#1 2 3 4 5 6 7
flat seven				
bVII7 (2, #4, 6)	Lydian b7	I Aeolian dominant	IV melodic minor	1 2 3 4 5 b6 b7

Key Scales of Major Flat Six Modes

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
two				
IIdim7 (2, 4, b7)	Dorian b5	I major b6	I major b6	1 2 3 4 5 b6 7
four				
IV7b9#9b13 (b6)	Phrygian b4	I Locrian bb7	bII major b6	1 b2 b3 4 b5 b6 bb7
IVm (ma7) (2, #4, 6)	Lydian b3	I major b6	I major b6	1 2 3 4 5 b6 7
IVdim7 (m ma7 2, #4, 6)	Lydian b3	I major b6	I major b6	1 2 3 4 5 b6 7
five				
V7 (b2, 4, 6)	Mixolydian b2	I major b6	I major b6	1 2 3 4 5 b6 7
flat six				
bVIIdim7 (ma7#5 #2, #4, 6)	Aeolian b1	I major b6	I major b6	1 2 3 4 5 b6 7
seven				
VIIIdim7 (b2, 4, b6)	Locrian bb7	I major b6	I major b6	1 2 3 4 5 b6 7

Whole Tone and Diminished Key Scales

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key scale tones</u>
one				
I7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
I7b5 (b2, #2, #4, 6)	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
I13 b9#9#11	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
I7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
Idim7 (2, 4, #5, 7)	dim. whole/half	I dim. whole/half	I dim. whole/half	1 2 b3 4 b5/#5 6 7

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key scale tones</u>
sharp one				
= flat two				
bII7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
bII7b5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bII13b9#9#11	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bII7#5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bII7#5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
bIIdim7 (2,4,#5,7)	dim. whole/half	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
two				
II7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
II7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
IIIdim7 (2,4,#5,7)	dim. whole/half	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
sharp two				
= flat three				
bIII7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
bIII7b5	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
bIII13 b9#9#11	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
bIII7#5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
bIIIdim7 (2,4,#5,7)	dim. half/whole	I dim. whole/half	I dim. whole/half	1 2 b3 4 b5/#5 6 7
three				
III7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
III7b5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
III13b9#9#11	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
III7#5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
III7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
IIIdim7 (2,4,#5,7)	dim. whole/half	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
four				
IV7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
IV7#5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
IVdim7 (2,4,#5,7)	dim. whole/half	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
flat five				
=sharp four				
bV7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
bV7b5	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
bV13 b9#9#11	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key scale tones</u>
bV7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
bVdim7 (2, 4, #5, 7)	dim. whole/half	I dim. whole/half	I dim. whole/half	1 2 b3 4 b5/#5 6 7

five

V7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
V7b5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
V13b9#9#11	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
V7#5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
V7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
Vdim7 (2, 4, #5, 7)	dim. whole/half	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7

sharp five**= flat six**

bVI7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
bVI7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
bVIdim7 (2, 4, #5, 7)	dim. whole/half	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7

six

VI7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
VI7b5	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
VI13 b9#9#11	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
VI7# (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
VIdim7 (2, 4, #5, 7)	dim. whole/half	I dim. whole/half	I dim. whole/half	1 2 b3 4 b5/#5 6 7

flat seven**= sharp six**

bVII7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
bVII7b5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bVII13b9#9#11	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bVII7b5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bVII7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
bVIIIdim7 (2, 4, #5, 7)	dim. whole/half	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7

seven

VII7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
VII7#5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
VIIIdim7 (2, 4, #5, 7)	dim. whole/half	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7

Master Modal Key Scale List

<u>chord</u>	<u>chord scale</u>	<u>key scale</u>	<u>parent scale</u>	<u>key-scale tones</u>
one				
Ima7 (2, 4, 6)	major	I major	I major	1 2 3 4 5 6 7
Ima7 (2, #4, 6)	Lydian	I Lydian	V major	1 2 3 #4 5 6 7
Ima7#5 (2, 4, 6)	major #5	I major #5	I major #5	1 2 3 4 #5 6 7
I7 (2, 4, 6)	Mixolydian	I Mixolydian	IV major	1 2 3 4 5 6 b7
I7 (2, #4, 6)	Lydian dominant	I Lydian dominant	V melodic minor	1 2 3 #4 5 6 b7
I7 (2, 4, b6)	Aeolian dominant	I Aeolian dominant	IV melodic minor	1 2 3 4 5 b6 b7
I7 (b2, 4, b6)	Phrygian dominant	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
I7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
I7b5 (b2, #2, #4, 6)	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
I13 b9#9#11	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
I7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
I7b5#5b9#9	super Locrian	I super Locrian	bII melodic minor	1 b2 b3 b4 b5 b6 b7
Im7 (2, 4, 6)	Dorian	I Dorian	bVII major	1 2 b3 4 5 6 b7
Im7 (2, 4, b6)	Aeolian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
Im7 (b2, 4, b6)	Phrygian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
Im(ma7) (2, 4, b6)	harmonic minor	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
Im(ma7) (2, 4, 6)	melodic minor	I melodic minor	I meloedic minor	1 2 b3 4 5 6 7
Im7b5 (b2, 4, b6)	Locrian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
Im7b5 (2, 4, b6)	Aeolian b5	I Aeolian b5	bIII melodic minor	1 2 b3 4 b5 b6 b7
Idim7 (2, 4, #5, 7)	dim. whole/half	I dim. whole/half	I dim. whole/half	1 2 b3 4 b5/#5 6 7
sharp one = flat two				
bIIΔ7 (2, 4, 6)	major	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
bIIΔ7 (2, #4, 6)	Lydian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
bIIΔ7 (#2, #4, 6)	Lydian #2	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7
bII7 (2, #4, 6)	Lydian b7	I Phrygian b1	bVI melodic minor	b1 b2 b3 4 5 b6 b7
bII7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
bII7b5 (bII7 2, #4, 6)	Lydian b7	I Phrygian b1	bVI melodic minor	b1 b2 b3 4 5 b6 b7
bII7b5 (bIII13 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bII13b9#9#11	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bII7#5 (bIII13 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bII7#5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
bII7b5#5b9#9	super Locrian	I major #1	II melodic minor	#1 2 3 4 5 6 7
bIIdim7 (2, 4, #5, 7)	dim. whole/half	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
bIIIdim7 (ma7 #2, #4, 6)	Lydian #4	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7

two

II7 (2, 4, 6)	Mixolydian	I Lydian	V major	1 2 3 #4 5 6 7
II7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
II7b5#5b9#9	super Locrian	I Aeolian b5	bIII melodic minor	1 2 b3 4 b5 b6 b7
chord	chord scale	key scale	parent scale	key-scale tones
II7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
IIm7 (2, 4, 6)	Dorian	I major	I major	1 2 b3 4 5 6 7
IIm7 (2, 4, b6)	Aeolian	I Mixolydian	bVII major	1 2 3 4 5 6 b7
IIm7 (b2, 4, b6)	Phrygian	I Dorian	bVII major	1 2 b3 4 5 6 b7
IIm7 (b2, #4, b6)	Dorian #4	I major #5	I major #5	1 2 3 4 #5 6 7
IIm7 (b2, 4, 6)	Dorian b2	I melodic minor	I melodic minor	1 2 b3 4 5 6 7
IIm(ma7) (2, 4, b6)	harmonic minor	I Mixolydian #1	II harmonic minor	#1 2 3 4 5 6 b7
IIm7b5	Locrian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
IIm7b5	Locrian nat.4	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
IIdim7 (2, 4, b7)	Dorian b5	I major b6	I major b6	1 2 3 4 5 b6 b
IIdim7 (2, 4, #5, 7)	dim. whole/half	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7

chord **chord scale** **key scale** **parent scale** **key-scale tones**

sharp two = flat three

bIIIIma7	major	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
bIIIIma7 (2, #4, 6)	Lydian	I Dorian	bVII major	1 2 b3 4 5 6 b7
bIIIIma7#5 (2, 4, 6)	major #5	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
bIIIIma7#5 (2, #4, 6)	Phrygian b1	I melodic minor	I melodic minor	b1 b2 b3 4 5 b6 b7
bIII7	Mixolydian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
bIII7 (2, #4, 6)	Lydian b7	I Dorian b2	bVII melodic minor	1 b2 b3 4 5 6 b7
bIII7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
bIII7b5	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
bIII13 b9#9#11	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
bIII7#5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
bIIIIm7 (2, 4, 6)	Dorian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
bIIIIm(ma7) (2, 4, 6)	melodic minor	I Aeolian b5	bIII melodic minor	1 2 b3 4 b5 b6 b7
bIIIIdim7 (2, 4, #5, 7)	dim. half/whole	I dim. whole/half	I dim. whole/half	1 2 b3 4 b5/#5 6 7

chord **chord scale** **key scale** **parent scale** **key-scale tones**

three

III7 (b2, 4, b6)	Phrygian dominant	I major #5	I major #5	1 2 3 4 #5 6 7
III7 (b2, 4, 6)	Mixolydian b2	I major #1, #5	II melodic minor #4	#1 2 3 4 #5 6 7
III7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
III7b5 (bII13 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
III13b9#9#11	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7

III7#5 (bII13 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1	2	3	4	5	b6	b7/7
III7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1	2	3		b5	b6	b7
III7b5#5b9#9	super Locrian	I Aeolian dominant	IV melodic minor	1	2	3	4	5	b6	b7
IIIIm7 (b2, 4, b6)	Phrygian	I major	I major	1	2	3	4	5	6	7
IIIIm7 (2, 4, b6)	Aeolian	I Lydian	V major	1	2	3	#4	5	6	7
IIIIm7b5	Locreian	I Mixolydian	IV major	1	2	3	4	5	6	b7
IIIdim7 (b2, b4, b6)	Mixolydian #1	I Phrygian dominant	bVI major #5	1	b2	3	4	5	b6	b7
IIIdim7 (2, 4, #5, 7)	dim. whole/half	I dim. half/whole	I dim. half/whole	1	b2/#2	3	#4	5	6	b7

chord chord scale key scale parent scale key-scale tones

four

IVma7 (2, #4, 6)	Lydian	I major	I major	1	2	3	4	5	6	7
IVma7 (2, 4, 6)	major	I Mixolydian	IV major	1	2	3	4	5	6	b7
IVma7 (#2, #4, 6)	Lydian #2	I major #5	I major #5	1	2	3	4	#5	6	7
IV7 (2, 4, 6)	Mixolydian	I Dorian	bVII major	1	2	b3	4	5	6	b7
IV7 (2, #4, 6)	Lydian b7	I melodic minor	I melodic minor	1	2	b3	4	5	6	7
IV7b9#9b13 (b6)	super Phrygian	VII Locrian bb7	bVI major b6	1	2	3	4	5	b6	b7
IV7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1		b3	4	5	6	7
IV7#5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1		b3	4	5	6	7
IVm7 (2, 4, 6)	Dorian	I Aeolian	bIII major	1	2	b3	4	5	b6	b7
IVm7 (2, #4, 6)	Dorian #4	I harmonic minor	bIII major #5	1	2	b3	4	5	b6	7
IVm7 (2, 4, b6)	Aeolian	I Phrygian	bVI major	1	b2	b3	4	5	b6	b7
IVm7 (b2, 4, b6)	Phrygian	I Locrian	bII major	1	b2	b3	4	b5	b6	b7
IVm (ma7) (b2, 4, b6)	harmonic minor	I Phrygian dominant	bVI major #5	1	b2	3	4	5	b6	b7
IVm (ma7) (2, 4, 6)	melodic minor	I Aeolian dominant	IV melodic minor	1	2	3	4	5	b6	b7
IVm (ma7) (2, #4, 6)	Lydian b3	I major b6	I major b6	1	2	3	4	5	b6	b7
IVdim7 (2, 4, b7)	Lydian b3	I major b6	I major b6	1	2	3	4	5	b6	7
IVdim7 (2, 4, #5, 7)	dim. whole/half	#I dim. half/whole	#I dim. half/whole	#1	2	3	4	5	b6	b7/7

chord chord scale key scale parent scale key-scale tones

sharp four = flat five

bVma7 (2, #4, 6)	Lydian	I Locrian	bII major	1	b2	b3	4	b5	b6	b7
bV7 (2, #4, 6)	Lydian b7	I super Locrian	bII melodic minor	1	b2	b3	b4	b5	b6	b7
bV7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1	2	3		b5	b6	b7
bV7b5	dim. half/whole	I dim. half/whole	I dim. half/whole	1	b2/#2	3	#4	5	6	b7
bV13 b9#9#11	dim. half/whole	I dim. half/whole	I dim. half/whole	1	b2/#2	3	#4	5	6	b7
bV7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1	2	3		b5	b6	b7
bVm7b5 (b2, 4, b6)	Locrian	I Lydian	V major	1	2	3	#4	5	6	7
bVm7b5 (b2, 4, 6)	Locrian nat. 6	I Lydian #2	V major #5	1	2	3	#4	5	6	7
bVdim7 (2, 4, #5, 7)	dim. whole/half	I dim. whole/half	I dim. whole/half	1	2	b3	4	b5/#5	6	7

chord chord scale key scale parent scale key-scale tones

five

Vma7 (2, 4, 6)	major	I Lydian	V major	1	2	3	#4	5	6	7
V7 (2, 4, 6)	Mixolydian	I major	I major	1	2	3	4	5	6	7
V7 (2, 4, b6)	Aeolian dominant	I melodic minor	I melodic minor	1	2	b3	4	5	6	7
V7 (b2, 4, 6)	Mixolydian b2	I major b6	I major b6	1	2	3	4	5	b6	7
V7 (b2, 4, b6)	Phrygian dominant	I harmonic minor	bIII major #5	1	2	b3	4	5	b6	7
V7 (2, #4, 6)	Lydian dominant	I major #I	II melodic minor	#1	2	3	4	5	6	7
V7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1		b3	4	5	6	7
V7b5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1	2	3	4	5	b6	b7/7
V13b9#9#11	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1	2	3	4	5	b6	b7/7
V7#5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1	2	3	4	5	b6	b7/7
V7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1		b3	4	5	6	7
V7#5 (V7 2, 4, b6)	Aeolian dominant	I melodic minor	I melodic minor	1	2	b3	4	5	6	7
V7b5#5b9#9	super Locrian	I Phrygian b1	bVI melodic minor	b1	b2	b3	4	5	b6	b7
Vm7 (2, 4, 6)	Dorian	I Mixolydian	IV major	1	2	b3	4	5	6	b7
Vm7 (2, 4, b6)	Aeolian	I Dorian	bVII major	1	2	b3	4	5	6	b7
Vm7 (b2, 4, b6)	Phrygian	I Aeolian	bIII major	1	2	b3	4	5	b6	b7
Vm7b5	Locrian	I Phrygian	bVI major	1	b2	b3	4	5	b6	b7
Vm7b5 (n6)	Locrian nat. 6	I Phrygian dominant	bVI major #5	1	b2	3	4	5	b6	b7
Vdim7 (2, 4, #5, 7)	dim. whole/half	I dim. half/whole	I dim. half/whole	1	b2/#2	3	#4	5	6	b7
Vdim7 (m7b5 b2, 4, 6)	Locrian nat. 6	I Phrygian dominant	bVI major #5	1	b2	3	4	5	b6	b7

chord **chord scale** **key scale** **parent scale** **key-scale tones**

sharp five = flat six

bVIma7	major	I Phrygian	bVI major	1	b2	b3	4	5	b6	b7
bVIma7 (#4)	Lydian	I Aeolian	bIII major	1	2	b3	4	5	b6	b7
bVIma7 (#2, #4, 6)	Lydian #2	I harmonic minor	bIII major #5	1	2	b3	4	5	b6	7
bVI7 (2, 4, 6)	Mixolydian	I Locrian	bII major	1	b2	b3	4	b5	b6	b7
bVI7 (2, #4, 6)	Lydian b7	I Aeolian b5	bIII melodic minor	1	2	b3	4	b5	b6	b7
bVI7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1	2	3		b5	b6	b7
bVI7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1	2	3		b5	b6	b7
bVI dim7 (b2, b4, b6)	Mixolydian #1	I major #5	I major #5	1	2	3	4	#5	6	7
bVI dim7 (ma7#5 #2, #4, 6)	Aeolian b1	I major b6	I major b6	1	2	3	4	5	b6	7
bVI dim7 (2, 4, #5, 7)	dim. whole/half	#I dim. half/whole	#I dim. half/whole	#1	2	3	4	5	b6	b7/7

chord **chord scale** **key scale** **parent scale** **key-scale tones**

six

VI7 (2, 4, b6)	Aeolian dominant	I major #1	II melodic minor	#1	2	3	4	5	6	7
VI7 (b2, 4, b6)	Phrygian dominant	I Mixolydian #1	IV major #5	#1	2	3	4	5	6	b7
VI7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1		b3	4	5	6	7
VI7b5	dim. half/whole	I dim. half/whole	I dim. half/whole	1	b2/#2	3	#4	5	6	b7

VI13 b9#9#11	dim. half/whole	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
VI7# (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
chord	chord scale	key scale	parent scale	key-scale tones
VIm7 (2,4,6)	Dorian	I Lydian	V major	1 2 3 #4 5 6 7
VIm7 (2, 4, b6)	Aeolian	I major	I major	1 2 3 4 5 6 7
VIm7 (b2, b6)	Phrygian	I Mixolydian	IV major	1 2 3 4 5 6 b7
VIm (ma7) (2, 4, b6)	harmonic minor	I major #5	I major #5	1 2 3 4 #5 6 7
VIm7b5	Locrian	I Dorian	bVII major	1 2 b3 4 5 6 b7
VIdim7 (2, 4, #5, 7)	dim. whole/half	I dim. whole/half	I dim. whole/half	1 2 b3 4 b5/#5 6 7

chord **chord scale** **key scale** **parent scale** **key-scale tones**

sharp six = flat seven

bVIIma7 (2, 4, 6)	major	I Dorian	bVII major	1 2 b3 4 5 6 b7
bVIIma7 (2, #4, 6)	Lydian	I Mixolydian	IV major	1 2 3 4 5 6 b7
bVII7 (2, 4, 6)	Mixolydian	I Aeolian	bIII major	1 2 b3 4 5 b6 b7
bVII7 (2, #4, 6)	Lydian b7	I Aeolian dominant	IV melodic minor	1 2 3 4 5 b6 b7
bVII7b5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
bVII7b5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bVII13b9#9#11	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bVII7b5 (bIII3 b9#9#11)	dim. half/whole	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7
bVII7#5 (9b5#5)	whole tone	I whole tone	I whole tone	1 2 3 b5 b6 b7
bVIIIm7 (2, 4, 6)	Dorian	I Phrygian	bVI major	1 b2 b3 4 5 b6 b7
bVIIIm7 (2, 4, b6)	Aeolian	I Locrian	bII major	1 b2 b3 4 b5 b6 b7
bVIIIdim7 (2, 4, #5, 7)	dim. whole/half	I dim. half/whole	I dim. half/whole	1 b2/#2 3 #4 5 6 b7
bVIIIdim7 (m7 2,#4,6)	Dorian #4	I Phrygian dominant	bVI major #5	1 b2 3 4 5 b6 b7

chord **chord scale** **key scale** **parent scale** **key-scale tones**

seven

VII7 (b2, 4, b6)	Phrygian dominant	I Lydian #2	V major #5	1 #2 3 #4 5 6 7
VII7b5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
VII7#5 (9b5#5)	whole tone	#I whole tone	#I whole tone	#1 b3 4 5 6 7
VIIIm7 (b2, 4, b6)	Phrygian	I Lydian	V major	1 2 3 #4 5 6 7
VIIIm7b5 (b2, 4, b6)	Locrian	I major	I major	1 2 3 4 5 6 7
VIIIm7b5 (b2, 4, 6)	Locrian nat. 6	I major #5	I major #5	1 2 3 4 #5 6 7
VIIIdim7 (b2, b4, b6)	Mixolydian #1	I harmonic minor	bIII major #5	1 2 b3 4 5 b6 7
VIIIdim7 (b2, 4, b6)	Locrian bb7	I major b6	I major b6	1 2 3 4 5 b6 7
VIIIdim7 (2, 4, #5, 7)	dim. whole/half	#I dim. half/whole	#I dim. half/whole	#1 2 3 4 5 b6 b7/7

DOMINANT AND DIMINISHED CONNECTING CHORDS

Mixolydian Chord Scale

<u>chord</u>	<u>progresses to</u>	<u>style</u>	<u>key scale</u>	<u>chord scale</u>
I7 (blue IV)	IV	Blues	Mixolydian (major b7)	Mixolydian (major b7)
II7	V	Jazz/Blues	Lydian (major #4)	Mixolydian (major b7)
IV7 (blue IV)	bVII	Jazz/Blues	Dorian	Mixolydian (major b7)
V7	I	general	major	Mixolydian (major b7)
#V7	II	general	Locrian	Mixolydian (major b7)
bVII7	bIII	general	Aeolian	Mixolydian (major b7)

Phrygian Dominant Chord Scale

<u>chord</u>	<u>progresses to</u>	<u>style</u>	<u>key scale</u>	<u>chord scale</u>
I7b9	IVm	Spanish	Phrygian dominant	Phrygian dominant
II7b9	Vm	Spanish	Dorian #4	Phrygian dominant
III7b9	VIIm	Spanish	major sharp five	Phrygian dominant
V7b9	Im	Spanish	harmonic minor	Phrygian dominant
VI7b9	IIIm	Spanish	Mixolydian #1	Phrygian dominant

Primary Dominant Chord Scales

(also see 13b9#9#11 in diminished chord scale below)

<u>chord</u>	<u>to</u>	<u>key scale</u>	<u>chord scale</u>
V13	I	major	V Mixolydian
V13#11 = bII7b5#5b9#9	I or Im	major sharp one = II melodic minor	V Lydian dominant = bII super Locrian
V7b5#5b9#9 = bII13#11	I or Im	Phrygian flat one = bVI melodic minor	V super Locrian = bII Lydian dominant
V7b9 (option #5)	Im (I)	harmonic minor	V Phrygian dominant = bIII major #5
V13b9#9#11 = bII13b9#9#11	I or Im	bII half/whole diminished	V half/whole dim. = bII half/whole dim.
V13 b5#5	I or Im	#1 whole tone	V whole tone
V11 b13 (rare)	I or Im	melodic minor (b3)	Aeolian dominant
V13 b9 (rare)	Im (I)	major b6	Mixolydian b2

V7 CHORD VERSIONS

	b9	b9	#9	b9/#9
b5(b6) chord scale	V Mixolydian	Mixolydian b2	V Dorian (add 2, no ⁿ 3)*	
b5 (b6) key scale	I major	major b6	I Mixolydian	
b5 (b6) chord scale	V Mixolydian b2	V Phrygian dominant	V Aeolian (add 2, no ^b 3)*	
b5 (b6) key scale	I major b6	I har. min. = bIII maj. #5	I Dorian	
b5 (or #11) chord scale	V Lydian dominant*	V super Locrian	V half/whole dim.	V half/whole dim.
b5 (or #11) key scale	II melodic minor	bVI melodic minor	bII half/whole dim	bII half/whole dim
b5 (or #11) bII synonym	bII7b5	bII7#11	bII7/6b5 (bII13b5n9n11)	bII13#11 (no 9)
b5 (or #11) bII chord scale	bII super Locrian	bII Mix. #4 or h/w dim.	bII half/whole dim	bII half/whole dim
#5 (or b6) chord scale	V Mixo. b6 or whole tone	V Phrygian dominant	V super Locrian	V super Locrian
#5 (or b6) key scale	I melodic minor	I har. min. = bIII maj. #5	bVI melodic minor	bVI melodic minor
#5 (or b6) bII synonym	bII9b5#5 no root		bII9/6b5nr (bII13b5nrn11)	bII13#11 no root
#5 (or b6) bII chord scale	bII whole tone		bII Lydian dominant	bII Lydian dominant
b5/#5 chord scale	V whole tone	V super Locrian	V super Locrian	bII Lydian dominant
b5/#5 key scale	#I whole tone	bVI melodic minor	bVI melodic minor	bVI melodic minor
b5/#5 bII synonym	bII9b5#5	bII9/6b5nr (bII13b5nrn11)	bII13#11 no fifth	bII13#11
b5/#5 bII chord scale	bII whole tone	bVI Lydian dominant	bII Lydian dominant	bII Lydian dominant

* Mood darkening: major to Mixolydian, Mixolydian to Dorian, Dorian to Aeolian, Lydian dominant to Dorian #4. Lydian dominant = Lydian b7.

Secondary Dominant Chord Scales

(also see 13b9#9#11 in diminished chord scale below).

chord	to	key scale	chord scale
VI 13	II	II major	VI Mixolydian
VI 7b5#5b9#9 = bIII13#11	II or IIIm	bVII melodic minor	VI super Locrian = bIII Lydian dominant
VI 13#11 = bIII7b5#5b9#9	II or IIIm	III melodic minor	VI Lydian dominant = bIII super Locrian
VI 7b9 (option #5)	IIIm (II)	Mixolydian #1 = II har. min.	VI Phrygian dominant
VI 13b9#9#11 = bIII 13b9#9#11	II or IIIm	1 half/whole diminished	VI half/whole dim. = bIII half/whole dim.
VI 9 b13 (rare)	IIIm	major #1	VI Mixolydian b6
VI 13 b9 (rare)	IIIm (II)	II major b6	Mixolydian b2
VII 13	III	III major	VII Mixolydian
VII 7b5#5b9#9 = IV13#11	III or IIIIm	I melodic minor	VII super Locrian = IV Lydian dominant
VII13#11 = IV7b5#5b9#9	III or IIIIm	#IV melodic minor	VII Lydian dominant = IV super Locrian

<u>chord</u>	<u>to</u>	<u>key scale</u>	<u>chord scale</u>
VII 7b9 (option #5)	III _m (III)	II har. min.	VII Phrygian dominant
VII 13b9#9#11 = IV 13b9#9#11	III or III _m	VII whole/half dim.	VII half/whole dim. = IV half/whole dim.
VII 9 b13 (rare)	III _m	III melodic minor	VII Aeolian dominant
VI 13 b9 (rare)	III _m (III)	III major b6	VII Mixolydian b2
I13	IV	Mixolydian	I Mixolydian
I7b5#5b9#9 = bV13#11	IV or IV _m	Locrian flat four = bII melodic minor	I super Locrian = bV Lydian dominant
I13#11 = bV7b5#5b9#9	IV or IV _m	major sharp one = II melodic minor	I Lydian dominant = bV super Locrian
I7b9 (option #5)	IV _m (IV)	Phrygian dominant	I Phrygian dominant = bVI major #5
I13b9#9#11 = bV13b9#9#11	IV or IV _m	1 half/whole diminished	I whole/half dim. = bV half/whole dim.
I9 b13 (rare)	IV _m	Aeolian dominant	I Aeolian dominant
I 13 b9 (rare)	IV _m (IV)	IV major b6	I Mixolydian b2
III13	VI	II major	III Mixolydian
III7b5#5b9#9 = bV13#11	VI or VI _m	Aeolian dominant = V melodic minor	III super Locrian = bVII Lydian dominant
III13#11 = bV7b5#5b9#9	VI or VI _m	major sharp one = II melodic minor	III Lydian dominant = bVII super Locrian
III7b9 (option #5)	VI _m (VI)	Phrygian dominant	III Phrygian dominant = I major #5
III13b9#9#11 = bVII13b9#9#11	VI or VI _m	1 half/whole diminished	III whole/half dim. = bVII half/whole dim.
III9 b13 (rare)	VI _m	VI melodic minor	Aeolian dominant
III13 b9 (rare)	VI _m (VI)	VI major b6	Mixolydian b2

The Dual Use of Diminished Chord Scale

<u>13b9#9#11</u>	<u>dim. 7</u>	<u>progresses to</u>	<u>key scale</u>
I, bIII, bV, VI	#I, III, V, bVII	major or minor on II, IV, bVI, VII	half/whole diminished
#I, III, V, bVII	II, IV, bVI, VII	major or minor on I, bIII, bV, VI	#1 half/whole diminished
II, IV, bVI, VII	I, bIII, bV, VI	major or minor on #I, III, V, bVII	whole/half diminished

SCALE FINGERINGS

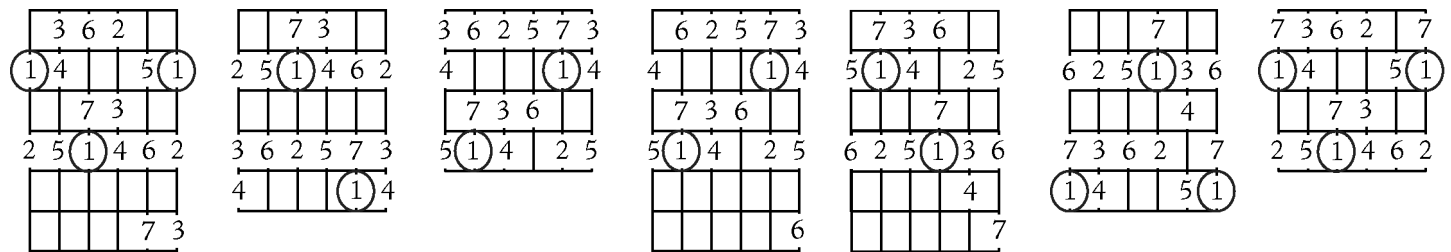
Primary Major Scale Fingerings

four fret major scale



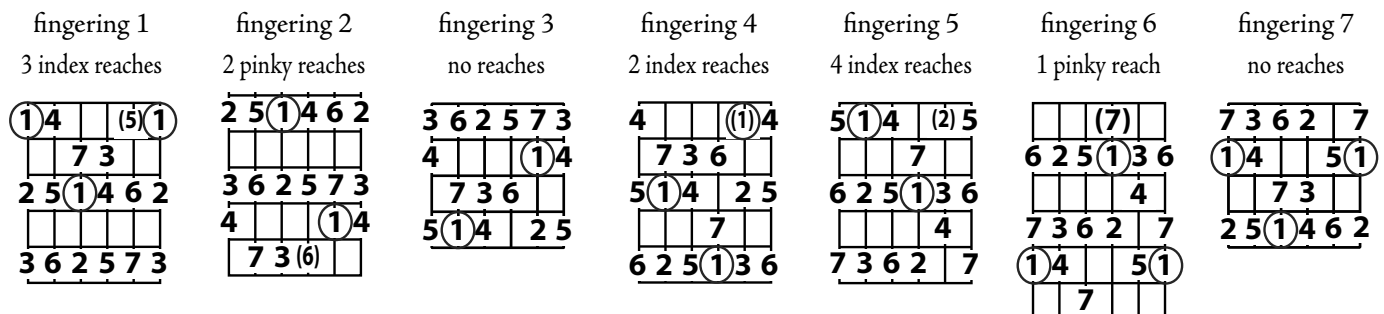
four-fret major scale, some five-fret on strings 1 and 2

These avoid the use of double whole steps on the larger strings, in the interest of speed when playing scalar passages.



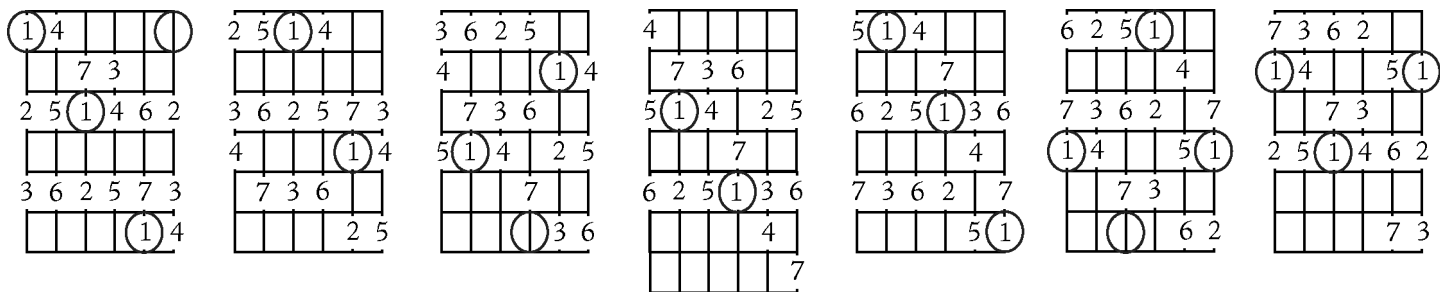
in-position major scale

The longer in-position major scale fingerings are not well-suited for scalar patterns, but are more useful in creating harmonic structures. In playing a scale where there are duplicate notes on strings two and three, play either note (not both).



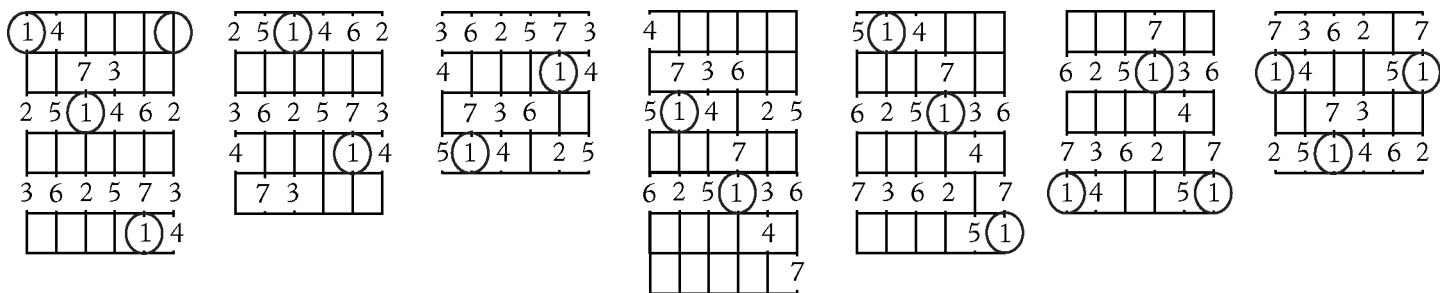
three-note-per-string major scale

These work well for fragment patterns and very fast linear playing. Four-note per string fingerings are faster, however.,

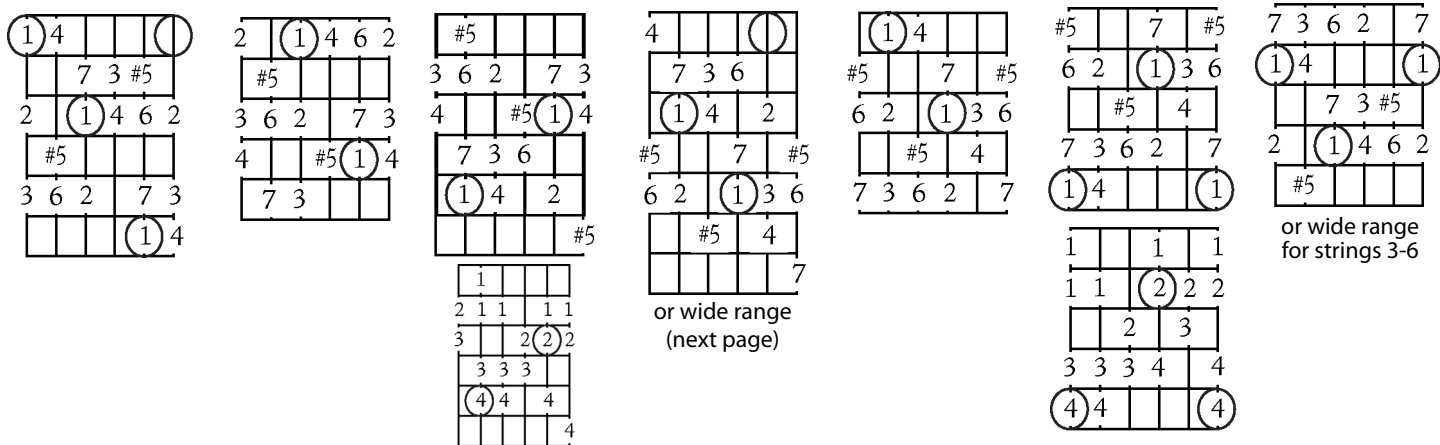


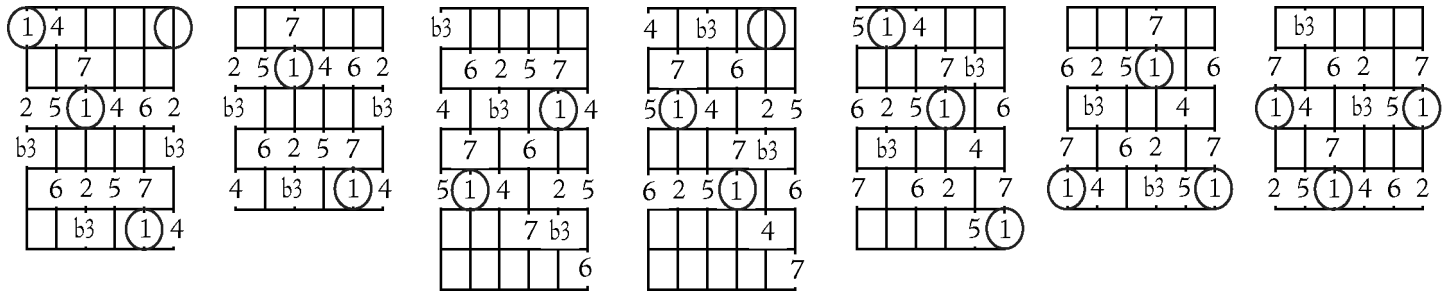
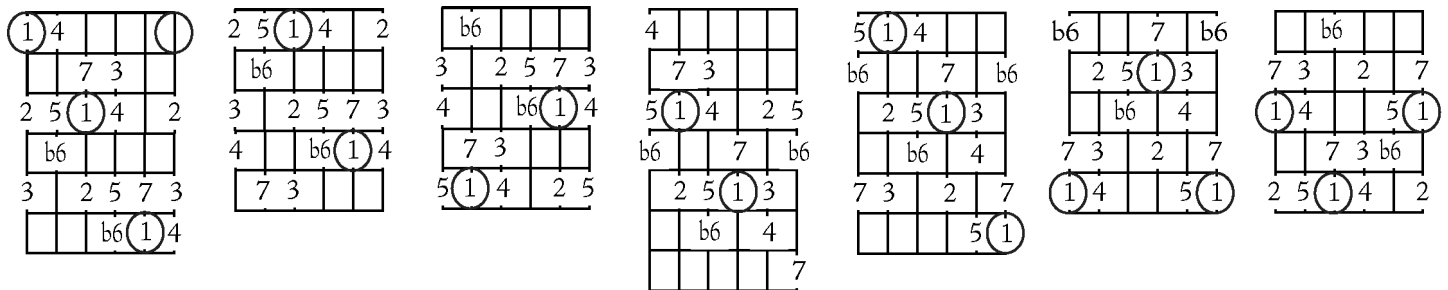
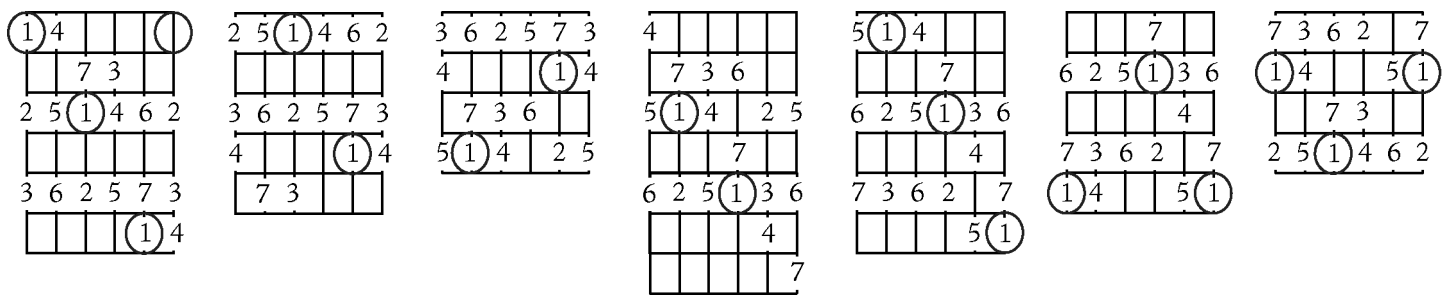
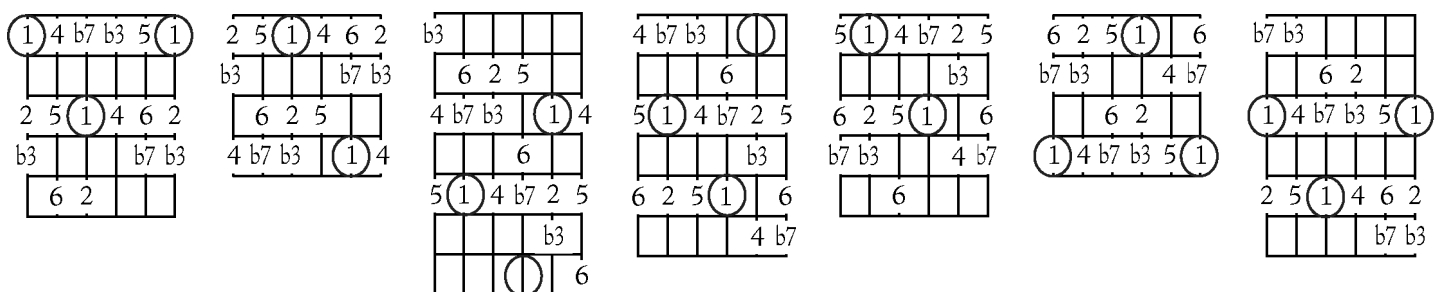
Primary Seven Tone Scale Fingerings

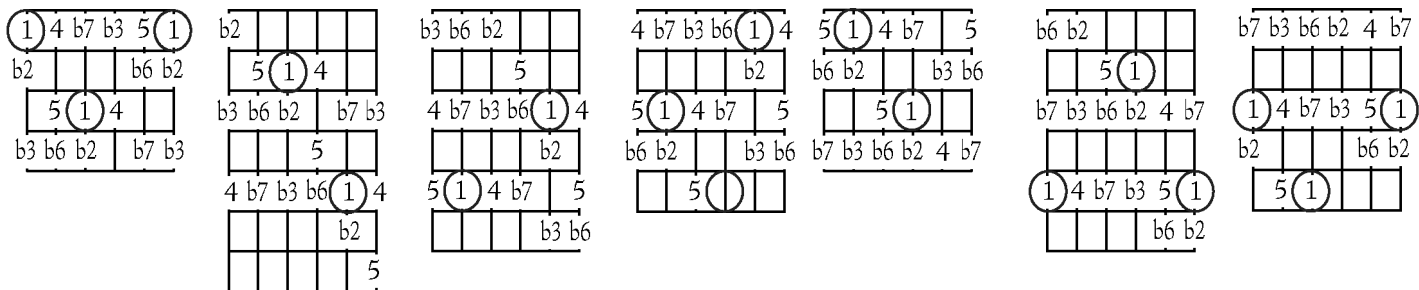
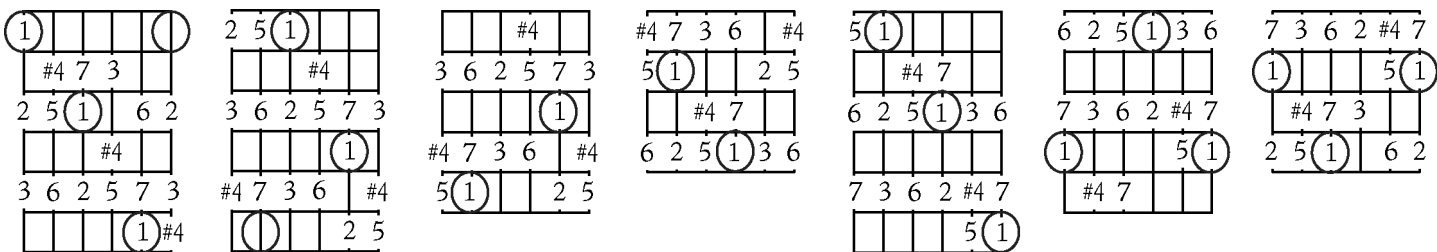
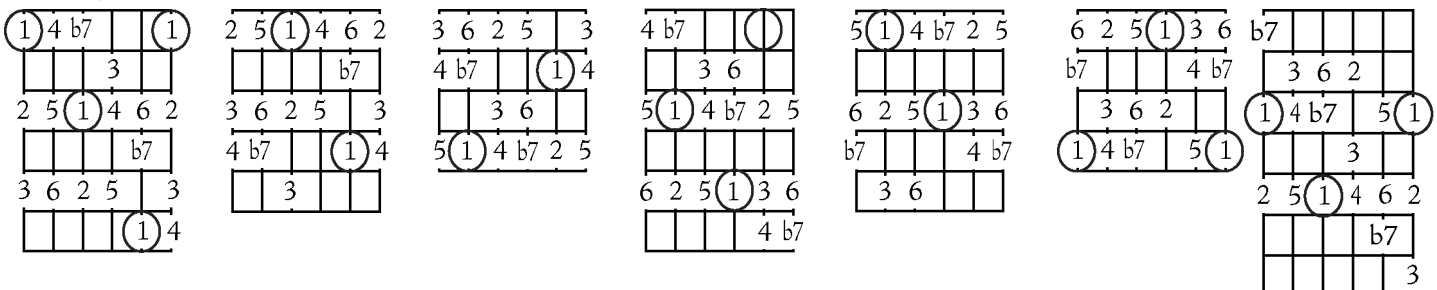
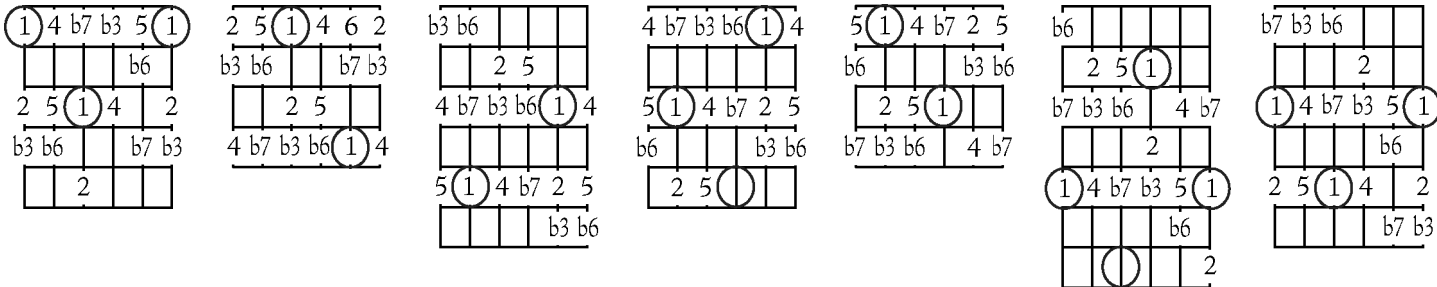
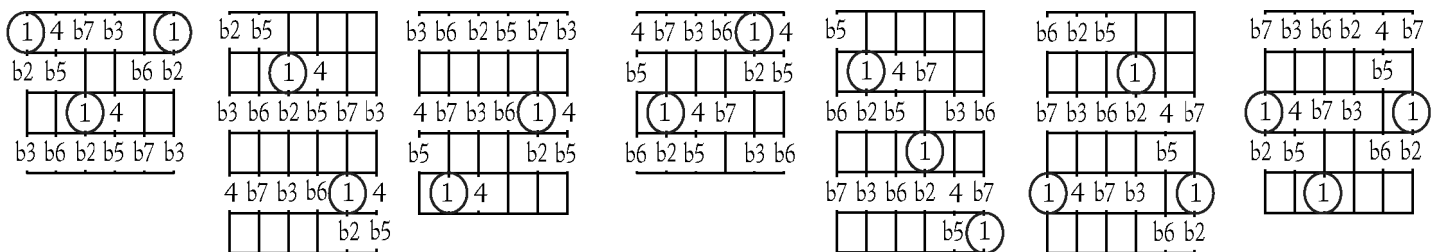
major scale



major scale sharp five



major scale flat three**major scale flat six****Modal Fingering****major scale****Dorian**

Phrygian**Lydian****Mixolydian****Aeolian****Locrian**

major scale sharp five

Diagram showing fingerings for the major scale sharp five across six systems of guitar strings. The diagrams are arranged in two rows of three. The first row shows the scale on strings 1-6, and the second row shows the scale on strings 2-7. The diagrams include various fingering patterns and accidentals (sharps) for the fifth degree. A note indicates "or wide range (next page)" for the second system in the first row.

melodic minor (major scale flat three)

Diagram showing fingerings for the melodic minor scale across six systems of guitar strings. The diagrams are arranged in two rows of three. The first row shows the scale on strings 1-6, and the second row shows the scale on strings 2-7. The diagrams include various fingering patterns and accidentals (flats) for the third degree. A note indicates "or wide range (next page)" for the second system in the first row.

Phrygian Flat One**Locrian Flat Four****Major Scale Sharp One**

Diagram showing fingerings for the Major Scale Sharp One across seven systems of guitar strings. The diagrams are arranged in two rows. The first row shows the scale on strings 1-6, and the second row shows the scale on strings 2-7. The diagrams include various fingering patterns and accidentals (sharps) for the first degree.

Figure 1 displays seven 4x4 grids, each representing a different voicing of the F#m7b9 chord. The grids are arranged in a single row. Each grid contains numbers 1-7 and accidentals (b6, b9) representing notes. Circled numbers indicate the root (1) and the b9 (9).

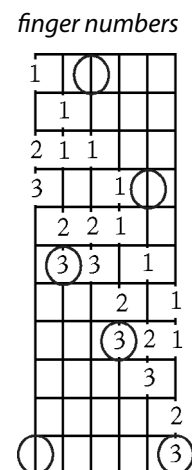
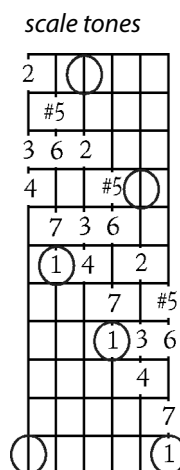
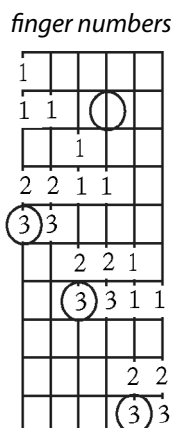
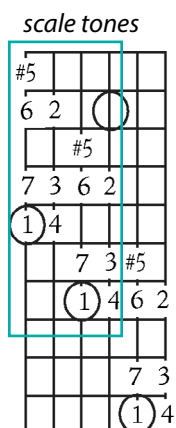
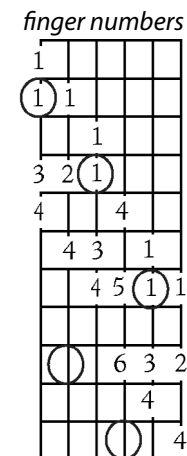
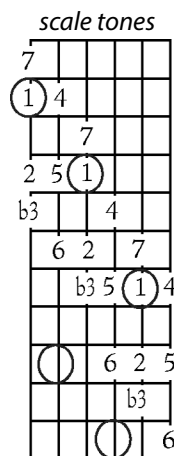
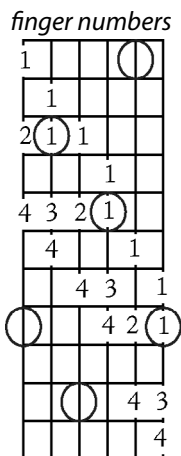
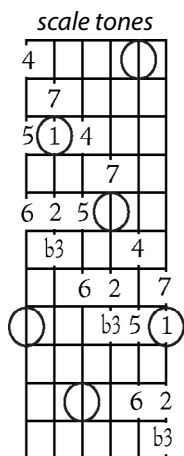
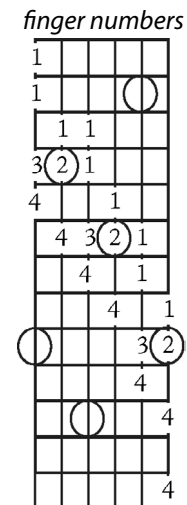
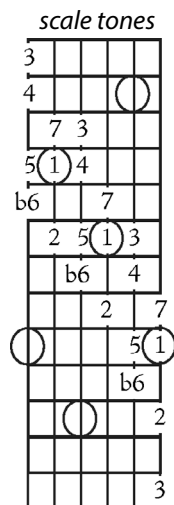
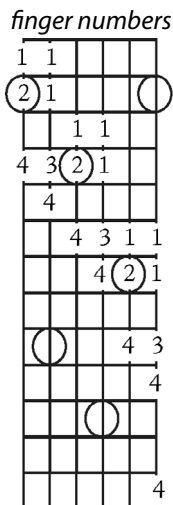
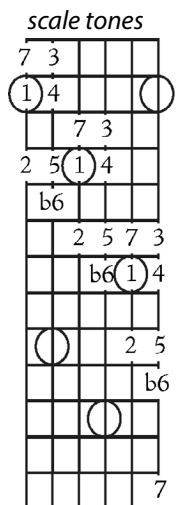
- Grid 1: Row 1: 1, 4, 7, 3; Row 2: 2, 5, 1, 4, 2; Row 3: b6, 7, 3, 1; Row 4: 3, 2, 5, 7, 3.
- Grid 2: Row 1: 2, 5, 1, 4, 2; Row 2: b6, 7, 3, 1; Row 3: 3, 2, 5, 7, 3; Row 4: 4, b6, 1, 4.
- Grid 3: Row 1: b6, 7, 3, 1; Row 2: 3, 2, 5, 7, 3; Row 3: 4, b6, 1, 4; Row 4: 7, 3, 1, 4.
- Grid 4: Row 1: 4, 7, 3, 1; Row 2: 5, 1, 4, 2, 5; Row 3: b6, 7, 3, 1; Row 4: 2, 5, 1, 3.
- Grid 5: Row 1: 5, 1, 4, 2, 5; Row 2: b6, 7, 3, 1; Row 3: 7, 3, 2, 7; Row 4: 1, 4, 5, 1.
- Grid 6: Row 1: b6, 7, 3, 1; Row 2: 2, 5, 1, 3; Row 3: b6, 4, 7, 3; Row 4: 7, 3, 2, 7.
- Grid 7: Row 1: b6, 7, 3, 1; Row 2: 2, 5, 1, 3; Row 3: b6, 4, 7, 3; Row 4: 7, 3, 2, 7.

the numbers on the diagrams below are finger numbers

Figure 1 displays six diagrams illustrating the first three fingerings for the 12-tone scale. Each diagram is a 4x4 grid of notes, with arrows or circles indicating fingerings.

- fingering 1:** Shows a sequence of fingerings (1, 2, 3, 4) across the notes.
- fingering 2:** Shows a sequence of fingerings (2, 3, 4, 1) across the notes.
- fingering 3:** Shows a sequence of fingerings (3, 4, 1, 2) across the notes.
- fingerings 1 & 3:** Shows a sequence of fingerings (1, 3, 1, 3) across the notes.
- fingerings 1 & 2:** Shows a sequence of fingerings (1, 2, 1, 2) across the notes.
- fingerings 2 & 3:** Shows a sequence of fingerings (2, 3, 2, 3) across the notes.

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major sharp five (no fourth finger)**major flat three****major flat six**

Constructing Chords in the Key of the Chord Root

- **Outline of Procedures**
- **Choose a Chord Quality and a Fretboard Area**
- **Choose a Major Scale Fingering**
- **Build a Major Seventh Fingering**
- **Build a Dominant Seventh Fingering**
- **Build a Minor Seventh Fingering**
- **Preferred Chord Tones**
- **Voicing Chord Tones**

OUTLINE OF PROCEDURES

Basic Construction

To construct each arpeggio and chords from the arpeggio, perform each of these steps in order:

- ✦ choose a chord quality
- ✦ chose a fretboard area
- ✦ in the key of the chord root, and in the position (fretboard area) you have chosen, play a major scale fingering, thinking it by number
- ✦ play all instances of each note in the chord: all of the roots (“1’s”), thirds (“3’s”), etc.
- ✦ for each string, from the sixth (largest) to the first string, determine which of the chord tones are available
- ✦ in order from the sixth to the first string, play all of the available chord tones in order of pitch, making an arpeggio
- ✦ construct chord fingerings by playing one of each of the unique notes in the arpeggio (i.e. 1-3-5-7). There are usually many possible chord fingerings

Refining Your Construction

Expand your capabilities by learning which chord tones are preferred and which can be omitted. A thirteenth chord has seven notes, so one or more notes must be omitted on a six-string guitar to strum all the chord tones of a thirteenth chord at once. See the last two sections of this chapter: [Preferred Chord Tones](#) and [Voicing Chord Tones](#).

CHOOSE A CHORD QUALITY AND A FRETBOARD AREA

Start with seventh chords. Major seventh is good to start with. Here's a list of common qualities:

<u>chord name</u>	<u>abbreviation</u>	<u>formula</u>
major	(blank after letter name)	1, 3, 5
minor	m	1, b3, 5
diminished triad	dim	1, b3, b5
augmented triad	aug	1, 3, #5
suspended fourth	sus4	1, 4, 5
suspended second	sus2	1, 2, 5
5 (i.e A ⁵ or C ⁵)	5 (i.e A ⁵ or C ⁵)	1, 5
major seventh	ma7	1, 3, 5, 7
dominant seventh	7	1, 3, 5, b7
dominant seventh, sharp five	7#5	1, 3, #5, b7
dominant seventh, flat five	7b5	1, 3, b5, b7
minor seventh	m7	1, b3, 5, b7
minor seventh, flat five	m7b5	1, b3, b5, b7
minor, major seventh	m(ma7)	1, b3, 5, 7
diminished seventh	dim7	1, b3, b5, bb7 (6)
major ninth	ma9	1, 3, 5, 7, 9
dominant ninth	9	1, 3, 5, b7, 9
dominant thirteenth	13	1,3,5,b7,9,11,13
dominant seventh, sharp ninth	7#9	1, 3, 5, b7, #9
dominant seventh, sharp eleventh #11	7#11	1, 3, 5, b7,
minor ninth	m9	1, b3, 5, b7, 9
minor ninth, flat five	m9b5	1, b3, b5, b7, 9
dominant seventh, sharp nine, flat thirteen	7#9b13	1, 3, 5, b7, #9, b13
six nine	6/9, 69	1, 3, 5, 6, 9
seventh, suspended fourth	7sus4	1, 4, 5, b7
major seventh, suspended fourth	ma7sus4	1, 4, 5, b7
add nine	add 9	1, 3, 5, 9
minor add nine	m add 9	1, b3, 5, 9
dominant seventh, no third	7no3	1, 5, b7

CHOOSE A MAJOR SCALE FINGERING

Memorize a major scale fingering by number. Any of these can be moved up and down the fretboard, but stay in the middle of the fretboard, from approximately frets three to twelve.

A major IV fingering 7 scale tones	Bb major V fingering 7 scale tones	B major III fingering 6 scale tones	C major IV fingering 6 scale tones	C# major IV fingering 5 scale tones	Db major IV fingering 5 scale tones	D major V fingering 5 scale tones
fingers	fingers	fingers	fingers	fingers	fingers	fingers
Eb major IV fingering 4 scale tones	E major IV fingering 3 scale tones	F major V fingering 3 scale tones	F# major III fingering 2 scale tones	Gb major III fingering 2 scale tones	G major IV fingering 2 scale tones	Ab major IV fingering 1 scale tones
fingers	fingers	fingers	fingers	fingers	fingers	fingers

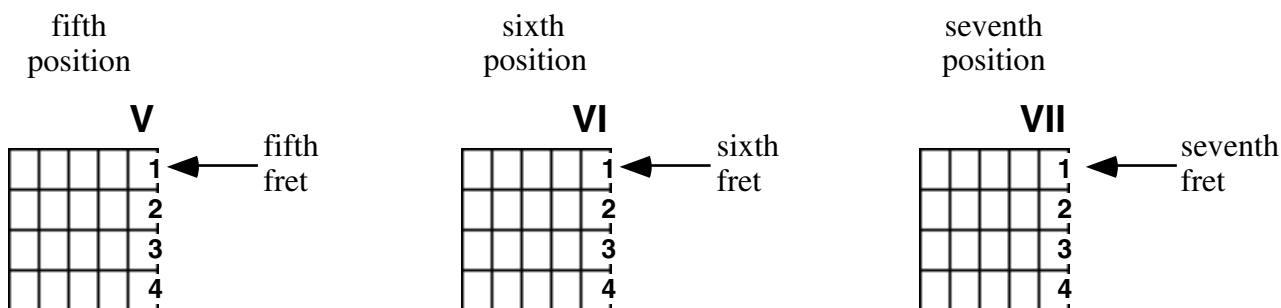
You can also use octave shapes to conceive playing chords, scales or melodies in all keys in one area of the fretboard. All of the fingerings above are in the fourth or fifth position, meaning the index finger is hovering over the fourth or fifth fret.

Fingerings one through seven are numbered in relation to the lowest-pitched tone fretted with the index finger on the sixth string. In fingerings 7, 6, 3 and 2, the position is numbered in relation to the lowest-pitched tone on the sixth string. In fingerings 5, 4 and 1, the position is one fret higher than the lowest-pitched tone on the sixth string.

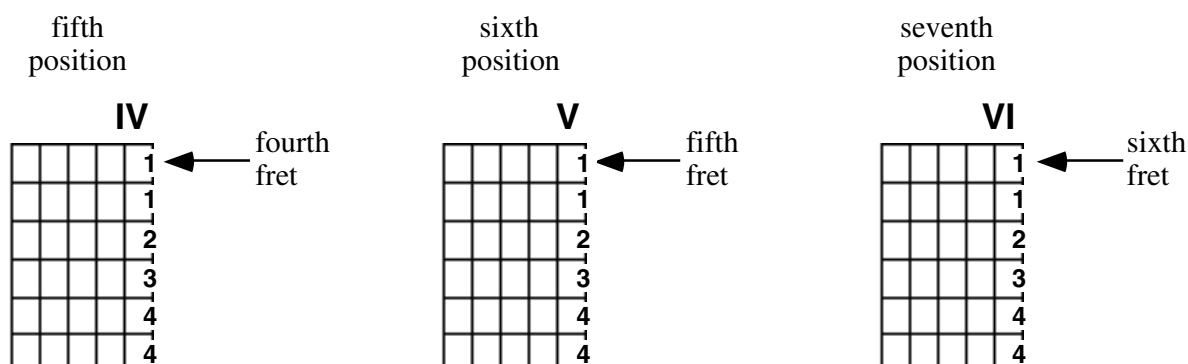
Strict Vertical Position

This concept is primarily used for single-note playing of melodies, scales and arpeggios. Position is numbered after the fret at which your index finger is placed. In that position, the other three fingers are assigned one of the next three frets in-a-row toward the body of the guitar. In other words, each of the four fingers are assigned to one of four consecutive frets.

The examples below show the first string. The position numbers would be the same, regardless of which string the fingers were placed upon.



You can also reach one fret out-of-position with the index and little fingers:



head reach and body reach

A head reach is a reach out of position toward the head of the guitar with the index finger, shown above where the index finger is used twice on the same string. A body reach is a reach out of position toward the body of the guitar with the little finger, shown above where the little finger is used twice on the same string.

side step

A *side step* is a temporary change of position before returning to the original position. It usually involves notes in the temporary position on only one or two strings. In fingering six of C major scale below, most of the scale is fingered in fifth position (with the index finger at the fifth fret), but there is a side step where the notes on the third string are fingered in fourth position. In fingering two of C major scale below, most of the scale is fingered in tenth position (with the index finger at the tenth fret), but there is a side step where the notes on the fourth and third string are fingered in ninth tenth position.

C major scale
fingering 6

1

111(2)11

2

33343

(4)4

(4)4

4

fourth fret

fifth fret

C major scale
fingering 2

1

1

11(2)211

334433

4

(4)4

ninth fret

tenth fret

quiz: in what position are each of the examples below?

Example 1

X

2

← tenth fret

Example 2

II

3

← second fret

Example 3

II

1

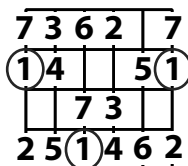
← second fret

Example 1 : eleventh position. Example 2 : third position. Example 3 : second OR third position. :srawsnu

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BUILD A MAJOR SEVENTH FINGERING

Practice building major seventh arpeggios first, since they are common and don't modify the major scale. Major seventh is constructed with major scale tones 1-3-5-7, which is called its *formula*. Here is the A major scale, fingering 7 in IV position, for example.

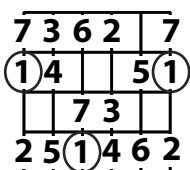


Locate All the Instances of Each Chord Tone within the Major Scale

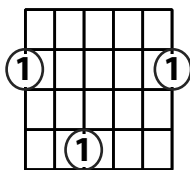
In the major scale fingering you have chosen to memorize, there should be two or three instances of each numbered tone 1, 3, 5 and 7 in the major scale fingering. Locate all the instances of each.

A major IV

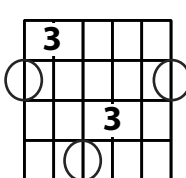
fingering 7



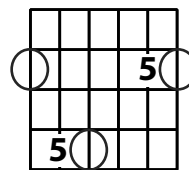
scale tones



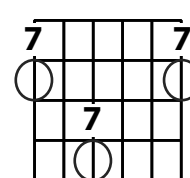
scale tones



scale tones



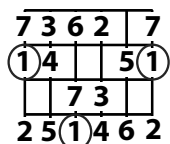
scale tones



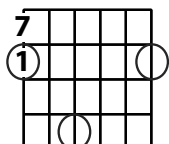
on each string, assess which of the 1-3-5-7 tones are available

A major IV

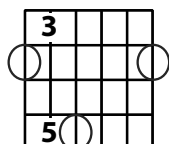
fingering 7



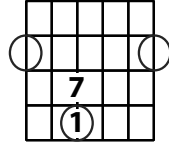
string 6
chord tones



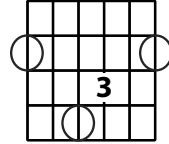
string 5
chord tones



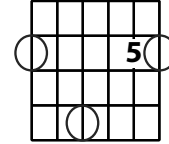
string 4
chord tones



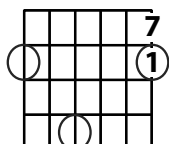
string 3
chord tones



string 2
chord tones



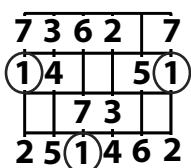
string 1
chord tones



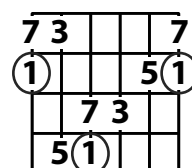
Finger all of the 1-3-5-7 tones in order of pitch from the sixth through the first string to build a major seventh arpeggio. Play the notes in order from lowest to highest pitch, then highest to lowest.

A major IV

fingering 7



Ama7 IV

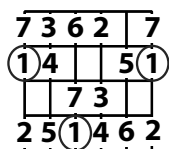


play one of each of them to build a chord

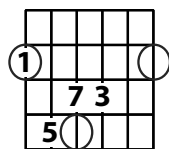
Avoid using the seventh in the bass (as the lowest pitch). Prefer the root or fifth in the bass, sometimes the third.

A major IV

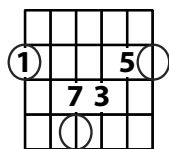
fingerings



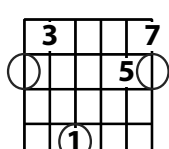
Ama7 IV



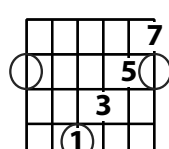
Ama7 IV



Ama7 IV



Ama7 IV

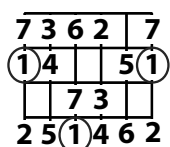


BUILD A DOMINANT SEVENTH FINGERING

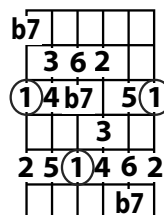
Dominant sevenths are more common than major sevenths, but bring a little complexity.

A dominant seventh chord is constructed with major scale tones 1-3-5-b7. Here is the A major scale, fingering 7 in IV position, along with A Mixolydian, which has the flatted seventh we need. To change “7” to “b7” in any major scale fingering, either move it one fret toward the head of the guitar or change “7” to “b7” located one fret toward the body of the guitar from “6”. Flattening the seventh in any major scale fingering will change it to another major scale fingering pattern, as you can see where fingering 7 below has changed to fingering 4/5. If you play fingering 4/5 from “4” to “4” below, you’ll hear a D major scale.

A major IV
fingering 7



A Mixolydian III
fingering 4/5

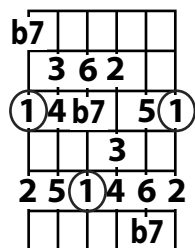


Locate All the Instances of Each Chord Tone within the Mixolydian Scale (major flat seven)

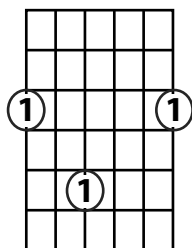
Memorize the Mixolydian scale fingering below. There should be two or three instances of each numbered tone 1, 3, 5 and b7 in the Mixolydian scale fingering. Locate all the “1’s”, then all the “3’s”, then the “5’s”, then the “b7’s”.

A Mixolydian III

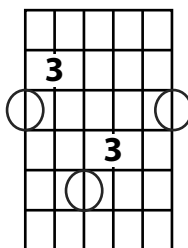
fingering 4/5



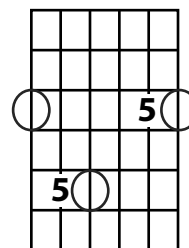
scale tones



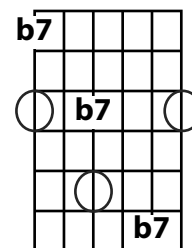
scale tones



scale tones

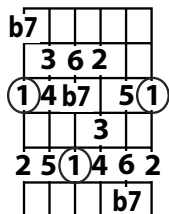


scale tones

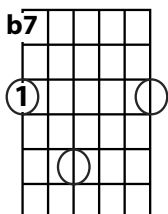


on each string, assess which of the 1-3-5-b7 tones are available

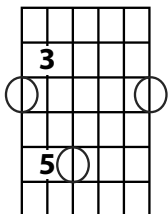
A Mixolydian III
fingering 4/5



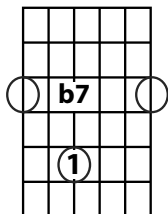
string 6
chord tones



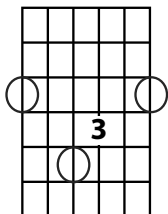
string 5
chord tones



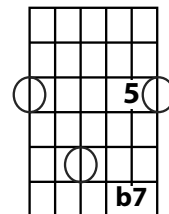
string 4
chord tones



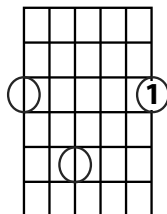
string 3
chord tones



string 2
chord tones



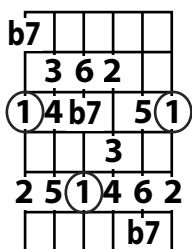
string 1
chord tones



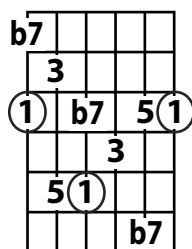
Finger all of the 1-3-5-b7 tones in order of pitch from the sixth through the first string to build a dominant seventh arpeggio. Play the notes in order from lowest to highest pitch, then highest to lowest.

A Mixolydian III

fingering 4/5



A7 III

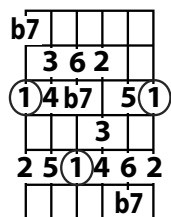


play one of each tone (1-3-5-b7) to build chords

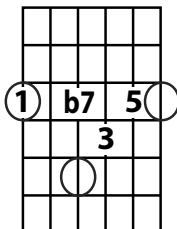
Avoid using the seventh in the bass (as the lowest pitch). Prefer the root or fifth in the bass, sometimes the third.

A Mixolydian III

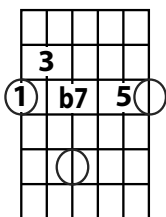
fingering 4/5



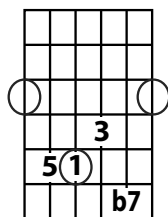
A7 III



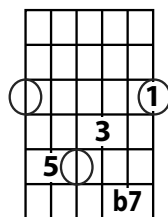
A7 III



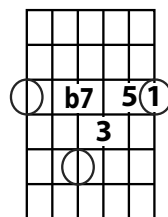
A7 III



A7 III



A7 III

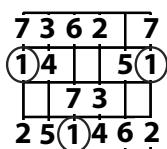


BUILD A MINOR SEVENTH FINGERING

Minor sevenths are more common than major sevenths and like dominant sevenths, are a little complex to build. A minor seventh chord is constructed with major scale tones 1-b3-5-b7. Here is the A major scale, fingering 7 in IV position, along with A Dorian, which has the flatted third and flatted seventh we need. To change “3” to “b3” in any major scale fingering, either move it one fret toward the head of the guitar or change “3” to “b3” located one fret toward the body of the guitar from “2”. Change “7” to “b7” in any major scale fingering by either moving it one fret toward the head of the guitar or change “7” to “b7” located one fret toward the body of the guitar from “6”. Flattening the seventh in any major scale fingering will change it to another major scale fingering pattern, as you can see where fingering 7 below has changed to fingering 1/2. If you play fingering 1/2 from “b7” to “b7” below, you’ll hear a G major scale.

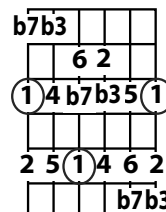
A major IV

fingering 7



A Dorian III

fingering 1/2

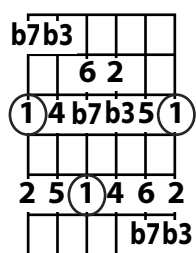


Locate All the Instances of Each Chord Tone within the Dorian Scale (major flat three and flat seven)

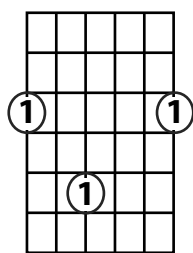
Memorize the Dorian scale fingering below. There should be two or three instances of each numbered tone 1, b3, 5 and b7 in the Dorian scale fingering. Locate all the “1’s”, then all the “b3’s”, then the “5’s”, then the “b7’s”.

A Dorian III

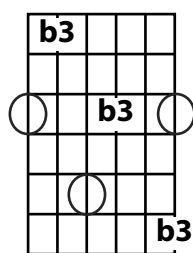
fingering 1/2



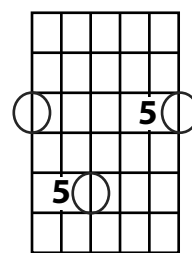
scale tones



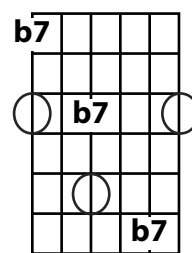
scale tones



scale tones



scale tones



on each string, assess which of the 1-b3-5-b7 tones are available

A Dorian III fingering 1/2	string 6 chord tones	string 5 chord tones	string 4 chord tones	string 3 chord tones	string 2 chord tones	string 1 chord tones

Finger all of the 1-b3-5-b7 tones in order of pitch from the sixth through the first string to build a minor seventh arpeggio. Play the notes in order from lowest to highest pitch, then highest to lowest.

A Dorian III fingering 1/2

Am7 III

play one of each tone (1-3-5-b7) to build chords

Avoid using the seventh in the bass (as the lowest pitch). Prefer the root or fifth in the bass, sometimes the third. Although the last chord in the row below has the notes of an Am7, it has the same notes as C6 and with "C" in the bass, sounds like C6.

A Dorian III

fingering 1/2

Am7 III

Am7 III

Am7 III

Am7 III

Am7 III

PREFERRED CHORD TONES

The Third, Seventh and Altered Tones Specified in the Chord Name

Since music relies heavily on the human imagination, all notes of a chord don't have to be included to suggest its sound. The essential notes most necessary to suggest a chord's sound are:

**“the third and the seventh (if part of the chord)
and any tone specified by the chord name”**

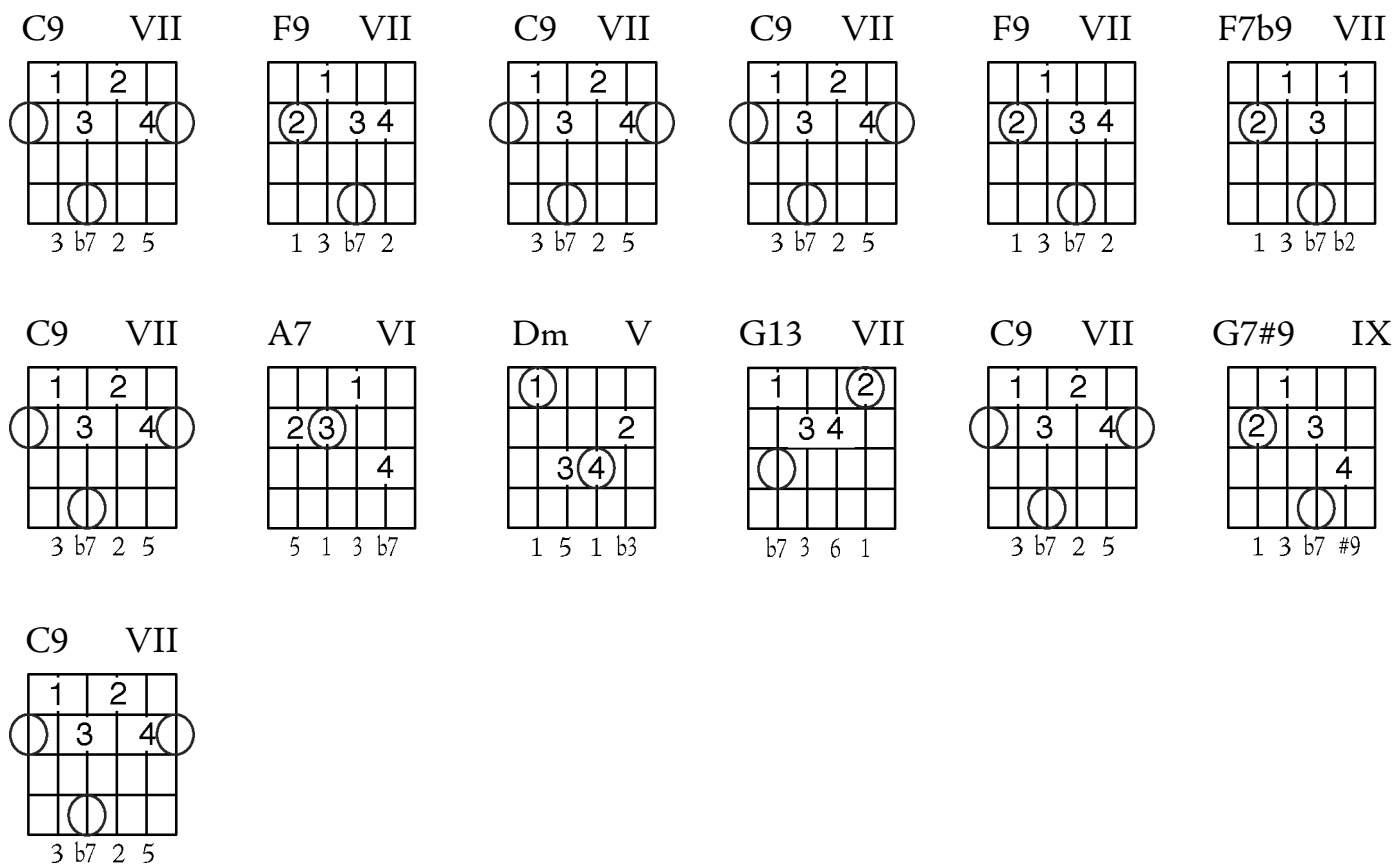
Roots are usually implied by the chord progression and can be omitted, especially in chords of four or more different notes (such as seventh or ninth chords). An exception is in the first presentation of a chord progression in a solo guitar piece (or a solo piece for any chording instrument, like the piano), where it may be preferable to play chord roots in the bass to clearly define the chord progression.

Many chord tones are implied by our familiarity with a chord and can be imagined when they are left out. These include unaltered fifths in any chord, ninths in eleventh chords, ninths or elevenths in thirteenth chords and any one of the tones in a diminished seventh chord.

Use your own discretion in preserving the emotive quality of a chord when you omit notes. In one arrangement, it may be fine to omit the ninth in a ninth chord and only play a seventh chord, while in another arrangement, the ninth may be essential in producing the mood or may be an important note in [voice leading](#). A note may be essential because it is a common tone with other chords, or where the series of notes created by the highest note (or lowest note) in each chord in a series of chords creates an ascending or descending scale.

The Root and Fifth Can Usually be Omitted and Still Imagined

In this twelve-bar jazz blues chord example, you can play the chords and imagine a bass line or other instruments and hear the progression as being in the key of C, while no “C” note was played in any of the chords! Each diagram is one bar.



VOICING CHORD TONES

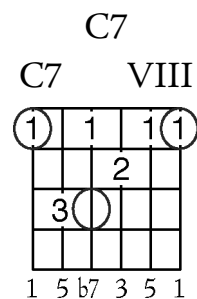
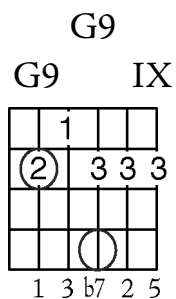
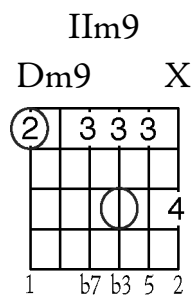
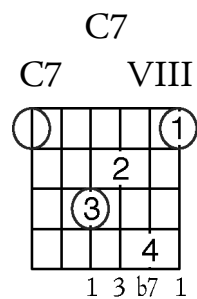
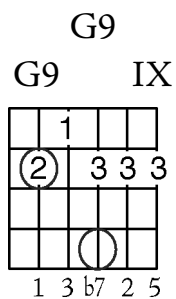
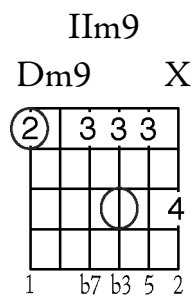
Voice Ninth, Eleventh and Thirteenth Tones High

Ninth and higher chord tones should be voiced in middle to high range of pitch, Except a flat nine in a dominant seventh type chord where the flat nine is sometimes used in the bass. In the example below, the chord progression is IIm7-V13b9-Ima7 in the key of D. The “9” of the V chor (A13b9), a “Bb” note, implies resolution to the fifth of the Dma7 chord, the “A” note on the sixth string. The “A” note on the sixth string doesn’t necessarily have to be played. If you play the second example below, where the Dma7 has “D” in the bass on the fifth string, you can still hear the resolution by imagining the “Bb” resolving to “A”.

<p>IIm7 Bm7 VII</p> <p>1 b7 b3 5</p>	<p>V13b9 A13b9/Bb V</p> <p>b2 b7 3 6</p>	<p>Ima7 Dma7 V</p> <p>5 1 5 7 3</p>
<p>IIm7 Bm7 VII</p> <p>1 b7 b3 5</p>	<p>V13b9 A13b9/Bb V</p> <p>b2 b7 3 6</p>	<p>Ima7 Dma7 V</p> <p>1 5 7 3</p>

When the Top Note Is a Melody Note Stay a Minor Third Below It

In the example below, the notes on the first string are intended to make a melody with the notes E-D-C. In the last chord, the “C” note on the first string is obscured by the “Bb” note on the second string, a whole step (two frets in pitch) below the C. The “C” melody note on the last chord can more clearly be heard in the second row of chords below, where the interval from the “G” on the second string to the “C” on the first string in the last chord is two and a half steps a five-fret interval,



Constructing Scale-Tone Chords by Keyscale

- **Outline of Procedures**
- **Strict Vertical Position**
- **Major Scale-Tone Chords**
- **Harmonic Minor Scale-Tone Chords**
- **Melodic Minor Scale-Tone Chords**
- **Harmonic Major Scale-Tone Chords**
- **Heptatonic Scale-Tone Full-Tertian Arpeggios**
- **Heptatonic Scales with Tertian Fingerings**

OUTLINE OF PROCEDURES

Four Harmonizable Heptatonic Parent Scales

Heptatonic scales contain seven notes per octave. It is standard practice to harmonize heptatonic scales in thirds, using an every-other-note pattern (1-3-5-7, etc.), since listeners have found that system of harmony pleasing to the ear, beginning in England in the twelfth century. Extended chords larger than sevenths like ninth and thirteenth chords became increasingly more prevalent from the beginning of the twentieth century, especially in jazz and blues.

Four particular heptatonic scales can be harmonized in thirds to make acceptable chords and can be used as models to build modes. They are major (Ionian), harmonic minor, melodic minor and harmonic major. Major can be used as a master parent scale for the other three, since major flat three is melodic minor, major sharp five contains the mode harmonic minor on its sixth step and major flat six is harmonic major. See the chapter [Modes/Modes of Four Heptatonic Scales](#).

Scale-Tone Arpeggio Construction

To construct each arpeggio and chords from the arpeggio, perform each of these steps in order:

- Choose one of the four parent scales: major, harmonic minor, melodic minor or harmonic major. It's usually best to start with major (Ionian), since all the others can be viewed as variants of major. Tables of all the scale-tones chords are shown later in this chapter.
- Choose a scale-tone chord from your chosen parent scale. For example: IIm7 in the major scale (Dm7 in the C major scale).
- Choose a fretboard area (also called a position, see [Strict-Vertical Position](#)), and play one of the Favored Fingerings for your chosen parent scale as shown in [Heptatonic Scale-Tone Full Tertian Arpeggios](#). Each of the four scale-tone chord sections in this chapter include a list of the numbered scale tones in triads, seventh chords and ninth chords.
- In the key of the parent scale you have chosen and in the fretboard area you have chosen, play your chosen arpeggio, thinking of it by scale-tone numbers. IIm7 (Dm7) in the C major parent scale would be 2-4-6-1. Ascend and descend the arpeggio in order of pitch from the sixth to the first string and back.
- Using the "Key of the Chord Root" method in "[Constructing Chords in the Key of the Chord Root](#)", also learn to play the arpeggio thinking its formula. Dm7 (IIm7) would be 2-4-6-1 of the parent C major scale, but would be 1-b3-5-b7 in the key of the chord root, D major.

Using Preferred Tones in Chord Construction

Expand your capabilities by learning which chord tones are preferred and which can be omitted. A thirteenth chord has seven notes, so one or more notes must be omitted on a six-string guitar to strum all the chord tones of a thirteenth chord at once.

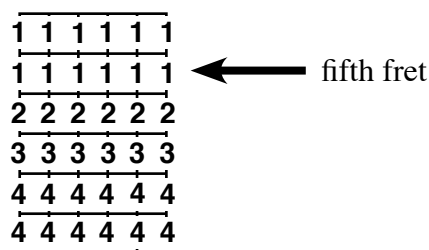
Seventh chords can be voiced without a fifth or without a root, still implying the entire chord. See the chapter “[Scale-Tone Seventh Progression](#)”/Start with Three-Note Seventh Chords.

See the last two sections of this chapter: [Preferred Chord Tones](#) and [Voicing Chord Tones](#).

STRICT-VERTICAL POSITION

This concept is primarily used for single-note playing of melodies, scales and arpeggios; not for chords. The rules of strict vertical position specify which finger would be used to fret each of thirty-six note locations on the fretboard through a range of six frets on all six strings.

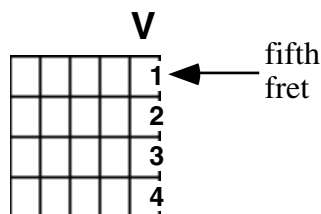
fifth position



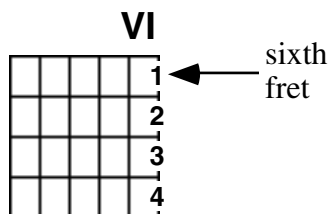
Position is numbered after the fret at which your index finger is placed. In that position, the other three fingers are assigned one of the next three frets in-a-row toward the body of the guitar. In other words, each of the four fingers are assigned to one of four consecutive frets.

The examples below show the first string. The position numbers would be the same, regardless of which string the fingers were placed upon.

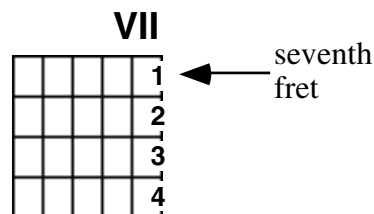
fifth position



sixth position

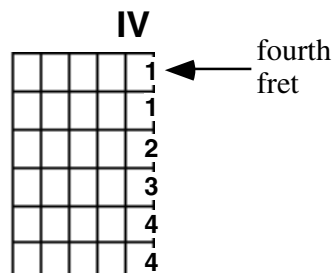


seventh position

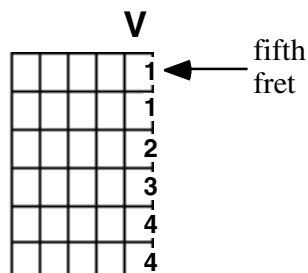


You can also reach one fret out-of-position with the index and little fingers:

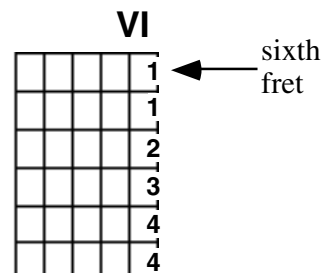
fifth position



sixth position



seventh position



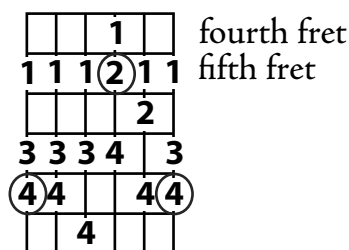
head reach and body reach

A head reach is a reach out of position toward the head of the guitar with the index finger, shown above where the index finger is used twice on the same string. A body reach is a reach out of position toward the body of the guitar with the little finger, shown above where the little finger is used twice on the same string.

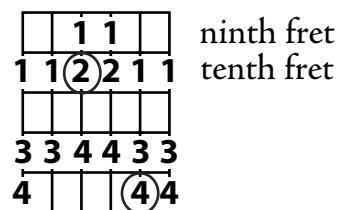
side step

A *side step* is a temporary change of position before returning to the original position. It usually involves notes in the temporary position on only one or two strings. In fingering six of C major scale below, most of the scale is fingered in fifth position (with the index finger at the fifth fret), but there is a side step where the notes on the third string are fingered in fourth position. In fingering two of C major scale below, most of the scale is fingered in tenth position (with the index finger at the tenth fret), but there is a side step where the notes on the fourth and third string are fingered in ninth tenth position.

C major scale
fingering 6

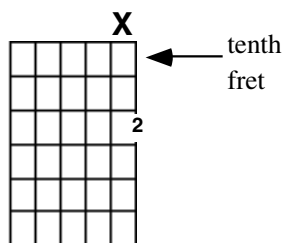


C major scale
fingering 2

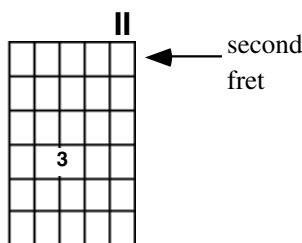


quiz: in what position are each of the examples below?

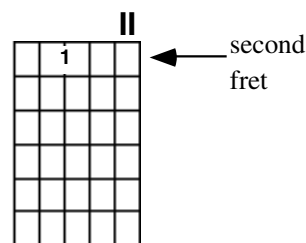
Example 1



Example 2



Example 3



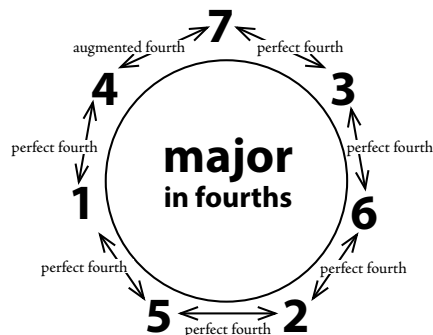
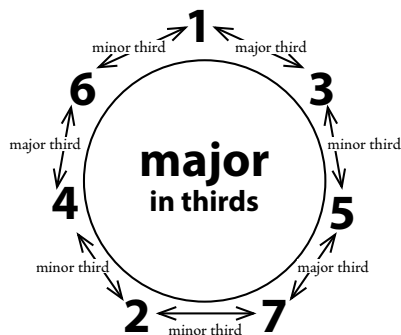
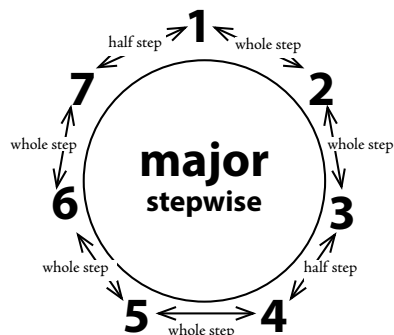
Example 1: eleventh position. Example 2: third position. Example 3: second OR third position. answers:

MAJOR SCALE-TONE CHORDS

The types are shown in the far left column.

scale-tone:	I	II	III	IV	V	VI	VII
M.S.T. mode.....	Ionian.....	Dorian	Phrygian	Lydian	Mixolydian.....	Aeolian.....	Locrian
Lydian.....	V	VI.....	VII.....	I	II	III	#IV
Mixolydian.....	IV	V	VI	bVII.....	I.....	II.....	III
Dorian	bVII	I.....	II.....	bIII.....	IV	V.....	VI
Aeolian	bIII	IV.....	V.....	bVI	bVII	I	II
Phrygian.....	bVI	bVII	I.....	bII.....	bIII	IV.....	V
Locrian	bII	bIII	IV	bV.....	bVI	bVII	I
thirds	major.....	minor.....	minor	major	major	minor.....	minor
sixths.....	minor	major	major.....	minor	minor.....	major	major
triad	major.....	minor.....	minor	major.....	major	minor.....	diminished
seventh	ma7	m7.....	m7	ma7	7	m7.....	m7b5
ninth	ma9	m9.....	.....	ma9	9	m9.....	.....
eleventh .....	.....	m11 .....	.....	ma9#11.....	.....	m11.....	.....
thirteenth .....	.....	m13 .....	.....	ma13#11 .....	.....	.....	.....
11no3(9sus4) .....	.....	11no3 .....	.....	.....	11no3	11no3 .....	.....
13no11	ma13no11	m13no11 .....	.....	ma13no11	13no11.....	.....	.....
7/6	ma7/6	m7/6 .....	.....	wma7/6	7/6.....	.....	.....
sixth	6.....	m6.....	.....	6.....	6.....	.....	.....
add 9.....	add9	m add9 .....	.....	add 9	add 9.....	m add 9.....	.....
6/9	6/9.....	m6/9 .....	.....	6/9.....	6/9.....	.....	.....
7/11.....	.....	m7/11	m7/11.....	.....	.....	m7/11	(m7/11b5)
sus.4.....	sus.4	sus.4.....	sus.4.....	.....	sus.4.....	sus.4.....	.....
sus.2.....	sus.2	sus.2.....	.....	sus.2	sus.2.....	sus.2.....	.....
7 sus.4.....	(ma7sus.4).....	7sus.4	7sus.4.....	.....	7sus.4	7sus.4.....	.....
7 sus.2.....	ma7sus.2.....	7sus.2 .....	.....	ma7sus.2.....	7sus.2	7sus.2.....	.....
9 no 3.....	ma9no3.....	9no3 .....	.....	ma9no3.....	9no3	9no3.....	.....
9 sus.4.....	(ma7sus.4).....	9sus.4 .....	.....	.....	9sus.4	9sus.4.....	.....
13 sus.4 (13no3) .....	.....	13sus.4 .....	.....	.....	13sus.4 .....	.....	.....
7/6 sus.4 .....	.....	7/6sus.4 .....	.....	.....	7/6sus.4 .....	.....	.....
7/6 sus.2 .....	.....	7/6sus.2 .....	.....	.....	7/6sus.2 .....	.....	.....

Interval Cycles of the Major Scale



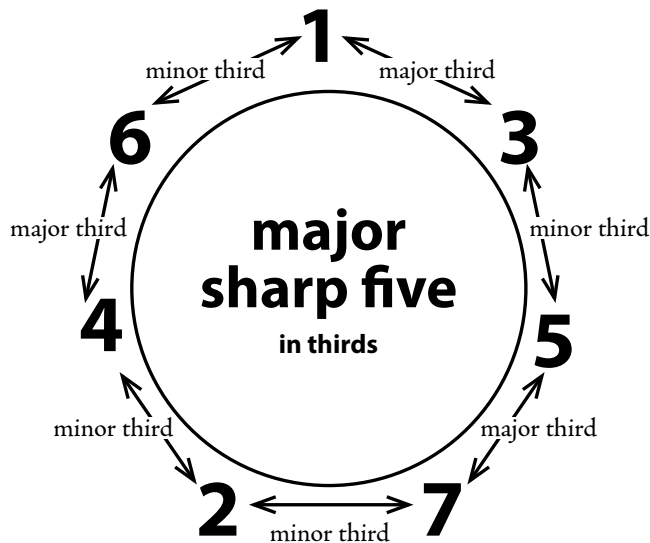
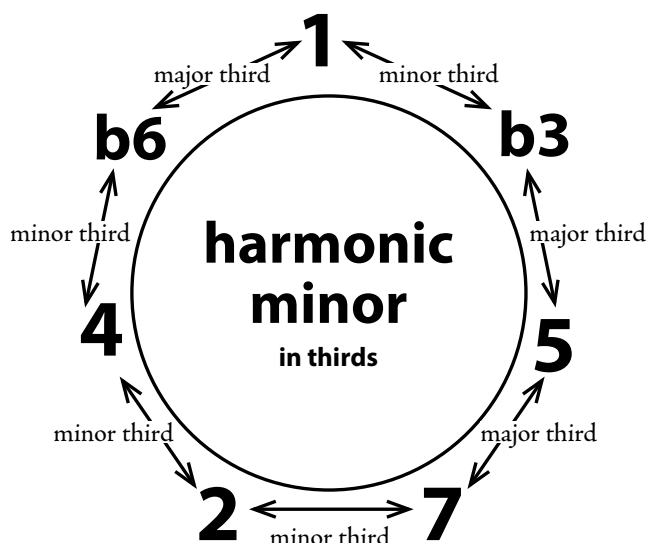
Numbered Major Scale Tones In Triads, Seventh and Ninth Chords

scale-tone:	I	II	III	IV	V	VI	VII
triad	I major	II minor.....	III minor	IV major	V major	VI minor	VII dimin.
parent scale tones	1-3-5	2-4-6.....	3-5-7	4-6-1	5-7-2.....	6-1-3.....	7-2-4
chord scale tones	1-3-5	1-b3-5	1-b3-5.....	1-3-5	1-3-5.....	1-b3-5.....	1-b3-b5
seventh chord	I ^{ma} 7	II ^m 7.....	III ^m 7	IV ^{ma} 7.....	V7.....	VI ^m 7	VII ^m 7 ^b 5
parent scale tones....	1-3-5-7.....	2-4-6-1	3-5-7-2	4-6-1-3.....	5-7-2-4.....	6-1-3-5	7-2-4-6
chord scale tones	1-3-5-7.....	1-b3-5-b7.....	1-b3-5-b7	1-3-5-7.....	1-3-5-b7.....	1-b3-5-b7	1-b3-b5-b7
ninth chord	I ^{ma} 9.....	II ^m 9.....	no chord	IV ^{ma} 9.....	V9.....	VI ^m 9.....	no chord
parent scale tones....	1-3-5-7-2.....	2-4-6-1-3 .....	.....	4-6-1-3-5.....	5-7-2-4-6	6-1-3-5-7 .....	.....
chord scale tones	1-3-5-7-2.....	1-b3-5-b7-2.....	.....	1-3-5-7-2.....	1-3-5-b7-2.....	1-b3-5-b7-2.....	.....

HARMONIC MINOR SCALE-TONE CHORDS

The types are shown in the far left column.

scale tone:	I	II	bIII	IV	V	bVI	VII
mode	Aeolian \flat 7 harmonic minor	Locrian \flat 6	major #5	Dorian #4	Phrygian \flat 3 Phry. dominant	Lydian #2	Mixo. #1
formula	b3-b6	b2-b3-b5-b7	#5	b3-#4-b7	b2-b6-b7	#2-#4	b2-b3-b4-b5-b6-bb7
Locrian nat. 6	bVII	I	bII	bIII	IV	bV	VI
major #5	VI	VII	I	II	III	IV	#V
Dorian #4	V	VI	bVII	I	II	bIII	#IV
Phrygian nat. 3	IV	V	bVII	bVII	I	bII	III
Lydian b2	III	#IV	V	VI	VII	I	bII
Mixolydian #1	bII	bIII	bIV	bV	bVI	bbVII (=6)	I
thirds	minor	minor	major	minor	major	major	minor
sixths	major	major	minor	major	minor	minor	major
triad	minor	diminished	augmented	minor	maj. or aug.	maj. or dim.	dim. or aug.
seventh	min(ma7)	m7b5 or dim7	ma7#5	m7 or dim7	7 or 7#5	maj7 or dim7	dim
ninth	min9(ma7)	ma9#5	m9 or dim7/9	9, 9#5	m9b5	7 \pm 5 \pm 9	
sixth			m6	6			
add 9	m add9		m add 9				
6/9			m6/9				
7/11		m7/11b5		7/11	ma7#11		
sus.4	sus.4			sus.4			
sus.2	sus.2		sus.2				
7 sus.4	ma7sus4			7sus4			
7 sus.2	ma7sus.2		7sus2	7sus4			
9 no 3	ma9no3			9no3			



major sharp five and harmonic minor modes

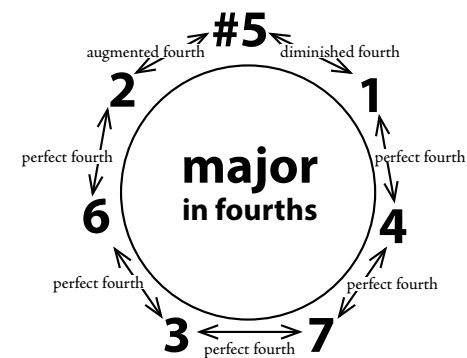
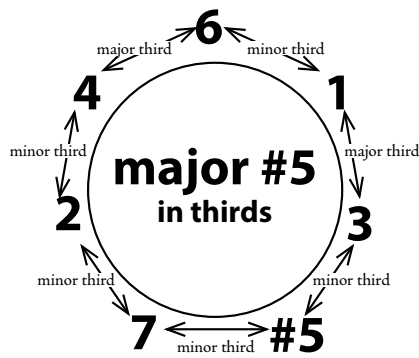
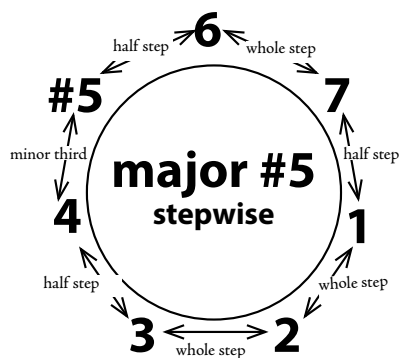
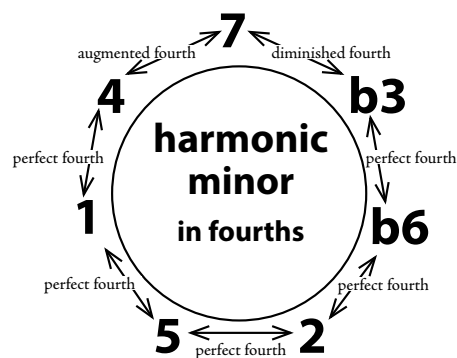
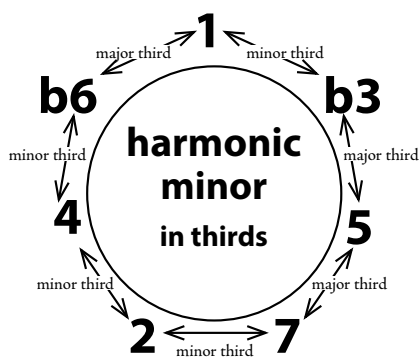
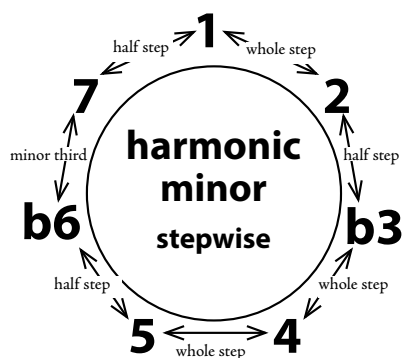
Harmonic minor is a mode on step six of major sharp five scale. If you know the modes of the major scale, thinking in major sharp five is a matter of altering one note in each mode. Note the descending number series of altered tones: major #5, Dorian #4, Phrygian natural 3 (raised from b3), Lydian #2, Mixolydian #1, Aeolian natural 7 (raised from b7 to produce harmonic minor) and Locrian natural 6.

mode names →	major #5	Dorian #4	Phrygian dominant (nat. 3)	Lydian #2	Mixolydian #1	Aeolian nat.7	Locrian nat.6
major #5 scale tones →	I	II	III	IV	#V	VI	VII
I major #5 chords	Ima9#5	IIm13#11 or IIdim7	III7b9(/11)b13	IVma7/6(#11) or bVIIdim7	#Vdim7	VIIm9(ma7)	VIIIm7b5(/11) or VIIIdim7
C ma#5 chords	Cma9/6#5	Dm13#11 or Ddim7	E7b9(/11)b13	Fma7/6(#11) or Fdim7	G#dim7	Am9(ma7)	Bm7b5(/11) or VIIIdim7
harmonic minor tones →	bIII	IV	V	bVI	VII	I	II
VI har. min. chords	bIIIIma9#5	IVm13#11 or IVdim7	V7b9(/11)b13	bVIIma7/6(#11) or bVIIIdim7	VIIIdim7	Im9(ma7)	IIm7b5(/11) or IIdim7
A harmonic minor chords	Cma9/6#5	Dm13#11 or Ddim7	E7b9(/11)b13	Fma7/6(#11) or Fdim7	G#dim7	Am9(ma7)	Bm7b5(/11) or VIIIdim7

Numbered Harmonic Minor Scale Tones In Triads, Seventh and Ninth Chords

scale-tone:	I	II	bIII	IV	V	bVI	VII
triad	I minor.....	II diminished...	bIII augmented.	IV minor	V major.....	bVI major	VII dimin.
parent major #5 tones..	6-1-3	7-2-4.....	1-3-#5.....	2-4-6	3-#5-7	4-6-1	#5-7-2
chord scale tones	1-b3-5	1-b3-b5	1-3-#5.....	1-b3-5.....	1-3-5.....	1-3-5.....	1-b3-b5
seventh chord	Im(ma7)	IIm7.....	IIIIm7	IVma7.....	V7.....	bVIIma7	VIIIdim.7
parent major #5 tones..	6-1-3-5.....	7-2-4-6.....	1-3-#5-7	2-4-6-1.....	3-#5-7-2.....	4-6-1-3	#5-7-2-4
chord scale tones	1-b3-5-7	1-b3-b5-b7	1-3-#5-7	1-3-5-7.....	1-3-5-b7.....	1-b3-5-b7.....	1-b3-b5-b7
ninth chord	Im9(ma7)	no chord.....	bIIIIma9#5.....	IVm9.....	V7b9	no chord	no chord
parent major #5 tones..	6-1-3-#5-7 .....	.....	1-3-#5-7-2	2-4-6-1-3.....	3-#5-7-2.....	.....	.....
chord scale tones	1-b3-5-7-2.....	.....	1-3-#5-7-2	1-b3-5-7-2.....	1-3-5-b7-b2.....	.....	.....

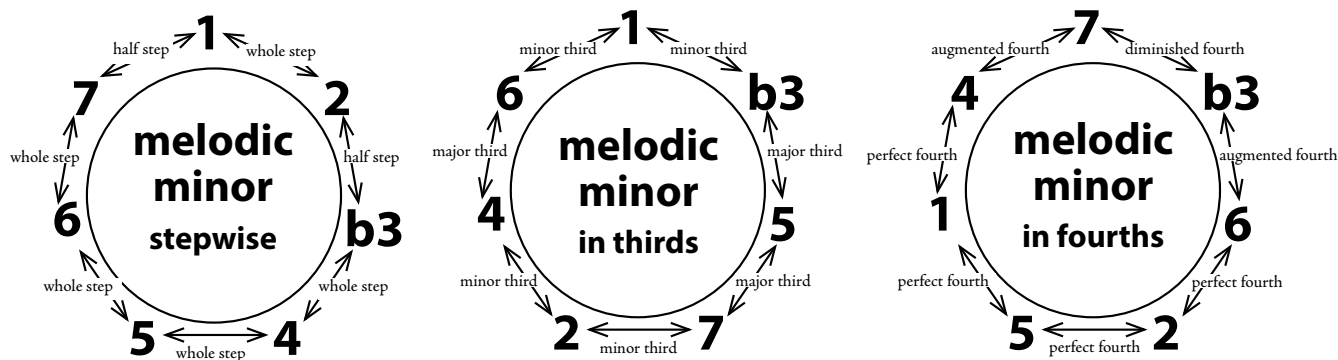
Interval Cycles of Harmonic Minor and its Parent: Major Sharp Five



MELODIC MINOR SCALE-TONE CHORDS

scale tone:	I	II	bIII	IV	V	VI	VII
mode	major b3	Dorian b2	Phrygian b1 Lydian augmented	Lydian b7 Lydian dominant	Mixolydian b6	Aeolian b5.....	Locrian b4 super Locrian
formula	b3	b2-b3-b7	#4-#5	#4-b7	b6-b7	b3-b5-b6-b7.....	b2-b3-b4-b5-b6-b7
Dorian b2.....	bVII	I	bII	bIII	IV	V	VI
Phrygian b1.....	bVI	bII	I	bII	IbII	IV	V
Lydian dominant.....	V	VI	bVII	I	II	III	#IV
Mixolydian b6 (Aeolian dominant)	IV	V	bVI	bVII	I	II	III
Aeolian b5.....	bIII	IV	bV	bVI	bVII	I	II
Locrian b4.....	bII	bIII	bIV	bV	bVI	bVII	I
thirds.....	minor	minor	major	major	major	minor	minor
sixths.....	major	major	minor	minor	minor	major	major
triad.....	minor	minor	augmented	major	maj., aug.	diminished	maj., min., dim., aug.
seventh.....	min(ma7)	m7	ma7#5	7	7, 7#5	m7b5	7b5, 7#5, m7b5
ninth.....	min9(ma7)		ma9#5	9	9, 9#5	m9b5	7#5#9, 7#5b9, 7b5#9, 7b5b9
eleventh.....	m11(ma7)			9#11			
thirteenth.....				13#11			
11no3(9sus4).....					11no3		
13no11.....				ma13no11			
7/6.....	m(ma7)/6	m7/6		7/6	7/6		
sixth.....	m6	m6		6			
add 9.....	madd9			add 9	add 9		
6/9.....	m6/9			6/9			
7/11.....		m7/11				m7/11b5	
sus.4.....	sus.4	sus.4			sus.4		
sus.2.....	sus.2			sus.2	sus.2		
7 sus.4.....	ma7sus.4	7sus.4			7sus.4		
7 sus.2.....	ma7sus.2			7sus.2	7sus.2		
9 no 3.....	ma9no3			9no3	9no3		
9 sus.4.....	ma7sus.4				9sus.4		
7/6 sus.4.....		7/6sus.4					
7/6 sus.2.....							

Interval Cycles of the Melodic Minor Scale



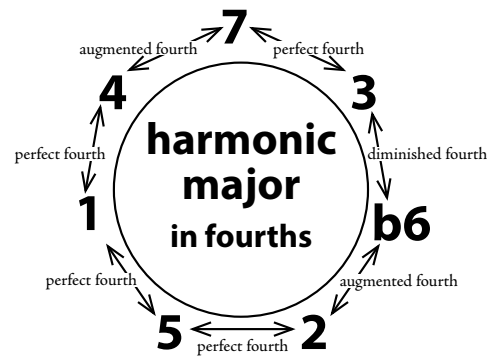
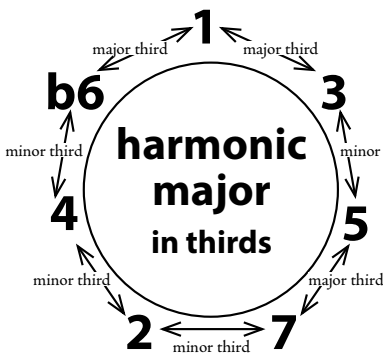
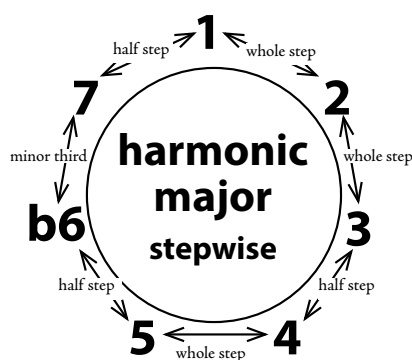
Numbered Melodic Minor Scale Tones In Triads, Seventh and Ninth Chords

scale-tone:	I	II	bIII	IV	V	VI	VII
triad	minor	minor	augmented	major	maj., aug.	diminished	maj., min., dim., aug.
parent scale tones	1-b3-5	2-4-6	b3-5-7	4-6-1	5-7-2	6-1-b3	7-2-4
chord scale tones	1-3-5	1-b3-5	1-3-#5	1-3-5	1-3-5 (or #5)	1-b3-b5	1-b3-b5 opt. 3, b5, #5
seventh	min(ma7)	m7	ma7#5	7	7, 7#5	m7b5	m7b5 7b5, 7#5
parent scale tones	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-b6
chord scale tones	1-3-5-7	1-b3-5-b7	1-3-5-b7	1-3-5-b7	1-3-5-b7	1-b3-b5-b7	1-b3-b5-b7 opt. 3, b5, #5
ninth	min9(ma7)	ma9#5	9	9, 9#5	m9b5	7#5#9, 7#5b9, 7b5#9, 7b5b9	
parent scale tones	1-3-5-7-2	b3-5-7-2-4	4-6-1-b3-5	5-7-2-4-6	6-1-b3-5-7	7-b3-4-6	
chord scale tones	1-3-5-7-2	1-3-5-b7-2	1-3-5-b7-2	1-3-5-b7-2	1-3-5-b7-2	1-b3-b5-b7	1-3-b5-b7 opt. #5, b2, #2

HARMONIC MAJOR SCALE-TONE CHORDS

scale tone:	I	II	III	IV	V	bVI	VII
mode	harmonic major	Dorian b5	Phrygian b4 super Phrygian	Lydian b3 Lydian diminished	Mixolydian b2	Aeolian b1	Locrian bb7
formula	b6	b3-b5-b7	b2-b3-b4-b6-b7	b3-#4	b2-b7	#2, #4, #5	b2-b3-b4-b5-b6-bb7
Dorian b5.....	bVII	I	II	bIII	IV	bV	VI
Phrygian b6.....	bVI	bII	I	bII	bII	IV	V
Lydian diminished..	V	VI	VII	I	II	bIII	#IV
Mixolydian b2.....	IV	V	VI	bVII	I	bII	III
Aeolian b1.....	III	#IV	#V	VI	VII	I	#II
Locrian bb7.....	bII	bIII	bIV	bV	bVI	bbVII	I
thirds.....	major	minor	minor	minor	major	major	minor
sixths.....	minor	major	minor	major	minor	minor	major
triad.....	major, aug	diminished	minor, major	minor	major	augmented	diminished
seventh.....	ma7	m7b5	min7	min(ma7)	7	ma7#5	dim. 7
ninth.....	ma9	m9b5	7#9, 7b9	m9(ma7)	7b9		
7/6.....					7/6		
13no11 (9/6).....		m9/6			13b9no11		
13.....		m13b5					
sixth.....				m6	6		
add 9.....	add9			m add 9			
6/9.....				m6/9			
7/11.....		m7/11b5			7/11		
sus.4.....	sus.4				sus.4		
sus.2.....	sus.2			sus.2			
7 sus.4.....	ma7sus.)				7sus.4		
7 sus.2.....	ma7sus.2						
9 no 3.....	ma9no3			m(ma9)no3			
9 sus.4.....	ma7sus.4						
13 sus.4 (13no3).....							
7/6 sus.4.....					7/6sus4		

Interval Cycles of Harmonic Major



Numbered Harmonic Major Scale Tones In Triads, Seventh and Ninth Chords

scale-tone:	I	II	III	IV	V	bVI	VII
triad	major	diminished	minor	minor	major	augmented	diminished
parent scale tones	1-3-5	2-4-b6	3-5-7	4-b6-1	5-7-2	b6-1-3	7-2-4
chord scale tones	1-3-5	1-b3-b5	1-b3-5	1-b3-5	1-3-5	1-3-#5	1-b3-b5
seventh	ma7	m7b5	m7	m(ma7)	7	ma7#5	diminished 7
parent scale tones	1-3-5-7	2-4-b6-1	3-5-7-2	4-b6-1-3	5-7-2-4	b6-1-3-5	7-2-4-b6
chord scale tones	1-3-5-7	1-b3-b5-b7	1-b3-5-b7	1-b3-5-7	1-3-5-b7	1-3-#5-7	1-b3-b5-bb7(6)
ninth	ma9	m9b5	m9(ma7)	7b9	ma9#5		
parent scale tones	1-3-5-7-2	2-4-b6-1-3	4-b6-1-3-5	5-7-2-4-b6	b6-1-3-5-7		
chord scale tones	1-3-5-7-2	1-b3-b5-b7-2	1-b3-5-7-2	1-3-5-b7-b2	1-3-#5-7-2		

HEPTATONIC SCALE-TONE FULL-TERTIAN ARPEGGIOS

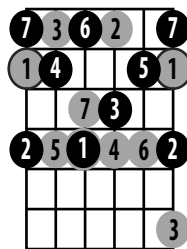
Heptatonic

Heptatonic scales contain seven-notes per octave. Pentatonic scales contain five notes per octaves. Hexatonic scale contain six notes per octave. Octatonic scales contain eight notes per octave. See the chapters [Pentatonic Scales and Octave Shapes](#), [Six-Tone Scales](#), [Major Scale Summary](#), [Harmonic Minor Scale Summary](#), [Melodic Minor Scale Summary](#), [Harmonic Major Scale Summary](#) and [Bebop and Other Octatonic Scales](#).

Tertian

“Tertian” refers to a structure of thirds. In full-tercian arpeggios, each note is a scale tone third from the next. They are a continuous series of every-other-note, using the numbered cycle 1-3-5-7-2-4-6, repeat. They can build major scale-tone arpeggios constructed in thirds (every-other-note).

Each fingering contains two full-tercian arpeggios, one shown in black, the other in gray. From bass treble, the fingering below ascends 7-2-4-6-1-3-5-7-2 in black and ascends 1-3-5-7-2-4-6-1-3 in gray.



Each of these full-tercian arpeggios contain smaller arpeggios. For example, major scale-tone IIm13 ascends with major scale tones 2-4-6-1-3-5-7. Each three consecutive tones of 2-4-6-1-3-5-7-2-4 makes a triad. 2-4-6 is a II minor triad, 4-6-1 is a IV major triad, 6-1-3 is a VI minor triad, 1-3-5 is a I major triad and 3-5-7 is a III minor triad. Each four consecutive notes of 2-4-6-1-3-5-7-2-4-6 make a seventh chord. 2-4-6-1 is IIm7, 4-6-1-3 is IVma7, 6-1-3-5 is VIm7 and 1-3-5-7 is Ima7.

Each five consecutive notes of major scale-tone 2-4-6-1-3-5-7-2-4-6-1 makes a usable ninth chord if the ninth chord is currently acceptable to listeners. Five of the possibilities are acceptable. 2-4-6-1-3 is IIm9, 4-6-1-3-5 is IVma9, 6-1-3-5-7 is VIm9, 1-3-5-7-2 makes Ima9 and 5-7-2-4-6 makes V9. Building a ninth on the “3” (3-5-7-2-4), would result in IIIIm7b9, which is not currently an acceptable chord. Likewise, building a ninth on the “7” (7-2-4-6-1), would result in VIIIm7b5b9, which is not currently an acceptable chord.

major scale-tone IIm15 and V13 arpeggios include the other tertian arpeggios

A IIm15 arpeggio includes all the notes of IIm13, IVma13#11, VIm11, Ima9, IIIm7 and V major. A V13 arpeggio includes all the notes of V15, VIIIm11b5b9, IIm9, IVma7 and VI minor. These two arpeggios, IIm15 and V13 include all the other usable major scale tone arpeggios built in third. So it makes sense to memorize their fingerings.

Making the II minor chord a hypothetical IIm15, where the root and the fifteenth is the same note two octaves apart, allows making the maximum subset chords. The V13 chord allows making the remaining major scale-tone tertian chords not part of the IIm15. VIIIm7b5b9 is a usable arpeggio, but not an acceptable chord. In the use of VIIIm7b5b9 as an arpeggio, the “b9” tone needs to resolve to its upper or lower neighbor (root or flatted third). See the table below.

IIm15 and V13 subset arpeggios

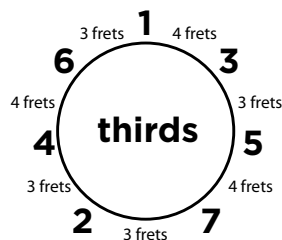
	on root	on third	on fifth	on seventh	on ninth	on eleventh
IIm15	IIm13	IVma13#11	VIm11	Ima9	IIIm7	V major
V13	V13	VIIIm11b5b9	IIm9	IVma7	VI minor	n/a

Using Full-Tertian in Composing and Improvising

See “[Commonality Chords](#)”, “[Substitution](#)” and “[Abbreviating and Elaborating Chord Progression](#)”.

Building Scale-Tone Arpeggios from Full Tertian

Ascend each of the arpeggios for fingering 7 in both “lowest full tertian” and “other full tertian with the limits shown below for each (IIIm7 is 3-5-7-2). Notice the *parent major scale* upper limit is “2” or “3” and the lower limit is most often thought of as II or V, sometimes VI.



scale-tone chord	numbers of parent	quantity
Ima9	1-3-5-7-2	5 notes
IIm13	2-4-6-1-3-5-7	7 notes
IIIm7	3-5-7-2	4 notes
IVma13#11	4-6-1-3-5-7-2	7 notes
V9	5-7-2-4-6	5 notes
VIm11	6-1-3-5-7-2	6 notes
VIIIm7b5	7-2-4-6-(1-3)	4(6) notes
currently acceptable as an arpeggio, not as a chord		
Ima13	1-3-5-7-2-4-6	7 notes
IIm15	2-4-6-1-3-5-7-2	8 notes
IIIm11b9	3-5-7-2-4-6	6 notes
V13	5-7-2-4-6-1-3	7 notes
VIIIm11b5b9	7-2-4-6-1-3	6 notes

HEPTATONIC SCALES WITH TERTIAN FINGERINGS

Categories of Fingerings

in-position fingerings

In-position fingerings use a strict vertical position fingering, where four consecutive frets are each assigned a finger. The index has an option of reaching an additional note one fret toward the head of the guitar. The little finger has an option of reaching an additional note toward the body of the guitar. See [Strict Vertical Position](#).

three-note-per string fingerings

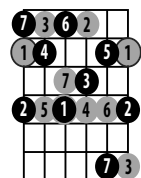
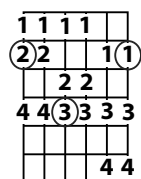
Each three-note-per string fingering combines fingering on the four bass strings (six through three, the four largest strings) of one in-position fingering with the fingering on the two treble strings (one and two, the smallest) of the next in-position fingering toward the body of the guitar.

Full-Tertian Fingerings

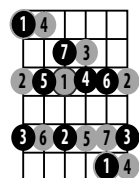
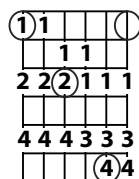
In [Prime Scales, Chords and Arpeggios/Seven-Tone Scales in Seven Areas with Tertian Fingerings in Black and Gray](#), the rows of fingerings with black and gray circled backgrounds show full tertian fingerings. The numbered tones in black are every other scale tone. The numbered tones in gray are the second set of every other scale tone. The ascending series of numbered tones for each color are 1-3-5-7-2-4-6 (repeat). The full tertian fingerings for major scale are below in both in-position and three-note-per-string versions. There are other sets for major scale sharp five (harmonic minor), melodic minor and harmonic major in [Prime Scales, Chords and Arpeggios/Seven-Tone Scales in Seven Areas with Tertian Fingerings in Black and Gray](#).

Major Scale, Favored Fingerings

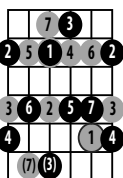
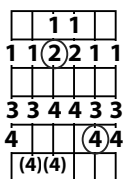
fingering 7/1



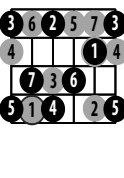
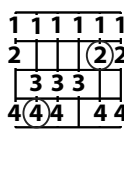
fingering 1/2



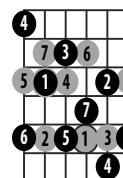
fingering 2



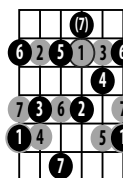
fingering 3



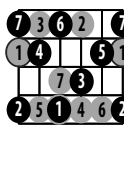
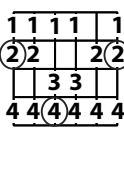
fingering 4/5



fingering 6

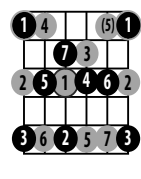
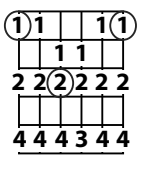


fingering 7

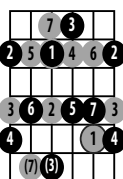
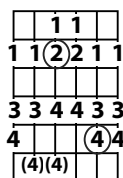


Major Scale, In-Position Fingerings

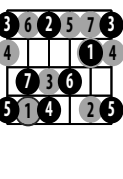
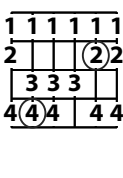
fingering 1



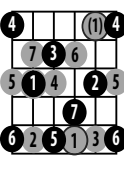
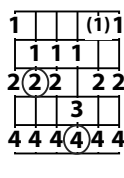
fingering 2



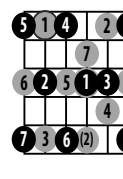
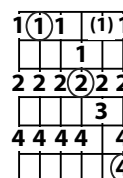
fingering 3



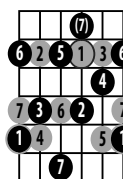
fingering 4



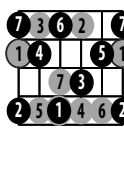
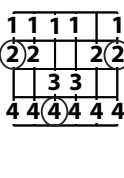
fingering 5



fingering 6

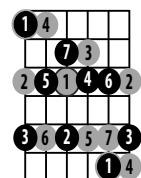
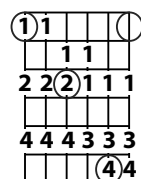


fingering 7

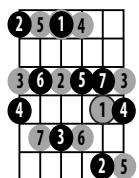
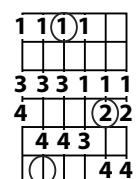


Major Scale, Three-Note-Per-String Fingerings

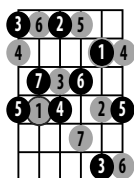
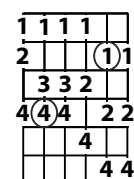
fingering 1/2



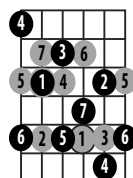
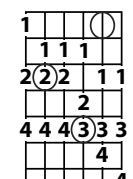
fingering 2/3



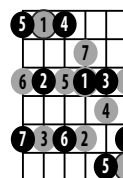
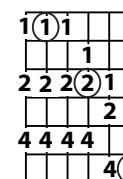
fingering 3/4



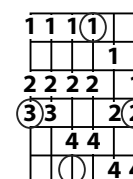
fingering 4/5



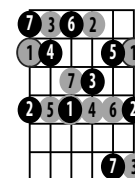
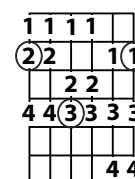
fingering 5/6



fingering 6/7



fingering 7/1



Major Sharp Five (harmonic minor on 6), Favored Fingerings

Major Sharp Five (harmonic minor on 6), In-Position Fingerings

The diagram illustrates 14 different fingering patterns for the major scale on a guitar fretboard, arranged in two rows of seven. Each pattern is labeled from 'fingering 1' to 'fingering 14'. The patterns are shown on a 6-string fretboard with finger numbers (1-4) and circled numbers indicating the starting fret. The patterns are arranged in two rows of seven.

fingering 1

1	1				1
		1	1	1	
2	2	2	2	2	2
	3				
4	4	4		4	4

fingering 2

1	1	1	1	1	1
1					
2	2	2		2	2
3			3	3	3
	4	4			

fingering 3

(1)					
1	1	1		1	1
2			2	2	2
	3	3	3		
	4	4		4	

fingering 4

(1)					
1	1	1		1	1
2			2	2	2
	3	3	3		
	4	4		4	
4					4

fingering 5

(1)	1				
1			1	1	1
2	2		2	2	2
		3		4	
4	4	4	4	4	4

fingering 6

		(1)	(1)		
1	1		1	1	1
		2		2	
3	3	3	3	3	3
4	4				4
		4	4		

fingering 7

		(1)			
1	1	1	1	1	1
		2			2
			3	3	3
4		4	4	4	4
		4			

fingering 8

1	4				1
		7	3	#5	
2		1	4	6	2
	#5				
3	6	2		7	3

fingering 9

2		1	4	6	2
	#5				
3	6	2	#5	7	3
4				1	4
	7	3			

fingering 10

#5					
3	6	2		7	3
4			#5	1	4
	7	3	6		
	1	4		2	
(#5)					#5

fingering 11

4			#5		4
	7	3	6		
	1	4		2	
#5			7		#5
6	2		1	3	6
(#5)					

fingering 12

1	4				
#5			7		#5
6	2		1	3	6
		#5		4	
7	3	6	2		7

fingering 13

#5			7		(#5)
6	2		1	3	6
	#5			4	
7	3	6	2		7
1	4				1
		(7)		#5	

fingering 14

7	3	6	2		7
	1	4			1
		7	3	#5	
2		1	4	6	2
		#5			
					3

Major Sharp Five (harmonic minor on 6), Three-Note-Per-String

fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7 fingering 7/1

Harmonic Minor (major flat three, flat six), Favored Fingerings

fingering 1 fingering 2/3 fingering 3 fingering 4/5 fingering 5 fingering 6 fingering 7

Diagram 1: 1 1 1 1 2 2 2 (2) 2 3 4 4 4 4

Diagram 2: 1 1 1 (1) 1 1 2 (2) 2 1 1 3 3 2 2 4 4 (4) 4 4

Diagram 3: (1) 1 1 1 2 2 2 2 3 3 (3) 4 4 4 4

Diagram 4: 1 1 1 (1) 2 2 1 3 2 1 4 4 3 2 (2) 4 4 3 4

Diagram 5: 1 1 1 2 2 2 (2) 2 3 3 4 4 4 4

Diagram 6: 1 1 1 1 2 2 (2) 2 3 3 3 (3) 4 4 4 4 7

Diagram 7: (1) 1 1 1 1 2 2 2 3 3 3 4 4 4 4 (4) 4 4

Harmonic Minor (major flat three, flat six), In-Position Fingerings

fingering 1 fingering 2 fingering 3 fingering 4 fingering 5 fingering 6 fingering 7

Diagram 1: 1 1 1 1 2 2 2 (2) 2 3 4 4 4 4

Diagram 2: 1 1 1 (1) 1 2 (2) 2 2 2 3 3 3 3 4 4 (1) 4

Diagram 3: (1) 1 1 1 2 2 2 2 3 3 (3) 4 4 4 4

Diagram 4: 1 1 1 (1) 2 2 1 3 3 2 4 4 4 3 (3) 4 4 4

Diagram 5: 1 1 1 2 2 2 (2) 2 3 3 4 4 4 4

Diagram 6: 1 1 1 1 2 2 (2) 2 3 3 3 (3) 4 4 4 4 7

Diagram 7: (1) 1 1 1 1 2 2 2 3 3 3 4 4 4 4 (4) 4

Harmonic Minor (major flat three, flat six), Three-Note-Per-String

fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7 fingering 7/1

Diagram 1: 1 1 1 2 2 2 (1) 1 3 4 4 3 3 4 4

Diagram 2: 1 1 1 (1) 2 (2) 2 1 1 3 3 2 2 4 4 (4) 4 4

Diagram 3: (1) 1 1 2 2 (2) 1 1 1 3 3 2 4 4 3 (1) 4 4

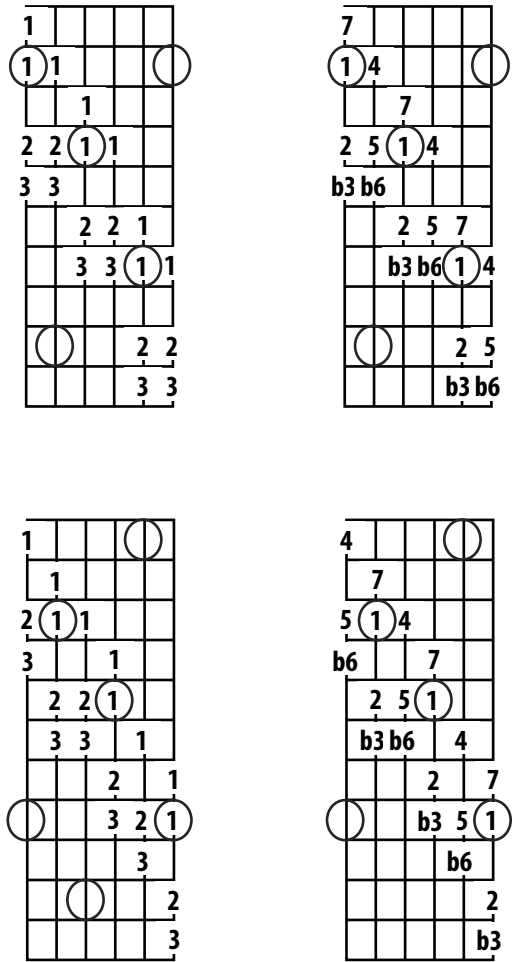
Diagram 4: 1 1 1 (1) 2 2 1 3 2 1 4 4 3 2 (2) 4 4 3 4

Diagram 5: 1 1 1 2 2 2 (2) 2 3 2 1 4 5 (4) 4 2 4

Diagram 6: 1 1 1 1 2 2 (1) 1 1 3 3 3 3 3 3 4 4 (4) 4

Diagram 7: (1) 1 1 1 2 2 1 4 3 3 (2) 4 4 4 4

wide range harmonic minor



Melodic Minor (major flat three), Favored Fingerings

fingering 7/1 fingering 1/2 fingering 2 fingering 3 fingering 4/5 fingering 6 fingering 7

Diagram 1 (fingering 7/1): Top row: 1 1 1 1; Middle row: 2 2 1 1 1; Bottom row: 4 4 4 3 3 3 4.

Diagram 2 (fingering 1/2): Top row: 1 1; Middle row: 2 1 1 1 1; Bottom row: 3 3 3 3 4 4.

Diagram 3 (fingering 2): Top row: (1); Middle row: 1 1 1 1 1; Bottom row: 2 2 3 3 3 4 4.

Diagram 4 (fingering 3): Top row: 1 (1); Middle row: 1 1 1 1; Bottom row: 2 2 3 3 4 4 3 3.

Diagram 5 (fingering 4/5): Top row: 1 1 (1); Middle row: 2 2 1 1; Bottom row: 4 3 4 3 3 4 4.

Diagram 6 (fingering 6): Top row: (1); Middle row: 1 1 1 (1) 1; Bottom row: 3 3 3 3 4 4 4.

Diagram 7 (fingering 7): Top row: 1; Middle row: 2 2 2 2 2; Bottom row: 4 4 4 4 4 4 4.

Melodic Minor (major flat three), In-Position Fingerings

fingering 1 fingering 2 fingering 3 fingering 4 fingering 5 fingering 6 fingering 7

Diagram 1 (fingering 1): Top row: 1 1 1 1 1; Middle row: 2 2 2 2 2 2; Bottom row: 3 4 4 4 4.

Diagram 2 (fingering 2): Top row: (1); Middle row: 1 1 1 1 1; Bottom row: 2 3 3 3 3 4 4.

Diagram 3 (fingering 3): Top row: 1 (1); Middle row: 1 1 1 1; Bottom row: 2 2 3 3 4 4 3 3.

Diagram 4 (fingering 4): Top row: 1 1 (1) 1; Middle row: 2 2 2 2 2; Bottom row: 4 3 4 4 4.

Diagram 5 (fingering 5): Top row: 1 (1) 1 (1) 1; Middle row: 2 2 2 (2) 2; Bottom row: 4 4 4 4 4.

Diagram 6 (fingering 6): Top row: (1); Middle row: 1 1 1 (1) 1; Bottom row: 3 3 3 3 4 4 4.

Diagram 7 (fingering 7): Top row: 1; Middle row: 2 2 2 2 2; Bottom row: 4 4 4 4 4 4 4.

Melodic Minor (major flat three), Three-Note-Per-String

fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7 fingering 7/1

Diagram 1 (fingering 1/2): Top row: 1 1; Middle row: 2 1 1 1 1; Bottom row: 3 3 3 3 4 4.

Diagram 2 (fingering 2/3): Top row: 1 1 (1) 1; Middle row: 2 2 2 1; Bottom row: 4 3 2 2 4 4.

Diagram 3 (fingering 3/4): Top row: 1; Middle row: 2 2 (1) 1; Bottom row: 4 4 4 2 2 4.

Diagram 4 (fingering 4/5): Top row: 1 1 (1); Middle row: 2 2 2 1 1; Bottom row: 4 3 4 3 4 4.

Diagram 5 (fingering 5/6): Top row: 1 (1) 1; Middle row: 2 2 2 (2) 1; Bottom row: 4 4 4 4 4 4.

Diagram 6 (fingering 6/7): Top row: 1 1 1 (1); Middle row: 3 2 2 1; Bottom row: 4 4 3 2 2 4 4.

Diagram 7 (fingering 7/1): Top row: 1; Middle row: 2 2 1 1 1; Bottom row: 4 4 4 3 3 3 4.

Harmonic Major (major flat six), Favored Fingerings

fingering 7/1 fingering 1/2 fingering 2 fingering 3 fingering 4/5 fingering 6 fingering 7

1-3 fragment: fingers 1-4 on fourth string

Harmonic Major (major flat six), In-Position Fingerings

fingering 1 fingering 2 fingering 3 fingering 4 fingering 5 fingering 6 fingering 7

Harmonic Major (major flat six), Three-Note-Per-String

fingering 1/2 fingering 2/3 fingering 3/4 fingering 4/5 fingering 5/6 fingering 6/7 fingering 7/1

1-3 fragment: fingers 1-4 on fourth string

Fingering Arpeggios for Improv

- **Seventh, Ninth, Eleventh and Thirteenth Chord Types**
- **Some Arpeggios Are Not Used as Chords**
- **Triad Arpeggio Subsets of Larger Chords**
- **Seventh Arpeggio Subsets of Larger Chords**
- **Ninth Arpeggio Subsets of Larger Chords**
- **Triad Arpeggios with Uniform Fingering**
- **Seventh Arpeggios with Uniform Fingering**
- **Ninth Arpeggios with Uniform Fingering**

7TH, 9TH, 11TH AND 13TH CHORD TYPES

major scale-tone triads, seventh, ninth, eleventh and thirteenth chords

scale-tone:	I	II	III	IV	V	VI	VII
mode:	major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
triad	I major	II minor	III minor	IV major	V major	VI minor	VII dimin.
parent scale tones	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
chord scale tones	1-3-5	1-b3-5	1-b3-5	1-3-5	1-3-5	1-b3-5	1-b3-b5
seventh chord	I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5
parent scale tones	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-6
chord scale tones	1-3-5-7	1-b3-5-b7	1-b3-5-b7	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7
ninth chord	I ^{ma} 9	II ^m 9	no chord	IV ^{ma} 9	V9	VI ^m 9	no chord
parent scale tones	1-3-5-7-2	2-4-6-1-3	no chord	4-6-1-3-5	5-7-2-4-6	6-1-3-5-7	no chord
chord scale tones	1-3-5-7-2	1-b3-5-b7-2	no chord	1-3-5-7-2	1-3-5-b7-2	1-b3-5-b7-2	no chord
eleventh chord	no chord	II ^m 11	no chord	IV ^{ma} 9#11	V11	VI ^m 11	no chord
parent scale tones	no chord	2-4-6-1-3-5	no chord	4-6-1-3-5-7	5-7-2-4-6-1	6-1-3-5-2	no chord
chord scale tones	no chord	1-b3-5-b7-2-4	no chord	1-3-5-7-2-#4	1-3-5-b7-2-4	1-b3-5-b7-2-4	no chord
thirteenth chord	no chord	II ^m 11	no chord	IV ^{ma} 9#11	V13	no chord	no chord
parent scale tones	no chord	2-4-6-1-3-5	no chord	4-6-1-3-5-7	5-7-2-4-6-1	no chord	no chord
chord scale tones	no chord	1-b3-5-b7-2-4	no chord	1-3-5-7-2-#4-6	1-3-5-b7-2-4	no chord	no chord

major sharp five scale-tone triads, seventh, ninth, eleventh and ninth chords

scale-tone:	I	II	III	IV	V	VI	VII
mode:	major#5	Dorian#5	Phry. nat. 3 Phry. dominant	Lydian #2	Mixo. #1	Aeo. nat. 7 harmonic min.	Loc. #6
triad	I augmented	II minor	III major	IV major	#V dim.	VI minor	VII dimin.
parent scale tones	1-3-#5	2-4-6	3-#5-7	4-6-1	#5-7-2	6-1-3	7-2-4
chord scale tones	1-3-#5	1-b3-5	1-3-5	1-3-5	1-b3-b5	1-b3-5	1-b3-b5
seventh chord	I ^{ma} 7#5	II ^m 7	III7	IV ^{ma} 7	#Vdim.7	VI ^m (ma7)7	VII ^m 7b5
parent scale tones	1-3-#5-7	2-4-6-1	3-#5-7-2	4-6-1-3	#5-7-2-4	6-1-3-#5	7-2-4-6
chord scale tones	1-3-#5-7	1-b3-5-b7	1-3-5-b7	1-3-5-7	1-b3-b5-6	1-b3-5-7	1-b3-b5-b7
ninth chord	I ^{ma} 9#5	II ^m 9	III7b9	no chord	no chord	VI ^m 9(ma7)	no chord
parent scale tones	1-3-#5-7-2	2-4-6-1-3	1-3-5-b7.b2	no chord	no chord	6-1-3-#5-7-2	no chord
chord scale tones	1-3-#5-7-2	1-b3-5-b7-2	1-3-5-b7.b2	no chord	no chord	1-b3-5-7-2	no chord

major flat three scale-tone triads, seventh, ninth, eleventh and thirteenth chords

scale-tone:	I	II	III	IV	V	VI	VII
mode:	major b3	Dorian b2	Phrygian b1	Lydian b7 Lyd. dominant	Mixo. b6	Aeolian b5	Locrian b4 super Locrian
triad	I minor	II minor	III augmented	IV major	V major	VI diminished	VII dimin.
parent scale tones	1-b3-5	2-4-6	b3-5-7	4-6-1	5-7-2	6-1-b3	7-2-4
chord scale tones	1-b3-#5	1-b3-5	1-3-#5	1-3-5	1-3-5	1-b3-b5	1-b3-b5
seventh chord	I ^m (ma7)	II ^m 7	III ^{ma} 7#5	IV7	V7	VI ^m 7	VII ^m 7b5
parent scale tones	1-b3-5-7	2-4-6-1	b3-5-7-2	4-6-1-3	5-7-2-4	6-1-b3-5	7-2-4-6
chord scale tones	1-b3-5-7	1-b3-5-b7	1-3-#5-7	1-3-5-b7	1-3-5-b7	1-b3-b5-b7	1-b3-b5-b7
ninth chord	I ^{ma} 9#5	no chord	III ^{ma} 9#5	no chord	no chord	VI ^m 9	no chord
parent scale tones	1-b3-#5-7-2	no chord	b3-5-7-2-4	4-6-1-b3-5	5-7-2-4	6-1-b3-5-7-2	no chord
chord scale tones	1-3-#5-7-2	no chord	1-3-#5-7-2	1-3-5-b7-2	1-3-5-b7	1-b3-5-b7-2	no chord
thirteenth chord	no chord	no chord	no chord	IV13#11	no chord	no chord	V7b5#5b9#9
parent scale tones	no chord	no chord	no chord	4-6-1-b3-5-7-2 ..	no chord	no chord	7-2-4-6-1-b3-5
chord scale tones	no chord	no chord	no chord	1-3-5-b7-2-#4-6 ..	no chord	no chord	1-3-b5-#5-b7-b9-#9

SOME ARPEGGIOS ARE NOT USED AS CHORDS

The authentic V-I cadence is the mostly common cadence. Altered versions of the V7 chord have been extensively used in pop, jazz and classical music to dramatize its resolution to the I or Im chord. These alterations commonly involve sharped or flatted fifths and sharped or flatted ninths. Sharped fifth and flatted ninths are not considered acceptable on minor seventh chords. This is our objective reality. If music history had unfolded differently, those alterations may have been acceptable. They probably have been used in film music or obscure classical music, but are not commonplace.

Harmonized major, harmonic minor (a mode of major sharp five), melodic minor and major flat six scales include minor seventh flat five chords. Sharp nine is enharmonically the same as flat three. Though minor modes of the four scales mentioned above include the notes to create a minor chord with a flat nine, that alteration are almost always used only with V type chords. Sharp five occurs with natural three as an augmented triad and as major seventh sharp five or dominant seventh sharp five in some of these scales, but is considered acceptable as an alteration of minor chord. I minor seventh sharp five (Am7#5 is A-C-E#-G) could be re-evaluated with sharp five as the root, making a major add nine chord (E# is f, and F-A-C-G).

TRIAD ARPEGGIO SUBSETS OF LARGER CHORDS

Triad Arpeggio Subsets of Seventh Chords

Triad Arpeggio Subsets of Ninth Chords

Triad Arpeggio Subsets of Eleventh Chords

Triad Arpeggio Subsets of Thirteenth Chords

SEVENTH ARPEGGIO SUBSETS OF LARGER CHORDS

Seventh Arpeggio Subsets of Ninth Chords

Seventh Arpeggio Subsets of Eleventh Chords

Seventh Arpeggio Subsets of Thirteenth Chords

NINTH ARPEGGIO SUBSETS OF LARGER CHORDS

Ninth Arpeggio Subsets of Eleventh Chords

Ninth Arpeggio Subsets of Thirteenth Chords

TRIAD ARPEGGIOS WITH UNIFORM FINGERING

Strings 1-2-3-4 , Two Notes on the First String

major			minor		
root position	first inversion	second inversion	root position	first inversion	second inversion

All Strings , Two Notes on the Fourth String

major			minor		
root position	first inversion	second inversion	root position	first inversion	second inversion

All Strings , Two Notes on the Fifth String

major			minor		
root position	first inversion	second inversion	root position	first inversion	second inversion

Three-Note Triads in Three Octaves

root position, index finger in the bass

root position, middle or ring finger in the bass

root position, little finger in the bass

Sweeping Triad Arpeggios

Triad Arpeggios and Chromatic Drift

Body

SEVENTH ARPEGGIOS WITH UNIFORM FINGERING

Two Notes on the High String

strings 1-2-3, two notes on the first string

type	ma7	7	7b5	m7	m7b5	dim7
root position						
first inversion						
second inversion						
third inversion						

strings 2-3-4, two notes on the second string

type	ma7	7	7b5	m7	m7b5	dim7
root position						
first inversion						
second inversion						
third inversion						

Two Notes on the Middle String

strings 1-2-3, two notes on the second string

type	ma7	7	7b5	m7	m7b5	dim7
root position						
first inversion						
second inversion						
third inversion						

strings 2-3-4, two notes on the third string

type	ma7	7	7b5	m7	m7b5	dim7
root position						
first inversion						
second inversion						
third inversion						

Two Notes on the Low String

strings 1-2-3, two notes on the third string

type	ma7	7	7b5	m7	m7b5	dim7
root position						
first inversion						
second inversion						
third inversion						

strings 2-3-4, two notes on the fourth string

type	ma7	7	7b5	m7	m7b5	dim7
root position						
first inversion						
second inversion						
third inversion						

Sweeping Seventh Arpeggios

Seventh Arpeggios and Chromatic Drift

Body

NINTH ARPEGGIOS WITH UNIFORM FINGERING

Two Notes on the High String

Two Notes on the Low String

Two Notes on a Middle String

Sweeping Ninth Arpeggios

Triad Arpeggios and Chromatic Drift

Substitution

- **Abbreviate, Elaborate or Alter Chord Progressions**
- **Categories of Substitute Chords**
 - **1. Shared Thirds: Secondary Roots**
 - **2. Darkening**
 - **3. Secondary Dominants**
 - **4. Interchangeable II and V**
 - **5. Flat Five Substitute**
 - **6. Hidden Roots**
 - **7. Negative Harmony**
- **The Order of Substitution Procedures**
- **Secondary Keys**
- **Abbreviating Chord Pairs with Roots in Fourths**
- **Alternate Qualities of Large Arpeggios**

ABBREVIATE, ELABORATE OR ALTER CHORD PROGRESSIONS

Abbreviate the Chord Progression

When chords are changing too rapidly for the improviser and listener to comfortably interpret, you should consider substitutes that work for two or more consecutive chords, abbreviating the chord progression.

II V chord progression can be abbreviated all II or all V. See [Interchangeable II and V](#). This principle can be extended to any pair of scale-tone chords with root movement in perfect fourths, as shown in [Abbreviating Chord Pairs](#).

Elaborate the Chord Progression

When chords are changing infrequently enough that the improviser and listener could comfortably interpret more frequent chord changes, you should consider substitutes that replace parts of a chords duration, elaborating the chord progression.

See the chapter "[Abbreviating and Elaborating Chord Progression](#)".

Alter the Modal Basis the Chord Progression

Each chord in a progression has potential substitute chords (or alternates) that include all or many of the same notes. Substitutes may contrast the mood of the original chord by lowering notes chromatically (by an interval of one fret) to darken or (more rarely) may raise notes chromatically (by an interval of one fret) to brighten the mood.

To darken or brighten the mood, change the mode (scale) on which the chords are based. Flat numbered tones to make to make the mood darker or more bluesy. Make numbered tones natural (such as changing b7 to 7) to brighten the mood.

In making a chord a secondary dominant, it is changed major or dominant seventh chord if it was originally minor and changed to dominant seventh if it was originally major, major seventh or major sixth. This usually makes a Mixolydian dominant seventh to progress its root up a fourth to a major chord or a Phrygian major dominant seventh chord (Phrygian with a major third) to progress to a minor chord. See [Secondary Dominant, Modes](#) and [Modes Of Four Heptatonic Scales](#).

CATEGORIES OF SUBSTITUTE CHORDS

1. **Shared Thirds**
2. **Darkening Moods**
3. **Secondary Dominants**
4. **Interchangeable II and V**
5. **Flat Five Substitute**
6. **Hidden Roots**
7. **Negative Harmony**

Identify the Parent Major Scale

Beginning with major scale-tone triad pairs, you can identify the parent major scale. Each chord uses some numbered tones of the parent scale. Once enough chord tones have been accumulated to account for each of the seven tones of a parent scale, it is defined.

In terms of the parent major scale, each triad has three consecutive numbers on the tertian cycle. A I major triad is 1-3-5. A II^m triad is 2-4-6, and so on.

Sometimes the parent scale is major sharp five. The system is the same as the parent major scale, but each chord that uses “#5” is changed in quality compared to that chord in an unaltered major scale.

Likewise, a parent major scale with a b3 is sometimes used, called melodic minor ascending form (commonly used the same in ascending or descending but in classical music ascended with b3 and descend with b3, b6 and b7).

In modal terms, the principle of identification is the same. Determine the formula for the mode, such as b3 and b7 for Dorian, then account for every numbered tone.

chord combinations that define a major scale:

Any scale-tone seventh chord and a triad (or seventh chord) built on the next higher scale-tone from the seventh's root.

Three (not two) scale-tone triads or seventh chords in perfect fourths.

Any stepwise pair of triads plus the tone a step below the root of the lower triad.

Any three triads in stepwise or fourth root movement.

unique major scale-tone pairs of triads

major chords with their roots a whole step apart are usually IV to V

minor chord with their roots a whole step apart are usually II_m to III_m

minor up a half step to major is usually III_m to IV major.

V₇ diminished up a half step to major is usually VII dim. to I major.

minor up a fourth to major is usually II_m V

major up an augmented fourth to diminished is IV VII_{dim}

Modal Chord Types

For any scale-tone chord, you need to know its numbered type (I type, V type). See [Number And Letter Cycles](#).

For the I, IV and V chords this is the relative major and relative minor relationship. The traditional relative minor of I is VI_m. Modally, the same relationship occurs for IV type chords with a relative II_m and for V type chords with a relative III_m.

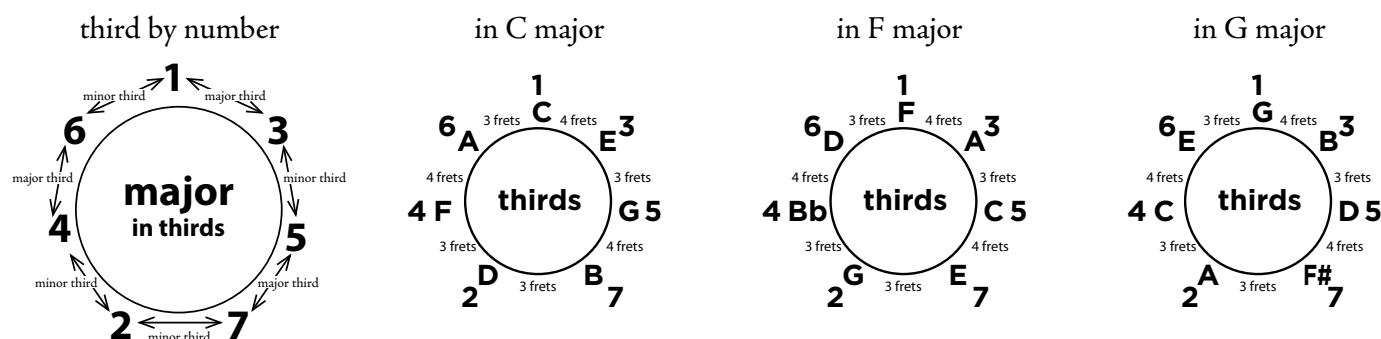
II_m has what could be called a “relative VII diminished”. The “relative diminished” of D_m is B diminished.

SHARED THIRDS: SECONDARY ROOTS

In many cases, a chord can be treated as a different chord which sounds similar but is rooted a chord tone other than the root of the original chord. Chords on secondary roots share the same parent scale as the original chord.

Chords used in jazz usually contain four or more notes and are, by standard practice, built with every other note of a seven tone (heptatonic) scale (see [Number And Letter Cycles](#)). The same cycle of tones, numbered 135624613, etc., is used for any step of the scale to build a chord. See major scale-tone thirds below.

major scale-tone thirds by number and letter



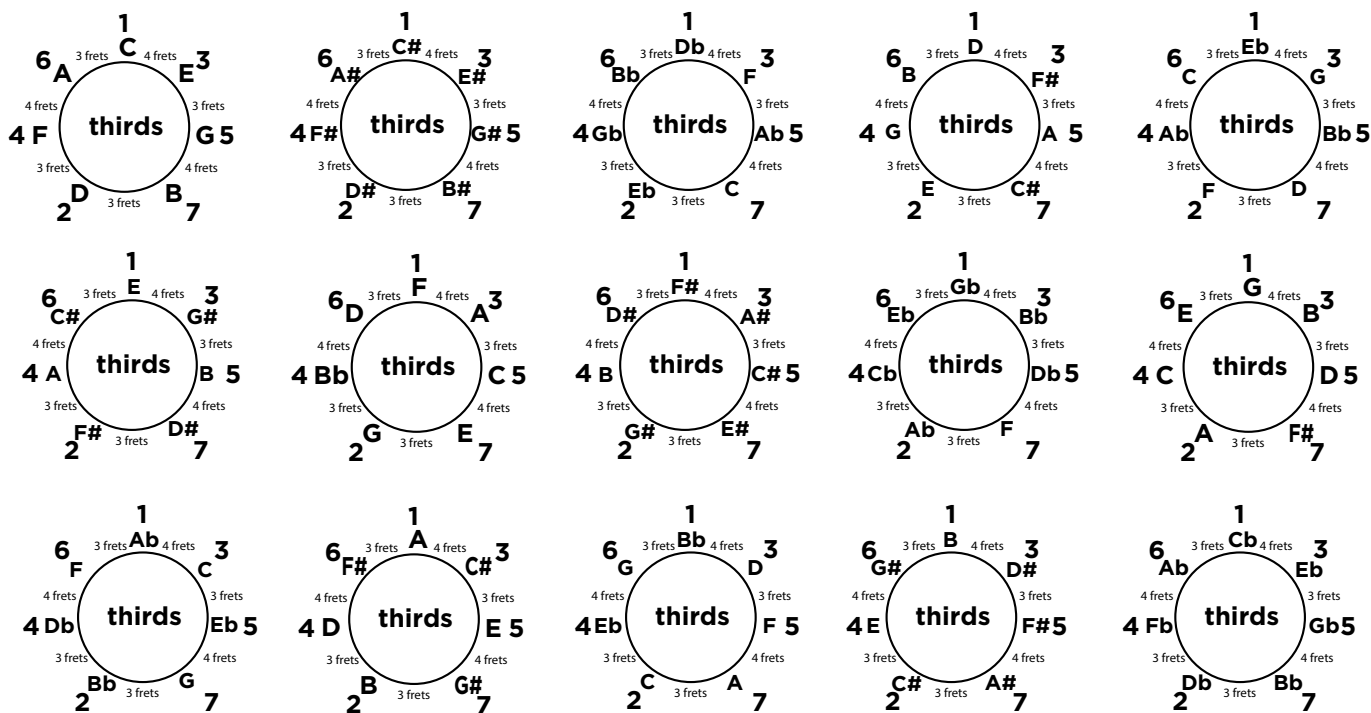
With seventh chords, using four notes in that cycle, a Ima7 chord is 1-3-5-7, a IIm7 chord is 2-4-6-1, a IIIm7 chord is 3-5-7-2, and so on.

Larger ninth chords use five notes in the cycle. Ima9 is 1-3-5-7-2, IIm9 is 2-4-6-1-3, and so on. Ninth chords are only acceptable built on steps I, II, IV, V and VI of the major scale. Those on III and VII are currently considered to have an unacceptable dissonance. Eleventh chords have six notes, constructed in the same every other note pattern. All currently accepted chords can be studied in [All Scale-Tone Chords](#).

Chords of four notes or more have subsets. A ninth chord built on step I is Ima9 and contains 1-3-5-7-2. 1-3-5 is a I major triad. 3-5-7 is a III minor triad. 5-7-2 is a V major triad.

Thirds in All Keys

In each of the three pairs of enharmonic keys C and Db, F# and Gb, B and Cb, the pitches are the same, but given different names.



Secondary Root on The Third

By using the chord type on the third of the original, you will add upper harmony. Whatever the numbered chord type of the original, the secondary root on the third is that two numbers higher in the seven tone cycle. For a five-type chord, (G on V of C major scale) the secondary root would be two scale tones higher and would be a seven-type chord (B diminished on VII of C major scale).

Scale-tone sevenths and ninths on the third of a Ima9 (IIIIm7), IIm9 (IVma9), IVma9 (Vim9), V9 (VIIIm7b5), VIm9 (Ima9), III7b9 (#Vdim7).

Secondary Root on the Sixth

By using the chord type on the sixth of the original, you will cause the original chord to be a sixth. In each case, the chord is a triad with an added scale tone two steps down from the root. I6, for example is scale tones 1-3-5-6. On the sixth of that chord, a subset triad exists, which is 6-1-3 and is the same as a VIm triad. Likewise, a VII diminished triad is built on the sixth of IIm6, a IIm on the sixth of IV6 and a IIIIm on the sixth of V6.

This only occurs with the original on steps I, II IV and V of the major scale, the only modes with a natural sixth. The other major scale modes have a flat six and flat six is not a currently acceptable chord tone, with an “proxy” exception in jazz. In jazz, flat thirteen can be added to a chord name. Though the flat thirteen tone is the same as flat six, the function is to have the flat thirteen as a sharp five (not functionally as a flat six) along with a natural five.

Four major scale-tone seventh chords have a synonym down a minor third. They are: I6 = VIm7, IIm6 = VIIIm7b5, IV6 = IIm7 and V6 = IIIIm7.

The most common applications are: use VIm9 over Ima7, since VIm9 = Ima7/6 and use IIm9 over IVma7, since IIm9 = IVma7/6.

Secondary Root on the Fifth

A secondary root on the fifth of the original adds higher harmony that the secondary root on the third. A triad as a secondary root on the fifth makes a ninth chord version of the original chord.

Playing a seventh chord on the fifth of the original chord can make the original sound like an eleventh. The following types work:

original chord type	type on fifth	eleventh version of original
IIm type	VIm type	IIm11
IV type	I type	IVma9#11
V type	IIm type	V11
VIm type	IIIIm type	VIm11
VIIIdim type	IV type	VIIIm11b5b9

Playing II over V could be thought of as playing on the fifth of the V chord. The first chord of a pair of chords with roots in fourths is often the upper part of a larger second chord:

IIm9 as the upper tones of V13 in a IIm7 V13 chord change (Mister Magic), since the IIm7 is on the fifth of the V7.

VIm9 as the upper tones of IIm13 in a VIm7 IIm7 chord change (the first two chords of Blue Bossa, Footprints), since the VIm7 is on the fifth of the IIm7.

Ima9 as the upper tones of IVma13#11 in a Ima7 IVma7 chord change (Europa, All The Things You Are, Autumn Leaves, Mr. Magic), since the Ima7 is on the fifth of the IVma7.

when the mode provides it, use a sixth-type chord rooted on the fifth

Playing a sixth chord on the fifth of the original chord can make the original sound like a ninth. The sixth chord rooted on the fifth will be a chord synonym of the seventh chord rooted on the third, but will bring different, brighter mooded phrases to mind. The following types work:

original chord type	type on fifth	ninth version of original
I type	V6	Ima9
IV type	I6	IVma9
V type	IIIm6	V9

Secondary Root On The Seventh

Rarely, a secondary root can occur on the seventh. It happens on a suspended thirteenth chord. Bb major seventh (Bb-D-F-A) is the upper part of a C13 sus. 4 chord (C-G-Bb-D-F-A).

DARKENING

Contrasting Moods

We can contrast moods by combining chord types. In blues, we commonly improvise on a major chord with minor content in the same key. Typically, we flat notes to darken moods. When the original mode is substituted with one that flats notes, the mood is darkened.

See [Modes](#), [The Expressive Use Of Modes](#).

Flattening the Seventh, Third or Fifth

We can darken a chord by substituting another chord and its respective mode with one that flats the seventh, third or fifth. If the original chord is a major type, we can flat the seventh and make it a dominant seventh type, based on Mixolydian (named after the chord root). If the original chord is a dominant seventh/Mixolydian, we can flat the third and make it a minor seventh type and Dorian. A minor seventh could be changed from Aeolian type (its mode has b7-b3-b6) or Phrygian type (its mode has b7-b3-b6) to m7b5/Locrian type with b7-b3-b6-b2-b5.

Changing the Key Scale Type

darkening the mood

b3 Dorian over Mixolydian (or over major)

b7 Mixolydian over major

b3 Phrygian over Phrygian major

b7 Aeolian over harmonic minor

b5 Locrian over Phrygian

b5 Dorian b5 over Dorian

b5 Aeolian b5 over Aeolian

b7 Lydian b7 over Lydian

nat. 4 major over Lydian

brightening the mood

nat. 7 harmonic minor over Aeolian (de-emphasize 7)

#4 Lydian over major (de-emphasize 4 in accomp.)

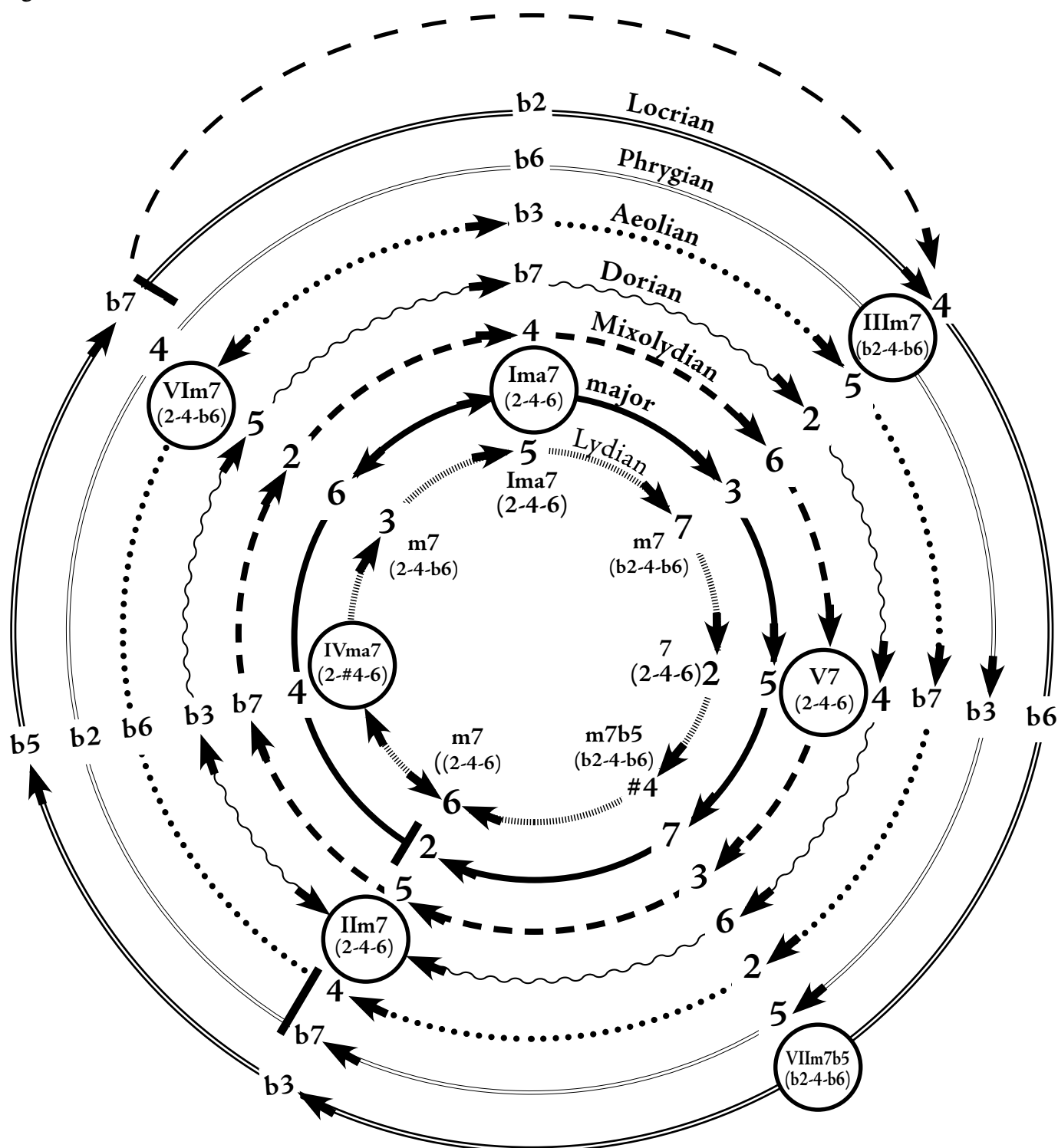
Secondary Roots and Mood Alteration with the Tertian Cycle

We make use of the tertian cycle (cycle of thirds) that the chords are built from to find commonality (synonyms). Each substitute should be conceivable as some version of the chord it replaces, which could be named as a synonym. The note after which the substitute chord is named can be called a *secondary root*.

<u>original</u>	<u>dark original</u>	<u>on six</u>	<u>dark on six</u>	<u>on third</u>	<u>dark on third</u>	<u>fifth</u>	<u>dark on fifth</u>
I _{ma} 9	I ₉	V _I m ₉ =I _{ma} 7/6		III _m 7 =I _{ma} 9 _{nr} = V ₆	III _m 7b ₅ =I ₉ _{nr} = V _m 6	V ₆ =I _{ma} 9 _{nr} =III _m 7	V _m 6 =I ₉ _{nr} = III _m 7b ₅
I _{dim} 7		bIII _I dim7		bV _{dim} 7		V _I dim7	
II _m 7 =IV ₆ =IV _m 6	II _m 7b ₅ =II _m 6 =VII _m 7b ₅	VII _m 7b ₅ =II°7=IV°7 =bVI°7	VII _I dim7 =II _m 9 _{nr}	IV _{ma} 7 =II _m 9b ₅	IV _m (ma7) = II _m 11 _{nrn} 3 = I ₆	V _I m7	
III ₇ b ₉	III _m 7 =V ₆	I _I dim7 =III ₇ b ₉ _{nr} =IV°7=#V°7 =VII°7		#V _{dim} 7 =III _b 9 _{nr} =II°7=IV°7 =VII°7		VII _I dim7 =III ₇ b ₉ _{nr} =II°7 =IV°7 =#V°7	
IV _{ma} 9	IV ₉ =Im ₆ /11	II _m 9 =IV _{ma} 7/6		V _I m7 =IV _{ma} 9 _{nr} =I ₆	V _I m7b ₅ =IV ₉ _{nr} =Im ₆	I ₆ =IV _{ma} 9 _{nr} =V _I m7	Im ₆ =IV ₉ _{nr} =V _I m7b ₅
IV ₇				V _I m7b ₅ =IV ₉ _{nr} =Im ₆		Im ₆ =IV ₉ _{nr} =V _I m7b ₅	VII ₇ b ₅ =IV ₇ b ₅
IV ₉ #11				V _I m7b ₅ =IV ₉ _{nr} =Im ₆		VII ₇ b ₅ # ₅ =IV ₉ b ₅	
IV ₁₃ #11						VII ₇ b ₅ # ₅ b ₉ # ₉	
V ₇ (9)	V _m 7 =bVII _m 6	III _m 7 =V ₆	III _m 7b ₅ =V _m 6	VII _m 7b ₅ =V ₉ _{nr} =II _m 6	VII _I dim7 V ₇ b ₉ _{nr}	II _m 7 =V ₁₁ _{nrn} 3	
V ₁₃ b ₉ # ₉ # ₁₁		III ₁₃ b ₉ # ₉ # ₁₁		bVII ₁₃ b ₉ # ₉ # ₁₁		bII ₁₃ b ₉ # ₉ # ₁₁	
V _I m7 =I ₆	V _I m7b ₅ =Im ₆			I _{ma} 7 =V _I m ₉ _{nr}	Im(ma7) =V _I m ₉ b ₅	III _m 7 =V _I m ₁₁ _{nr}	bIII _{ma} 7# ₅ V _I m ₁₁ b ₅ _{nrn} 3
VII _m 7b ₅ =II _m 6	VII _I dim7 =II°7=IV°7 =#V°7			II _m 6 =VII _m 7b ₅	I _I dim7 =IV°7=#V°7 =VII°7		

Modal Substitution Cycles

For the expression of this diagram in chord fingerings, see the chapter “[Modes](#)”/Modal Key Scale Cycle Diagrams.



notable synonyms:

VIm11 = Ima9/add low 6, IIm13 = IVma13#11, bII 13#11 = V7b5#5b9#9

SECONDARY DOMINANTS

Secondary dominants prepare a [target chord](#) by preceding it with the most expected [setup chord](#), the V chord of the target chord. See [Secondary Dominant](#).

INTERCHANGEABLE II AND V

Playing II over V could be thought of as playing on the fifth of the V chord. Playing V over II usually works better by playing a suspended version of the V (emphasize the fourth instead of the third).

Major IIm7 V7

IIm7 is the upper part of V11, rooted on the fifth of V11.

Im9 is the upper part of V13, rooted on the fifth of V13. V13nr n3 = IIm9.

Playing IIm7 over V7 makes the V7 sound suspended and sounds the upper part of V13.

Playing V7 over IIm7 sounds IIm6. V9sus4 = IIm7/11.

Minor IIm7b5 V7 (parent major scale VIIIm7b5 III7).

IIm7b5 = V7b9sus4nr, rooted on the fifth of V13. By playing IIm6b5 (= IIdim7) you sound V7b9.

Playing V7b9 over IIm7 sounds IIm6/11b5 (= IIdim7). V7b9sus4 = IIm7/11b5.

Phrygian b1. bII13#11 = V7b5b9#5#9

Think of the target chord as III of the parent scale during this bII V. The parent scale is melodic minor (major b3), which has Phrygian b1 on its b3. So, the target root is “3” in relation to the parent melodic minor, and is not in the melodic minor scale.

FLAT FIVE SUBSTITUTE

The flat five substitute (also called the *tritone* substitute) is based on the synonym bII7b5 = V7b5 (Db7b5 has the same notes as G7b5). The V chord is replaced with a chord rooted on flat five of the V chord (Db substituted for G in the key of C). The quality of the flat five substitute can be major, dominant seventh (1-3-5-b7) or altered dominant type, including seventh, ninth or thirteenth chords with flat five, sharp five, flat nine and/or sharp nine options. The common II-V-I cadence becomes II-bII-I.

bII7b5 harmonic and melodic structures work on V7b5 (and vice versa) since they are synonyms. This can usually be based on the melodic minor pair IV13#11 and VII7b5#5b9#9. The IV13#11 acts as a bII7 type (optional b5) to progress down a half step. The VII7b5#5b9#9 acts as a V7b5 type to progress up a perfect fourth. See “[Melodically Superimposed Cadences](#)”/Secondary Dominants/Melodic Minor/[The Flat Five Substitute](#) and “[Scale Ambiguity](#)”/Ambiguous Scales for Dominant Chords/[VII super Locrian](#), [IV Lydian dominant](#) and the [flat five substitute](#).

HIDDEN ROOTS

Sometimes the root a chord name indicates is not the actual root implied by the music. Experienced jazz improvisers, arrangers and composers know about these. The accompaniment commonly plays the chord as named, but the improvisers can treat the chord as if it has a different root. This is similar to [secondary roots](#), except the different root is created with an *added* chord tone, whereas in the case of secondary roots, an *existing* chord tone is used as an alternate root.

Examples

Dm7 in One Note Samba Is Bbma9 no root.

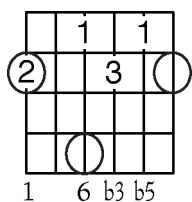
IIIIm7 in IIIIm7-VI7-IIIm7-V7 is Ima9 no root.

C#dim7 in Black Orpheus is A7b9 no root.

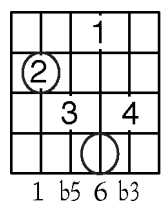
Diminished Seventh: 7b9 No Root

original dim. 7

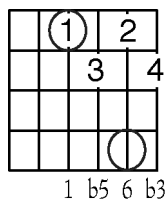
C#dim7 VIII



Fdim7 VII

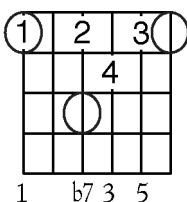


Bb7 VIII

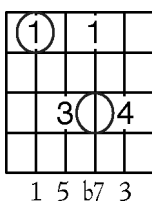


dominant 7 a half step below dim. 7ths root

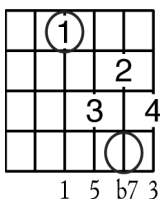
C7 VIII



F7 VIII

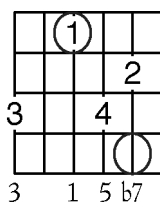


A7 VII

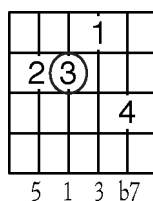


dominant 7 a half step below dim. 7ths b3

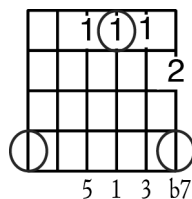
A7 VII



Bb7 VII

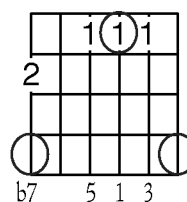


Eb7 VIII

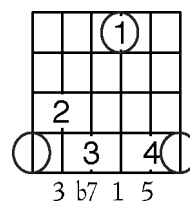


dominant 7 a half step below dim. 7ths b5

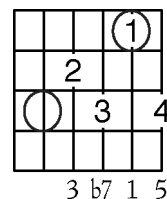
Eb7 VIII



D7 VII

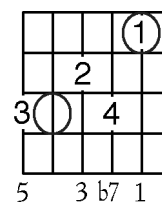


Gb7 VII

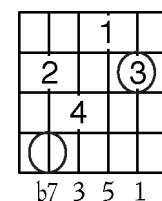


dominant 7 a half step below dim. 7ths 6

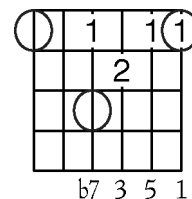
F#7 VII



G7 VII



C7 VIII



Any one of the seven chords above could be elaborated to seventh flat nine. By raising the root of any of those sevenths by a half step, a seven flat nine no root is made, which has the same notes as the diminished seventh shown at the far left.

reverse-constructing V7b9 no root

When you see a diminished seventh in a tune, see if there is a potential V7b9 root below one of its tones.

Determine what a V7b9 chord for the *next* chord after the diminished seventh chord would be. In Black Orpheus, the next chord after C#dim7 in bar eight is Dm in bar nine. The V7b9 chord in the key of D minor is A7b9. Then consider that 7b9 chord without a root, which is a diminished seventh chord named after either of its remaining notes (its, third, fifth, seventh and flattened ninth). A7b9 no root is a diminished seventh chord with the four synonym names C#dim7, Edim7, Gdim7 and Bbdim7. So the C#dim7 chord could be considered A7b9, no root.

In other songs, the diminished seventh may have a different purpose and is not a V7b9 no root and you won't find the diminished seventh as part of V7b9 of the next chord.

#IVdim7 in bar 6 of jazz blues is IV7b9

C#dim7 in bar 8 of Black Orpheus is A7b9 no root.

C#dim7 in bars 3-4 of How Insensitive is A7b9 no root

Bbdim7 in bar 2 of Wave is A13b9/Bb (D major b6)

Abdim7 in bar 2 of Corcovado is G13b9/Ab

Minor Sixth: Dominant Ninth No Root

Am6 in bar 1 of Corcovado is D9 no root. The A bass note begins a descending chromatic bass line (A-Ab-G).

NEGATIVE HARMONY (DUALISM)

Negative harmony (also called dualism) provides an alternate set of notes and chords to create tension and release with the notes of a diatonic scale such as the major scale. It is a perspective of harmonic music theory that came from science and math studies. It determines an axis half-way between the tonic (C in C major) and the dominant (G in C major). From that axis, for each ascending interval, it mirrors the interval downward. This is calculated with frequency (cycles per second) and is approximated the twelve-tone equal tempermant system that we use.

You don't need to understand the scientific basis of this theory to use it. Use the alternate chords this system provides as alternatives in composition and improv. Test all the negative harmony alternate chords you use. They are much less dependable and predictable than chords build on the major scale and its modes.

If you are interested in the theoretical and scientific basis, here are some resources: *A Theory Of Harmony*-Ernst Levy 1941, *Generalized Musical Intervals and Transformations*-David Lewin 2007. Explore theories of Hugo Riemannian and Neo-Riemannian theories in the Oxford handbook of neo-Riemannian music theories. Search "Negative Harmony on Youtube. You'll find it has been popularized by the amazing Jacob Collier.

Major Scale-Tone Triads, Sevenths and Ninths with Negative Harmony

original key	C	C#	Db	D	Eb	E	F	F#	Gb	G	Ab	A	Bb	B	Cb
negative harmony	Ab	A	Bbb (A)	B	Cb	C	Db	D	Eb	E	Fb (E)	F	Gb	G	Abb (G)

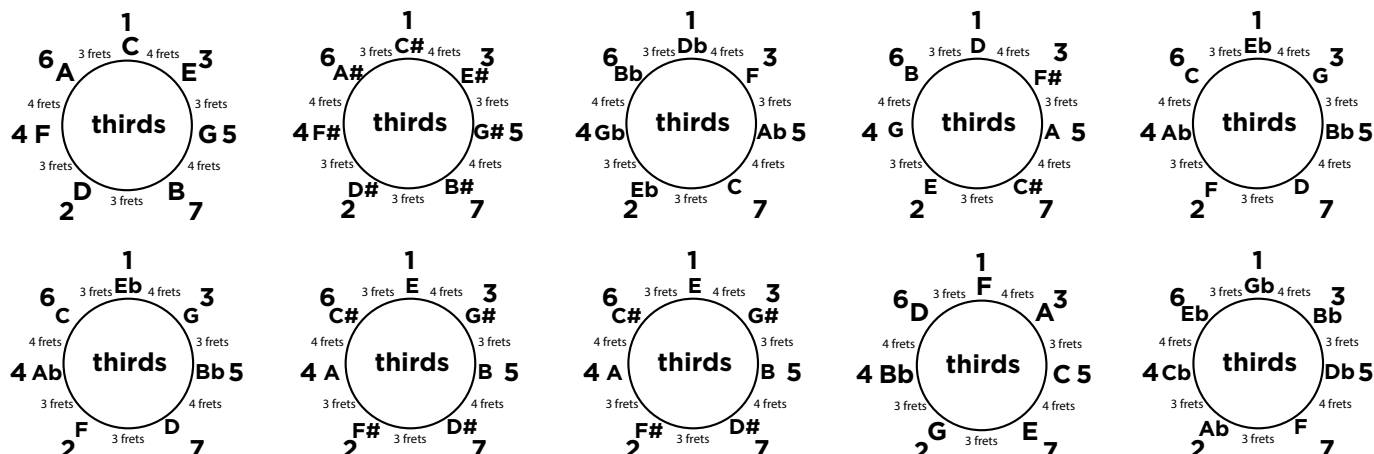
negative harmony chords by number

original	I		II		III		IV		V		VI		VII	
	original	negative harm.	original	negative harm.	original	negative harm.	original	negative harm.	original	negative harm.	original	negative harm.	original	negative harm.
triad	I _{ma}	I _m	II _m	bVII	III _m	bVI	IV _{ma}	V _m	V _{ma}	IV _m	VI _m	bIII	VII _{dim}	II _{dim}
seventh	I _{ma} 7	bVI _{ma} 7	II _m 7	V _m 7	III _m 7	IV _m 7	IV _{ma} 7	bIII _Δ 7	V7	II _m 7b5	VI _m 7	Im7	VII _m 7b5	bVII7
ninth	I _{ma} 9	IV _m 9	II _m 9	n/a	n/a	n/a	IV _{ma} 9	Im9	V9	n/a	VI _m 9	bVI _Δ 9	n/a	n/a

negative harmony chords by letter

The tables on the next three pages show negative harmony triads, seventh chords and and ninth chords in all keys by letter. The original major scale-tone chord is in the left of each counn and the negative harmony on the right. To spell each chord, use the circle diagrams at the top of the pages. Triads use three consecutive notes, beginning with the root (letter name of the chord). Seventh chords use four consecutive notes. Ninth chords use five consecutive notes. The circle diagram for each negative harmony chord is more often on a different page from the table.

original key cycles of thirds with the negative harmony key cycle of thirds below each



C major with Eb major negative harmony

C major	C		D		E		F		G		A		B	
triad	C	Cm	Dm	Bb	Em	Ab	F	Gm	G	Fm	Am	Eb	Bdim	Ddim
seventh	Cma7	Abma7	Dm7	Gm7	Em7	Fm7	Fma7	EbΔ7	G7	Dm7b5	Am7	Cm7	Bm7b5	Bb7
ninth	Cma9	Fm9	Dm9	n/a	n/a	n/a	Fma9	Cm9	G9	n/a	Am9	AbΔ9	n/a	n/a

C# major with E major negative harmony

C# major	C#		D#		E#		F#		G#		A#		B#	
triad	C#	C#m	D#m	B	E#m	A	F#	G#m	G#	F#m	Am	E	B#dim	D#dim
seventh	C#ma7	Ama7	D#m7	G#m7	E#m7	F#m7	F#ma7	EΔ7	G#7	D#m7b5	A#m7	C#m7	B#m7b5	B7
ninth	C#ma9	F#m9	D#m9	n/a	n/a	n/a	F#ma9	C#m9	G#9	n/a	A#m9	AΔ9	n/a	n/a

Db major with Fb major negative harmony

Db major	Db		Eb		F		Gb		Ab		Bb		C	
triad	Db	Dbm	Dm	Cb	Fm	A	Gb	Abm	Ab	Gbm	Bbm	Fb	Cdim	Ebdim
seventh	Dbma7	Ama7	Dm7	Abm7	Fm7	Gbm7	Gbma7	FbΔ7	Ab7	Ebm7b5	Bbm7	Dbm7	Cm7b5	Cb7
ninth	Dbma9	Gbm9	Dm9	n/a	n/a	n/a	Gbma9	Dbm9	Ab9	n/a	Bbm9	AΔ9	n/a	n/a

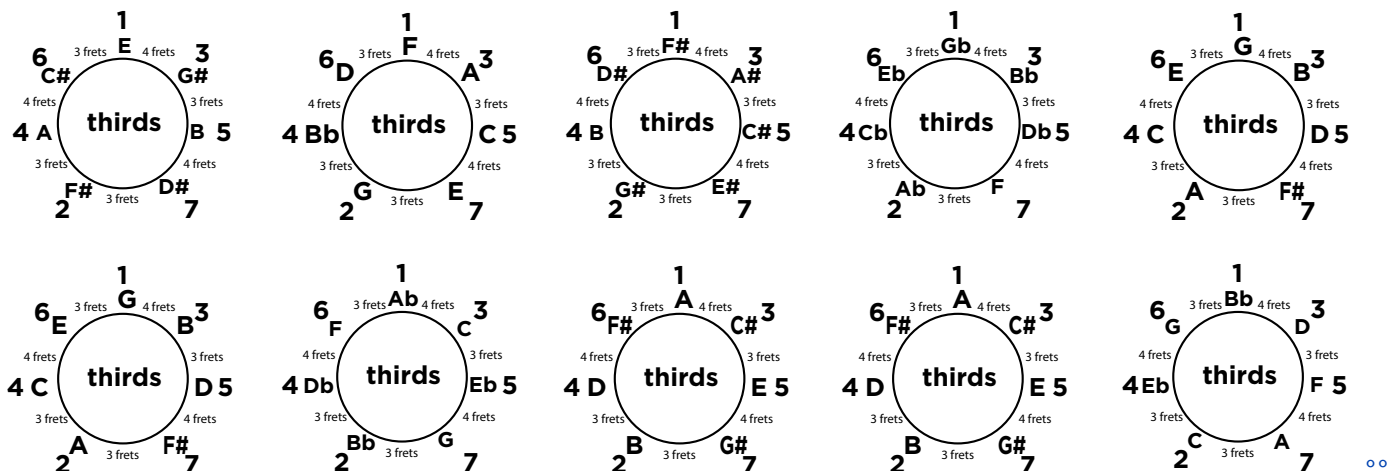
D major with F major negative harmony

D major	D		E		F#		G		A		B		C#	
triad	D	Dm	Em	C	F#m	Bb	G	Am	A	Gm	Bm	F	C#dim	Edim
seventh	Dma7	Bbma7	Em7	Am7	F#m7	Gm7	Gma7	FΔ7	A7	Em7b5	Bm7	Dm7	C#m7b5	C7
ninth	Dma9	Gm9	Em9	n/a	n/a	n/a	Gma9	Dm9	A9	n/a	Bm9	BbΔ9	n/a	n/a

Eb major with Gb major negative harmony

Eb major	Eb		F		G		Ab		Bb		C		D	
triad	Eb	Cm	Fm	Bb	Gm	Ab	Ab	Gm	Bb	Fm	Cm	Eb	Ddim	Ddim
seventh	Ebma7	Cbma7	Fm7	Bbm7	Gm7	Abm7	Abma7	GbΔ7	Bb7	Fm7b5	Cm7	Ebm7	Dm7b5	Db7
ninth	Ebma9	Abm9	Fm9	n/a	n/a	n/a	Abma9	Ebm9	Bb9	n/a	Cm9	CbΔ9	n/a	n/a

original key cycles of thirds with the negative harmony key cycle of thirds below each



E major with G major negative harmony

E major	E		F#		G#		A		B		C#		D#	
triad	E	Em	F#m	D	G#m	C	A	Bm	B	Am	C#m	G	D#dim	F#dim
seventh	Ema7	Cma7	F#m7	Bm7	G#m7	Am7	Ama7	GΔ7	B7	F#m7b5	C#m7	Em7	D#m7b5	D7
ninth	Ema9	Am9	F#m9	n/a	n/a	n/a	Ama9	Em9	B9	n/a	C#m9	CΔ9	n/a	n/a

F major with Ab major negative harmony

F major	F		G		A		Bb		C		D		E	
triad	F	Fm	Gm	Eb	Am	Db	Bb	Cm	C	Bbm	Dm	Ab	Edim	Gdim
seventh	Fma7	Dbma7	Gm7	Cm7	Am7	Bbm7	Bbma7	AbΔ7	C#7	Gm7b5	Dm7	Fm7	Em7b5	Eb7
ninth	Fma9	Bbm9	Gm9	n/a	n/a	n/a	Bbma9	Fm9	C#9	n/a	D#m9	DbΔ9	n/a	n/a

F# major with A major negative harmony

F# major	F#		G#		A#		B		C#		D#		E#	
triad	F#	F#m	G#m	E	A#m	D	B	C#m	C#	Bm	D#m	A	E#dim	G#dim
seventh	F#ma7	Dma7	G#m7	C#m7	A#m7	Bm7	Bma7	AΔ7	C#7	G#m7b5	D#m7	F#m7	E#m7b5	E7
ninth	F#ma9	Bm9	G#m9	n/a	n/a	n/a	Bma9	F#m9	C#9	n/a	D#m9	DΔ9	n/a	n/a

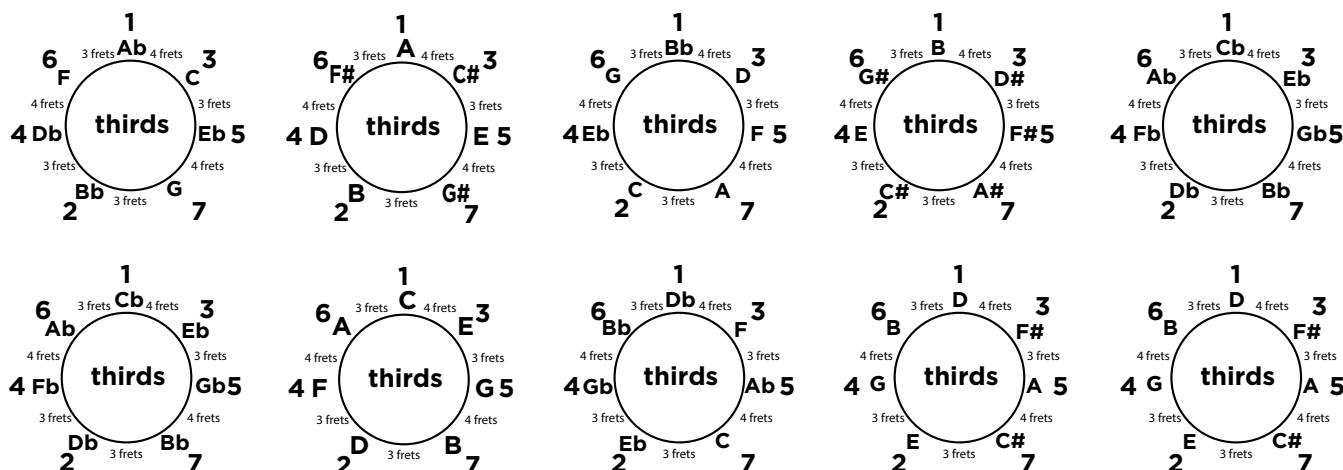
Gb major with Bbb (A) major negative harmony

Gb major	Gb		A		B		C		D		E		F	
triad	Gb	Gbm	Abm	Fb	Bbm	D	Cb	Dbm	Db	Cbm	Ebm	A	Bbdim	Abdim
seventh	Gbma7	Dma7	Abm7	Dbm7	Bbm7	Cbm7	Cbma7	AΔ7	Db7	Abm7b5	Ebm7	Gm7	Bbm7b5	Fb7
ninth	Gbma9	Cbm9	Abm9	n/a	n/a	n/a	Cbma9	Gbm9	Db9	n/a	Ebm9	DΔ9	n/a	n/a

G major with Bb major negative harmony

G major	G		A		B		C		D		E		F	
triad	G	Gm	Am	F	Bm	Eb	C	Dm	D	Cm	Em	Bb	Bdim	Adim
seventh	Gma7	Ebma7	Am7	Dm7	Bm7	Cm7	Cma7	BbΔ7	D7	Am7b5	Em7	Gm7	Bm7b5	Bb7
ninth	Gma9	Cm9	Am9	n/a	n/a	n/a	Cma9	Gm9	D9	n/a	Em9	EbΔ9	n/a	n/a

original key cycles of thirds with the negative harmony key cycle of thirds below each



Ab major with Cb (B) major negative harmony

Ab major	Ab		Bb		C		Db		E		F		G	
triad	Ab	Abm	Bbm	Gb	Cm	Fb	Db	Ebm	Eb	Dbm	Fm	Cb	Gdim	Bbdim
seventh	Abma7	Fbma7	Bbm7	Ebm7	Cm7	Dbm7	Dbma7	CbΔ7	Eb7	Bbm7b5	Fm7	Abm7	Gm7b5	Gb7
ninth	Abma9	Dbm9	Bbm9	n/a	n/a	n/a	Dbma9	Abm9	Eb9	n/a	Fm9	FbΔ9	n/a	n/a

A major with C major negative harmony

A major	A		B		C#		D		E		F#		G#	
triad	A	Am	Bm	G	C#m	F	D	Em	E	Dm	F#m	C	G#dim	Bdim
seventh	Ama7	Fma7	Bm7	Em7	C#m7	Dm7	Dma7	CΔ7	E7	Bm7b5	F#m7	Am7	G#m7b5	G7
ninth	Ama9	Dm9	Bm9	n/a	n/a	n/a	Dma9	Am9	E9	n/a	F#m9	FΔ9	n/a	n/a

Bb major with Db major negative harmony

Bb major	Bb		C		D		Eb		F		G		A	
triad	Bb	Bbm	Cm	Ab	Dm	Gb	Eb	Fm	F	Ebm	Gm	Db	Adim	Cdim
seventh	Bbma7	Gbma7	Cm7	Fm7	Dm7	Ebm7	Ebma7	DbΔ7	F7	Cm7b5	Gm7	Bbm7	Am7b5	Ab7
ninth	Bbma9	Ebm9	Cm9	n/a	n/a	n/a	Ebma9	Bbm9	F9	n/a	Gm9	GbΔ9	n/a	n/a

B major with D major negative harmony

B major	B		C#		D#		E		F#		G		A	
triad	B	Bm	C#m	A	D#m	G	E	F#m	F#	Eb	G#m	D	A#dim	C#dim
seventh	Bma7	Gma7	C#m7	F#m7	D#m7	Em7	Ema7	DΔ7	F#7	C#m7b5	G#m7	Bm7	A#m7b5	A7
ninth	Bma9	Em9	C#m9	n/a	n/a	n/a	Ema9	Bm9	F#9	n/a	G#m9	GΔ9	n/a	n/a

Cb major with Ebb (D) major negative harmony`

Cb major	Cb		Db		Eb		Fb		Gb		Ab		Bb	
triad	Cb	Bm	Dbm	A	Ebm	G	Fb	F#m	Gb	Eb	Abm	D	Bbdim	C#dim
seventh	Cbma7	Gma7	Dbm7	F#m7	Ebm7	Em7	Fbma7	DΔ7	Gb7	C#m7b5	Abm7	Bm7	Bbm7b5	A7
ninth	Cbma9	Em9	Dbm9	n/a	n/a	n/a	Fbma9	Bm9	Gb9	n/a	Abm9	GΔ9	n/a	n/a

THE ORDER OF SUBSTITUTION PROCEDURES

1. Ignore brief unimportant chords when practical to do so.
2. Determine the parent scale for each group of chords.
3. Renumber parent scales as key scales (compare to a major scale on the tone center). See [Modes/Key Scale, Parent Scale and Chord Scale](#).
4. Determine the chord scales. Wherever possible, be able to name each as a key scale also.
5. Consider changing chord qualities and their respective key scale types for adjacent chords, preferring to minimize the number of key scale types. Look for and choose key scale types common to consecutive chords.
6. Determine the order of melodic importance (which tones are most important, next most, etc.).

SECONDARY KEYS

Extend Secondary Roots to Tone Centers

Using secondary tonics is an extension of secondary roots. In the order of melodic importance, the chord tones you play using secondary roots are of primary importance and are more strongly emphasized. Think of the three or four note chord built on the secondary root as the main tones. The remaining three or four notes of the mode (scale with specified tone center) in which the chord on the secondary root occurs.

Modal Scales on Secondary Roots Sound Polytonic

By using the appropriate mode on a secondary root, and playing melodic structures and designs in that mode, you tend to suggest a tone center on the secondary root, making the music sound polytonic (with multiple tone centers).

Learn The Modes of Harmonic Minor and Melodic Minor

harmonic minor

The modes of harmonic minor are the same as those on the major scale, but with the fifth sharp and with the tone center on the sixth step of the scale. Conceptually, this can be thought of as the scale *major sharp five*. Each mode of the major scale has one tone altered to produce the harmonic minor/major sharp five mode.

melodic minor

The modes of melodic minor are the same as those on the major scale, but with the third flat. Each mode of the major scale has one tone altered.

modes

Notice the descending sequence of altered tones in harmonic minor and melodic minor.

major scale	major (Ionian)	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
harmonic minor	major #5	Dorian #4	Phrygian nat.3	Lydian #2	Mixo. #1	Aeolian nat.7	Locrian #6
melodic minor	major b3	Dorian b2	Phrygian b1	Lydian b7	Mixo. b6	Aeolian b5	Locrian b4

determining secondary tonics

Like secondary roots, secondary tonics can occur on the third, fifth or sixth. Whatever tone of a heptatonic scale the original chord root occurs on, a secondary tonic on the third is up two scale tones, on the fifth up four scale tones and on the sixth, down two scale tones. The numbering “wraps around”, so a tonic near the end of the series of modes continues at the beginning, so the third of Aeolian is major and its fifth is Phrygian.

Expanding the Boundaries with Ambiguity

Beginning around 1960, free jazz musicians including Ornette Coleman, Cecil Taylor, John Coltrane, Larry Coryell and Pharoah Sanders expanded tonality by playing by feel first and used harmonic ambiguity to bridge from traditional harmonic sense into new tonal regions. See the chapters “[Scale Ambiguity](#)” and “[Melodically Superimposed Cadences](#)”.

ABBREVIATING CHORD PAIRS WITH ROOTS IN FOURTHS

Root Movement up in Perfect Fourths

VIm7, Ima7, IIm7, IIIIm7 and V6 (not V7) types can each work on the next scale-tone chord whose root is up a fourth. This works because, in each case the first chord is built on the fifth of the second chord. For example, Am7 is the fifth, flat seventh, ninth and eleventh of Em11. This creates the pairs:

VIm7 + IIm7

Ima7 + IVma7

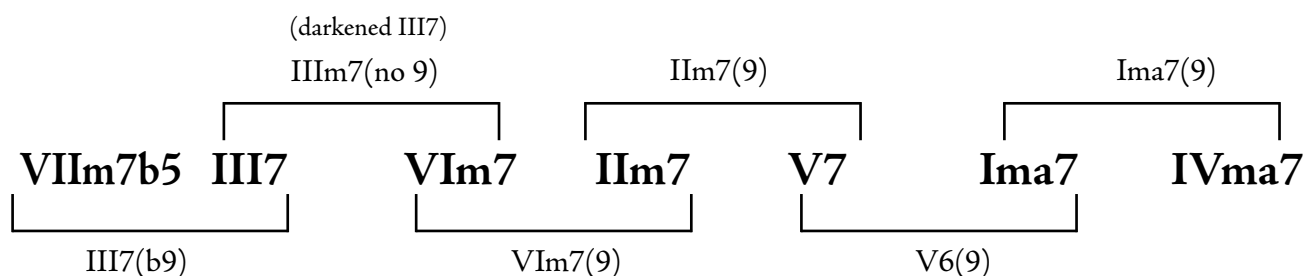
IIm7 + V7

IIIIm7 + VIm7

V6 + I (without ma7)

With the VIIIm7b5 III7 chord pair (III7, not IIIIm7), it works better to use the III7 over both chords. Doing so downplays the importance of the VIIIm7b5 and suggests that the III7 chord is primary and the VIIIm7b5 is incidental

If you were to use a VIIIm7b5 over a III7, it would attempt the chord sound III7b9sus4 (no root), which is not currently acceptable to most people.



See the chapter "[Abbreviating and Elaborating Chord Progression](#)".

ALTERNATE QUALITIES OF LARGE ARPEGGIOS

	unaltered			flat five			sharp five		
ma9 <small>also see aug. scale</small>	ima9 major	ma13#11 Lydian	lma9 har. major	IVma7b5 Lydian			lma9#5 major #5	ma9#5 Phryg. b1	
formula	all nat.	#4	b6	#4			#5	flat all	
9	13 Mixolydian	13#11 Lydian dom.		IV9b5 Lydian dom.	7#5b5#9b9 super Locrian	7#9b9 super Phryg..	7b9/b13 V7b9, V7#5 Phryg. dom.	11b6 V9#5 Mixo. b6	13b9 Mixo. b2
formula	b7	#4, b7		#4, b7	flat all but 1 & 4	flat all but 1	b2, b6, b7	b6, b7	b2, b7
	also see diminished scale for 7#9b9 and whole tone scale for 9#5b5								
m9	m13 Dorian	m11 Aeolian	m13#11 Dorian #4	m11b5 Dorian b5	m11 Aeolian b5				
formula	b3, b7	b3, b6, b7	b3, #4, b7	b3, b5, b7	b3, b5, b6, b7				
m9 (ma7)	m9(ma7) mel. min.	m9(ma7) har. min.	m9(ma7) Lyd. dim.						
formula	b3	b3, b6	b3, #4						
	diminished seventh				diminished scale		whole tone scale	augmented scale	
harmonic minor	II°7	IV°7	bVI°7	VII°7	ascend half-whole	13#11b9#9 1, b2, #2, 3, #4, 5, 6, b7	9b5#5	ma7	
	Locrian nat. 6 b2, b3, b5, b7	Dorian #4 b3, #4, b7	Lydian #2 #2, #4	Mixolydian #1, b7			1-2-3-b5-#5-b7	1-#2-3-5-b6-7	
major #5	maj. #5 VII	major #5 II	major #5 IV	major #5 #V	ascend whole-half	m6b5 1-2-b3-4-b5-#5-6-7			
harmonic major	Dorian b5 2, b3, b5, b7	Lydian dim. b3, #4	Aeolian b1 b1, b3, b6, b7	Locrian bb7 b2, b3, b5, b6, bb7					

Sources of the Arpeggios Above

MAJOR	Ima9	IIIm13	IIIm11b9	IVma13#11	V13	VIIm11	VIIIm11b5b9
mode	major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
formula	all natural	b3, b7	b2, b3, b6, b7	#4	b7	b3, b6, b7	all flat but 1 & 4
de-emphasize			b9		11		b9
MAJOR #5	Ima9#5	IIIm13#4	IIIm7b9/b13 IIIm7b9, IIIm7#5	IVma13#11no9	#V°7 VIIm/#V°7 usable descending	VIIm9(ma7)	VII°7 VIIm/VII°7
mode	major #5	Dorian #5	Phrygian dom.	Lydian #2	Mixolydian #1	harmonic min. Aeo. nat. 7	Locrian nat. 6
formula	all natural	b3, b7	b2, b3, b6, b7	#4	b7	b3, b6, b7	b2, b3, b5, b7
HARMONIC MINOR	bIIIma9#5	IVIm13#4	V7b9/b13 V7b9, V7#5	bVIIma13#11no9	VII°7, Im/VII°7 usable descending	Im9(ma7)	II°7 Im/II°7
MELODIC MINOR	Im9(ma7)	IIIm13b9	bIIIma9#5	IV13#11	V11b6 V9#5	VIIm11b5 VIIm9b5	V&7#5b5#9b9 IV13#11 synonym
mode	major b3	Dorian b2	Phrygian b1	Lydian dom. Lydian b7	Mixolydian b6	Aeolian b5	super Locrian Locrian b5
formula	b3	b2, b3, b7	b1, b2, b3, b6, b7	#4, b7	b6, b7	b3, b5, b6, b7	all flat but 1
HARMONIC MAJOR	Ima9	IIIm13b5 II°7	IIIm11b9	IV°7, IV°9 or IVIm9(ma7)	V13b9	bVI°7 or bVIIma9#5b5	VII°7
mode	major b6	Dorian b5	super Phrygian Phrygian b4	Lydian dimin. Lydian b3	Mixolydian b2	Aeolian b1	Locrian bb7
formula	b6	b3, b5, b7	all flat but 1 & 5	b3, #4	b3, b7	b1, b3, b6, b7	b2, b3, b5, b6, bb7

Secondary Dominant

- **Secondary Dominant Defined**
- **Secondary Dominant in Open Position**
- **The Secondary Dominant Exercise**
- **Scale-Tone Secondary Dominants**
- **Consecutive Secondary Dominants**
- **The Flat Five Substitute of a Secondary Dominant**
- **Consecutive Secondary Dominants with Flat Five Substitutes**

SECONDARY DOMINANT DEFINED

Dominant Defined

In classical music theory, names are used for each step of the major scale.

numbered tone	1	2	3	4	5	6	7
classical name	tonic	super tonic	mediant	subdominant	dominant	submediant	leading tone

In pop and jazz theory, tonic and dominant are used, but the other scale tone names are rarely used. The dominant in any key is on the fifth step of its scale. “G” is the dominant in the key of “C”.

authentic cadence

In a major key, the most common chord progression is the *authentic cadence* from V to I, a chord built on the fifth step of the scale (“G” or “G7” in the key of “C”) progressing to the chord built on the first step (a “C” chord in the key of “C”).

The V Chord In Minor Mimics the V chord in major

To form a stronger, more dramatic chord progression from V (E) to I (Am), Aeolian mode is converted to harmonic minor in order that the minor key V chord is major (1-3-5) or dominant seventh (1-3-6-b7). In A minor, the E minor chord on its fifth step is more often than not changed to E major or E7, making the stronger cadence from E(7) to Am, replacing the weaker Em(7) to Am.

Likewise with the other two common modes used as keys in the major scale, Dorian and Mixolydian, the V chord in each of those modes can be changed to major or dominant seventh to strengthen the progression. The scales in the key of each of the three types of V chords for Aeolian, Dorian and Mixolydian are named after the mode on each respective V chord, as shown below.

Dominant Chords Can Be Built on All Seven Steps of the Major Scale

See Voice Leading Improv with Arpeggio Cadences/Graphically Voice Leading Improv with Arpeggio Cadences/[Scale-Tone Seventh Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale](#) (includes [secondary dominants](#)).

A [secondary dominant](#) chord mimics the V-I (G or G7 to C in the key of C) relationship by preceding any target chord with a major or seventh chord, on the fifth step of the key of the target chord. For an Am target chord, the secondary dominant is E or E7, chords built on the fifth step in the key of A. For an F chord, the secondary dominant is C or C7, chords built on the fifth step in the key of F. To

emphasize a change of chord quality even farther for a secondary dominant, use more altered tones such as the flat nine, sharp nine and sharp five that are typically used on the V chord in a minor key.

secondary dominants need to use a noticeable change in quality.

Changing a chord to a secondary dominant requires a change in quality to any kind of V type chord, major (1-3-5), augmented (1-3-#5) dominant seventh type (1-3-5-b7) or altered dominant seventh type (1-3-5-b7 with optional b9, #9, b5 and #5). It can also be a ninth, eleventh or thirteenth chord with a major third and a flatted seventh, with optional b9, #9, b5 and #5.

To use a secondary dominant of an F chord in the key of C, change the C major scale tone Cma7 chord (C major scale tone 1-3-5-7, C-E-G-B) to C7 (1-3-5-b7, C-E-G-Bb) by flatting the seventh of the C chord (changing the B note to Bb). This will make the progression stronger, more dramatic and is reminiscent of the authentic cadence in the key of F major, progressing from C7 (V7) to F (I major).

If your target chord is G in the key of C, the secondary dominant could be either D major or D7 (both of which sharp the F of the C major scale. So secondary dominants are based on changing a minor chord to major or dominant seventh or changing a major to a seventh when doing so changes the scale.

See the next section [Scale-Tone Secondary Dominants](#).

See Also

Modal II-V-I Cadences and Turnarounds/[Secondary Dominant](#) and Melodically Superimposed Cadences/[Secondary Dominants](#).

SECONDARY DOMINANT IN OPEN POSITION

secondary dominant with major (V of target minor or major below)

A	I	B	I	C	I	D	I	E	I	F	I	G	I	F#	II	C#	IV

secondary dominant - (V of target) with seventh chord (more dramatic)

A7	I	B7	I	C7	I	D7	I	E7	I	F7	II	G7	I	F#7	II	C#7	IV

target major

D	I	E	I	F	I	G	I	A	I	Bb	I	C	I	B	II	F#	II

target minor

Dm	I	Em	I	Fm	I	Gm	III	Am	I	Bbm	I	Cm	III	Bm	II	F#m	II

THE SECONDARY DOMINANT EXERCISE

Secondary Dominant Cycle Alternating Roots In Thirds and Fourths

This secondary dominant cycle is a repeating pattern following two rules of root movement:

1. Begin with the “I” chord (C). Ascend a scale-tone third from the root of the “I” chord and use that note as the root of a dominant seventh chord. In C, I major would progress to III7.
2. Ascend a perfect fourth and play the major scale-tone triad. III7 would progress to VIIm.
3. The cycle of fourths is 7-3-6-2-5-1-4, where each pair of numbers is a perfect fourth (two and a half steps or five frets). From the end to the beginning of the cycle, four to seven is an augmented fourth, since it is three whole steps or six frets, inclusively. Secondary dominants use perfect fourths, so when you ascend from “IV”, progress to “bVII major”, so it is a perfect fourth.

In the key of C, the secondary dominant cycle is: C-E7-Am-C7-F-A7-Dm-F7-Bb-D7-G-B7-Em-G7, then repeat. For examples of the Secondary Dominant Thirds and Fourths Cycle you can play, see [The Original 1-3-5-8-7 -3-5-8 Example](#), [Comping Design/Secondary Dominant Patterned Arpeggio Exercises](#) and [Open Position Basslines/Roots and Fifths in Basslines/The Secondary Dominant Progression, Roots and Fifths in the Bass](#).

the secondary dominant exercise in C (V7 progresses to I)

<p>I C I</p>	<p>III7 E7 I</p>	<p>VIIm Am I</p>	<p>I7 C7 I</p>	<p>IV F I</p>	<p>VI7 A7 I</p>	<p>IIIm Dm I</p>
<p>IV7 F7 II</p>	<p>bVII Bb I</p>	<p>II7 D7 I</p>	<p>V G I</p>	<p>VII7 B7 I</p>	<p>IIIIm Em I</p>	<p>V7 G7 III</p>

the secondary dominant exercise in G (V7 progresses to I)

I G I	III7 B7 I	VIIm Em I	I7 G7 I	IV C I	VI7 E7 I	IIIm Am I
IV7 C7 I	bVII F I	II7 A7 I	V D I	VII7 F#7 II	IIIIm Bm I	V7 D7 I

the secondary dominant exercise in D (V7 progresses to I)

I D I	III7 F#7 II	VIIm Bm II	I7 D7 I	IV G I	VI7 B7 I	IIIm Em I
IV7 G7 I	bVII C I	II7 E7 I	V A I	VII7 C#7 II	IIIIm F#m II	V7 A7 I

SCALE-TONE SECONDARY DOMINANTS

Roots of Secondary Dominants Progress Up a Fourth

The root of any secondary dominant chord progresses up a perfect fourth (two and a half steps, five semitones or five frets) to the root of the target chord, mimicking major or dominant type progressing up a perfect fourth in the [authentic cadence](#). Examples are given in parenthesis below for the key of C.

Secondary Dominants Based on Major Scale-Tone Chords

list of common secondary dominants and their targets for the key of C major

For each column, play the scale tone chord in the top row of diagrams followed by the target chord in the bottom row., then play the secondary dominant in the second row of diagrams, immediately flowed by the target chord in the bottom row of diagrams. Each pair of chords played in this manner is a V-I type cadence of some kind. You should find the secondary dominant to target cadences stronger than the scale-tone to target cadences.

C major scale-tone secondary dominants

	I (C)	II (D)	III (E)	IV (F)	V (G)	VI (A)	VII (B)
scale-tone chord	Cma7 VIII 1 7 3 5	Dm7 X 1 b7 b3 5	Em7 VII 1 5 b7 b3	Fma7 VIII 1 5 7 3	G7 VIII 1 3 b7 1	Am7 V 1 b7 b3 5	Bm7b5 VII 1 5 b7 b3 b7
secondary dominant	C7 VIII 1 b7 3 5	D7 X 1 b7 3 5	E7 VII 1 5 b7 3 5	F7 VIII 1 5 b7 3 5	already a dominant	A7 V 1 b7 3 5	B7#5#9 VII 1 b7 3 #5 #2
target chord	Fma7 VIII 1 5 7 3	G7 VIII 1 3 b7 1	Am7 VII 1 5 b7 b3	Bb7 VI 5 1 3 b7	Cma7 VIII 1 7 3 5	Dm7 V 1 5 b7 b3	Em7 VII 1 5 b7 b3

the V or V7 chord in major is already a dominant

In the authentic cadence from V (G) or V7 (G7) to I major or Ima7 type (C major or C major seventh type) the V or V7 chord is already a dominant. As mentioned earlier, the [authentic cadence](#) (V to I) is mimicked by all of the secondary dominants.

IIIm7 IIIm7 and VIIm7 chords become dominant seventh

To change the IIIm (or IIIm7), the IIIIm (or IIIIm7) or the VIIm (of VIIm7) into a dominant seventh, the flatted third of each needs to be changed to a natural third. With minor seventh, 1-b3-5-b7 becomes 1-3-5-b7).

IIma7 and IVma7 chords become dominant seventh

I and IV major chords (C and F) already share the major triad quality with the V major chord (G). To signal a change in quality, each of them needs to be changed to dominant seventh to be a secondary dominant. As a secondary dominant, I7 (C7) progresses to any kind of IV chord (F). As a secondary dominant, IV7 (F7) progresses up a perfect fourth to any kind of bVII chord (Bb).

The interval from major scale tone four to seven is an augmented fourth. IV7 can progress up a scale tone fourth (augmented fourth) to VIIIm7b5 chord, but although the voice leading is good, the progression is weak and not dramatic.

Although it is not up a perfect fourth, IV7 is commonly used to progress down a half step to III7. In the IV7 to III7 progression, IV7 could be considered a flat five substitute for VIIIm7b5.

Locrian type dominant (VIIIm7b5)

A seventh modal dominant type is Locrian dominant (using super Locrian), using VII7#5b9 (B7#5b9 in the key of C) to IIIIm or IIIIm7 (Em or Em7 in the key of C). Rather than raising Locrian's flat three to natural three, flat its fourth, so the parent scale is major flat three, commonly called melodic minor. This Locrian b4 scale is called super Locrian.

Major Scale-Tone Seventh Chords In Fourths with Secondary Dominants

The roots of these chords ascending imperfect fourths. In numbers, the cycle is “7-4-6-2-5-1-4”. In letters, the cycle uses those numbered tones of the major scale on which it is applied, using the key signature for the chosen key. The table below shows major scale-tone roots in fourths in all keys. Each key reads left to right in fourths.

	7	3	6	2	5	1	4
C major	B	E	A	D	G	C	F
F major	E	A	D	G	C	F	Bb
Bb major	A	D	G	C	F	Bb	Eb
Eb major	D	G	C	F	Bb	Eb	Ab
Ab major	G	C	F	Bb	Eb	Ab	Db
Db major	C	F	Bb	Eb	Ab	Db	Gb
Gb major	F	Bb	Eb	Ab	Db	Gb	Cb
Cb major	Bb	Eb	Ab	Db	Gb	Cb	Fb
G major	F#	B	E	A	D	G	C
D major	C#	F#	B	E	A	D	G
A major	G#	C#	F#	B	E	A	D
E major	D#	G#	C#	F#	B	E	A
B major	A#	D#	G#	C#	F#	B	E
F# major	E#	A#	D#	G#	C#	F#	B
C# major	B#	E#	A#	D#	G#	C#	F#

C major scale-tone seventh chords and secondary dominants in perfect fourths

Each scale-tone seventh chord is followed by a secondary dominant version. Additional options are shown for the VIIIm7b5 (VII7#5 and VII7b9), IIIIm7 (III7 and III7b9) and V7 (V7, V7#5, V7b9, V7#9). To change the augmented fourth interval from the root of IV to the root of VII to a perfect fourth, “#IV” (#IV7#5) is used as a root for the secondary dominant version of the IV chord.

VIIIm7b5	VII7#5	VII7b9	IIIIm7	III7	III7#5	III7b9
Bm7b5 VI	B7#5 VII	B7b9 VII	Em7 VII	E7 VII	E7#5 VII	E7b9 VI
1 b7 b3 b5	1 b7 3 #5	1 b7 3 5 b2	1 5 b7 b3	1 5 b7 3	1 #5 b7 3	1 3 b7 b2

<p>VIIm7 VI7</p> <p>Am7 V A7 V</p> <p>1 b7 b3 5 1 b7 3 5</p>	<p>IIIm7 II7</p> <p>Dm7 V D7 V</p> <p>1 5 b7 b3 1 5 b7 3</p>	<p>V7 V7#5 V7b9</p> <p>G7 VIII G7#5 VIII G7b9 IX</p> <p>1 3 b7 1 b7 3 #5 1 1 3 b7 b2</p>	
<p>V7#9</p> <p>G7#9 IX</p> <p>1 3 b7 #2</p>	<p>IIma7 I7</p> <p>Cma7 VIII C7 VIII</p> <p>1 7 3 5 1 b7 3 5</p>	<p>IVma7 #IV</p> <p>Fma7 VIII F#7#5 IX</p> <p>1 5 7 3 1 #5 b7 3</p>	<p>VIIIm7b5</p> <p>Bm7b5 VI</p> <p>1 b7 b3 b5</p>

CONSECUTIVE SECONDARY DOMINANTS

Major Scale-Tone Progression in Fourths with Secondary Dominants

scale- tone chord	VIIIm7b5 7-2-4-6	VII7#5 7-b3-5-6 secondary dominant	IIIIm7 3-5-7-2	III7 3-#5-7-2 secondary dominant	VIIm7 6-1-3-5	VI7 6-#1-3-5 secondary dominant
chord scale	VII Locrian	VII super Locrian	III Phrygian	III Phrygian dominant	VI Aeolian	VI Aeolian dominant
key scale	I major (precede with b5 sub m.m. IV)	I major b3 m. m. I	I major	I major sharp five	I major	I major #1
E form key						
D form key						
C form key						
A form key						
G form key						

scale- tone chord	IIIm7 2-4-6-1	II7 2-#4-6-1 secondary dominant	VIm7 6-1-3-5	V7 5-7-2-4	IIma7 1-3-5-7	I7 1-3-5-b7 secondary dominant	IVma7 4-6-1-3
chord scale	II Dorian	II Mixolydian	6-1-3-5	V Mixolydian	I major	I Mixolydian	IV Lydian
key scale	I major	I Lydian	I Lydian	I major	I major	I Mixolydian	I major
E form key							
D form key							
C form key							
A form key							
G form key							

B Sections with Three or Four Secondary Dominants

A Foggy Day, Anthropology, Caravan, Chasin' the Bird, Dexterity, The Flintstones, I Got Rhythm, Moose the Mooche, Oleo, Salt Peanuts, Scrapple From the Apple, Seven Come Eleven, Topsy

Voice Leading

major and minor I-VI-II-V

THE FLAT FIVE SUBSTITUTE OF A SECONDARY DOMINANT

Parent Scale IV7-III7-VIm7, the “Authentic Flat Five Substitute”

a flat five substitute of a secondary dominant is bII of V

think of the target key as Aeolian

The relative major of the Aeolian key is the parent major scale.

Phrygian dominant

Phrygian dominant can also be called Phrygian major. The relative major scale for harmonic minor is major sharp five. Conversely, the mode on the sixth step of major sharp five is harmonic minor. The mode on the third step of major sharp five is Phrygian major.

In the Spanish improvisational song Malaguena, Phrygian dominant is the key, not the dominant (V) of a target key.

bII Lydian Dominant versus Lydian major

Relative major flat three is bII Lydian Dominant of V (flat five substitute of V) and is V super Locrian of V.

Melodic Minor Mode Types for Flat Five Substitutes

target	VII	III	VI	II	V	I	IV
bII Lydian dominant of target	I7	IV	bVII	bIII	bVI	bII	bV
mel. min. mode	IV	I	V	II	VI	bIII	VII
key parent scale mel. min. type	Lydian dominant	melodic minor	Mixolydian flat six	Dorian flat two	Aeolian flat five	Phrygian flat one	super Locrian

Be able to think each bII Lydian dominant in terms of the key scale, so you can create theme and variation in melody with a theme in the key scale synonym of the bII Lydian dominant mode and follow with the corresponding content for the mode of the parent major scale for the target. If the target is VIm (Am is VI of the C major parent major scale), use melodic minor V type, Mixolydian flat six (C major flat six).

Memorize the bII Lydian dominant key scale types progressing to a target root down a half step as follows. To calculate the key scale type for each “bII of target” chord, memorize 7-3-6-2-5-1-4 (fourths) and 4-1-5-2-6-3-7. If the target mode is the third number in the 7-3-6-2-5-1-4 series (target VI is Am on the sixth step of the C major parent scale), the key scale mode type for the bII Lydian dominant would be the third number in the 4-1-5-2-6-3-7 series: Mixolydian flat six (C Mixolydian flat six).

CONSECUTIVE SECONDARY DOMINANTS WITH FLAT FIVE SUBSTITUTES

Major Scale-Tone Progression in Fourths with Secondary Dominants and Flat Five Substitutes

	to target III →			to target VI →			to target II →		
scale- tone chord	VIIIm7b5 7-2-4-6	VII7#5 7-b3-5-6 secondary dominant	IV7 4-6-1-b3 bV sub. of VII	IIIIm7 3-5-7-2	III7 3-#5-7-2 secondary dominant	bVII7 b7-2-4-b6 bV sub. of III	VIIm7 6-1-3-5	VI7 6-#1-3-5 secondary dominant	bIII7 b3-5-b7-b2 bV sub.. of VI
chord scale	VII Locrian	VII super Locrian	IV Lyd. dom.	III Phrygian	III Phrygian dominant	bVII Lyd. dom.	VI Aeolian	VI Aeolian dominant	bIII Lyd. dom.
key scale	I major (precede with b5 sub m.m. IV)	I major b3 m. m. I	I major b3 m. m. I	I major	I major sharp five	I Mixo. b6 m. m. V	I major	I major #1	Dorian b2 m. m. II
E form key									
D form key									
C form key									
A form key									
G form key									

	to target V →			to target I →		to target IV →			
scale-	II m7 2-4-6-1	II7 2-#4-6-1 secondary dominant	bVI7 b6-1-b3-b5 bV sub. of II	V7 5-7-2-4	bII7 b2-4-b6-7 bV sub. of V	I ma7 1-3-5-7	I7 1-3-5-b7 secondary dominant	bV7 b5-b7-b2-3 bV sub. of I	IV ma7
chord	II Dorian	II Mixolydian	bVI Lyd. dom.	V Mixolydian	bII Lyd. dom.	I major	I Mixolydian	bV Lyd. dom.	IV Lydian
key	I major	I Lydian	Aeolian b5 m. m. VI	I major	Phrygian b1 m. m. bIII	I major	I Mixolydian	I super Locrian m. m. VII	I major
E									
D									
C									
A									
G									

Scale Ambiguity

- **Go By Feeling First**
- **Ambiguous Scale Categories**
- **Flexible Scale-Chord Matching**
- **Ambiguous Scales For Major Chords**
- **Ambiguous Scales For Minor Chords**
- **Ambiguous Scales For Dominant Chords**
- **Improvising On Chick Corea's Spain Solo Section**

GO BY FEELING FIRST

Mood, Rhythmic Style, Story, Tone

In determining the relationships between scales and chords in your music, consider the components of feeling first. The mood, genre, rhythmic style, story and tone will point you in the right direction and are often more important than an exact match of the notes in the current chord and the current scale.

Mis-matching of chord and scale are very frequent in improvisational music. The players involved are not as concerned about the number theory of the music as they are the feeling of the music. The number theory is important, but it is driven by the feeling and can be quite complex. Justifying the various mis-matches of chord and scale according to the sensibilities established in the various styles and sub genres can be very detailed.

When chord progression or rhythm is mis-matched between the accompaniment and the composed or improvised melody, the melody needs to be stated very clearly. When Charlie Parker would play a different chord progression in his melody from the accompaniment, he would state the chord progression very clearly, usually by playing up or down the arpeggio for each chord (more often descending the arpeggios). When Pat Martino played sixteenth notes against a swing eighth accompaniment, as on All Blues, he played continuous sixteenths (as he too often does), allowing the listener to comprehend the three divisions per beat in the accompaniment (the first and third of three parts per beat makes regular swing eighths) and four divisions per beat in his improvised melody.

When scales are used ambiguously, they can provide different versions of each numbered scale tone, allowing a flat or natural six, a flat or natural third, and so on. This can give us more flexibility in color. Arnold Schoenberg's twelve tone row method of composition (also called serialism) advocated using all twelve notes equally as often in a composition, while not giving any one of them more strength, avoiding tonality. The emphasis of a particular note creates a tonal key and the lack of emphasis of a particular note is atonality (the absence of a key).

Personally, I can appreciate serialism in a film score or background music in a museum, but in playing music I prefer a key and don't like the game-like rule of *having* to use all twelve chromatic tones.

FLEXIBLE SCALE-CHORD MATCHING

In the older traditions, melody is made up with the same scales should that make up the chords in the accompaniment. In modern improvisation, the matching of a chord type (and mood suggested) by a single note melody and by the accompaniment behind it is flexible. It is typical in blues-based styles (rock, jazz, funk, reggae, etc.) that the composed or improvised melody darkens the mood by flattening thirds, fifths or sevenths. The accompaniment chords can also darken the mood by flattening thirds, fifths or sevenths.

If, for example, you are improvising a melody against a C chord with a sharp nine (sharp two) , such as C7#9, your melody could still use “nine” (two), as long as the mis-matched nine and flat nine are not played too prominently for too long a duration. The disagreement needs to be subtle, not “in your face”. The duration of mis-matched notes is an issue of time in seconds, not beats. Two beats at sixty beats a minute is two seconds, while two beats at 240 beats a minute is half of a second.

If three transcribers were given the notation to a sophisticated jazz improvised solo *without* the chord names, it is likely each of them would have a different take on what chords are suggested, yet all the interpretations of all three may be valid. If you then look at the chords actually used in the accompaniment, they are likely to be another version again. Furthermore, in each time the musicians play through the chord progression, the chords suggested by the improviser and the chords played by the accompanists are likely to differ. Even within the same section of the song, two musicians may play different, but compatible versions of the chords.

I’m calling the flexibility of scale-chord matching *ambiguity*. Each chord and scale has optional types within its category. The broadest categories are major, minor and dominant.

AMBIGUOUS SCALE CATEGORIES

General Chord Ambiguity

Smaller chords, such as triads, have more options of scale types. When using a seven-tone scale with triads you have many options for the remaining four tones of the scale.

In the [Modal Key Scales](#) section of the [Key Scales](#) chapter you'll find seventh chords listed in all the common modes with parenthesis after most of them, showing three optional added tones.

On the [Largest Tertian Chords In 28 Modes](#) table in the [Key Scales](#) chapter, each thirteenth chord has the same seven notes as the scale it is constructed from. You can use those thirteenth chords with the exactly matching scale from which each of them were made or choose options that change the mood, usually choosing an alternate mode with a flatted seventh, flatted third or flatted fifth (or combinations of them).

Target Chord Ambiguity

Tonality is a focal point on a particular note that is the implied bass note of the chord the listener would expect a piece of music to end on to sound complete. The implied ending chord is called the *tonic chord*. Music doesn't always end with a resolution to the implied tonality. It may end with a deceptive cadence, to intentionally leave the listener with a feeling of incompleteness.

A target chord is any chord that establishes a tonality, whether the tonality is for the entire section or for a part of it. Target chords are preceded with setup chords in the accompaniment or by setup chords implied by the melody. One or more setup chords may form a chord progression that strengthens the tonality of the target chord. The group of setup chords, together with the target chord are called a cadence. Cadences are usually auditorily familiar to the listener and recall similar situations in previously heard music where a tonality was established for a target chord.

Target chords can be major, minor or dominant types. See the chapters [Modes](#) and [Key Scales](#).

Major target chords are most commonly Ionian (major scale) or Mixolydian. Mixolydian is a dominant type. It was first used as a mode for the V chord, but in the last hundred years or so is used as a key major target chord type (I type) with the introduction of blues in popular music.

Minor target chords are traditionally Aeolian, but are commonly Dorian also.

Setup Chord Ambiguity

A setup chord leads to a target chord. Most commonly, the setup chord is a V chord, with its root on the fifth step of the key. We will look at eight types of V chords in this chapter. See [Ambiguous Scales For Dominant Chords](#). The eight types of V chords discussed here are Mixolydian, Lydian dominant (Mixolydian flat seven), Mixolydian flat six (Aeolian major), Phrygian major, Phrygian minor/major (Phrygian with both flat three and natural three), super Phrygian, super Locrian and half/whole diminished scale.

As stated in the beginning of this chapter, go by feeling first. Your sensibilities should tell you that moods match better when you stay the the same harmonic family. See [The Four Harmonic Families](#) in the chapter [Phrases Built With Core Melody, Cell Elaboration And Filler](#).

AMBIGUOUS SCALES FOR MAJOR CHORDS

Major Keys Are Commonly Ionian or Mixolydian

Most of the time, major target chords (major key chords) are Ionian (major scale) or Mixolydian (major scale with flat seven). However, there are many other options:

- modes I, IV and V of major scale
- modes II and IV of major sharp five (equivalent to V and bVI of harmonic minor)
- modes IV and IV of melodic minor
- modes I and V of harmonic major

See [Modes Of Four Heptatonic Scales](#) in the [Modes](#) chapter.

Darkening and Brightening

In the order from having a sharped fourth, to a natural fourth, to flatting the seventh and flatting the third, the mood can be darkened. Here are some examples, from bright to dark:

- #4 - Lydian and Lydian dominant are brighter (maybe a little blindingly) than Ionian (major scale)
- natural 4 - Ionian (major scale) is the most common major key scale chord
- natural 4, flat seven - Mixolydian provides the blues sound
- natural 4, flat seven, flat three - Dorian provides a very bluesy sound, usually as a brief alternative to Mixolydian during a major chord

Exotic Major Modes

- #4 - Lydian and Lydian dominant are brighter (maybe a little blindingly) than Ionian (major scale)
- b2-b6-b7 - Phrygian major sounds Spanish, flamenco, gypsy and north African
- b2-b3-natural 3-b7 - super Phrygian is a good-sounding exotic alternative to Phrygian major

AMBIGUOUS SCALES FOR MINOR CHORDS

Minor Keys Are Commonly Aeolian or Dorian

Most of the time, minor target chords (major key chords) are Aeolian (major scale with flat three, six and seven) or Dorian (major scale with flat three and seven). Aeolian is more common and has been established longer in music repertoire.

Dorian can be created by flattening the third and seventh of a major scale, or by establishing the tone center on the second step of a different major scale. D Dorian is a D major scale with flat three and flat seven. D major scale is D-E-F#-G-A-B-C#-D. With D major's third and seventh flat, it becomes D Dorian: D-E-F-G-A-B-C-D. The C major scale is C-D-E-F-G-A-B-C. Establishing the second step of a C major scale as a tone center by, for example, playing the C major scale from D to D also produces the D Dorian mode: D-E-F-G-A-B-C-D.

Aeolian can be created by flattening the third, sixth and seventh of a major scale, or by establishing the tone center on the sixth step of a different major scale. A Aeolian is an A major scale with flat three, flat six and flat seven. A major scale is A-B-C#-D-E-F#-G#-A. With A major's third, sixth and seventh flat, it becomes A Aeolian: A-B-C-D-E-F-G-A. The C major scale is C-D-E-F-G-A-B-C. Establishing the sixth step of a C major scale as a tone center by, for example, playing the C major scale from A to A also produces the A Aeolian mode: A-B-C-D-E-F-G-A.

See [Modes Of Four Heptatonic Scales](#) in the [Modes](#) chapter.

Harmonic Minor

Aeolian is often substituted by harmonic minor, which has flat three and six, but not flat seven. This change causes the chord built on the fifth step of the Aeolian mode to be major, rather than minor. The strongest two-chord progression that establishes a minor key (a two-chord cadence) is Vm(Gm) to Im (Cm), such as Gm to Cm in C minor. G major to Cm is even stronger, hence the name of the scale that produces it *harmonic minor* (harmonic refers to harmony or chords).

Darkening and Brightening

In the order from having the altered tones b7-b3, to b7-b3-b6, to b7-b3-b6-b2, the mood can be darkened. This uses the accumulating flatted tones 7, 3, 6, 2, which are in perfect fourths. Each tone b7 to b3 to b6 to b2 is a perfect fourth (an interval of five frets) from the next. Here are some examples, from bright to dark:

- b7-b3 is Dorian, with the brightest (happiest) mood of the minor modes
- b7-b3-b6 is Aeolian, major scale mode VI, the most traditional mode
- b7-b3-b6-b2 is Phrygian, major scale mode III, the darkest minor chord mode derived from the major scale

Exotic Minor Modes

Melodic minor in classical music traditionally ascends as a major scale with a flat three (1-2-b3-4-5-6-7) and descends as Aeolian (1-b7-b6-b5-5-b3-2-1). It is used in Bach's Bouree in Em and in the Beatles song "Yesterday". In jazz, the melodic minor scale is usually used ascending and descending as a major scale with flat three.

Dorian sharp four (1-2-b3-#4-5-6-b7) on the fourth step of harmonic minor can elaborate a diminished seventh sound on its tone center. See [Modes Of Four Heptatonic Scales](#) in the [Modes](#) chapter. Diminished seventh is 1-b3-b5-6 (bb7). Dorian sharp four has those tones by using its #4 as a b5, which is the same note.

Dorian flat five (1-2-b3-4-b5-6-b7) can be used to darken Dorian, making it bluesy. It occurs on the second step of harmonic major (major flat six). See [Modes Of Four Heptatonic Scales](#). The basis of this mode is a diminished triad, since it has 1-b3-b5. Like Dorian sharp four, it can elaborate a diminished seventh sound on its tone center, but is darker, since Dorian flat five has no fifth.

Aeolian flat five (1-2-b3-4-b5-b6-b7) can make Aeolian bluesy. It occurs on the sixth step of melodic minor. See [Modes Of Four Heptatonic Scales](#).

Dorian flat two (1-b2-b3-4-5-6-b7) can make a I minor six chord in Dorian mode more exotic. It occurs on the second step of melodic minor. See [Modes Of Four Heptatonic Scales](#).

Super Phrygian (1-b2-b3-b4-5-b6-b7) can establish a tone a half step above its flatted third as a "flat four", rather than the natural three usually implied by the flat four (flat four is the same note as natural three). Super Phrygian occurs on the third step of harmonic major. See [Modes Of Four Heptatonic Scales](#).

AMBIGUOUS SCALES FOR DOMINANT CHORDS

“Stand-Alone” Keys

Any of these scales can be used as a V type scale with a target “I” chord in mind or as a “stand-alone” scale where you are playing in the key of the chord root.

Dominant Chords Are “V Type”

In classical music theory, “dominant” refers to the fifth step of a major scale. The four-note chord on that step is a dominant seventh chord, with the key tones 5-7-2-4 (G-B-D-F in the key of C) and formula from its root 1-3-5-b7 (numbered tones in the the key on “5” of C). There are many variants of this dominant chord with alterations of the chord type and a chord with an alternate root called a [flat five substitute](#) (or tritone substitute). The [flat five substitute](#) uses an alternate root which is a flatted fifth from the V of the key. If the key is “C”, the fifth would be “G”. The flatted fifth of “G” is “Db”, which is bII of the target key chord, “C”.

The Lydian Family of V Type Scales

The Lydian family of scales includes the altered scales Lydian dominant, its [flat five substitute](#), super Locrian and Dorian sharp four (Lydian dominant flat three). These scales can also be ambiguous combined with diminished half whole scale. Lydian dominant has sharp four and flat seven. It can be conceived as Lydian (sharp four) with a flat seven, or as Mixolydian (flat seven) with sharp four. Lydian dominant occurs on the fourth step of melodic minor. On the seventh step of melodic minor, super Locrian occurs, which is commonly used as a [flat five substitute](#) for Lydian dominant. See Substitution/[Flat Five Substitute](#).

The Phrygian Family of V Type Scales

The Phrygian family of scales includes Phrygian, Phrygian major, super Phrygian and the Phrygian minor/major hybrid. Phrygian (minor) has b2-b3-b6-b7. Phrygian major has b2-b6-b7 (natural three). Super Phrygian has b2-b3-b4 (same as natural three), flat six and flat seven. Like the Lydian dominant/diminished hybrid, the Phrygian major/minor hybrid uses Phrygian major in the low range of pitch with natural three and Phrygian minor (the original Phrygian mode) in the high range of pitch with flat three.

Compare Altered Dominants with Altered Ninths

Phrygian major

Phrygian major is a seven tone scale build on the third step of harmonic minor. Its formula is 1-b2-3-4-5-b6-b7. It is the common scale used in a minor key for the V7 chord. Its flat two can be used as a flat nine in a dominant seventh chord. Its flat six can be used as a sharp five in a chord. Lowering both the 3 and 4 of super Locrian each a half step changes it to super Phrygian.

super Phrygian

Super Phrygian (my term) is a seven note scale built on the third step of harmonic minor (Aeolian natural seven). Its formula is 1-b2-b3-3 (b4)-5-b6-b7. The flat two can be used as a flat nine in a chord. Its flat three can be used as a sharp nine in a chord. Its flat six can be used as a sharped fifth in a chord.

It has a I minor *and* a bII minor chord, so there are tones a half step above its tonic I minor chord. It could be summarized as a I minor seventh chord with a half step above its root, flatted third and fifth.

Flatting the fifth of super Phrygian changes it to super Locrian. Raising both the b3 and b4 of super Phrygian each a half step changes it to Phrygian major. Adding four to super Phrygian changes it to Phrygian major/minor. Changing the five of super Phrygian to flat five changes it to super Locrian.

Phrygian major/minor

Its formula is 1-b2-b3-3-4-5-b6-b7. Phrygian major/minor can be used with Phrygian major (Phrygian dominant) in the low octave and Phrygian minor in the high octave. Its flat two is a b9 in a chord, its flat three a #9 and its flat six can be a sharp five in a chord.

Phrygian major/minor can also be used in it's combined form in the same octave, with precautions. Phrygian major/minor is an eight note scale that contains all the notes of Phrygian (b2, b3, b6, b7), but also has a major third (3), as in Phrygian major. Melodically, the scale would typically ascend or descend to "seven" without passing it. Phrygian major/minor uses Phrygian major (Phrygian dominant) in the low octave and Phrygian minor in the high octave. Omitting the four changes Phrygian major/minor to super Phrygian.

super Locrian

Super Locrian (seven notes) is 1-b2-b3-3(b4)-b5-b6-b7. It could be called the "flat all" scale, since it has every numbered tone of a major scale flatted except "1". Super Locrian is built on the seventh step of melodic minor (major flat three). Making the five natural in super Locrian changes it to super Phrygian.

VII super Locrian , IV Lydian dominant and the **flat five substitute**

A harmonized scale is a chord that uses all of the notes of a scale, usually in thirds. Super Locrian is mode VII of melodic minor (major scale flat three). The harmonized scale for super Locrian is VII#5b5#9b9 (B7#5b5#9b9). Since it uses all seven steps of the scale, it has the same notes as mode IV of melodic minor, Lydian dominant. The harmonized scale for Lydian dominant is the chord 13#11.

The **flat five substitute** practice involves freely substituting parts of super Locrian VII#5b5#9b9 (B7#5b5#9b9) and Lydian dominant 13#11 (F13#11) for one another.

The target chord is III. Using the **Escherian type of deceptive cadence**, the target III chord could be any chord with a perfect fifth. See **Melodically Superimposed Cadences/Escherian Cadence**. To illustrate

this, practice using the super Locrian/Lydian dominant hybrid arpeggio on the [Scales for 7#5#9](#) page. It ascends from the bass with the root, third, sharpened fifth and flatted seventh of a dominant VII type chord (B7#5 in the key of C). The tone that is the flatted seventh then is treated as the third of IV13#11 and you ascend that arpeggio as far as range permits. Then you would resolve to a III chord (E), of whatever quality you need, as long as it has a perfect fifth. This shows the essence of the [flat five substitute](#).

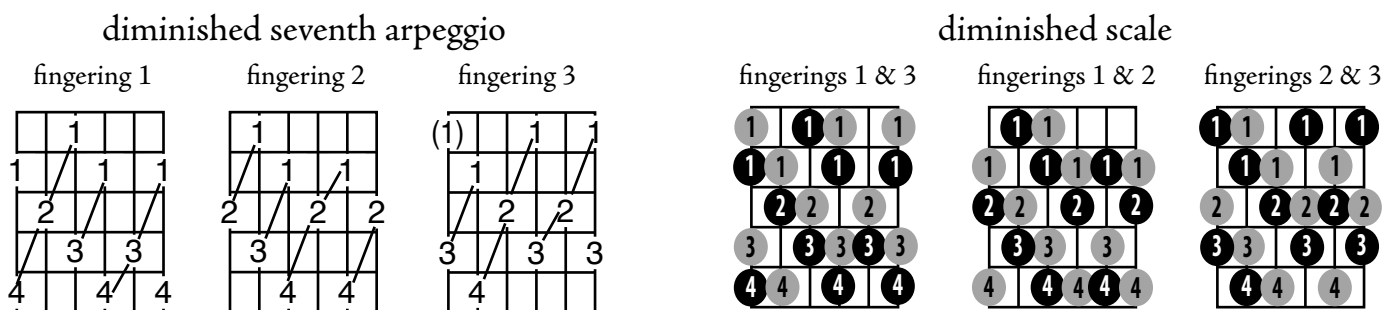
Phrygian major, super Phrygian and super Locrian related to relative major

Consider the altered V chord (G7 altered) you are using as a V in a minor key (C minor). The relative major scale of the minor key (Eb major scale is the relative major of C minor) can be altered each of three different simple ways to produce V Phrygian major, V super Phrygian and V super Locrian.

- Sharp the five of the relative major scale (Eb) to produce V (G) Phrygian major (C minor target).
- Flat the six of the relative major scale (Eb) to produce V (G) super Phrygian (C minor target).
- Flat the six and the seven of the relative major scale (Eb) to produce V (G) super Locrian (C minor target).

Diminished Half/Whole Scale and Related Scales

the numbers on the diagrams below are finger numbers



See also Half-Whole-Half Cells and Diminished Scale/[Perfect Fourths Moving in Minor Thirds](#).

Diminished half-whole scale, an eight-note scale, is a couple of modifications away from Mixolydian (a major scale with a flatted seven). Lydian dominant scale is Mixolydian with a sharpened fourth (1-2-3-#4-5-b7). Taking that one modification farther, replace the “2” in Lydian dominant with both “b2” and “#2” and you have diminished half-whole scale.

Both diminished half/whole scale and Mixolydian flat two have a natural six, unlike the Phrygian family and Locrian. Both are well-suited for 13b9 chords (usually voiced without an eleventh).

Super Locrian has flat five and flat six (enharmonically the same as sharp five), while diminished half-whole scale has five and six. Diminished scale also has “#11” (#4) which can proxy (substitute for) as flat five. Use the range from three to flat seven in super Locrian for a wacky whole tone sound. Replacing

the flat six in super Locrian with both five and six changes it to diminished half-whole scale. Conversely, replacing both the five and six of diminished half-whole scale with flat six, changes it to super Locrian.

Comparing Dominants With Flat Nine

Tones in the gray columns are key V7b9 no root = VIIdim7=IIIdim7=IVdim7=bVIIdim7. See [diminished seventh arpeggio](#) fingerings.

numbered tone of the V chord →	1 (G)	b2 (Ab)	2 (A)	b3 (Bb)	3 (B)	4 (C)	#4/b5 (Db)	5 (D)	#5/b6 (Eb)	6 (E)	b7 (F)	7 (F#)
numbered tone of the I chord →	5 (G)	b6 (Ab)	6	b7 (Bb)	7	1 (C)	b2 (Db)	2 (D)	b3 (Eb)	3	4 (F)	b5
V Phrygian maj/min	1	b2		b3	3	4		5	b6		b7	
V Phrygian major (no b3)	1	b2			3	4		5	b6		b7	
V super Phrygian	1	b2		b3	3			5	b6		b7	
V Mixolydian b2	1	b2			3	4		5		6	b7	
V dimin. half/whole	1	b2		b3	3		#4	5		6	b7	

Comparing Dominants With Sharp Five

Tones in the black columns are key V augmented = VII aug.=bIII aug. See [augmented arpeggio](#) fingerings.

numbered tone of the V chord →	1 (G)	b2 (Ab)	2 (A)	b3 (Bb)	3 (B)	4 (C)	#4/b5 (Db)	5 (D)	#5/b6 (Eb)	6 (E)	b7 (F)	7 (F#)
numbered tone of the I chord →	5 (G)	b6 (Ab)	6	b7 (Bb)	7	1 (C)	b2 (Db)	2 (D)	b3 (Eb)	3	4 (F)	b5
V Phrygian maj/min	1	b2		b3	3	4		5	b6		b7	
V Phrygian major (no b3)	1	b2			3	4		5	b6		b7	
V super Phrygian	1	b2		b3	3			5	b6		b7	
C super Locrian	1	b2		b3	3		#4		b6		b7	

Augmented Arpeggio Fingerings

Augmented arpeggios are an important part of altered dominant chords with a sharp five. See [Scales for 7#5#9 and 7#5b9](#), where the augmented part of each arpeggio is shown on black. Augmented arpeggios are a serial pattern, a repeating interval pattern of major thirds. Any note in an augmented arpeggio can be the root. For any given position, the three fingerings below can represent augmented arpeggios in all keys. The numbers on the diagrams below are finger numbers.

fingering 1

fingering 2

fingering 3

1				
			1	1
		2		
	3			
4				3
			4	

	1			
2				1
			2	2
		3		
4				
				4

		1		
	2			
3				2
			3	3
	4			

Best V Type and bII Type Setup Scales and Arpeggios

I harmonic minor - V Phrygian dominant with its subsets V7b9, VII dim7 and V augmented. V super Locrian with augmented subset is a scalar synonym of bII Lydian Dominant (13#11). V diminished half/whole = III dim h/w (V of VI) = bVII dim.h/w (V of bIII) = bII dim h/w (flat five sub). See [augmented arpeggio fingerings](#).

V Phrygian dominant - V7b9, VII dim. 7

by key scale numbers
grey are dim. 7
(VII dim7 = II dim7 =
IV dim7 = bVI dim7)

V Phrygian dominant - V augmented

by key scale numbers
black are augmented
(V aug. = VII aug. =
bIII aug.)

V super Locrian - V augmented

7#5b5#9b9 chord
scale ("1" is 5 of key):
1-b2-b3-3-b5-b6-b7

bII Lydian dominant bII13#11

13#11 chord scale
("1" is b2 of key):
1-2-3-#4-5-6-b7

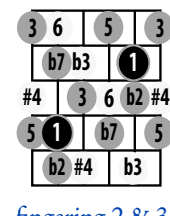
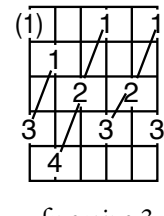
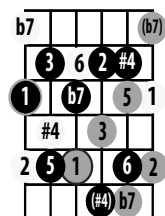
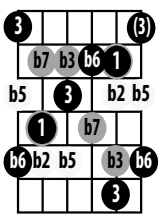
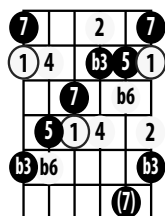
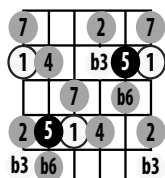
V dim. half/whole

V13#11b9#9
("1" is 5 of key):
1-b2-b3-3-#4-5-6-b7 on V

finger numbers-
for gray dim. 7 in
dim. half/whole
scale at the right

E form key

V is C form
bII is GE form

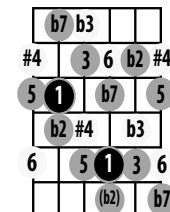
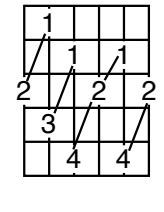
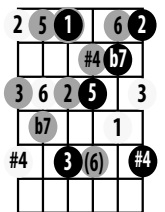
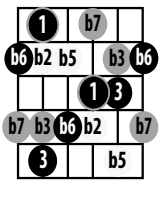
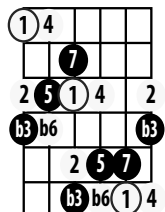
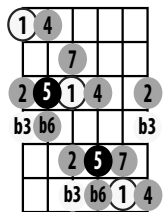


fingering 3

fingering 2 & 3

D form key

V is A form
bII is D form

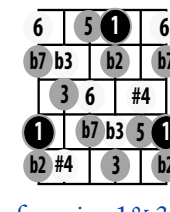
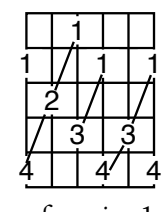
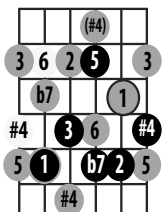
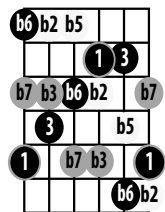
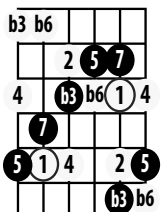
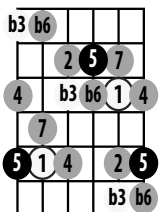


fingering 2

fingering 1 & 2

C form key

V is G form
bII is C form

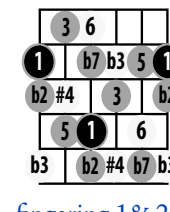
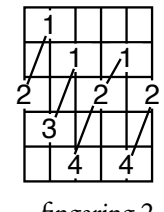
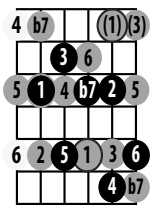
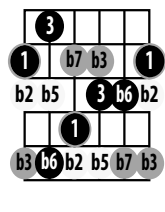
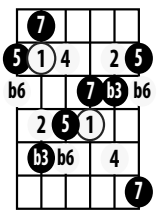
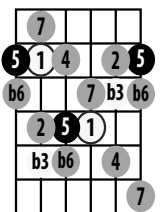


fingering 1

fingering 1 & 3

A form key

V is E form
bII is CA form

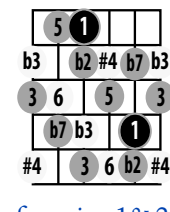
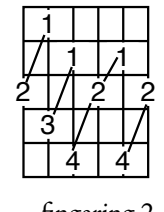
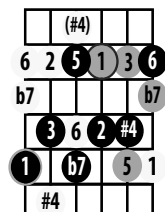
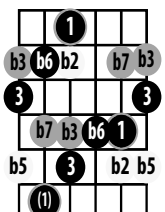
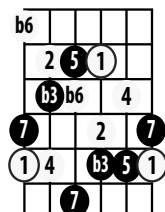
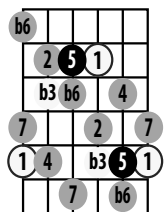


fingering 2

fingering 1 & 2

G form key

V is D form
bII is G form



fingering 2

fingering 1 & 2

Scales for 7b9 (natural five, optional sharp five)

7b9 no root is diminished seventh, as shown in the column “Phrygian major (dim7)”. The roots are on black. The remaining dim7 tones are on gray. The column “Phrygian major (aug)” shows the augmented basis of Phrygian major, used for V augmented and for V7#5. See [augmented arpeggio fingerings](#).

	Phrygian major (dim7) (phrygian dominant) 1-b2-3-4-5-b6-b7	Phrygian major (aug) (Phrygian dominant) 1-b2-3-4-5-b6-b7	super Phrygian dim. 7 subset 1-b2-b3-3-5-b6-b7	super Phrygian augmented subset 1-b2-b3-3-5-b6-b7	Phrygian major/minor 1-b2-b3-3-4-5-b6-b7	Mixolydian flat two 1-b2-3-4-5-6-b7	dim. half/whole 1-b2-b3-3-#4-5-6-b7
G form							 (fingering 1&3)
E form							 (fingering 1&2)
D form							 (fingering 1&2)
C form							 (fingering 2 & 3)
A form							 (fingering 1&2)

Scales for 9#5

9#5
chord

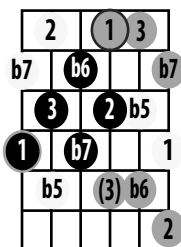
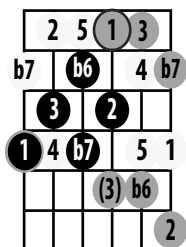
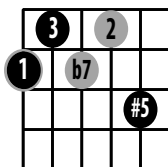
Mixolydian
flat six

whole tone
scale

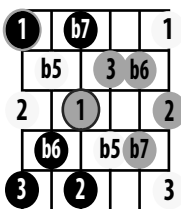
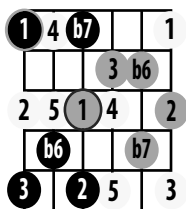
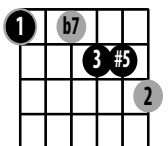
1-2-3-4-5-b6-b7

1-2-3-b5-b6-b7

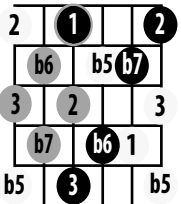
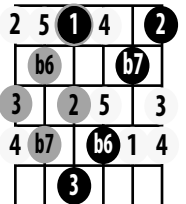
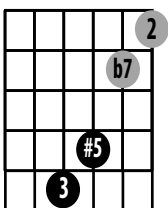
G form



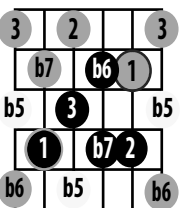
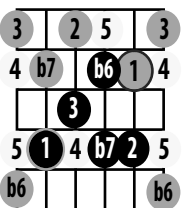
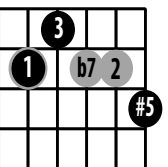
E form



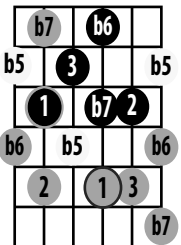
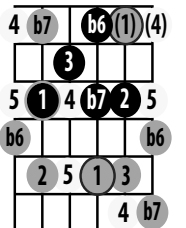
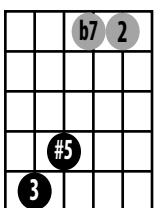
D form



C form



A form



Scales for 7#5#9 and 7#5b9

Scale for 7#5b9

1-3-#5 (or b6) are an augmented triad, shown on black. The b7 and #9 are on gray. See [augmented arpeggio fingerings](#).

7#5#9
chord

7#5b9
chord

super
Locrian

1-b2-b3-3-b5-b6-b7
(b6 proxies as #5)

super
Phrygian

1-b2-b3-3-5-b6-b7
(b4 proxies as 3)

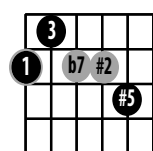
Phrygian major/
minor

1-b2-b3-3-4-5-b6-b7

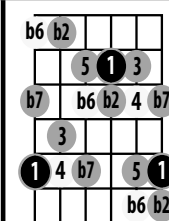
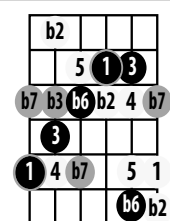
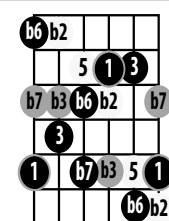
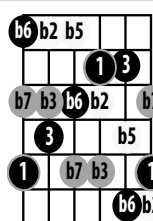
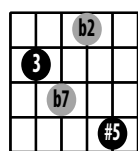
Phrygian major
(Phrygian dominant)

1-b2-3-4-5-b6-b7

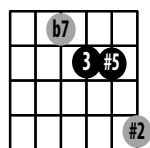
G form



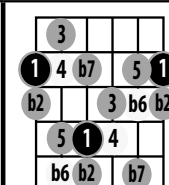
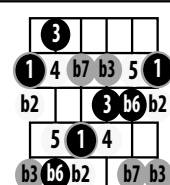
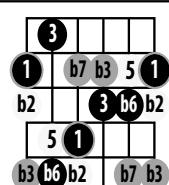
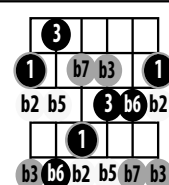
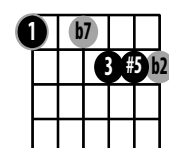
G form



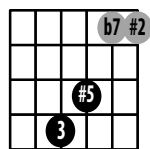
E form



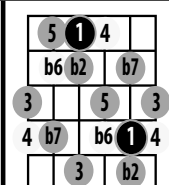
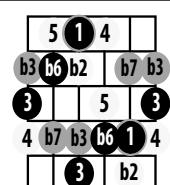
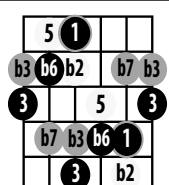
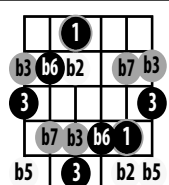
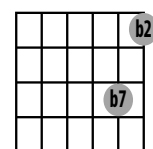
E form



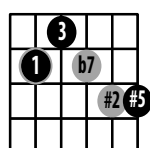
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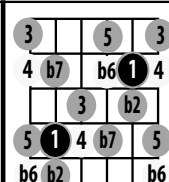
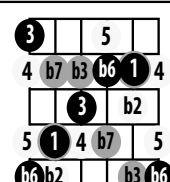
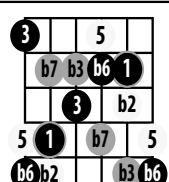
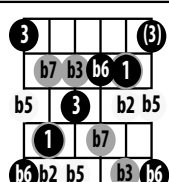
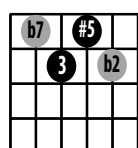
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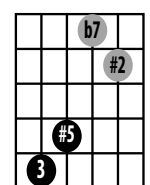
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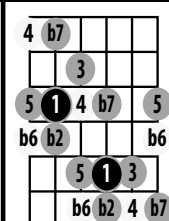
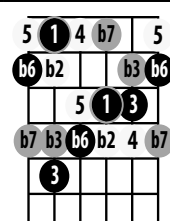
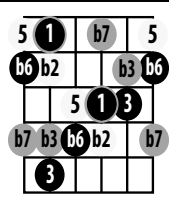
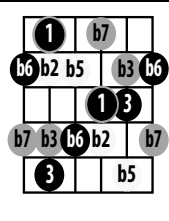
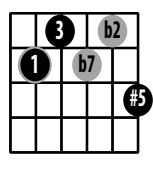
C form



A Form

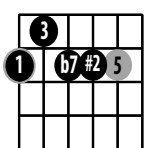
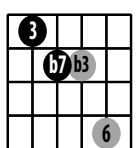
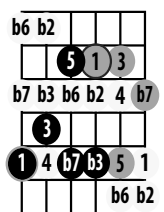
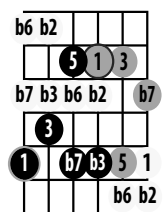
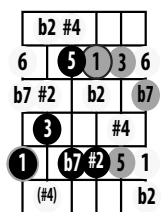
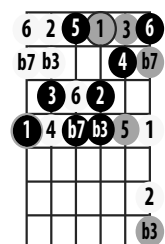
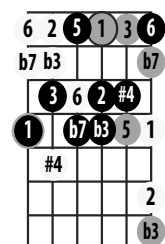
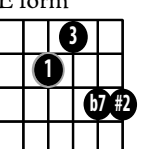
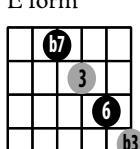
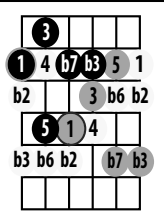
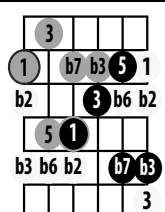
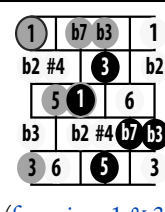
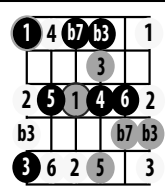
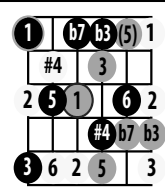
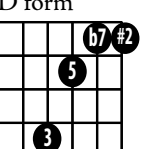
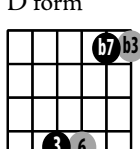
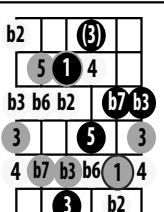
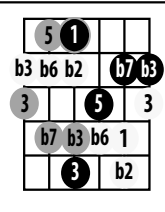
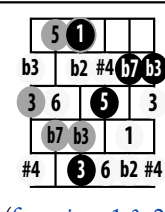
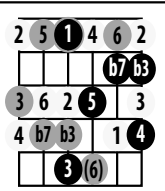
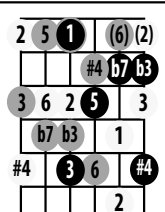
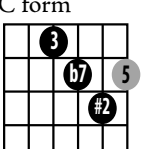
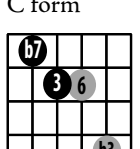
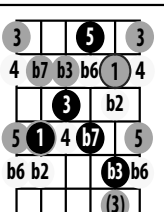
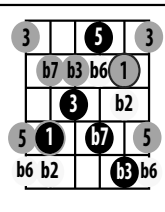
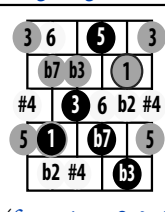
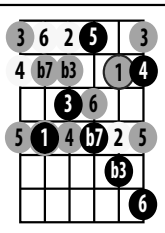
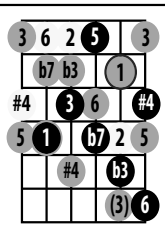
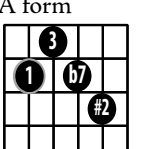
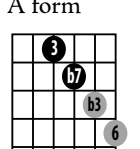
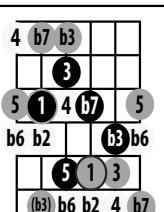
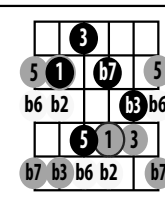
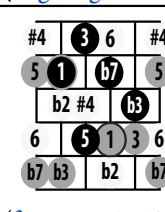
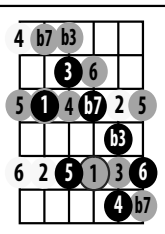
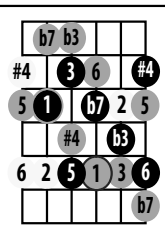


A Form



Scales for 7#9 and 13#9 (natural five)

Phrygian major/minor can be used with Phrygian major (Phrygian dominant) in the low octave and Phrygian minor in the high octave. See also [The Many Chords Of Diminished Half/Chords Built With Diminished Half Whole Scale/13#9 chords on "1"](#)

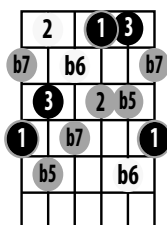
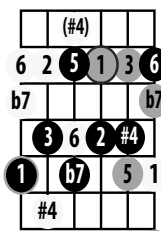
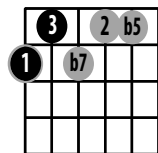
7#9 chord	13#9 chord	Phrygian major/minor 1-b2-b3-3-4-5-b6-b7	super Phrygian 1-b2-b3-3-5-b6-b7 (b4 proxies as 3)	dim. half/ whole 1-b2-b3-3-#4-5-6-b7	Mixolydian Dor. hybrid 1-2-b3-3-4-5-6-b7	Lydian dom./ Dor. #4 hybrid 1-2-b3-3-#4-5-6-b7
G form 	G form 			 (fingerings 1 & 2)		
E form 	E form 		 (fingerings 1 & 3)	 (fingerings 1 & 3)		
D form 	D form 		 (fingerings 1 & 2)	 (fingerings 1 & 2)		
C form 	C form 		 (fingerings 2 & 3)	 (fingerings 2 & 3)		
A form 	A form 		 (fingerings 1 & 3)	 (fingerings 1 & 3)		

Scales for 9#11 (or 7b5 with nat. 9)9b5
chordLydian
dominantwhole tone
scale

1-2-3-#4-5-6-b7

1-2-3-b5-b6-b7

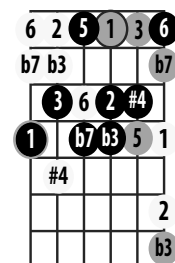
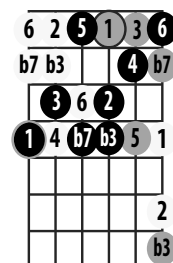
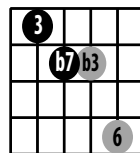
G form

**Scales for 13#9 (no 11)**13#9
chordMixolydian
Dor. hybridLydian dom./
Dor. #4 hybrid

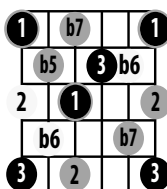
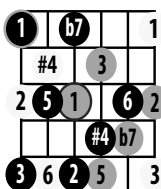
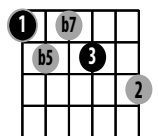
1-2-b3-3-4-5-6-b7

1-2-b3-3-#4-5-6-b7

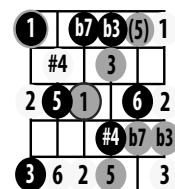
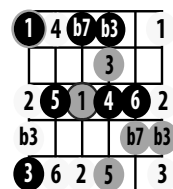
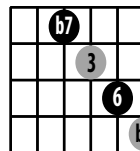
G form



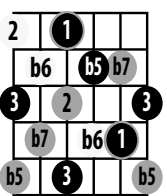
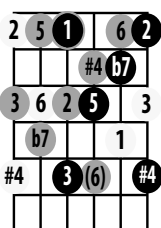
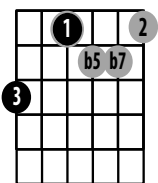
E form



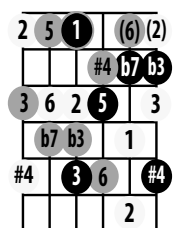
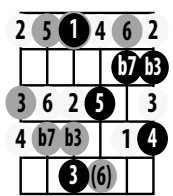
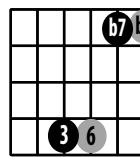
E form



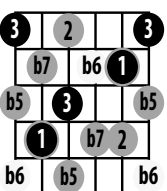
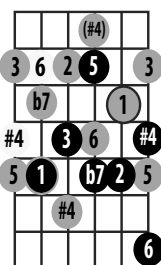
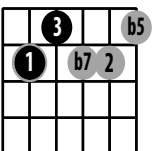
D form



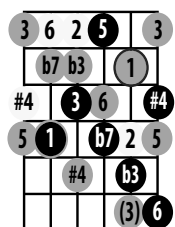
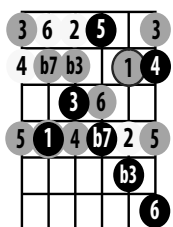
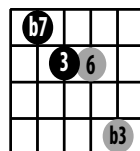
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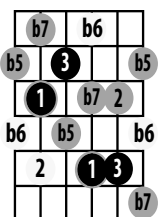
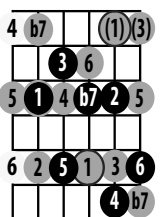
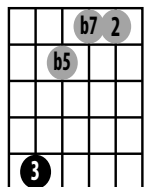
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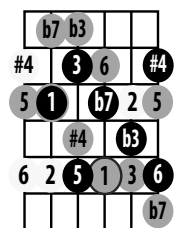
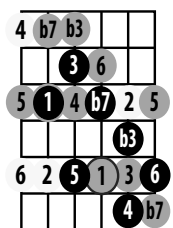
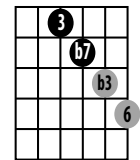
C form



A form



A form



see also The Many Chords Of Diminished Half/
Chords Built With Diminished Half Whole
Scale/13#9 chords on "1"

Scales for 7b5b9 and 7b5#9 (bottom of 7#5b9 page)

See [The Many Chords Of Diminished Half/Whole Scale](#).

Compare Altered Dominants with Natural Nine

Mixolydian has a flatted seventh. Lydian dominant (Mixolydian sharp four) has a flatted seventh and a sharped four. Mixolydian flat six is the mode on the fifth step of melodic minor. Dorian sharp four is harmonic minor mode IV.

The Lydian dominant/Dorian sharp four hybrid is especially effective using Dorian sharp four from one up to flat three and using Lydian dominant from one down to three.

Dominants with natural nine share tones 1-2-3-b7 ("2" implies "9" in the high octave). Those tones are shown in the gray columns below. Dominants with natural nine differ in their fifth. The black columns below show the three versions of the fifth in a dominant ninth chord: flat five, natural five or sharp five. Those with sharp five include an augmented triad. See [augmented arpeggio fingerings](#).

numbered tone of the V chord →	1 (G)	b2 (Ab)	2 (A)	b3 (Bb)	3 (B)	4 (C)	#4/b5 (Db)	5 (D)	#5/b6 (Eb)	6 (E)	b7 (F)	7 (F#)
numbered tone of the I chord →	5 (G)		6 (A)	b7 (Bb)	7 (B)	1 (C)	#1 (C#)	2 (D)	b3 (Eb)	3 (E)	4 (F)	#4 (F#)
Mixolydian	1		2		3	4		5		6	b7	
Dorian	1		2	b3		4		5		6	b7	
Mixo./Dor. hybrid	1		2	b3	3	4		5		6	b7	
Lydian dominant (Mixolydian #4)	1		2		3		#4	5		6	b7	
Dorian #4 (harmonic minor IV)	1		2	b3			#4	5		6	b7	
Lydian dominant/ Dorian #4 hybrid	1		2	b3	3		#4	5		6	b7	
Mixolydian flat six (Aeolian major)	1		2		3	4		5	b6		b7	

Scale for 9b5 or 9#5

1-3-#5 (or b6) are an augmented triad, shown on black. The b7 and #9 are on gray. Sharp nine (flat three) is shown as a chord tone in the high octave and as a scale tone in the low octave. See [augmented arpeggio fingerings](#).

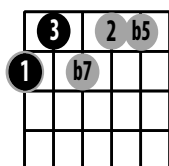
9b5
chord

9#5
chord

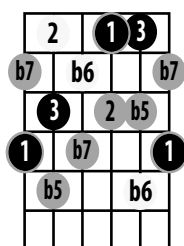
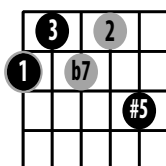
whole tone
scale

1-2-3-b5-b6-b7

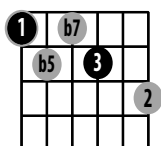
G form



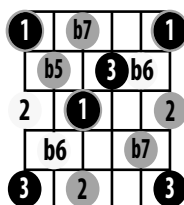
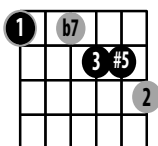
G form



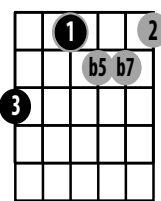
E form



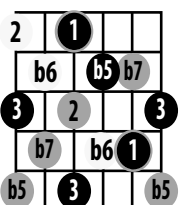
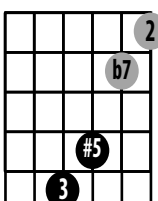
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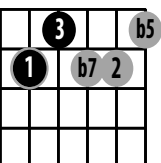
D form



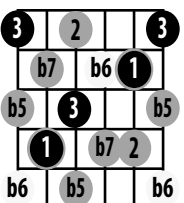
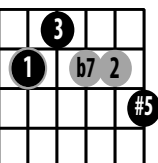
D form



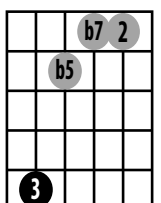
C form



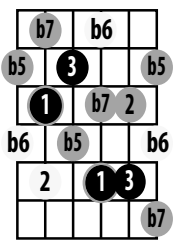
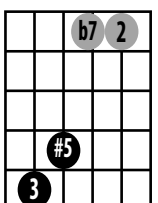
C form



A form



A form



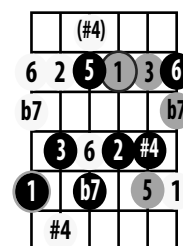
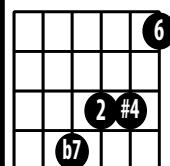
Scale for 13#11

13#11
chord

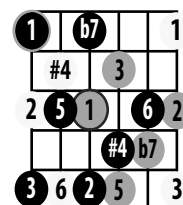
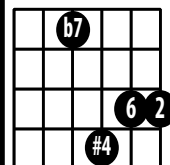
Lydian dominant

1-2-3-#4-5-6-b7

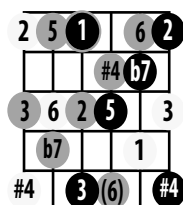
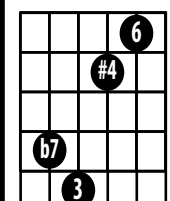
G form



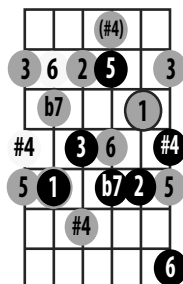
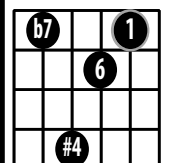
E form



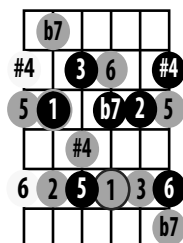
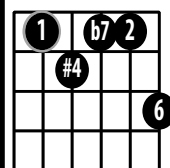
D form



C form



A form

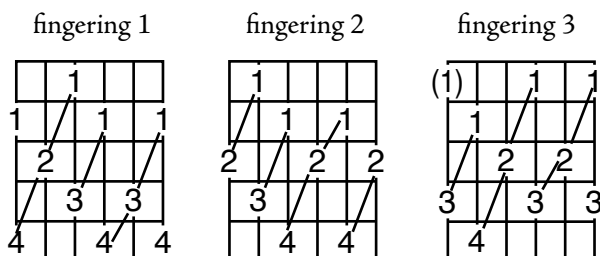


The Many Chords of Diminished Half/Whole Scale

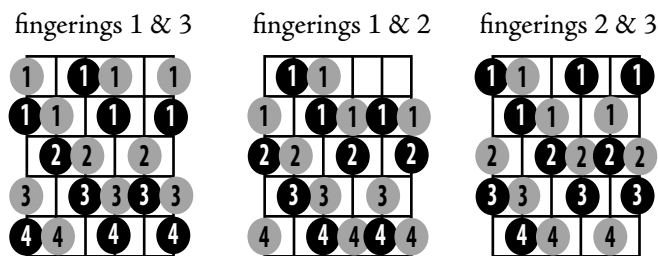
Fingering

the numbers on the diagrams below are finger numbers

diminished seventh arpeggio



diminished scale



The Harmonized Diminished Scale

The harmonized diminished half/whole scale is 13b9#9#11, meaning if you played all the notes at once, you would produce that chord. You can't play the entire chord on a six or seven string guitar, since it has eight notes.

The Diminished Scale is a Serial Pattern

The diminished scale constitutes two diminished seventh chords with their roots a half step apart, such as C dim 7 and Db dim 7. The notes of C dim7 can be spaced equally in minor thirds (three fret intervals). This divides the octave of twelve chromatic tones into four equal minor third intervals, so either of the four notes in C dim7 can be a root. Therefore, C dim7 has three chord synonyms: Eb dim7, F# dim7 (=Gb dim7) and A dim7.

The group of notes that are a half step above each tone in C dim7 make up Db dim7. As with any diminished seventh chord, the notes of Db dim7 can be spaced equally in minor thirds. This divides the octave of twelve chromatic tones into four equal minor third intervals, so either of the four notes in Db dim7 can be a root. Therefore, Db dim7 has three chord synonyms: E dim7, G dim7 and A dim7.

Since the diminished scale is a serial (repeating) pattern that produces the same relative notes every minor third, it can be named after any of the four notes within it that each ascend a half step to the next note. If you named the scale and its harmonized chord after "C", it would have the scale-tone letter names C-Db-Eb-E-F#-G-A-Bb-C (1-b2-b3-3-#4-5-6-b7-1 in numbers) and would have the harmonized chord name C13b9#9#11. The same notes could be used to construct Eb13b9#9#11, F#13b9#9#11 (Gb13b9#9#11) or A13b9#9#11. In each case, alternate enharmonic names could be used to more accurately depict the 1-b2-b3-3-#4-5-6-b7-1 formula in relation to the major scale of the chord root

There are a great number of subset chords you can play on a six string guitar, that fall in two broad categories, 7b9 and m6b5. Minor sixth flat five is an alternate name for diminished seventh, a more relevant name in the manner we will use it.

the diminished seventh on b2, 3, 5, b7

The first category is based on 7b9, whose predominant is 7b9 no root, a diminished seventh chord that can be named after any note in the 7b9 chord except the root. The 7b9 chord on the tone center of the diminished scale has tones 1-3-5-b7-b2 (b2 is the same as b9), which can be reordered to 1-b2-3-5-b7. Without a root the remaining notes make a diminished seventh which can be named after the notes on b2, 3, 5 or b7 of the diminished scale. For a C diminished half whole scale, C7b9 can be built on its tone center, using a series of five notes in thirds. Without the C root, the remaining notes make Db dim7, E dim7, G dim7 or Bb dim7, which each have the same notes: E, G, Bb Db.

You can read about using the 7b9 chord in these sections of [Prime Scales, Chords and Arpeggios: \]Arpeggios And Their Scales/Diminished Seventh Arpeggio And Diminished Scale/Using V diminished half-whole scale as V7b9.](#)

the minor sixth flat five on the diminished half whole scales' tone center

Minor sixth flat five is another way to name diminished seventh. I prefer the m6b5 name to express the use of the flat third implied by "minor" and the flatted fifth and sixth expressed literally in the name. The Goodman/Christian melodic style described in [Prime Scales, Chords and Arpeggios/Arpeggios And Their Scales/Diminished Seventh Arpeggio And Diminished Scale/Using Diminished Half-Whole Scale as a Goodman-Christian Im6b5.](#)

Chords Built with Diminished Half Whole Scale

how to apply these chords

Each of these chords can be melodically elaborated with diminished half/whole scale on "1" in relation the the chord. Keep referring back to "[fingering](#)" at the beginning of this section. The abbreviations F1&2, F1&2 or F2&3 refer to the fingering names shown for diminished scale: "fingerings 1 & 3", "fingerings 1 & 2" and "fingerings 2 & 3".

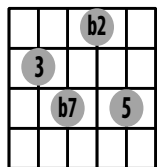
in this section, 1-b3-b5-6 are grey, b2-3-5-b7 are black

In this "Chord Built With Diminished Half Whole Scale" section, the tones of the Goodman/Christian m6b5 (diminished seventh, 1-b3-b5-6) are grey and the tones of the 7b9 no root chord (diminished seventh with b2-3-5-b7) are black.

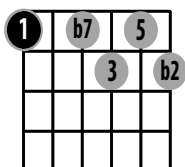
7b9 chords

“1”, needs to be on the lower-pitched tone of a half step pair

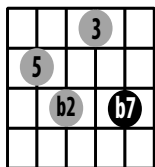
G form-F



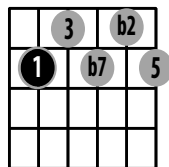
E form



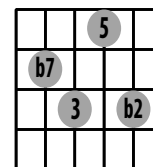
D form



C form



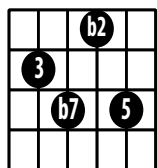
A form



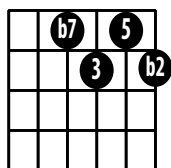
diminished seventh chords on b2, 3, 5 or b7

“b2, 3, 5 and b7”, all need to be on the upper-pitched tones (black) of half step pairs

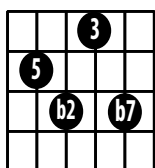
G form - F1&3



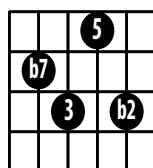
E form - F1&2



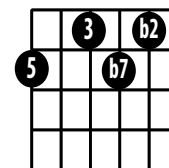
D form F1&3



C form F1&3



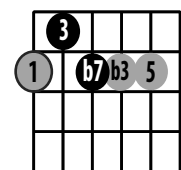
A form F1&2



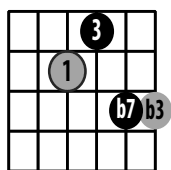
7#9 chords on “1”

“1”, needs to be on the lower-pitched tone (grey) of a half step pair. To use as a V type chord, “1” of the diminished half/whole scale needs to be “5” of the key (target).

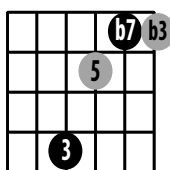
G form - F2&3



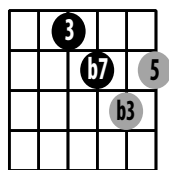
E form - F1&3



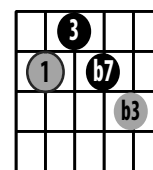
D form - F1&2



C form - F2&3



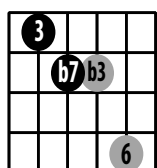
A form - F1&2



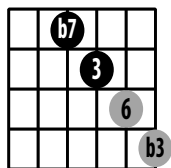
13#9 chords on “1”

“1”, needs to be on the lower-pitched tone (grey) of a half step pair. To use as a V type chord, “1” of the diminished half/whole scale needs to be “5” of the key (target).

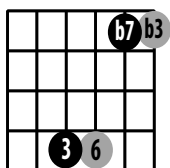
G form - F2&3



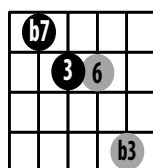
E form - F1&2



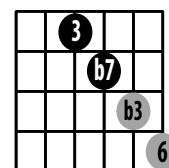
D form - F1&2



C form - F2&3



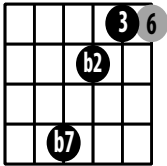
A form - F1&2



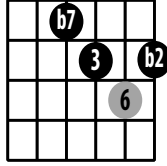
13b9 chords on "1"

"1", needs to be on the lower-pitched tone (grey) of a half step pair. To use as a V type chord, "1" of the diminished half/whole scale needs to be "5" of the key (target).

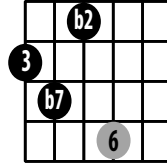
G form - F1&2



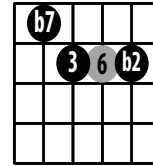
E form - F1&2



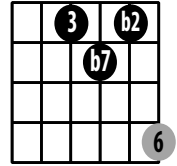
D form - F1&2



C form - F2&3



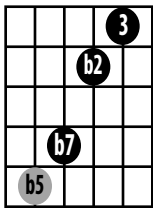
A form - F1&2



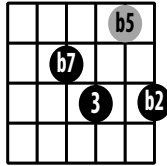
7b5#9 chords on "1"

"1", needs to be on the lower-pitched tone (grey) of a half step pair. To use as a V type chord, "1" of the diminished half/whole scale needs to be "5" of the key (target).

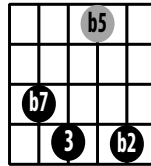
G form - F1&3



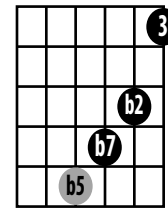
E form - F2&3



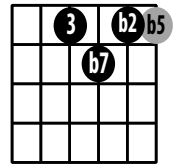
D form - F1&3



C form - F2&3



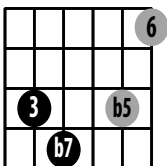
A form - F1&2



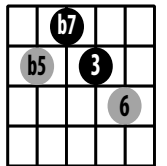
13#11 (no 9) chords on "1"

"1", needs to be on the lower-pitched tone (grey) of a half step pair. To use as a V type chord, "1" of the diminished half/whole scale needs to be "5" of the key (target). Note that b5 is equivalent to #11, and is a more appropriate numbering when there is no natural five, especially if the flat five is in the low range of pitch.

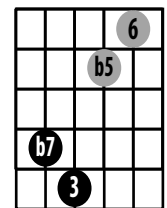
G form - F1&2



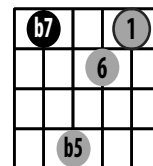
E form - F2&3



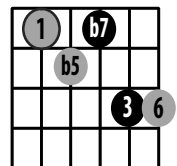
D form - F1&2



C form - F2&3



A form - F1&3



chords built with diminished half/whole scale

Chords built with diminished half whole scale include (all would have a "C" root for C diminished half/whole scale): major, minor, diminished, 7, 7b5, 7/#11, 7b5b9, 7b5#9, 7b9#11, 7#9#11, 7b5b9#9, 7b9#9#11, 13b9, 13#9, 13#11 (no 9).

Diminished Scale Fingering and Improv

In a diminished scale, learn to repeat groups of two to four notes (or more) with fixed intervals that are part of the diminished scale up or down in minor thirds and diminished fifths. Avoid repeating at intervals that would cause a redundancy where the last note of one group is the same as the first note of the next group.

Note that for each lower-pitched tone in a chromatic pair of notes in the diminished scale, there is a note a perfect fourth below it. Conversely, for each higher-pitched tone in chromatic pairs in the dim. scale, there is a note a perfect fourth above it.

There are only three diminished seventh chords: A-C-Eb-F#, B-DF-G# and E-G-Bb-C#. Due to the symmetrical structure of the diminished scale, once you determine whether a particular note is the upper or lower note in a chromatic pair, a melodic cell played in relation to it can be played with exactly the same relative intervals, “rubber stamped” in relation to any other note in the diminished seventh chord of which it is a part. Such melodic cells can be repeated up or down in minor thirds or in diminished fifths.

The notes of a diminished scale make the chord 13#11b9#9. The lower tone in a chromatic pair within the diminished scale is part of the diminished seventh named after the root of the 13#11b9#9 chord (C diminished seventh for C13#11b9#9). The upper tone in a chromatic pair within the diminished scale is part of the diminished seventh chord built on b2, 4, b6, or 7 of the 13#11b9#9 chord, which is 7b9 no root in relation to the C13b9#9 chord.

Learn to play both in-position diminished scale (three fingerings) and the four-note-per string fingering with the diagonal movement from string to string and one fret extra between the third and second string.

For fast sequences of pairs of fourths moving in diminished fifths on the three bass strings, use only the index and middle finger. Descend reaching a minor third (a three-fret interval inclusively) on the same string toward the head of the guitar with the index finger, followed by a perfect fourth to the same fret of the next larger string. Ascend reaching a minor third toward on the same string toward the body of the guitar, followed by a perfect fourth to the same fret of the next smaller string.

Make up cells with a combination of pairs of notes in fourths up or down in minor thirds, pairs of chromatic notes in diminished fifths or various four-note cells up or down in minor thirds or diminished fifths. Use one of the four notes in the cell as a point of reference and graphically track the set of first notes in minor thirds or diminished fifths. Learn the skewed pattern for minor thirds or diminished fifths that happens between the third and second string because of the change in tuning on those strings.

For memorized four-note cells, use a diminished scale fingering on the three small strings and descend in diminished fifths or minor thirds on the four bass strings (conceptual overlap) in relation to the first note of the four-note cell.

Ambiguously establish a blues style with both minor 7/#11 pentatonic (minor pentatonic with a sharp four) and major 6#9 pentatonic (major pentatonic with a sharp two used "on top" as a sharp nine.

fingering pairs of perfect fourths moving in minor thirds in-position

sixth string index finger

V	V	V	IV	V	V	IV	V	

sixth string middle finger

V	IV	V	V	V	V	V	V	

sixth string ring finger

IV	V	V	V	V	IV	V	V	VI

fingering pairs of diminished fifths moving in minor thirds

Cdim7

X	VII	VIII	X	VII	IX	VI	VIII	

V	VIII	VI	IX	VII	X	VIII	VII	IX

Db7b9 no root

XI	VIII	IX	XI	VIII	X	VII	IX	
VI	IX	VII	X	VIII	XI	IX	VIII	X

V Lydian Dominant and V Diminished Half/Whole Scale

Establish the ninth with Lydian Dominant, then transition to diminished half whole scale, replacing the ninth with both flat nine and sharp nine (b2, #2). The accompaniment may use alter ninths throughout, as long as the disagreement is not too prominent. This breaks a time-honored rule in jazz and blues where a chord's minor third in the accompaniment shouldn't be combined with a major third in the melody. Justify it by establishing the accompaniment chord darkening the chord sound, rather than the usual darkening in the melody.

Blues Ambiguity with Altered V Diminished Half/Whole

Let's break a rule. It's been established that when three are alternated in sequence, we should end on natural three. Paul McCartney successfully broke this rule in his outro solo on "Ticket To Ride". With all eighth or sixteenth notes, play the ascending sequence of notes "6-b7-3", followed by "b3" (#2 or sharp nine). It sounds sort of like a spy theme, like Mission Impossible or part of a James Bond score. Similarly, use diminished scale compositionally and get acquainted with its cool, odd sound.

IMPROVISING ON CHICK COREA'S SPAIN SOLO SECTION

The ingenious solo section chords in Chick Corea's *Spain* is a great chord progression with which to study altered dominant chords to build your ability to use them ambiguously. Here is the chord progression:

Gma7	Gma7	F#7	F#7	Em7	A7b9
Dma7	Gma7	C#7	F#7	Bm	B7

Use a Single Parent Major Scale as a Basis

Our primary task is going to be learning four scale types that each alter a note or two of the D major scale. G Lydian dominant is D major flat three. F# Phrygian major is D major sharp five and F# super Phrygian is D major flat six.

You will be managing a lot of scale fingerings, arpeggios and melodic ideas using them. Start practicing on one chord at a time, with a single scale and gradually learn to play on longer chord progressions with progressively more scales. Break the scales for V type chords into two categories: the [Lydian Family](#) and the [Phrygian family](#).

treat Dma7, Gma7, Em7 and Bm as D major scale-tone chords

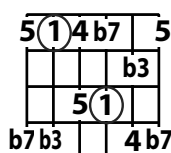
On those chords, use the D major scale, but tend to establish Bm as the tonic chord. The progression is ambiguous, establishing the key of D in bar seven and its relative minor, the key of Bm in bar eleven.

use a pentatonic key scale basis in B Aeolian minor and D Ionian major

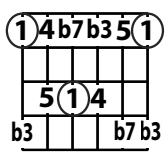
Using the We will be establishing the key as either mode VI of D major, which is B Aeolian or as mode I of D major, which is D Ionian (D major scale). You may know that there are three favored fingerings for the common major and minor pentatonic scales. Our use of the D major parent scale will use those three fingerings, as shown below (see Pentatonic Fingering/7 Pentatonic Scale Types By Octave Shape/[Learn These Six Pairs First](#)).

Gma7	Gma7	F#7	F#7	Em7	A7b9
Dma7	Gma7	C#7	F#7	Bm	B7

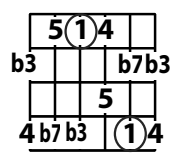
B min. pent. II



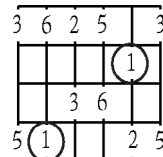
B min. pent. VII



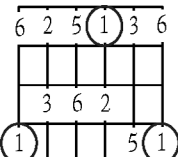
B min. pent. IX



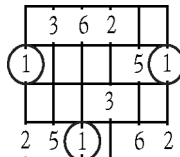
D maj. pent. II



D maj. pent. VII



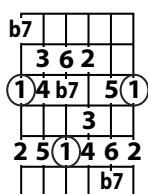
D maj. pent. IX



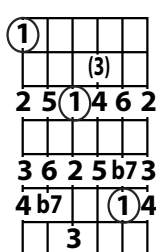
G Lydian Dominant During Gma7 in Bars Two and Seven

modify G Mixolydian to G Lydian dominant by sharpening its fourth

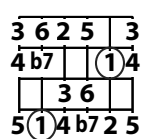
G Mixolydian I



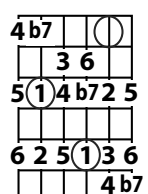
G Mixolydian III



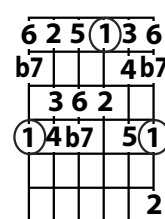
G Mixolydian VII



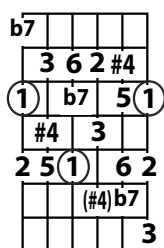
G Mixolydian VIII



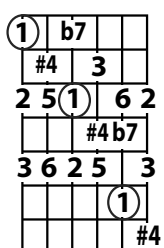
G Mixolydian XII



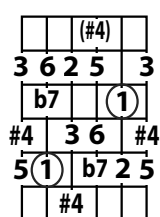
G Lydian dominant I



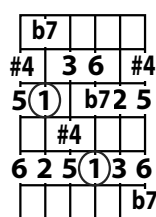
G Lydian dominant III



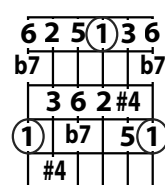
G Lydian dominant VII



G Lydian dominant VIII



G Lydian dominant XII



G Lydian dominant fingerings

For use in bars two and seven. G Lydian dominant is G Mixolydian with sharp four, is D major flat three and is C# super Locrian (see [C# super Locrian, the flat five substitute of G Lydian dominant](#) below). Also improv with the ninth and thirteenth arpeggios as a basis of the scale.

Gma7
Dma7

Gma7
Gma7

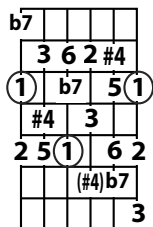
F#7
C#7

F#7
F#7

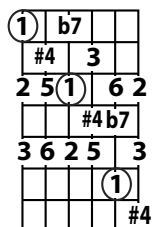
Em7
Bm

A7b9
B7

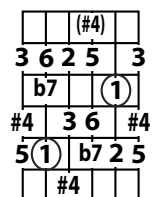
G Lydian dominant I



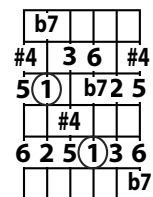
G Lydian dominant III



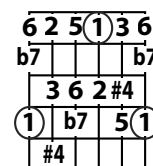
G Lydian dominant VII



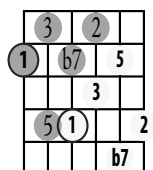
G Lydian dominant VIII



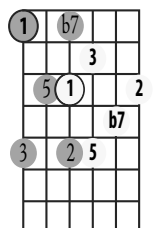
G Lydian dominant XII



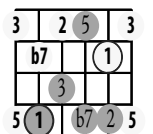
G9 II



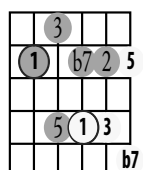
G9 III



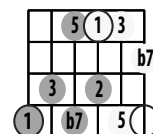
G9 VII



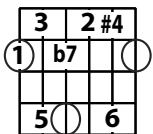
G9 IX



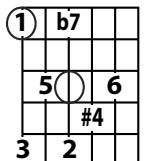
G9 XII



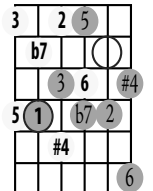
G13#11 II



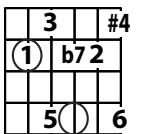
G13#11 III



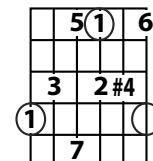
G13#11 VII



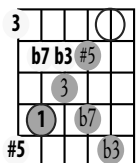
G13#11 IX



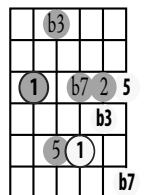
G13#11 XII



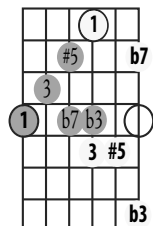
C#7#5#9 I



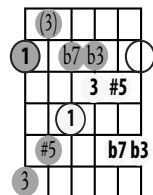
C#7#5#9 III



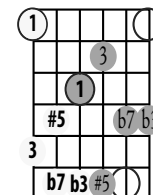
C#7#5#9 VI



C#7#5#9 VIII



C#7#5#9 VIII



Treatments Of The V chord (F#7) In Bars Three, Four and Ten

Gma7 Gma7 F#7 F#7 Em7 A7b9
 Dma7 Gma7 C#7 F#7 Bm B7

V Super Locrian and V diminished half whole featuring b5 of V (F#)

Super Locrian and diminished half-whole scale both contain flat five. These chords and arpeggios can be used during F#7 or C7 (each with optional altered tones) as a setup to a target chord with the root “B”. The scale choices show ambiguities. The target chord could be B I type (Bma7, B6), B V type (B7, B9) or B VI type (Bm, Bm7).

root on V →	F#7b5 V	F#7b5 VII	F#7b5b9 VIII	F#7b5#9 VIII		F#7b5 XI	F#7b5 XIII
flat five substitute for V (F#) is bII (C)	C7b5 V	C7b5 VII	C7#11 VIII	C13b5 VIII		C7b5 XI	C7b5 XIII

V Diminished Half/Whole Scale featuring 6 (13) of V (F#)

root on V →	F#13b5 II	F#13#9 VIII		F#13 VII	F#13#9 XIII		F#13b5 VII
flat five substitute for V (F#) is bII (C)	C7#9n5 II	C13#9 II		C7#5#9 VIII	C13#9 XIII		C7#9n5 VII

V Phrygian minor/major and V diminished half whole featuring 5 of V (F#)

root on V →	F#7#9 V		F#7#9 VIII	F#7#9 VIII	F#7#9 IX		F#7#5#9 XIII
flat five substitute for V (F#) is bII (C)	C13b9 V		C13b9 VIII	C13b9 VIII	C13b9 IX		C13b9 XIII

V super Locrian and V Phrygian minor/major featuring #5 of V (F#)

root on V →	F#7#5#9 V	F#aug VII	F#(7)#9 VII	F#7#5#9 VIII	F#7#5b9 VIII	F#7#5#9 VIII	F(7)#5#9 X
flat five substitute for V (F#) is bII (C)	C13#11 V	C9b5 VII	C13b5 VIII	C13b5 VIII	C9b5 VIII	C#13#11 VIII	C13#11 X
root on V →		F#7#5#9 XIII	F#(7)#5#9 X	F#7#5#9 XIII			
flat five substitute for V (F#) is bII (C)		C13#9 XIII	C13#11 X	C13#11 XIII			

C# super Locrian, the flat five substitute of G Lydian dominant

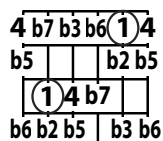
Gma7	Gma7	F#7	F#7	Em7	A7b9
Dma7	Gma7	C#7	F#7	Bm	B7

G7 is part of G Lydian dominant, the mode on the fourth step of D melodic minor (D major flat three). The seven-note thirteenth chord in G Lydian dominant is G13#11. The **flat five substitute** for G7 (G Lydian dominant) is C#7 altered (any combination of flat five, sharp five, flat nine and sharp nine, but no natural five nor natural nine). C#7 altered is part of super Locrian mode on the seventh step of D melodic minor (D major flat three).

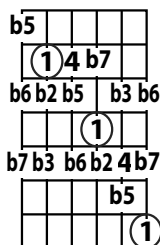
IV7 (G7, a Lydian dominant chord) is the flat two of a target III7 (F#7) major chord. The III7 (F#7) chord is in turn a V7 chord of a target VIIm (Bm) chord (B Aeolian). Jazz is full of unexpected twists and turns. The expected Bm target chord may turn out to be Bma7 or B7 (see [Melodically Superimposed Cadences/Escherian Cadence](#)).

modify C# Locrian to C# super Locrian by flattening its fourth

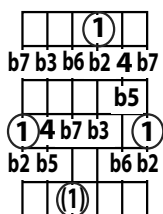
C# Locrian II



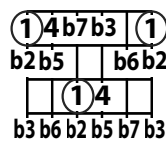
C# Locrian III



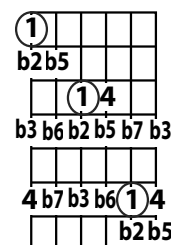
C# Locrian VI



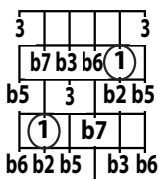
C# Locrian IX



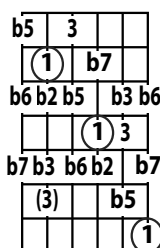
C# Locrian IX



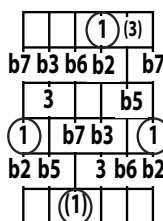
C# super Locrian I



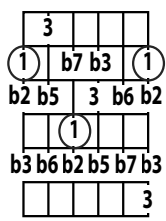
C# super Locrian III



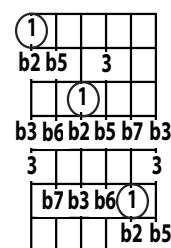
C# super Locrian VI



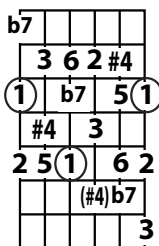
C# super Locrian VIII



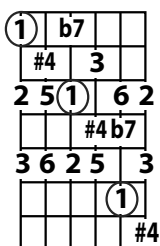
C# super Locrian IX



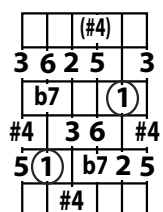
G Lydian dominant I



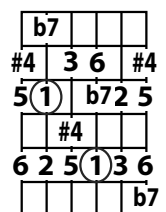
G Lydian dominant III



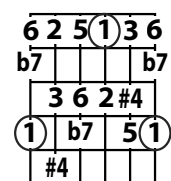
G Lydian dominant VII



G Lydian dominant VIII



G Lydian dominant XII

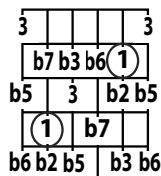


C# super Phrygian, an alternative to C# super Locrian

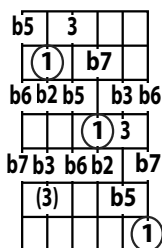
Super Locrian's formula is 1-b2-b3-b4(3)-b5-b6-7. Make super Locrian's fifth natural and you have super Phrygian, a very useful scale.

modify C# super Locrian to C# super Phrygian by making its fifth natural

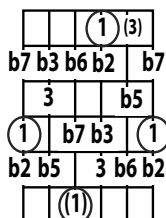
C# super Locrian I



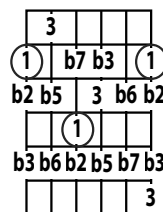
C# super Locrian III



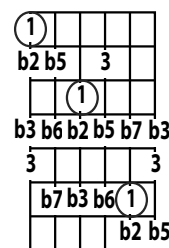
C# super Locrian VI



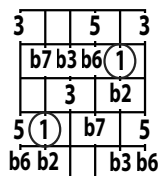
C# super Locrian VIII



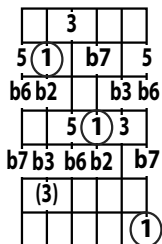
C# super Locrian IX



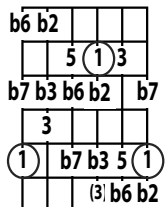
C# super Phrygian I



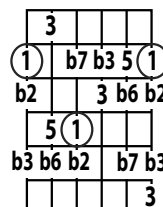
C# super Phrygian III



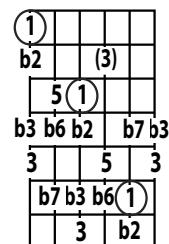
C# super Phrygian V



C# super Phrygian VIII



C# super Phrygian XII



Super Locrian modifies the Locrian mode by flattening its fourth. The flattened fourth proxies as a major third, providing a mode for a dominant seventh chord with *all* of the alterations used in dominant chords: flat five, sharp five (b6 of the scale), flat nine (b2 of the scale) and sharp nine (b3 of the scale). Super Phrygian is the same as super Locrian, except it has a natural fifth. Its altered tones are sharp five (b6 in a scale or b13 in a super Locrian chord name), flat nine and sharp nine.

Super Locrian could also be compared to Phrygian major with both its third and fourth descended a half step. Phrygian major has scale tones three and four, while super Phrygian has scale tones flat three and flat four, which usually would be used with flat three serving as sharp nine in the high range and flat four serving as natural three in the low range. Super Phrygian is a mode on the third step of harmonic major scale (major flat six scale).

Treat the B7 Chord in Bar Twelve as V of Em

By treating the B7 chord in bar twelve as a V of Em, an Escherian cadence is created, progressing to "Gma7" the relative major of E minor. See Melodically Superimposed Cadences/[Escherian cadence](#).

Modal II-V-I Cadences and Turnarounds

- **Overview**
- **The Traditional Major II-V-I Cadence**
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OVERVIEW

Establishing a Key

The most established chord progression that establishes the I chord as a key (the “C” chord in the key of “C”) is V to I (G to C or G7 to Cma7). An elaboration of that idea evolved in classical music in creating a secondary progression to play the “V” of the “V” chord. In terms of the key of I (“C”), “V of V” is “II”.

The chords in the top staff below are C major scale-tone chords. They are constructed in the traditional manner of constructing triads (three-note chords) with every-other-note of the C major scale. The every-other-note pattern is *thirds*, since each note to the next is inclusively three notes.

The diagram shows a circular fretboard for a guitar in standard tuning (E, A, D, G, B, E). The notes of the C major scale are placed on the fretboard: C (1st fret), D (2nd fret), E (3rd fret), F (4th fret), G (5th fret), A (6th fret), and B (7th fret). The word "thirds" is written in the center of the circle, indicating the interval between consecutive notes.

The musical notation consists of two staves. The top staff is in 4/4 time with a tempo of 60 bpm. It shows the C major scale-tone chords: C, Dm, Em, F, G, Am, Bdim, and C. The bottom staff shows the fret positions for each chord: C (0, 2, 3), Dm (2, 3, 5), Em (2, 4, 5), F (1, 3, 5), G (3, 4, 5), Am (4, 5, 7), Bdim (5, 7, 9), and C (0, 2, 3).

The second musical notation is in 3/4 time with a tempo of 120 bpm. It shows a sequence of chords: C, G, C, C, G, C, C, Dm, G, C. The bottom staff shows the fret positions for each chord: C (0, 2, 3), G (3, 4, 5), C (0, 2, 3), C (0, 2, 3), G (3, 4, 5), C (0, 2, 3), C (0, 2, 3), Dm (2, 3, 5), G (3, 4, 5), and C (0, 2, 3).

“V” of “C” is “G”. “V of G” is “D”, so “V” of “V” in the key of “C” is D (D minor as a triad). In jazz “V of V” is thought of as II. The classic progression in the key of “C”, “Dm-G-C” is called “II-V-I” in jazz.

Chord sequences, such as II-V-I, are called *cadences*. In jazz they are commonly called *turnarounds*.

II-V-I cadences establish a key, or temporary key on a chord. Any important chord in a progression can be thought of a target and temporary key. In a song in the key of “C”, you could make a cadence to the “IV chord” Fma7. In doing so, “F” can be thought of as a temporary “I” chord. II-V chords in the temporary key of F would be Gm7 and C7 (or similar qualities lie Gm9 and C13). During that Fma7 chord, you should simultaneously think in the overall key of “C” by using scales or melodic figures that are common to “C” and “F”. The listener needs to get the sense that you are in the overall key of “C”, yet temporarily resonating the F chord.

II to V is inclusively four scale tones, as is V to I. A flat five substitute may be used for the V chord, where flat five of V is bII of I (b5 of G is Db, which is b2 of I). This makes the substitute progression II-bII-I (Dm7-Db7-C7, for example).

See “Establishing a Key”.

II-V-I Cadences

II-V-I is the most common three-chord progression in jazz. It is well known in establishing a major key with major II-V-I cadences (IIIm6-V7-Ima) and establishing a minor key with minor II-V-I cadences (IIIm7b5-V7-Im). Melodically, there are subtle variants of both major II-V-I and minor II-V-I cadences. Variants include:

- different modes (see, “[Modes](#)”, “[Scale Ambiguity](#)”, [Seven Modal Dominants](#), and [Generic Sets of Numbers for Four Eighths or Sixteenths in Turnarounds](#) for example)
- use of a minor II-V cadence to a I major chord and key (see [Melodically Superimposed Cadences/Escherian Cadence](#)).
- using a [flat five substitute](#) for the V chord (see “[Substitution](#)”/[Flat Five Substitute](#))

In improvised melody, modes may be used that modify what is implied by the current chord progression to suggest different moods, typically darker and/or exotic moods. For example, the key may be A Aeolian, while the scale used is Phrygian, which introduces a dark and exotic flat two (“Bb” is flat two of “A”). Care should be taken to avoid striking conflicts between the mismatched tones of the superimposed scale and the tones of the chord progression. For example, the “Bb” note in A Phrygian would be better to use as a quick note in ornamentation against an A Aeolian chord progression, which may have sustained “B” notes a half step above the “Bb” tone. This concept of changing moods is covered in detail in “[Scale Ambiguity](#)”, “[Substitution](#)” and in “[Melodically Superimposed Cadences](#)”.

Modal Cadences

We need think of notes by number to think of things that we learn in one key and apply the thought to other keys. With modal cadences, any step of a major scale or other seven tone scale can be numbered as “1”, implying it is a key (or temporary key). See the [Modes](#) chapter. After numbering in relation to the related major scale, the chord built on the next higher scale tone would be its modal II chord and the chord built on a root four steps higher would be its modal V chord. For example, based on the C major scale, D minor on the second step could be a “I” chord, making E minor its “II chord” and A minor its “V chord. A major or dominant seventh would be a dominant V chord. See “[Modes](#)”/[Modes of Four Heptatonic Scales](#).

I Type Modes

I type modes imply the mode of the key (since the key is named after scale tone “1”). I is most commonly major (Ionian), Mixolydian, Dorian or Aeolian. Any mode of any of the four harmonizable seven-tone (heptatonic) scales (major, harmonic minor, melodic minor and major flat six) can be established as a key. After the four most common modes major, Dorian Mixolydian and Aeolian, other modes in common use are harmonic minor, Phrygian major, melodic minor and Lydian dominant. See the Table of Common Modes below.

Table of I Type Modes

scale	largest usable chord	arpeggio	relation to major scale
major (Ionian)	ma9/6	ma13	major mode I
Dorian	m13	m13	major mode II
Phrygian	m7	m11b9	major mode III
Lydian	ma13#11	ma13#11	major mode IV
Mixolydian	13	13	major mode V
Aeolian	m11	m11	major mode VI
Locrian	m7b5	m11b5b9	major mode VII
harmonic minor	m9(ma7)	m9(ma7)	major mode VI #5, Aeolian nat. 7
Phrygian major	7b9	7b9	mode III nat. 3, harmonic minor mode V
melodic minor	m9(ma7)	m9(ma7)	major b3
Lydian dominant..			major mode IV b7, major mode
diminished half/whole (Im6b5 focus)	m6b5	m6b5	Lydian dominant with b2 and #2 , instead of 2

II Type Modes

In s II-V-I cadence, II may be Dorian, Aeolian, Phrygian or Locrian. As a chord, the flat six and flat nine are not used, but as an arpeggio flat six and flat nine can be used if not over emphasized. In arpeggio-based melody the flat six and flat nine tones usually act as neighbors or passing tones in relation to chord tones. By playing flat six and flat nine as part of the series of thirds in the parent scale, they sound harmonious. See the Table of II Type Modes below.

Table of II Type Modes

scale	largest usable chord	arpeggio	relation to major scale
Dorian	m13	m13	major mode II
Phrygian	m7	m11b9	major mode III
Aeolian	m11	m11	major mode VI
Locrian	m7b5	m11b5b9	major mode VII

V Type Modes

Including its altered chord versions, there are many types of V chords. Mixolydian, Lydian dominant, Mixolydian flat six, Phrygian major, super Phrygian, super Locrian and diminished half whole (eight tones with b2, b3, 3, #4, 5, 6, b7). See “[Substitution](#)”/Flat Five Substitute. See the Table of V Type Modes below.

Table of V Type Modes

scale	largest usable chord	arpeggio	relation to major scale
Mixolydian	13	13	major mode V
Aeolian dominant	11	11	major mode V b6 melodic minor mode V
Lydian dominant	13#11	13#11	major mode IV b7, major mode
Phrygian dominant	7b9	7b9	mode III nat. 3, harmonic minor mode V
super Phrygian	7b9	7b9#9b13	major flat six mode III
super Locrian	7#5#9, 7#5b9	7#5b5#9b9	major flat six mode VII b4, mel. min. mode VII
diminished half/whole	13b9#9#11	13b9#9#11	Lydian dominant with b2 and #2, instead of 2

bII of I, the Flat Five Substitute of V (bV of V of I is b2)

Especially beginning with bebop around 1940, bII7 (bII^{13#11}) has been substituted for V. It is called a flat-five substitute because it is a flatted fifth from V (bII of the key is bV of V). It is also called a “tritone” substitute, since splitting the octave in half creates an interval of an octave with a diminished fifth exactly halfway between, involving making a relationship between three notes. See “[Substitution](#)”/Flat Five Substitute

The chord synonyms (alternate names) for bII and V chords are shown below. They are all derived from bVI melodic minor in relation to the current key. bII and V progress to a key on I. For example, Db and G are the bII and V of I in the key of C. The bII chords (“Db”) originate on mode IV of bVI (“Ab”) melodic minor and the V chords (“G”) originate on the VII (“G”) of bVI (“Ab”) melodic minor.”

Table of bII and V Chord Synonyms

bII chord name	bII tones	V chord name	V tones
13#11	1-3-5-b7-2-#4-6	7b5#5b9#9	1-3-b5-#5-b7-b2-#2
9#11	1-3-5-b7-2-#4	7b5b9	1-3-b5-#5-b7-b2
7#11	1-3-5-b7-#4	7b5b9	1-3-b5-b7-b2
7	1-3-5-b7	7b5b9 no root	1-3-b5-b7-b2
7b5	1-3-b5-b7	7b5	1-3-b5-b7
13#11 no root, no fifth	3-b7-2-#4-6	7#5#9	1-3-#5-b7-#2
9#11 no root	3-5-b7-2-#4	7#5b9	1-3-#5-b7-b2
7#11 no fifth	1-3-5-b7-#4	7b5b9	1-3-b5-b7-b2
13#11 no5, n9	1-3-b7#4-6	7b5#9	1-3-b5-b7-#2

THE TRADITIONAL MAJOR II-V-I CADENCE

(IIIm7-V7-Ima7 of its parent major scale)

In the key of C, the three scale-tone seventh chords ascending in perfect fourths, ending on Cma7 are Dm7-G7-Cma7. Tones of the C major scale to make different versions of each chord. Cma9 (C-E-G-B-D) could be used instead of Cma7 (C-E-G-B). Dm11 (D-F-A-C-G) could be used instead of Dm7 (D-F-A-C). Start by studying just the seventh chords. See [“Scale-Tone Seventh Progression”/Constructing Scale-Tone Seventh Chords](#).

IIIm7-V7-Ima7 chord and arpeggio example

scale tone chord	IIIm7	V7	Ima7
chord name	Dm7 VII	G7 VIII	Cma7 VIII
arpeggio	Dm9 VII	G9 VII	Cma9 VII

arpeggio-based major II-V-I turnaround at the eighth note level

This worn-out turnaround sorely needs modification such as inverting it so it doesn't start on the root, leaving some notes out, changing the mode, ornamenting notes or change of rhythm such as pushes. See [Make the Turnaround More Interesting with Simple Modifications](#). Examples are shown below.

[click this link to play a video of the examples below](#)

worn-out turnaround

1 Cmaj7 A7(b9) 2 Dm7 G7 3 Cmaj7

TAB

start on the third

1 Cmaj7 A7(b9) 2 Dm7 G7 3 Cmaj7

omit the first note

1 Cmaj7 A7(b9) 2 Dm7 G7 3 Cmaj7

add a lower chromatic

1 Cmaj7 A7(b9) 2 Dm7 G7 3 Cmaj7

change the mode

4 1 Cmaj7 A7(b9) 2 Dm7 G7 3 Cmaj7

C harmonic minor C major

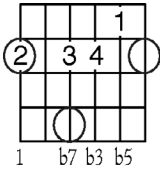
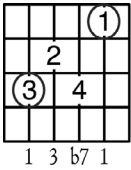
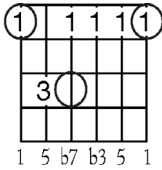
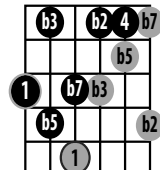
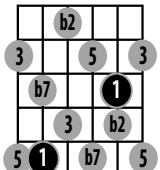
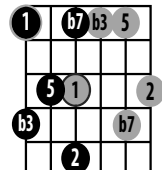
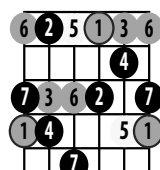
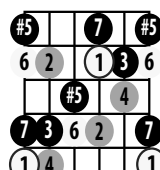
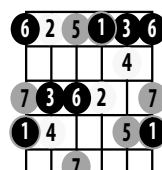
worn-out turnaround

1 Cmaj7 A7(b9) 2 Dm7 G7 3 Cmaj7

THE TRADITIONAL MINOR II-V-I CADENCE

This cadence uses VIIIm7b5-III7-VIm7 of its parent major scale. III7 is a [secondary dominant](#) and targets VI minor. See “[Secondary Dominant](#)”, “[Modal II-V-I Cadences and Turnarounds](#)”/[Secondary Dominant](#) and “[Melodically Superimposed Cadences](#)”/[Secondary Dominants](#).



VIIIm7b5-III7b9-Im7 chord and arpeggio example

scale-tone chord	Bm7b5 VI	E7 V	Am7 V
chord name			
arpeggio	Bm11b5b9 V	E7b9 IV	Am9 V
			
arpeggio and parent scale	Bm11b5b9 and C major V	E7b9 and C major #5 IV	Am9 and C major V
			

arpeggio-based minor II-V-I turnaround at the eighth note level

This turnaround will go through each of the modifications covered earlier in [Make The Turnaround More Interesting with Simple Modifications](#).

[click to play a video of the examples below](#)

original turnaround	ascend from the third instead of the
2 Bm7(b5) E7(b9) 3 Am7	4 Bm7(b9) E7(b9) 5 Am7
	
T A B	T A B
9 7 10 10 9 10 7 9 7 7	7 10 10 8 7 9 10 7 10 7

omit a note precede the first note with a lower chromatic

6 Bm7(b5) E7(b9) 7 Am7 8 Bm7(b5) E7(b9) 9 Am7

T 9 7 10 9 10 7 9 7 7 6 7 10 8 7 9 10 7 10 7

A 9 7 10 9 10 7 9 7 7 6 7 10 8 7 9 10 7 10 7

B 9 7 10 9 10 7 9 7 7 6 7 10 8 7 9 10 7 10 7

insert a scale tone change the scale

10 Bm7(b5) E7(b9) 11 Am7 12 Bm7(b5) E7(b9) 13 Am7

T 9 10 7 10 10 9 10 7 9 7 7 7 10 8 7 9 10 7 10 7

A 9 10 7 10 10 9 10 7 9 7 7 7 10 8 7 9 10 7 10 7

B 9 10 7 10 10 9 10 7 9 7 7 7 10 8 7 9 10 7 10 7

change the rhythm

14 Bm7(b5) E7(b9) 15 Am7 16 Bm7(b5) E7(b9) 17 Am7

T 9 7 10 10 9 10 7 9 7 7 7 10 8 10 8 7 9 10 7 10 7

A 9 7 10 10 9 10 7 9 7 7 7 10 8 10 8 7 9 10 7 10 7

B 9 7 10 10 9 10 7 9 7 7 7 10 8 10 8 7 9 10 7 10 7

Flat Five Substitute Cadences

See Lydian Dominant as bII of I, IV or V, Lydian Dominant as bII of V in a Minor Key, "Substitution"/ Flat Five Substitute.

II-V-I COMPING PICKUP AND PUSH RHYTHMS

Establishing a Key on I

As explained at the beginning of this chapter in [Overview/Establishing a Key](#), II-V-I cadences establish a key, or temporary key on the “I” chord. See the chapter “[Establishing a Key](#)” for a broader scope. The I chord can be considered the target, with II-V leading to it with chord roots in fourths.

The II-bII-I Cadence Using a Flat Five of Five Substitute

A flat five substitute replaces the V chord with a chord root a flattened fifth above or below the root of the V chord. See “[Substitution](#)”/[Flat Five Substitute](#). The quality is dominant or altered dominant, making 7, 9, 11 or 13 chords with optional flat or sharp five or optional flat or sharp nine.

Target Chord on Beat One

on beat one or with the optional “push”

Typically a chord featured as “I” in a II-V-I cadence occurs on beat one or pushing beat one. To “push” beat one, the “I” chord is played on the last division of the beat previous to beat one. This is commonly the “and of four”, the last half of the fourth beat. In swing eighths, the first of two eighth notes on the beat gets about two thirds of a beat and the last of two eighth notes on the beat gets the remainder of the beat, making a “short-long” pair for each beat.

With eighth note triplets in 4/4, the three divisions of the beats are traditionally counted “1-trip-let; 2-trip-let, 3-trip-let; 4-trip-let.” With eighth note triplets, the “let” after four is the last division of the fourth beat. With sixteenth notes in 4/4, the four divisions of the beats are counted as follows (“+” is pronounced “and”): “1e+a; 2e+a; 3e+a; 4e+a”. With sixteenth notes in 4/4, the “a” after four is the last division of the fourth beat.

Playing on the last division of the beat previous to beat one (beat four in 4/4, beat three in 3/4, etc.) still suggests that the I chord begins the bar, but syncopates beat one by playing the I chord early on the last division of the previous beat.

See also “[Rhythmic Words and Comping](#)”/[Hearing Pickups and Pushes](#) and see “[Rhythmic Words and Comping](#)”/[Comping Rhythms/Varying Rhythm](#).

Cadence to the Target I Chord with a Pickup

superimposed chords

Cadences are often played in a superimposed manner, where the instrument playing the cadence is playing the II-V (or II-bII) chords in the bar previous to the target I chord while the rest of the instruments are playing a different chord (or chords). “[Melodically Superimposed Cadences](#)” shows how to do this in melody and the principles are the same for a chording accompaniment.

pickup cadences early in the bar for fast tempos, late for slow tempos

When the II-V chords (or II-bII with a flat five substitute) are played earlier in the bar previous to the target I chord, they may create more dissonance when they don't harmonize with the current chord. To lessen the dissonance, such conflicting chord are more acceptable at faster tempos, so the time of dissonance in seconds is two seconds or less.

Conversely, when the II-V chords (or II-bII) are played *later* in the bar previous to the target I chord, they will create less dissonance by lessening the time they don't harmonize with the current chord. With the lesser part of the pickup bar with the cadence chords near the end of the bar, slower tempos can be acceptable, where the duration of the II-V chords (or II-bII) in seconds is two seconds or less.

progressive late to early pickup, top-voiced jazz blues cadences - [click to play video](#)

top voice 5-b7-1

Swing Eighth
♩ = 60

1 2 3 4 5

6 7 8 9

10 11 12 13 14

Chords: Dm¹¹ G7([#]9) C⁷, Gm⁷ C⁷ F⁹, Dm¹¹ D^b13 C⁷, Gm⁷ G^b7 F⁹, F⁹, Dm¹¹ G7([#]9) C⁷, B7([#]5) B^b13 A7([#]9), E7([#]9) A7(^b9) Dm⁷, Dm⁷, Am⁷ D7([#]5) G7(sus4), Dm⁷ G7([#]9) C⁷, E7([#]9) E^b7 Dm⁷, Dm¹¹ D^b13 C⁷, Dm⁷ G⁹ C⁹.

top voice 1-b7-5

♩ = 85

System 1 (Measures 15-19):
 Chords: Dm7 G7(♯9) C7, Gm7(sus4) C7 F9, Dm7 Db13 C7, Gm7(sus4) Gb7 F9.
 Tablature fingerings: (15) T:13, A:10, B:12; (16) T:11, A:10, B:10; (17) T:13, A:11, B:10; (18) T:13, A:10, B:9; (19) T:13, A:11, B:10.

System 2 (Measures 20-23):
 Chords: F9, Dm7 G7(♯9) C7, B7(b9) E7(b5) A7, E7(♯5) A7(b9) Dm11.
 Tablature fingerings: (20) T:13, A:10, B:12; (21) T:13, A:11, B:10; (22) T:13, A:13, B:12; (23) T:13, A:11, B:10.

System 3 (Measures 24-27):
 Chords: Dm7 Am7 Ab9 G7, Dm7 Db13 C7, E7(♯5) Eb7 Dm11, Dm7 G7(♯9) C7.
 Tablature fingerings: (24) T:13, A:11, B:10; (25) T:13, A:11, B:10; (26) T:13, A:12, B:11; (27) T:13, A:11, B:10.

top voice 6-3-1

♩ = 110

System 1 (Measures 29-33):
 Chords: Am7 D13 G6, Dm9 G7(♯9) C9, Am7 Ab13 G6, Dm9 Db13.
 Tablature fingerings: (29) T:5, A:5, B:5; (30) T:5, A:4, B:4; (31) T:5, A:4, B:3; (32) T:5, A:4, B:3; (33) T:5, A:4, B:4.

System 2 (Measures 34-37):
 Chords: C9, Am7 D13 G6, F♯m7(b5) B7(♯9) E7(♯9), Bm11 E7(b9).
 Tablature fingerings: (34) T:5, A:5, B:5; (35) T:5, A:4, B:4; (36) T:5, A:4, B:3; (37) T:5, A:4, B:3.

System 3 (Measures 38-42):
 Chords: Am7 Em7 Am9 D7(sus4), Am7 D13 G6, B7(♯9) Bb7(b9) Am7, Am7 D13 G6.
 Tablature fingerings: (38) T:5, A:5, B:5; (39) T:5, A:4, B:4; (40) T:5, A:4, B:3; (41) T:5, A:4, B:3; (42) T:5, A:4, B:4.

top voice 5-b7-1

Swing Eighth

♩ = 60

1 2 3 4 5

C^9 F^9 C^9

Dm^{11} $G7(\#9)$ C^7 Gm^7 C^7 F^9 Dm^{11} $D\flat^{13}$ C^7 Gm^7 $G\flat^7$ F^9

6 7 8 9

F^9 C^9 A^7

Dm^{11} $G7(\#9)$ C^7 $B^7(\#5)$ $B\flat^{13}$ $A^7(\#9)$ $E^7(\#9)$ $A^7(b9)$ Dm^7

10 11 12 13 14

Dm^7 G^9 C^9 A^7 Dm^7 G^9 C^9

Am^7 $D^7(\#5)$ $G^7(sus4)$ Dm^7 $G7(\#9)$ C^7 $E^7(\#9)$ $E\flat^7$ Dm^7 Dm^{11} $D\flat^{13}$ C^7

T A B

top voice 5-b7-1

Swing Eighth

♩ = 60

1 2 3 4 5

C^9 F^9 C^9

Dm^{11} $G7(\#9)$ C^7 Gm^7 C^7 F^9 Dm^{11} $D\flat^{13}$ C^7 Gm^7 $G\flat^7$ F^9

6 7 8 9

F^9 C^9 A^7

Dm^{11} $G7(\#9)$ C^7 $B^7(\#5)$ $B\flat^{13}$ $A^7(\#9)$ $E^7(\#9)$ $A^7(b9)$ Dm^7

10 11 12 13 14

Dm^7 G^9 C^9 A^7 Dm^7 G^9 C^9

Am^7 $D^7(\#5)$ $G^7(sus4)$ Dm^7 $G7(\#9)$ C^7 $E^7(\#9)$ $E\flat^7$ Dm^7 Dm^{11} $D\flat^{13}$ C^7

T A B

top voice 5-b7-1

Swing Eighth

♩ = 60

Measures 1-14 of the 'Autumn Leaves' top voice 5-b7-1 cadences. The score is in 4/4 time with a tempo of 60 beats per minute. The key signature has one flat (B-flat). The melody is written in the treble clef, and the accompaniment is in the bass clef. Chords are indicated above the staff, and fingerings are shown in the bass clef. The sequence of chords is: Dm11, G7(#9), C7 (measures 1-2); Gm7, C7, F9 (measures 3-4); Dm11, Db13, C7 (measures 5-6); Gm7, Gb7, F9 (measures 7-8); F9, Dm11, G7(#9), C7 (measures 9-10); B7(#5), Bb13, A7(#9), E7(#9), A7(b9), Dm7 (measures 11-12); Dm7, G9, Am7, D7(#5), G7(sus4), Dm7, G7(#9), C7 (measures 13-14).

Autumn Leaves top-voiced cadences- [click to play video](#)

top voice key 5-b7-1

Swing Eighth

♩ = 100

Measures 1-14 of the 'Autumn Leaves' top-voiced cadences. The score is in 4/4 time with a tempo of 100 beats per minute. The key signature has one flat (B-flat). The melody is written in the treble clef, and the accompaniment is in the bass clef. Chords are indicated above the staff, and fingerings are shown in the bass clef. The sequence of chords is: Am6, E9/B, Am7/C, E9/B, Am6, E9/B, Am7/C, E9/B (measures 1-4); Dm7, G7(#5), C9, F7, E7, F#m7(b5), B7(#5), E7(sus4) (measures 5-8); Am6, E9/B, Am7/C, E9/B, Am6, E9/B, Am7/C, E9/B (measures 9-12); Dm9, G7, C6 (measures 13-14).

14 Cmaj7 15 Am7 16 Dm7 17 E7(b9) 18 Am6 19 E9/B 20 Am7/C 21 E9/B

top voice key 1-b7-5

18 Am6 19 E9/B 20 Am7/C 21 E9/B 22 Am6 23 E9/B 24 Am7/C 25 E9/B

Bm7(b5) E7(#9) Am7 Bm7(b5) Bb13 Am7 Em7(sus4) A7 Dm9

22 Dm7 23 F9 24 E7 25 F#m7(b5) 26 B7(#5) E7

G9 C9 F7

26 Am6 27 E9/B 28 Am7/C 29 E9/B 30 Am6 31 E9/B 32 Am7/C 33 E9/B

Bm7(b5) E7(#9) Am7 Bm7(b5) Bb13 Am7 Dm9 G7 Cmaj7

30 Cmaj7 31 Am7 32 Dm7 33 E7(b9) 34 Am6 35 E9/B 36 Am7/C 37 E9/B

top voice 5-4-b3

34 Am6 35 E9/B 36 Am7/C 37 E9/B 38 Am6 39 E9/B 40 Am7/C 41 E9/B

Bm11(b5) E7(b9) Am7 Bm7(b5) Bb7 Am7 Em7(b5) A7(sus4)

38

Dm⁷ G⁹ C⁹ F⁹ E⁷ F^{#m7(b5)} B^{7(#5)} E^{7(#9)}

T 8 11 10 8 12 10 8
A 7 10 9 7 10 10 9
B 7 10 8 7 9 8 7

42

Am⁶ E^{9/B} Am^{7/C} E^{9/B} Am⁶ E^{9/B} Am^{7/C} E^{9/B}

Bm^{11(b5)} E^{7(b9)} Am⁷ Bm^{7(b5)} B^{b7} Am⁷ Dm⁹ G⁷

T 12 10 8 12 10 8 12 10
A 10 9 7 10 9 7 10 9
B 9 9 7 9 8 7 10 10

46

C^{maj7} Am⁷ Dm⁷ E^{7(b9)} Am⁶ E^{9/B} Am^{7/C} E^{9/B}

C^{6/9}

T 8 8 8 8 8 8 8 8
A 7 7 7 7 7 7 7 7
B 7 7 7 7 7 7 7 7

top voice b3-4-5

50

Am⁶ E^{9/B} Am^{7/C} E^{9/B} Am⁶ E^{9/B} Am^{7/C} E^{9/B}

B^{7(b9)} E^{7(b9)} Am⁷ Bm^{7(b5)} E^{7(b9)} Am⁷ Em^{7(b5)} A^{7(sus4)} Dm⁹

T 8 10 12 8 10 12 8 10 12
A 7 9 10 7 9 10 7 9 10
B 7 9 10 7 9 10 7 9 10

54

Dm⁷ F⁹ E⁷ F^{#m7(b5)} F⁹ E^{7(#9)}

G^{7(sus4)} C¹³ F⁷

T 8 10 11 8 10 12 8 10 12
A 7 9 10 7 9 10 7 9 10
B 5 8 8 9 8 11 9 11 12

58

Am⁶ E^{9/B} Am^{7/C} E^{9/B} Am⁶ E^{9/B} Am^{7/C} E^{9/B}

B^{7(b9)} E^{7(b9)} Am⁷ Bm^{7(b5)} E^{7(b9)} Am⁷ Dm⁹ G⁷ C^{maj7}

T 8 10 12 8 10 12 13 10 12
A 7 9 10 7 9 10 10 9 9
B 7 9 10 7 9 10 10 9 8

Summertime top-voiced cadences -cadences only

62 Cmaj7 Am7 Dm7 E7(b9) Am6 E9/B Am7/C E9/B

T
A
B

top voice b3-b3-1 and scalar harmonized bass

66 Am6 E9/B Am7/C E9/B Am6 E9/B Am7/C E9/B

T
A
B

70 Dm7 F9 E7

T
A
B

74 E9/B Am7/C E9/B Am6 E9/B Am7/C E9/B

T
A
B

78 Cmaj7 Am7 Dm7 E7(b9) Am6 E9/B Am7/C E9/B

T
A
B

top voice b7-b7-1 and scalar harmonized bass

82 Am6 E9/B Am7/C E9/B Am6 E9/B Am7/C E9/B

T
A
B

86 Dm^7 $G^7(\sharp 5)$ C^9 F^7 F^9 88 E^7 $D^{\circ 7}$ Am^7/E $F^{\circ 7}$ Am^7/G $G^{\sharp 7}$

90 Am^6 E^9/B Am^7/C E^9/B Am^6 E^9/B Am^7/C E^9/B $B^7(\sharp 5)$ $E^7(\sharp 9)$ Am $B^7(\sharp 5)$ Bb^{13} Am Dm^7 $Cmaj^7$

94 $Cmaj^7$ Am^7 Dm^7 $E^7(b9)$ Am^6 E^9/B Am^7/C E^9/B Am^6 $B^{\circ 7}$ Am^7 $G^{\sharp 7}$ Dm^9/A $E^7(b9)$ Am^6 98 Am^6

TAB

BUILDING MELODIC TURNAROUNDS

What is a Turnaround?

Arpeggios are chords played one note at a time. Chord-based melodic improvisation in bebop and modern jazz is based on arpeggios. Traditional practice begins by ascending or descending one arpeggio, moving to the nearest note of the next arpeggio, and ascending or descending the next arpeggio. This usually starts by playing four eighth notes for each arpeggio, making two beats for each arpeggio.

From the last note of one arpeggio to the first note of the next, you usually have the option of going up or down in pitch to the nearest note of the next arpeggio. The logic of moving to the next tone is called voice leading. See “[Voice Leading](#)” and the examples below.

The image displays two musical examples of voice leading between Cm7 and F7 arpeggios in 4/4 time. Each example consists of a staff with a treble clef and a guitar fretboard diagram below it. The fretboard diagram has six strings labeled T, A, B from top to bottom. Fingering numbers (1-4) are shown above the notes on the staff.

Example 1: voice leading down to the next arpeggio
The staff shows a Cm7 arpeggio (C4, E4, G4, Bb4) followed by an F7 arpeggio (F4, Ab4, C5, Eb5). The voice leading is down: C4 to F4, E4 to Ab4, G4 to C5, and Bb4 to Eb5. The fretboard diagram shows the notes: C (10th fret, T), E (8th fret, A), G (8th fret, B), and Bb (11th fret, B). The F7 arpeggio notes are: F (10th fret, T), Ab (8th fret, A), C (11th fret, B), and Eb (8th fret, B).

Example 2: voice leading up to the next arpeggio
The staff shows a Cm7 arpeggio (C4, E4, G4, Bb4) followed by an F7 arpeggio (F4, Ab4, C5, Eb5). The voice leading is up: C4 to F4, E4 to Ab4, G4 to C5, and Bb4 to Eb5. The fretboard diagram shows the notes: C (10th fret, T), E (8th fret, A), G (8th fret, B), and Bb (11th fret, B). The F7 arpeggio notes are: F (10th fret, T), Ab (8th fret, A), C (11th fret, B), and Eb (8th fret, B).

Start with Basic Turnarounds Like “Mr. Sandman” then Modify

Begin by learning the basics of turnarounds like the intro to Mr. Sandman, then learn to modify them to make interesting versions that catch the listeners attention and push the art form into new areas. Start with linear turnarounds (see [Linear Major II-V-I Turnarounds](#) and [Linear Minor II-V-I Turnarounds](#)) and regular, rudimentary rhythm, then employ any of these modifications:

- ✦ [Octave Displacement](#)
- ✦ [Vary the Order of Seventh Chord Tones](#)
- ✦ [non-linear turnaround cells](#)
- ✦ [Vary the Turnaround Rhythm:](#) syncopation, pickups and pushes
- ✦ [Six Directional Types of Turnarounds](#)
- ✦ substitute chord progression (see Substitution/[Categories of Substitution](#))
- ✦ using a II-V-I turnaround from a different mode (see the later sections of this chapter)
- ✦ [Chromaticized Turnarounds](#)
- ✦ [Freeform Turnarounds, Voice Leading the Fourth Note](#)

Linear Turnaround Cells

Turnaround cells usually use four notes per chord. In a linear turnaround cells, the four notes ascend or the four notes descend. To build a linear turnaround, ascend or descend the first four-note arpeggio, decide whether ascend or descend the second arpeggio and play through the second arpeggio. The directional combinations of ascending and descending the arpeggios are covered in [Six Directional Types of Turnarounds](#).

Non-Linear Turnaround Cells

In a non-linear turnaround cells, there is at least one exception regarding direction to the four notes of an arpeggio in a turnaround cell. The four notes don't continuously ascend or descend. The directional disorder of the notes doesn't necessarily sound bad. In funky sax parts, for example, the unexpected skips in interval can sound cool, as long as the intervals stay within a octave or less.

Non-linear cells can still have repeating design. For example, 1-5-3-7 or 3-7-1-5 and be either ascending pairs of fifths or descending pairs of fourths. 7-3-5-1 or 5-1-7-3 can be descending pairs of fifths or ascending pairs of fourths.

turnaround cells with pairs of fourths and fifths [click to play video](#)

"E" Mixolydian E⁹

Bm7 E7 Bm7 E7 Bm7 E7 Bm7 E7

1 5 b3 b7 3 b7 5 b7 b3 5 1 (5) 1 b7 3 b3 b7 1 5 3 b7 5 1 b7 b3 (b7) 3 5 1

T A B

7 10 9 7 9 10 7 9 9 7 10 7 9 9 7 7 10 9 7

For other types of non-linear turnarounds, see [Octave Displacement in Turnarounds](#), [1](#), [Vary the Turnaround Rhythm](#), [Categories of Substitution](#), [Chromaticized Turnarounds](#), [Freeform Turnarounds](#), [Voice Leading the Fourth Note](#) and the later sections of this chapter showing II-V-I turnarounds from different modes.

Setup and Target Chords in Turnarounds

Turnarounds are more confined and defined versions of the setup and target phrase discussed in "[Setup and Target Phrases](#)".

Turnarounds with Four Notes on each of Two Arpeggios

Begin building turnarounds in a single major scale fingering. Memorize the arpeggios by playing eight notes up one arpeggio, choosing a nearby note of the second arpeggio and playing eight notes down the second arpeggio, as shown in the example below.

rules to voice-lead two four-note arpeggios in a turnaround

1. Strings five through one are best, to stay in the more audible range. All within a single major scale fingering, play four notes in order, ascending or descending.
2. Move from the last note of the first arpeggio to the first note of the second arpeggio by an interval of a minor third (three frets, inclusively if on a single string) or less. In some cases the interval could be a major third (four frets) or a perfect fourth (five frets), but stick with the minor third rule at first.
3. Continue by ascending or descending the second arpeggio as range permits, until you have played four notes on the second arpeggio.

an example *without* shared-note redundancy on IIm7-V7

Example 1 is shown below. Here are the three steps used to construct it:

1. IIm7 contains notes 2-4-6-1 of the parent major scale. The first four notes of example 1 are a IIm7 (Dm7) arpeggio linearly (in ascending or descending order) by playing C major parent scale tones 1-2-4-6.
2. The V7 chord contains numbered tones 5-7-2-4 of the parent major scale. Continuing in example 1 in the same major scale fingering, “4” is chosen as the first note of the V7 chord, since it is within a minor third of the last note (“6”) of the IIm7 chord in the example.
3. From “5”, the first note of the V7 (G7) arpeggio in example, C major parent scale tones 5-4-2-7 descend the V7 arpeggio.

Example 1 (no redundancy)

Dm⁷ G⁷

C major tones 1 2 4 6 5 4 2 7

Example 2 (redundancy solved)

1 6 4 2 (2) 4 5 7

C major scale
Dm7 in black
VII

C major scale
G7 in black
VII

an example *with* shared-note redundancy on IIm7-V7

Especially in moderate tempo to up-tempo in jazz, blues and rock, it is preferable to keep the notes changing and not play the same note two or more times consecutively, unless there is some rhythmic purpose in it. With seventh or larger chord roots progressing up in fourths (such as IIm7 to V7), this happens when the last tone of the first chord is the root or third. The sequence of major scale roots in fourths is 7-3-6-2-5-1-4. See [Shared-Note Redundancy](#).

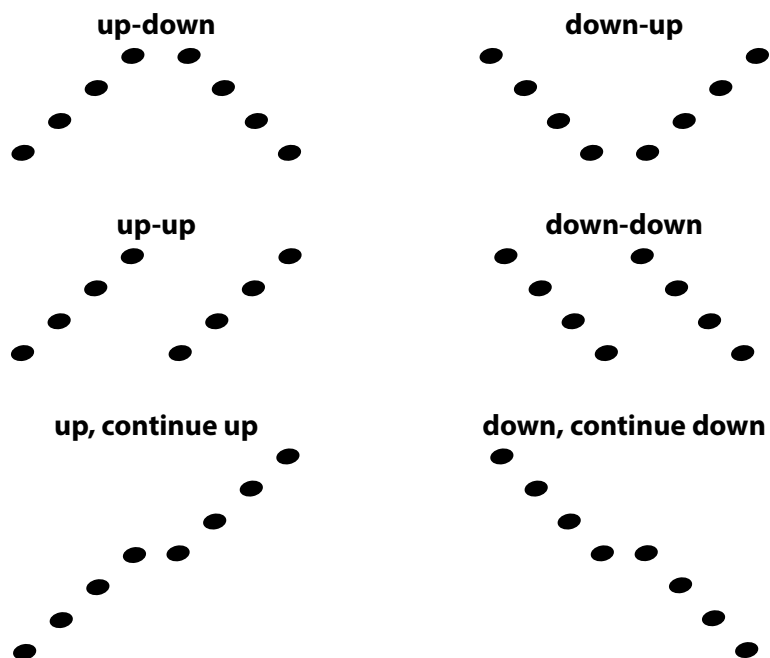
If the last note of the IIm7 is a note in the V7, sustain through the second note (a tie in music notation) or omit the first note of the V7 chord and leave a rest of the same value in its place.

Example 2 is shown above. Here are the three steps used to construct it:

1. IIm7 contains notes 2-4-6-1 of the parent major scale. By descending tones 1-6-4-2 on the IIm7 (Dm7), the last tone, “2” is also in the V7 chord and would be a good choice for a small interval (the same note). However, it causes a shared-note redundancy and its preferred to avoid the duplicated note.
2. To keep the notes changing and avoid redundancy the first note of the V7 chord could either sustain the C major parent scale tone “2” that ended the Dm7 chord, or a rest could be used in place of it.
3. The rest was chosen to begin the V7 chord “(2)” is shown below the rest to indicate what the numbered tone would have been if it were played.

Six Directional Types of Turnarounds

Turnarounds are traditionally linear, meaning each arpeggio is ascended or descended in order. Arpeggios are shown below, played in that manner. Turnarounds can also be played non-linearly, whimsically skipping around the tones of an arpeggio. See “[Voice Leading Improv with Arpeggio Cadences](#)”/ [Diatonic Voice leading](#). The graphic examples below are displayed afterward in music notation.



[click here to play a video of the examples below](#)

linear turnaround, up-down linear turnaround, down-up

1 Cm⁷ 2 F⁷ 3 Cm⁷ 4 F⁷

linear turnaround, up-up linear turnaround, down-down

5 Cm⁷ 6 F⁷ 7 Cm⁷ 8 F⁷

T A B

5 8 8 6 | 5 6 8 5 || 6 8 8 5 | 7 5 4 6

5 8 8 6 | 5 8 6 5 || 6 8 8 5 | 5 6 8 5

linear turnaround - up, continue up linear turnaround - down, continue down

9 Cm7 10 F7 11 Cm7 12 F7

T
A
B

8 6 5 8 5 8 6 5 6 8 8 5 7 3 6 3

Octave Displacement in Turnarounds

Octave displacements in turnarounds can both add a pleasing melodic effect and often solve problems in having to wide a range of pitch. The descriptions here involve two-chord turnarounds, but the same principles can be applied to turnarounds of more than two chords by looking at each pair of chords in the context shown below.

octave displacment in up/down or down/up turnarounds

In up/down turnarounds, the second, third or fourth note in the first arpeggio can be played an octave lower, then continue in that octave.

In down/up turnarounds, the second, third or fourth note in the first arpeggio can be played an octave higher, then continue in that octave.

octave displacment in up/up or down/down turnarounds

With the up/up or down/down directional designs:

- ✦ the second, third or fourth note in any “up” (ascending arpeggio) can played an octave lower, then continue in that octave.
- ✦ the second, third or fourth note in any “down” (descending arpeggio) can played an octave higher, then continue in that octave.

Octave displacement of the up/continue up and down/continue down turnarounds is redundant, since they become the same as the up/up and down/down, respectively.

♩ = 120

Swing Eighths

linear turnaround, up-down

linear turnaround, up-down

Cm^7 F^7

T 5 8 8 6
A 5 6 8 5
B 5 8 8 6

up-down, octave displace the second note of the first arpeggio

(same, all up an octave)

up-down, octave displace the second note of the first arpeggio (same, all up an octave)

Cm^7 F^7 Cm^7 F^7

T 5 6 5 8 7 8 6 8
A 5 6 5 8 7 8 6 8
B 5 6 5 8 7 8 6 8

up-down, octave displace the third note of the first arpeggio

(same, all up an octave)

up-down, octave displace the third note of the first arpeggio (same, all up an octave)

Cm^7 F^7 Cm^7 F^7

T 5 8 5 8 7 8 6 8
A 5 8 5 8 7 8 6 8
B 5 8 5 8 7 8 6 8

up-down, octave displace the fourth note of the first arpeggio

up-down, octave displace the fourth note of the first arpeggio

Cm^7 F^7

T 5 8 8 8
A 5 8 8 8
B 5 8 8 8

linear turnaround, down-up

down-up, octave displace second note of second arpeggio

13 Cm⁷ 14 F⁷ 15 Cm⁷ 16 F⁷

TAB

down-up, octave displace third note of second arpeggio

17 Cm⁷ 18 F⁷ 19 Cm⁷ 20 F⁷

TAB

linear turnaround, up-up

up-up, octave displace the second note of the first arpeggio

21 Cm⁷ 22 F⁷ 23 Cm⁷ 24 F⁷

TAB

up-up, octave displace the third note of the first arpeggio

up-up, octave displace the fourth note of the first arpeggio

25 Cm⁷ 26 F⁷ 27 Cm⁷ 28 F⁷

TAB

up-up, octave displace the second note of the second arpeggio

up-up, octave displace the third note of the second arpeggio

29 Cm⁷ 30 F⁷ 31 Cm⁷ 32 F⁷

TAB

up-up, octave displace the fourth note of the second arpeggio

33 Cm⁷ 34 F⁷

T
A
B

5 8 8 6 5 8 6 7

linear turnaround, down-down

down-down, octave displace the second note of the first arpeggio

35 Cm⁷ 36 F⁷ 37 Cm⁷ 38 F⁷

T
A
B

8 5 6 8 7 8 6 8 8 8 5 7 7 8 6 8

down-down, octave displace the third note of the first arpeggio

down-down, octave displace the fourth note of the first arpeggio

39 Cm⁷ 40 F⁷ 41 Cm⁷ 42 F⁷

T
A
B

8 5 8 5 7 8 6 8 8 5 6 5 7 8 6 8

down-down, octave displace second note of second arpeggio

down-down, octave displace third note of second arpeggio

43 Cm⁷ 44 F⁷ 45 Cm⁷ 46 F⁷

T
A
B

8 5 6 8 7 6 8 5 8 5 6 8 7 8 8 5

down-down, octave displace fourth note of second arpeggio

47 Cm⁷ 48 F⁷

T
A
B

8 5 6 8 7 8 6 5

linear turnaround - up, continue up

up-continue up, displace second note of first arpeggio
redundant, since it is the same as up/up with displacement

49 Cm⁷ 50 F⁷ 51 Cm⁷ 52 F⁷

T
A
B

8 6 5 8 5 8 6 5 5 6 5 8 5 8 6 5

Harmonic Agreement by Rhythmic Level

The harmonic nature of what you play differs at different rhythmic levels. With longer the note durations, you have to play more in harmony with the chord. Longer note durations need to stay closer to the chord tones, playing them more often and emphasizing them more. Shorter note values can wander farther away from the chord tones, only emphasizing chord tones with their core melodic tones.

arpeggio-based melody at the eighth note level

Melody at the eighth note level can stay closer to the chord tones with a higher percentage of chord tones and with stronger emphasis of the chord tones by placing them on the beat, ending phrases with them and with whatever other devices you can use to draw attention to them.

Turnarounds are melodic sequences like the introduction to Mister Sandman that are solely arpeggios tones. They provide the safest way to show agreement with the current chord, by playing only tones of the current chord. Turnarounds are played on fairly short durations of a chord, most typically two beats, where four eighth notes are played during the two beats of each chord. The “[descend five and seven](#)” [voice leading](#) concept is useful in constructing arpeggio turnarounds by playing an arpeggio for one chord and descending its fifth and seventh to create the arpeggio for the next chord (whose root is up a perfect fourth from the root of the current chord). If you are intending to precede the next chord with a [secondary dominant](#) that has changed a minor chord to major, be sure to chromatically raise the appropriate note for its major third. Another important one-note change is the “[descend seven](#)” voice leading concept, which is useful to create a ninth chord version of the next chord with no root.

A wide diversity of musicians and composers from Johann Sebastian Bach to Charlie Parker have used devices to put chord tones on the beat, making them more emphasized. The tactic is to stay within the range of a chord where it has been built with every other tone of a scale and go up and down the scale in that range with the chord tones on the beat and the non-chordal tones on the offbeat.

Building Turnarounds With Major Scale-Tone Arpeggios

first, build two-chord turnarounds in fourths

Precede any scale-tone arpeggio with the scale-tone arpeggio down a perfect fourth and play a four note arpeggio of each. Voice-lead so the last note of the first chord moves to the nearest note of the next. In the example below, the chords and arpeggios are shown for the C major scale. Any chord can be established as the key, with the chord before it (on it's left below) making a cadence to it. The Bm7b5 chord can be preceded with Fma7. The arpeggios are shown in larger versions, but you can start with whatever version of 1-3-5-7 each arpeggio has as it is built with every-other note of a seven tone scale (see "[Scale-Tone Seventh Progression](#)" / [Constructing Scale-Tone Seventh Chords](#)). The sequence of chords in fourths is VII-III-VI-II-V-I-IV (B-E-A-D-G-C-F in the key of C).

The qualities of sevenths are listed for the key of C in the second row below (titled "chord" at the left). The qualities of larger chords are listed in the fourth row below, titled "arpeggio". The diagrams in the row below "arpeggio" are numbered in the key of the chord root. The tones on the diagrams in the row below "arpeggio and scale" are numbered in terms of the parent major scale, C major in this case.

E form parent major, fingering 7, numbered in the key of each chord

The boxed area is the common modes. Grey columns show the best fingerings for improv.

scale- tone ninth	VIIIm7b5b9	IIIm7b9	IIIm7b9	VIm9	IIIm9	V9	IIma9	IVma9
chord	Bm7b5 VII	Em7 VII	E7 VII	Am7 IX	Dm7 VII	G7 VIII	Cma7 VIII	Fma7 VIII
	b5 1 b3 b7	1 5 b7 b3 5	1 5 b7 3 5	b7 b3 5 1	b3 b7 1 5	1 3 b7 1	1 7 3 5	1 5 7 3
arpeggio	Bm11b5b9 VII	Em11b9 VII	E7b9 VII	Am9 VII	Dm9 VII	G9 VII	Cma9 VII	Fma9 VII
arpeggio and parent scale	Bm11b5b9 and C major VII	Em11b9 and C major VII	E7b9 and C major #5 VII	Am9 and C major VII	Dm9 and C major VII	G9 and C major VII	Cma9 and C major VII	Fma9 and C major VII

D form parent major, fingering 2, numbered in the key of each chord

The boxed area is the common modes. Grey columns show the best fingerings for improv.

ninth	VIm7b5b9	IIIm7b9	IIIm7b9	VIm9	IIIm9	V9	Ima9	IVma9
chord	Bm7b5 X	Em7 IX	E7b9 XI	Am7 X	Dm7 X	G7 X	Cma7 X	Fma7 X
	1 b3 b5 b7	b3 b7 1 5	3 b7 b2 5	5 b3 b7 1	1 b7 b3 5	1 5 b7 3	1 5 7 3	5 1 3 7
arpeggio	Bm11b5b9 X	Em11b9 X	E7b9 IX	Am9 X	Dm9 X	G9 X	Cma9 X	Fma9 X
	b5 b7 b3 1 4	1 b7 b3 5 b2	b7 3 b2 b7	5 1 b7 2 5	5 1 b7 2 5	5 1 b7 2 5	3 2 5 7	3 2 5 7
	1 4 b2 b5	5 1 b2	1 b7 5 1	2 5 b3	b3 2 b7	2 5 1 3 b7	7 3	1 7 (3) 2
arpeggio and parent scale	Bm11b5b9 and C major VII	Em11b9 and C major X	E7b9 and C major #5 X	Am9 and C major X	Dm9 and C major X	G9 and C major X	Cma9 and C major X	Fma9 and C major X
	3 6 2 5 7 3	3 6 2 5 7 3	#5 3 6 2 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3
	4 1 4	4 1 4	4 #5 1 4	4 1 4	4 1 4	4 1 4	4 1 4	4 1 4
	7 3	7 3	7 3	7 3 (6) 5	7 3	7 3	(6) (2) 5	7 3 5

C form parent major, fingering 3, numbered in the key of each chord

The boxed area is the common modes. Grey columns show the best fingerings for improv.

ninth	VIm7b5b9	IIIm11b9	IIIm7b9	VIm9	IIIm9	V9	Ima9	IVma9
chord	Bm7b5 XII	Em7 XII	E7 XII	Am7 XII	Dm7 XII	G7 XII	Cma7 XII	Fma7 XIII
	b5 b3 b7 1	1 5 b7 b3 5 1	1 5 b7 3 5 1	1 5 b7 b3 5	1 5 b7 b3	3 b7 1 5	1 3 5 7 3	1 7 3 5
arpeggio	Bm11b5b9 XII	Em11b9 XII	E7b9 XII	Am9 XII	Dm9 XII	G9 XII	Cma9 XII	Fma9 XII
	b5 1 4 b7	5 1 4 b2	b2 5 1 b2	2 5 1 b3	b3 2 b7	1 b7 5 (3) 2	5 1 2 5	1 7 3 5
	b2 b5 b3	b3 b2 b7	5 1 b2 b7	b7 b3 b7	b7 b3			5 1 2
arpeggio and parent scale	Bm11b5b9 and C major XII	Em11b9 and C major XII	E7b9 and C major #5 XII	Am9 and C major XII	Dm9 and C major XII	G9 and C major XII	Cma9 and C major XII	Fma9 and C major XII
	4 1 4	4 1 4	4 #5 1 4	4 1 4	4 1 4	4 1 4	4 1 4	4 1 4
	5 1 4 2 5	5 1 4 2 5	7 3 6	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5

A form parent major, fingering 4/5, numbered in the key of each chord

The boxed area is the common modes. Grey columns show the best fingerings for improv.

ninth	VIIIm7b5b9	IIIm11b9	IIIm7b9	VIIm9	IIIm9	V9	IIma9	IVma9
chord	Bm7b5 II	Em7 II	E7b9 II	Am7 II	Dm7 II	G7 III	Cma7 III	Fma7 III
arpeggio	Bm11b5b9 I	Em11b9 II	E7b9 II	Am9 II	Dm9 I	G9 II	Cma9 II	Fma9 I
arpeggio and parent scale	Bm11b5b9 and C major I	Em11b9 and C major II	E7b9 and C major #5 II	Am9 and C major II	Dm9 and C major I	G9 and C major II	Cma9 and C major II	Fma9 and C major I

G form parent major, fingering 6, numbered in the key of each chord

The boxed area is the common modes. Grey columns show the best fingerings for improv.

ninth	VIIIm7b5b9	IIIm11b9	IIIm7b9	VIIm9	IIIm9	V9	IIma9	IVma9
chord	Bm7b5 VI	Em7 V	E7 V	Am7 V	Dm7 V	G7 V	Cma7 V	Fma7 V
arpeggio	Bm11b5b9 V	Em11b9 V	E7b9 IV	Am9 V	Dm9 V	G9 V	Cma9 V	Fma9 V
arpeggio and parent scale	Bm11b5b9 and C major V	Em11b9 and C major IV	E7b9 and C major #5 IV	Am9 and C major V	Dm9 and C major V	G9 and C major V	Cma9 and C major V	Fma9 and C major V

Major Scale-Tone Seventh Arpeggios in Perfect Fourths Order, •• Numbered by Parent Major Scale ••

building turnarounds by parent scale number

With parent scale numbering you become aware of the graphic pattern of the scale that is shared by two or more arpeggios in the turnaround you're playing. For each arpeggio you are using in the turnaround, you become aware of each of the subsets of that scale that make up the arpeggio. This graphically unifies your thinking so you can see all of the arpeggios as part of the overall scale. Then when you voice lead the last note of one arpeggio to the first note of the next arpeggio, it is much easier to relate the arpeggios.

Seventh arpeggios are the backbone of turnarounds. In the following sections, you will practice building turnarounds by parent scale number. Turnarounds in eighth notes and sixteenth notes are largely built with seventh arpeggios and the 1-2-3-5 or 1-3-4-5 fragment patterns.

Once you build a few of those turnarounds by number, start building your own with seventh arpeggios and with the 1-2-3-5 or 1-3-4-5 fragment pattern (also in reverse as 5-3-2-1 or 5-4-3-1). The fragment patterns can be built on any triad part of the arpeggio. Turnarounds in triplets largely use seventh arpeggios and chromatics. So, memorize all the seventh arpeggios below. See [Prime Scales, Chords and Arpeggios/Quadrant Arpeggios](#) to memorize the seventh arpeggio fingerings.

Also see "[Voice Leading Improv with Arpeggio Cadences](#)"/Graphically Voice Leading Improv with Arpeggio Cadences/[Scale-Tone Seventh Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale \(includes secondary dominants\)](#).

shared note redundancy

When the root or third of one arpeggio is the last tone before another arpeggio whose root name is up a fourth, that note will also be in the next arpeggio. It is preferred to avoid paying the same note twice consecutively in driving (aggressive) music like up-tempo jazz. Devices to avoid this shared note redundancy are shown in [Shared Note Redundancy](#).

scale-tone arpeggios in fourths with corresponding chord fingerings below each of them

"III7" is an optional version of III^{Im}7 that makes a stronger progression to the VI^{Im}7 that it precedes. This makes the III7 a secondary dominant. See "[Secondary Dominant](#)", "[Modal II-V-I Cadences and Turnarounds](#)"/[Secondary Dominant](#) and "[Melodically Superimposed Cadences](#)"/[Secondary Dominants](#). To locate the chords, put the numbered tone of the chord root on the large circled note. In the first diagram below, the number seven on the arpeggio diagram needs to be located on the large circled note in the chord diagram below it.

practicing arpeggios in preparation of building turnarounds

Make this exercise with two consecutive arpeggios in the perfect fourths order. There are two versions of III. III7 alters the major scale to major sharp five. III7 is used more often than III \flat m7 to progress to VIm7.

With a regular rhythm, start on the lowest (or next-to-lowest) note (by pitch) of one arpeggio and ascend eight notes with a regular rhythm. Then choose a note of the next arpeggio within a range of a minor third. If it is the same note (see Shared Note Redundancy), you can use a “rest push” by leaving a silence in place of the first note in the second chord. Then descend to complete eight notes down the second arpeggio. If you used a rest in place of the first note, count it as one of the eight. You will then be able to repeat the exercise without stopping, creating a loop. This loop can be played with inverse pitch order by descending from one of the two highest notes in one arpeggio, moving to the first note of the next chord (whose root name is up a fourth) by an interval of a minor third or less, then ascend the second arpegg and create a loop.

Once you have the two arpeggios well in memory, you can play four notes of each, voice leading the last note of the first arpeggio to the first note of the second by a minor third or less and descend four notes in the second arpeggio.

E form parent major scale

VIm7b5	III \flat m7	III7	VIm7	IIIm7	V7	I \flat ma7	IV \flat ma7
b5 1 b3 b7	1 5 b7 b3 5	1 5 b7 3 5	1 5 b7 b3	b3 b7 1 5	1 3 b7 1	1 7 3 5	1 5 7 3

D form parent major scale

VIm7b5	III \flat m7	III7	VIm7	IIIm7	V7	I \flat ma7	IV \flat ma7
1 b5 b7 b3	b3 b7 1 5	3 b7 1 5	1 b3 b7 b3	1 b7 b3 5	1 5 b7 3 5	1 5 7 3	5 1 3 7

C form parent major scale

VIIIm7b5	IIIIm7	III7	VIIm7	IIIm7	V7	IIma7	IVma7
b5 b3 b7 1	1 b7 b3 5	1 5 b7 3 5 1	1 5 b7 b3 5	1 5 b7 b3	3 b7 1 5	1 3 5 7 3	1 7 3 5

A form parent major scale

VIIIm7b5	IIIIm7	III7	VIIm7	IIIm7	V7	IIma7	IVma7
1 b5 b7 b3	1 5 b7 b3	1 5 b7 3	b3 b7 1 5	1 b3 b7 b3	1 5 b7 3 5 1	1 5 7 3	1 5 7 3

G form parent major scale

VIIIm7b5	IIIIm7	III7	VIIm7	IIIm7	V7	IIma7	IVma7
1 b7 b3 b5	1 b3 b7 b3	1 3 b7 1	1 b7 b3 5	1 5 b7 b3 5	1 5 b7 3	5 1 3 7	1 3 5 7 3

Major Scale-Tone Seventh Arpeggios in Stepwise Order

•Numbered By Parent Major Scale•

form	I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7 ^b 5
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Major Scale-Tone Ninth and Eleventh Arpeggios in Perfect Fourths

••Numbered By Parent Major Scale••

form	VIIIm11b5b9	III7b9	VIIm9	IIIm9	V9	IIma9	IVma9
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Make the Turnaround More Interesting with Simple Modification

[click here to play a video of the examples below](#)

ascend from the third instead of the root

It can sound too academic and exercise-like to ascend an arpeggio from the root. Ascend instead from the third. If you need a four-note arpeggio, ascend 3-5-7-9 (with any necessary alterations such as b7).

ascend from the root ascend from the third instead

1 Bm7(b5) E7(b9) 2 Am 3 Bm7(b5) E7(b9) 4 Am

TAB

7 6 4 7 5 7 6 4 7 6 5 5

omit a note

Leaving the remaining notes in their place in time, omit one of the notes.

four-note E7b9 no root arpeggio omit the first note

5 Bm7(b5) E7(b9) 6 Am 7 Bm7(b5) E7(b9) 8 Am

TAB

6 7 4 6 7 7 7 4 6 7 7

omit the second note omit the third note

9 Bm7(b5) E7(b9) 10 Am 11 Bm7(b5) E7(b9) 12 Am

TAB

6 4 6 7 7 6 7 6 7 7

omit the fourth note

13 Bm7(b5) E7(b9) 14 Am

T
A
B

precede the first note with a lower chromatic embellishment

Precede the first note with a note a half step below it in pitch (one fret lower), called a lower chromatic embellishment. These are commonly slid into the note they decorate and are fingered with the same finger that would have been used without the slide. They could also be slurred with a hammer-on.

precede the first note with a lower chromatic

15 Bm7(b5) E7(b9) 16 Am

T
A
B

insert a scale tone between two consecutive arpeggio tones

insert a scale tone (ST)

17 Bm7(b5) E7(b9) 18 Am

insert a scale tone (ST)

19 Bm7(b5) E7(b9) 20 Am

T
A
B

change the scale (or mode)

original turnaround with Aeolian mode changed turnaround with harmonic minor scale

21 Bm7(b5) E7(b9) 22 Am 23 Bm7(b5) E7(b9) 24 Am

T
A
B

change the rhythm

change the rhythm (originally the previous example)

25 Bm7(b5) E7(b9) 26 Am

T
A
B

add ornamentation

add ornamentation (originally the previous example)

27 Bm7(b5) E7(b9) 28 Am

T
A
B

SHARED-NOTE REDUNDANCY

In up-tempo music like blues rock and bebop it is preferred that notes keep changing to provide movement. Exceptions are made, such as when a note is repeated with a notable rhythm.

When the last note of the setup chord (i.e. IIm7) is the same note as the target chord (i.e. V7), any of these devices can be used to avoid playing the same note twice consecutively:

1. Sustain push (tie the two notes). Abbreviation: “SP”.
2. Rest push (put a rest in place of the second note). Abbreviation: “RP”.
3. Lower scale tone neighbor. If possible, change the last note of the setup chord to a lower neighbor scale tone of the first note in the target chord. Abbreviation: “LN”.
4. Upper scale tone neighbor. Change the last note of the setup chord to an upper neighbor scale tone of the first note in the target chord. With the 3-5-7-1 turnaround cell, this makes the first arpeggio a ninth chord. Abbreviation: “UN”.
5. Lower chromatic embellishment. Replace the last note of the setup chord to a note that is a half step below the first note of the target chord. If there is a scale tone a half step below the target tone, this wouldn't be a lower chromatic; it would instead be a lower scale tone. Abbreviation: “LC”.
6. Passing chromatic. When the last setup tone and the first target tone are the same note *and* the last two setup tones are a whole step apart, the last setup tone can be replaced by a chromatic tone between the next-to-last setup tone and the first target tone.
7. Upper blue note. When possible, use a b3, b5, b7 or b9 of the setup chord to resolve down a half step to the first tone of the target chord. The blue note must be a flatted version of a tone in the setup chord. For example, flat three could be a blue note to replace three only if the setup chord originally contained the tone “three”. Abbreviation: “blue”.

See [abbreviations for the last setup chord tone](#) to see the abbreviations for shared note redundancy used in [Linear Major II-V-I Turnarounds](#) and in [Linear Minor II-V-I Turnarounds](#).

LINEAR MAJOR II-V-I TURNAROUNDS

Each of seventeen linear turnaround cells is demonstrated in this section with the six directional types of turnarounds, voice leading and, where applicable, shared-note redundancy. Each example features the turnaround cell of the IIm7 chord, functioning as the setup chord to lead to the V7 target chord.

Here below, the seventeen linear cells are linked to the examples in this section *and* for the Linear Minor II-V-I section that follows. Number in parenthesis are [1-2-3-5 cells](#), except 5712 and 2715 are [1-3-4-5 cells](#).

major II-V-I links			minor II-V-I links		
last note	up	down	last note	up	down
7	1357, (3457)	5317	7	1357, (3457)	5317
1	3571	7531	1	3571	7531
2	3572, (5672, 5712)		2	3572, (5672, 5712)	
3	5713	1753, 2753 (7543)	3	5713	1753, (7543)
5	7135, (1235)	3175, (2175, 2765)	5	7135, (1235)	3175

[click this link to play a video of this major II-V-I section](#)

abbreviations for the last setup chord tone

The abbreviations below are used for the last setup chord tone. See their description in [Shared Note Redundancy](#).

“SP” = sustain push

RP = rest push

UN = upper scale-tone neighbor

LN = lower scale-tone neighbor

PT = passing scale tone

LC = lower chromatic embellishment

PC = passing chromatic tone

blue = blue note

1-3-5-7 on IIm7 (1-b3-5-b7) - vary the rhythm

♩ = 160

Dm7 IIm7 of C "2" on D **G7** V7 of C "5" on G

chord scale tones: 1 b3 5 b7 3 1 b7 5 1
parent scale tones: 2 4 6 1 7 5 4 2 1

1 b3 5 b7 5 3 1 b7 3
2 4 6 1 2 7 5 4 3

1 b3 5 b7 5 3 1 b7 3
2 4 6 1 2 7 5 4 3

1 b3 5 #5 3 1 b7 5 1
2 4 6 #6 7 5 4 2 1

1 b3 5 b5 1 3 5 b7 3
2 4 6 b6 5 7 2 4 3

LC PC

3-4-5-7 on IIm7 (b3-4-5-b7) - vary the rhythm

This uses Dm7/11 no root, making F add 9. F add 9 is a 1-2-3-5, an F triad with a neighbor (1-3-5 is F major, "2" is the neighboring tone). The accompaniment plays Dm7 G7 Cma7, while the melody plays F add9 (Dm7/11 no root) G7 Cma7.

F add 9 IV/9 of C "4" on F **G7** V7 of C "5" on G

1-2-3-5 on the third of Dm7 is F/9

Dm7 (Fadd9) **G7** **Cmaj7**

b3 4 5 b7 3 1 b7 5 1
4 5 6 1 7 5 4 2 1

b3 4 5 b7 5 3 1 b7 3
4 5 6 1 2 7 5 4 3

b3 4 5 b7 b7 1 3 5 1
4 5 6 1 4 5 7 2 1

b3 4 5 b7 3 5 b7 1 1
4 5 6 1 7 2 4 5 1

b3 4 5 b7 5 3 1 b7 3
4 5 6 #1 2 7 5 4 3

b3 4 5 b5 1 3 5 b7 3
4 5 6 b6 5 7 2 4 3

LC PC

7-5-3-1 on IIm7 (b7-5-3-1) - vary the rhythm

IIm7 of C "2" on D: 7 3 6 2 7, 1 4 7 3 5 1, 2 5 1 4 6 2
 V7 of C "5" on G: 7 3 6 2 7, 1 4 7 3 5 1, 2 5 1 4 6 2

29
 b7 5 b3 1 (5) b7 1 3 1 b7 5 b3 1 (5) b7 1 3 1
 1 6 4 2 (2) 4 5 7 1 1 6 4 2 (2) 4 5 7 1
 SP RP

33
 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7
 b7 5 b3 b7 (5) b7 1 3 1 b7 5 b3 2 (5) b7 1 3 1
 1 6 4 1 (2) 4 5 7 1 1 6 4 1 (2) 4 5 7 1
 LN UN

37
 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7
 b7 5 b3 7 (5) b7 1 3 1 b7 5 b3 b7 3 1 b7 5 3 b7 5 b3 1 3 1 b7 5 3
 1 6 4 2 (2) 4 5 7 1 1 6 4 1 7 5 4 2 3 1 6 4 2 7 5 4 2 3
 LC

3-5-7-2 on IIm7 (b3-5-b7-2) - vary the rhythm

The seventh chord on the third of Dm7 is Fma7. Dm9 without a root is Fma7. So, on this example, the accompaniment plays Dm7 G7 Cmaj7, while the melody plays Fma7 (Dm9 no root) G7 Cmaj7.

Fma7 IVma7 of C "4" on F: 7 3 2 7, 1 4 7 3 5 1, 2 5 1 4 6 2, (7) 3
 G7 V7 of C "5" on G: 7 3 6 2 7, 1 4 7 3 5 1, 2 5 1 4 6 2

43
 Dm7 (Fma7) G7 Cmaj7 Dm7 (Fma7) G7 Cmaj7
 b3 5 b7 2 5 3 1 b7 3 b3 5 b7 2 5 3 1 b7 5
 4 6 1 3 2 7 5 4 3 4 6 1 3 2 7 5 4 5

47
 Dm7 (Fma7) G7 Cmaj7 Dm7 (Fma7) G7 Cmaj7 Dm7 (Fma7) G7 Cmaj7
 b3 5 b7 2 b7 1 3 5 3 b3 5 b7 2 b7 1 3 5 1 b3 5 b7 2 b7 1 3 5 1
 4 6 1 3 4 5 7 2 3 4 6 1 3 4 5 7 2 1 4 6 1 3 4 5 7 2 1

53
 Dm7 (Fma7) G7 Cmaj7 Dm7 (Fma7) G7 Cmaj7 Dm7 (Fma7) G7 Cmaj7
 b3 5 b7 2 b7 1 3 5 3 b3 5 b7 b2 5 3 1 b7 3 b3 5 b7 b2 5 3 1 b7 5
 4 6 1 3 4 5 7 2 3 4 6 1 b3 2 7 5 4 3 4 6 1 b3 2 7 5 4 5
 blue

5-6-7-2 on IIm7 (b3-5-b7-2) - vary the rhythm

This uses Dm9 add 6 without a root nor third, making A minor add 9. Am add 9 is a 1-2-3-5, an A minor triad with a neighbor (1-b-3-5 is a minor, "2" is the neighboring tone). The accompaniment plays Dm7 G7 Cma7, while the melody plays Am add9 (Dm9/6 no root) G7 Cma7.

Am add 9
VIm/9 of C
"6" on A

G7
V7 of C
"5" on G

1-2-3-5 on the
fifth of Dm7
is Am/9

5-7-1-2 on IIm7 (5-b7-1-2) - vary the rhythm

This uses Dm9 without a third, making A minor add 11. Am add 1 is a 1-3-4-5, an A minor triad with a neighbor (1-b-3-5 is a minor, "4" is the neighboring tone). The accompaniment plays Dm7 G7 Cma7, while the melody plays Am add11 (Dm9/6 no root) G7 Cma7.

Am add11
Vm/11 of C
"6" on A

G7
V7 of C
"5" on G

1-3-4-5 on the
fifth of Dm7
is Am/11

5-7-1-3 on IIm7 (5-b7-1-b3) - vary the rhythm

Dm7 IIm7 of C "2" on D: 7 3 6 2 1 7, 1 4 1 5 1, 7 3 1, 2 5 1 4 6 2
G7 V7 of C "5" on G: 7 3 6 2 1 7, 1 4 1 5 1, 7 3 1, 2 5 1 4 6 2

91 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**
 5 b7 1 b3 1 b7 5 3 1 5 b7 1 b3 (b7) 5 3 1 (5) 3 1
 6 1 2 4 5 4 2 7 1 6 1 2 4 2 7 5 (5) 3 1
 RP

95 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**
 5 b7 1 b3 (b7) 5 3 1 (5) 3 1 5 b7 1 b3 1 3 5 b7 1 5 b7 1 b3 1 3 5 b7 3
 6 1 2 4 (4) 2 7 5 (5) 3 1 6 1 2 4 5 7 2 4 3 6 1 2 4 5 7 2 4 3
 RP RP

101 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**
 5 b7 1 b3 (b7) 1 3 5 1 5 b7 1 2 5 3 1 b7 3 5 b7 1 b2 5 3 1 b7 5
 6 1 2 4 (4) 5 7 2 1 6 1 2 3 2 7 5 4 3 6 1 2 b3 2 7 5 4 5
 UN blue

1-7-5-3 on IIm7 (1-b7-5-b3) - vary the rhythm

Dm7 IIm7 of C "2" on D: 7 3 6 2 1 7, 1 4 1 5 1, 7 3 1, 2 5 1 4 6 2
G7 V7 of C "5" on G: 7 3 6 2 1 7, 1 4 1 5 1, 7 3 1, 2 5 1 4 6 2

107 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**
 1 b7 5 b3 (b7) 1 3 5 1 1 b7 5 b3 (b7) 1 3 5 3
 2 1 6 4 (4) 5 7 2 1 2 1 6 4 (4) 5 7 2 3
 SP

111 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**
 1 b7 5 2 (b7) 1 3 5 1 1 b7 5 b3 5 3 1 b7 5
 2 1 6 4 (4) 5 7 2 1 2 1 6 4 2 7 5 4 5
 LN

115 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**
 1 b7 5 b3 5 3 1 b7 3 1 b7 5 b3 (b7) 5 3 1 (5) 1 5 1 b7 5 b5 1 b7 5 3 1
 2 1 6 4 2 7 5 4 3 2 1 6 4 (4) 2 7 5 (5) 1 5 2 1 6 b6 5 4 2 7 1
 RP RP PC

2-7-5-3 on IIm7 (2-b7-5-b3) - vary the rhythm

Dm7 IIm7 of C "2" on D **G7** V7 of C "5" on G **Cmaj7**

7 3 6 2 7 1 4 5 1 2 5 1 4 6 2 7 3 6 2 7 1 4 5 1 2 5 1 4 6 2

121 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

2 b7 5 b3 (b7) 1 3 5 1 2 b7 5 b3 (b7) 1 3 5 3
3 1 6 4 (4) 5 7 2 1 3 1 6 4 (4) 5 7 2 3

12 8 10 8 7 10 8 9 10 7 8 10 9 7 9

125 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

2 b7 5 2 (b7) 1 3 5 3 2 b7 5 b3 5 3 1 b7 5
3 1 6 4 (4) 5 7 2 1 3 1 6 4 2 7 5 4 5

9 10 7 7 8 10 9 7 10 12 8 10 10 7 8 10 8

129 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

2 b7 5 b3 5 3 1 b7 3 2 b7 5 b3 (b7) 5 3 1 (5) 1 5 2 b7 5 b5 1 b7 5 3 1
3 1 6 4 2 7 5 4 3 3 1 6 4 (4) 2 7 5 (5) 1 5 3 1 6 b6 5 4 2 7 1

12 8 10 10 7 9 10 10 12 8 10 9 8 10 7 9 10

7-5-4-3 on IIm7 (b7-5-4-b3) - vary the rhythm

This uses Dm7/11 no root, making F add 9. F add 9 is a 1-2-3-5, an F triad with a neighbor (1-3-5 is F major, "2" is the neighboring tone). The accompaniment plays Dm7 G7 Cmaj7, while the melody plays F add9 (Dm7/11 no root) G7 Cmaj7.

F add 9 IV/9 of C "4" on F **G7** V7 of C "5" on G **Cmaj7**

7 3 6 2 7 1 4 5 1 2 5 1 4 6 2 7 3 6 2 7 1 4 5 1 2 5 1 4 6 2

135 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

b7 5 4 b3 (b7) 1 3 5 1 b7 5 4 b3 (b7) 1 3 5 3
1 6 5 4 (4) 5 7 2 1 1 6 5 4 (4) 5 7 2 3

8 10 8 10 8 7 10 8 10 7 10 8 10 9 7 9

139 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

b7 5 4 2 (b7) 1 3 5 1 b7 5 4 b3 5 3 1 b7 5
1 6 5 3 (4) 5 7 2 1 1 6 5 4 2 7 5 4 5

10 7 10 7 8 10 9 7 10 8 10 10 7 8 10 8

143 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

b7 5 4 b3 3 1 b7 2 3 b7 5 4 b3 (b7) 5 3 1 (5) 1 5 b7 5 4 b3 1 b7 5 3 1
1 6 5 4 7 5 4 2 3 1 6 5 4 (4) 2 7 5 (5) 1 5 1 6 5 4 5 4 2 7 1

8 10 8 7 8 10 7 9 8 10 8 10 7 9 10 10 8 10 8 10 7 9 10

7-1-3-5 on IIm7 (b7-1-b3-5) - vary the rhythm

Dm7 IIm7 of C "2" on D
 7 3 6 2 7
 1 4 5 1
 2 5 1 4 6 2

G7 V7 of C "5" on G
 7 3 6 2 7
 1 4 5 1
 2 5 1 4 6 2

Dm7 **G7** **Cmaj7**

149

153 **Dm7** **G7** **Cmaj7**

154

157 **Dm7** **G7** **Cmaj7**

158

1-2-3-5 on IIm7 (1-2-b3-5) - vary the rhythm

Dm add9 IIm/ of C "2" on D
 7 3 2 7
 1 4 5 1
 2 5 1 4 6 2

G7 V7 of C "5" on G
 7 3 6 2 7
 1 4 5 1
 2 5 1 4 6 2

Dm7 **G7** **Cmaj7**

161

165 **Dm7** **G7** **Cmaj7**

166

169 **Dm7** **G7** **Cmaj7**

170

3-1-7-5 on IIm7 (b3-1-b7-5) - vary the rhythm

Dm7 IIm7 of C "2" on D **G7** V7 of C "5" on G

173 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

b3 1 b7 5 1 3 5 b7 5 b3 1 b7 5 1 3 5 b7 3
4 2 1 6 5 7 2 4 5 4 2 1 6 5 7 2 4 3

177 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

b3 1 b7 5 b7 2 3 1 (5) b3 1 b7 5 b7 2 3 1 (5) 1 3 5
4 2 1 6 4 2 7 5 SP 4 2 1 6 4 2 7 5 RP (5) 1 3 5

181 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

b3 1 b7 5 1 b7 5 3 1 5 1 b3 1 b7 5 3 1 b7 5 3 5 1 5
4 2 1 6 5 4 2 7 1 5 1 4 2 1 6 7 5 4 2 3 5 1 5

2-1-7-5 on IIm7 (2-1-b7-5) - vary the rhythm This uses Dm9 without a third, making A minor add 11. Am add 1 is a 1-3-4-5, an A minor triad with a neighbor (1-b-3-5 is a minor, "4" is the neighboring tone). The accompaniment plays Dm7 G7 Cmaj7, while the melody plays Am add11 (Dm9/6 no root) G7 Cmaj7.

Am add11 Vm/11 of C "6" on A **G7** V7 of C "5" on G

185 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

(Am/11) (Am/11)
2 1 b7 5 1 3 5 b7 5 2 1 b7 5 1 3 5 b7 3
3 2 1 6 5 7 2 4 5 3 2 1 6 5 7 2 4 3

189 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

(Am/11) (Am/11)
2 1 b7 5 b7 2 3 1 (5) 2 1 b7 5 b7 2 3 1 (5) 1 3 5
3 2 1 6 4 2 7 5 SP 3 2 1 6 4 2 7 5 RP (5) 1 3 5

193 **Dm7** **G7** **Cmaj7** **Dm7** **G7** **Cmaj7**

(Am/11) (Am/11)
2 1 b7 5 1 b7 5 3 1 5 1 2 1 b7 5 3 1 b7 5 3 5 1 5
3 2 1 6 5 4 2 7 1 5 1 3 2 1 6 7 5 4 2 3 5 1 5

2-7-6-5 on IIm7 (2-b7-6-5) - vary the rhythm

This uses Dm9 add 6 without a root nor third, making A minor add 9. Am add 9 is a 1-2-3-5, an A minor triad with a neighbor (1-b-3-5 is a minor, "2" is the neighboring tone). The accompaniment plays Dm7 G7 Cmaj7, while the melody plays Am add9 (Dm9/6 no root) G7 Cmaj7.

Am add 9
VIm/9 of C
"6" on A

1-2-3-5 on the
fifth of Dm7
is Am/9

G7
V7 of C
"5" on G

197 Dm7 (Am/9) G7 Cmaj7 198 Dm7 (Am/9) G7 Cmaj7 199 Dm7 (Am/9) G7 Cmaj7 200 Dm7 (Am/9) G7 Cmaj7

2 b7 6 5 1 3 5 b7 5 2 b7 6 5 1 3 5 b7 3 2 b7 6 5 1 3 5 b7 3 2 b7 6 5 1 3 5 b7 3

3 1 7 6 5 7 2 4 5 3 1 7 6 5 7 2 4 5 3 1 7 6 5 7 2 4 5 3 1 7 6 5 7 2 4 5

T 9 10 9 7 10 9 7 10 8 9 10 9 7 10 9 7 10 9

A 9 10 9 7 10 9 7 10 9 10 9 7 10 9 7 10 9

B 9 10 9 7 10 9 7 10 9 10 9 7 10 9 7 10 9

201 Dm7 (Am/9) G7 Cmaj7 202 Dm7 (Am/9) G7 Cmaj7 203 Dm7 (Am/9) G7 Cmaj7 204 Dm7 (Am/9) G7 Cmaj7

2 b7 6 5 1 3 5 b7 2 3 1 (5) 2 b7 6 5 1 3 5 b7 2 3 1 (5) 1 3 5 2 b7 6 5 1 3 5 b7 2 3 1 (5) 1 3 5 2 b7 6 5 1 3 5 b7 2 3 1 (5) 1 3 5

3 1 7 6 4 2 7 5 SP 3 1 7 6 4 2 7 5 RP 3 1 7 6 4 2 7 5 RP 3 1 7 6 4 2 7 5 RP

T 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9

A 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9

B 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9 10 9 7 10 7 9 10 9

205 Dm7 (Am/9) G7 Cmaj7 206 Dm7 (Am/9) G7 Cmaj7 207 Dm7 (Am/9) G7 Cmaj7 208 Dm7 (Am/9) G7 Cmaj7

2 b7 6 5 1 3 5 b7 5 3 1 5 1 2 b7 6 5 1 3 5 b7 5 3 1 5 1 2 b7 6 5 1 3 5 b7 5 3 1 5 1 2 b7 6 5 1 3 5 b7 5 3 1 5 1

3 1 7 6 5 4 2 7 1 5 1 3 1 7 6 7 5 4 2 3 5 1 5 3 1 7 6 7 5 4 2 3 5 1 5 3 1 7 6 7 5 4 2 3 5 1 5

T 9 10 9 7 10 8 9 10 10 9 10 9 7 9 10 8 9 10 10 9 10 9 7 9 10 8 9 10 10 9 10 9

A 9 10 9 7 10 8 9 10 10 9 10 9 7 9 10 8 9 10 10 9 10 9 7 9 10 8 9 10 10 9 10 9

B 9 10 9 7 10 8 9 10 10 9 10 9 7 9 10 8 9 10 10 9 10 9 7 9 10 8 9 10 10 9 10 9

LINEAR MINOR II-V-I TURNAROUNDS

Each of fourteen linear turnaround cells is demonstrated in this section with the six directional types of turnarounds, voice leading and, where applicable, shared-note redundancy. Each example features the turnaround cell of the IIm7b5 chord, functioning as the setup chord to lead to the V7 target chord.

Here below, the fourteen linear cells are linked to the examples in this section *and* for the Linear Major II-V-I section that preceded this page.

major II-V-I links			minor II-V-I links		
last note	up	down	last note	up	down
7	1357, (3457)	5317	7	1357, (3457)	5317
1	3571	7531	1	3571	7531
2	3572, (5672, 5712)		2	3572, (5672, 5712)	
3	5713	1753, 2753, (7543)	3	5713	1753, (7543)
5	7135, (1235)	3175, (2175, 2765)	5	7135, (1235)	3175

[click this link to play a video of this minor II-V-I section](#)

abbreviations for the last setup chord tone

The abbreviations below are used for the last setup chord tone. See their description in [Shared Note Redundancy](#).

SP" = sustain push

RP = rest push

UN = upper scale-tone neighbor

LN = lower scale-tone neighbor

PT = passing scale tone

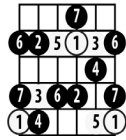
LC = lower chromatic embellishment

PC = passing chromatic tone

blue = blue note

1-3-5-7 on IIm7b5 (1-b3-b5-b7) - vary the rhythm

Dm7b5 is
IIm7b5 of C min.
VIIIm7b5 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



♩ = 160
Swing Eighth

Chord scale tones: 1 b3 b5 b7 3 1 b7 5 1
parent scale tones: 7 2 4 6 #5 3 2 7 6

1 b3 b5 b7 5 3 1 b7 b3
7 2 4 6 7 #5 3 2 1

1 b3 b5 b7 5 b7 1 3 1
7 2 4 6 7 2 3 #5 6

1 b3 b5 b7 3 5 b7 b2 5
7 2 4 6 #5 7 2 4 3

1 b3 b5 b7 5 b7 1 3 1
7 2 4 6 7 2 3 #5 6

1 b3 b5 #5 3 1 b7 5 1
7 2 4 5 #5 3 2 7 6

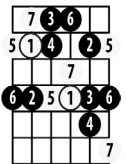
1 b3 b5 #5 3 1 b7 5 b3
7 2 4 #4 #5 3 2 7 1

LC

3-4-5-7 on IIm7b5 (b3-4-b5-b7) - vary the rhythm

This uses a 1-2-3-5 fragment pattern on the third of Dm7b5, making F minor add 9 (an F minor triad with a neighbor tone "2"). The accompaniment plays Dm7b5 G7 Cm7, while the melody plays Fm/9 (Dm7/11b5 no root) G7 Cm7.

Fm add 9 is
IVm/9 of C min.
IIm/9 of parent Eb
major
Put "2" on F



the 1-2-3-5
on the third of
Dm7b5 is Fm/9

G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



Chord scale tones: b3 4 b5 b7 3 1 b7 5 1
parent scale tones: 7 2 4 6 #5 3 2 7 6

b3 4 b5 b7 5 3 1 b7 b3
7 2 4 6 7 #5 3 2 1

b3 4 b5 b7 b7 1 3 5 1
2 3 4 6 2 4 #5 7 6

b3 4 b5 b7 3 5 b7 b2 5
2 3 4 6 #5 7 2 4 3

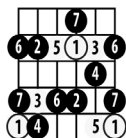
b3 4 b5 #5 3 1 b7 5 1
2 3 4 5 #5 3 2 7 6

b3 4 b5 #5 3 1 b7 5 b3
2 3 4 #4 #5 3 2 7 1

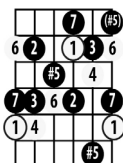
LC

5-3-1-7 on IIIm7b5 (b5-b3-1-b7) - vary the rhythm

Dm7b5 is
IIIm7b5 of C min.
VIIIm7b5 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



1 2 3 4

Dm7 G7 Cm7

b5 b3 1 b7 3 5 b7 1 (5) 3 5
4 2 7 6 #5 7 2 3 (3) 1 3

SP RP

5 6 7 8

Dm7(b5) G7 Cm7

5 b3 1 b7 3 5 b7 2 5
4 2 7 6 #5 7 2 4 3

UN LC UN

9 10 7 10 9 7 10 8 8

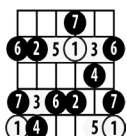
9 10 7 10 9 7 10 9 8

9 10 7 10 9 10 8 10 11

9 10 7 8 9 10 8 10 11

3-5-7-1 on IIIm7b5 (b3-b5-b7-1) - vary the rhythm

Dm7b5 is
IIIm7b5 of C min.
VIIIm7b5 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



13 14 15 16

Dm7(b5) G7 Cm7

b3 b5 b7 1 (5) 3 1 b7 3
2 4 6 7 (7) #5 3 2 1

17 18 19 20 21 22

Dm7(b5) G7 Cm7

b3 b5 b7 b2 5 3 1 b7 b3
2 4 6 1 (7) #5 3 2 1

UN

23 24 25 26 27 28

Dm7(b5) G7 Cm7

b3 b5 b7 7 5 3 1 b7 b3
2 4 6 #6 7 #5 3 2 1

LC

29 30 31 32

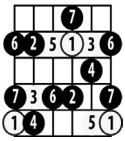
Dm7(b5) G7 Cm7

b3 b5 b7 b2 5 3 1 b7 3
2 4 6 1 7 #5 3 2 1

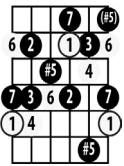
blue

7-5-3-1 on IIIm7b5 (b7-b5-b3-1) - vary the rhythm

Dm7b5 is
IIIm7b5 of C min.
VIIm7b5 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



29 Dm7(b5) G7 Cm7 32 Dm7(b5) G7 Cm7 35 Dm7(b5) G7 Cm7

b7 b5 b3 1 (5) b7 1 3 1 b7 b5 b3 1 (5) b7 1 3 1
6 4 2 7 (7) 2 4 #5 6 6 4 2 7 (7) 2 3 #5 6

SP RP

33 Dm7(b5) G7 Cm7 36 Dm7(b5) G7 Cm7 39 Dm7(b5) G7 Cm7 42 Dm7(b5) G7 Cm7

b7 b5 b3 b7 (5) b7 1 3 1 b7 b5 b3 2 5 b7 1 3 1
6 4 2 6 (7) 2 4 #5 6 6 4 2 1 7 2 4 #5 6

LN UN

37 Dm7(b5) G7 Cm7 40 Dm7(b5) G7 Cm7 43 Dm7(b5) G7 Cm7 46 Dm7(b5) G7 Cm7

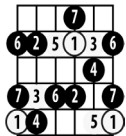
b7 b5 b3 7 5 b7 1 3 1 b7 b5 b3 b7 3 1 b7 5 3 b7 b5 b3 1 3 1 b7 5 3
6 4 2 #6 7 2 4 #5 6 6 4 2 6 #4 3 2 7 1 6 4 2 6 #4 3 2 7 6

LC

3-5-7-2 on IIIm7b5 (b3-b5-b7-b2) - vary the rhythm

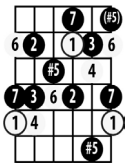
The seventh chord on the third of Dm7b5 is Fm7. Dm7b5b9 without a root is Fm7. So, on this example, the accompaniment plays Dm7b5 G7 Cm7, while the melody plays Fm7 (Dm9b5b9 no root) G7 Cm7. Dm7b5b9 is usable as an arpeggio in this melodic context, but not as an accompaniment chord.

Fm7 is
IVm7 of C min
IIIm7 of parent Eb
major
Put "7" on D



the seventh chord
on the third of
Dm7b5 is Fm7

G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



43 Dm7(b5) (Fm7) G7 Cm7 44 Dm7(b5) (Fm7) G7 Cm7 45 Dm7(b5) (Fm7) G7 Cm7 46 Dm7(b5) (Fm7) G7 Cm7

b3 b5 b7 b2 5 3 1 b7 b3 b3 b5 b7 2 5 3 1 b7 5
2 4 6 1 7 #5 3 2 1 2 4 6 1 2 #5 3 2 3

47 Dm7(b5) (Fm7) G7 Cm7 48 Dm7(b5) (Fm7) G7 Cm7 49 Dm7(b5) (Fm7) G7 Cm7 50 Dm7(b5) (Fm7) G7 Cm7

b3 b5 b7 2 b7 1 3 5 3 b3 b5 b7 b2 b7 1 3 5 1
2 4 6 1 2 4 #5 7 1 2 4 6 1 2 4 #5 7 6

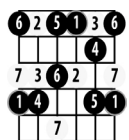
51 Dm7(b5) (Fm7) G7 Cm7 52 Dm7(b5) (Fm7) G7 Cm7 53 Dm7(b5) (Fm7) G7 Cm7 54 Dm7(b5) (Fm7) G7 Cm7

b3 b5 b7 b2 b7 1 3 5 1 b3 b5 b7 2 b7 1 3 5 3
2 4 6 1 2 4 #5 7 6 2 4 6 1 2 4 #5 7 1

5-6-7-2 on IIIm7b5 (b5-b6-b7-1) - vary the rhythm

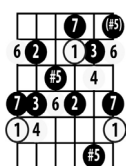
This uses a 1-2-3-5 fragment pattern on the fifth of Dm7b5, making Ab major add 9 (an Ab major triad with a neighbor tone "2"). The accompaniment plays Dm7b5 G7 Cm7, while the melody plays Ab add9 (Dm9/6 no root) G7 Cm7.

Ab add 9 is
bVI/9 of C min,
IV/9 of parent Eb
major
Put "4" on Ab



the 1-2-3-5
on the fifth of
Dm7b5 is Ab/9

G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



55 Dm7(b5) G7 Cm7 56 Dm7(b5) G7 Cm7 57 Dm7(b5) G7 Cm7 58 Dm7(b5) G7 Cm7

b5 b6 b7 b2 5 3 1 b7 b3 b5 b6 b7 2 5 3 1 b7 5
4 5 6 1 7 #5 3 2 1 4 5 6 1 2 #5 3 2 3

59 Dm7(b5) G7 Cm7 60 Dm7(b5) G7 Cm7 61 Dm7(b5) G7 Cm7 62 Dm7(b5) G7 Cm7

b5 b6 b7 2 b7 1 3 5 3 b5 b6 b7 b2 b7 1 3 5 1
4 5 6 1 2 4 #5 7 1 4 5 6 1 2 4 #5 7 6

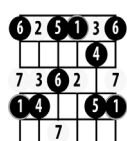
63 Dm7(b5) G7 Cm7 64 Dm7(b5) G7 Cm7 65 Dm7(b5) G7 Cm7 66 Dm7(b5) G7 Cm7

b5 b6 b7 b2 b7 1 3 5 1 b5 b6 b7 2 b7 1 3 5 3
4 5 6 1 2 4 #5 7 6 4 5 6 1 2 4 #5 7 1

5-7-1-2 on IIIm7b5 (b5-b7-1-b2) - vary the rhythm

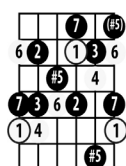
This uses a 1-3-4-5 fragment pattern on the fifth of Dm7b5, making Ab major add 9 (an Ab major triad with a neighbor tone "#4"). The accompaniment plays Dm7b5 G7 Cm7, while the melody plays Ab/#11(Dm7b9 no root) G7 Cm7.

Ab add #11 is
bVI/#11 of C min,
IV/#11 of parent Eb
major
Put "4" on Ab



the 1-2-3-5
on the fifth of
Dm7b5 is Ab/9

G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



67 Dm7(b5) G7 Cm7 68 Dm7(b5) G7 Cm7 69 Dm7(b5) G7 Cm7 70 Dm7(b5) G7 Cm7

b5 b7 1 b2 5 3 1 b7 b3 b5 b7 1 2 5 3 1 b7 5
4 5 6 1 7 #5 3 2 1 4 5 6 1 2 #5 3 2 3

71 Dm7(b5) G7 Cm7 72 Dm7(b5) G7 Cm7 73 Dm7(b5) G7 Cm7 74 Dm7(b5) G7 Cm7

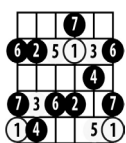
b5 b7 1 2 b7 1 3 5 3 b5 b7 1 b2 1 3 5 b7 b3
4 5 6 1 2 4 #5 7 1 4 5 6 1 3 #5 7 2 1

75 Dm7(b5) G7 Cm7 76 Dm7(b5) G7 Cm7 77 Dm7(b5) G7 Cm7 78 Dm7(b5) G7 Cm7

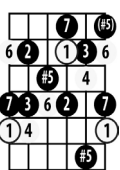
b5 b7 1 b2 b7 1 3 5 1 b5 b7 1 2 b7 1 3 5 3
4 5 6 1 2 4 #5 7 6 4 5 6 1 2 4 #5 7 1

5-7-1-3 on IIIm7b5 (b5-b7-1-b3) - vary the rhythm

Dm7b5 is
IIIm7b5 of C min.
VIIIm7b5 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



79 Dm7(b5) G7 Cm7 80 Dm7(b5) G7 Cm7 81 Dm7(b5) G7 Cm7 82 Dm7(b5) G7 Cm7

b5 b7 1 b3 1 b7 5 3 1 b5 b7 1 b3 (b7) 5 3 1 (5) b3 1
4 6 7 2 3 2 7 #5 6 4 6 7 2 (2) 7 #5 3 (3) 1 6 RP

83 Dm7(b5) G7 Cm7 84 Dm7(b5) G7 Cm7 85 Dm7(b5) G7 Cm7 86 Dm7(b5) G7 Cm7 87 Dm7(b5) G7 Cm7 88 Dm7(b5) G7 Cm7

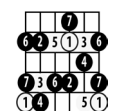
b5 b7 1 b3 (b7) 5 3 1 (5) b3 1 b5 b7 1 b3 1 3 5 b7 b3 b5 b7 1 b3 1 3 5 b7 3
4 6 7 2 (2) 7 #5 3 (3) 1 6 4 6 7 2 3 #5 6 2 1 4 6 7 2 3 #5 7 2 1 RP RP

89 Dm7(b5) G7 Cm7 90 Dm7(b5) G7 Cm7 91 Dm7(b5) G7 Cm7 92 Dm7(b5) G7 Cm7 93 Dm7(b5) G7 Cm7 94 Dm7(b5) G7 Cm7

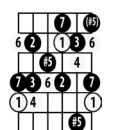
b5 b7 1 b3 (b7) 1 3 5 1 b5 b7 1 b2 5 3 1 b7 b3 b5 b7 1 b2 5 3 1 b7 5
4 6 7 2 (2) 3 #5 7 6 4 6 7 1 7 #5 3 2 1 4 6 7 2 7 #5 3 2 3 UN UN

1-7-5-3 on IIIm7b5 (1-b7-b5-b3) - vary the rhythm

Dm7b5 is
IIIm7b5 of C min.
VIIIm7b5 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



95 Dm7(b5) G7 Cm7 96 Dm7(b5) G7 Cm7 97 Dm7(b5) G7 Cm7 98 Dm7(b5) G7 Cm7

1 b7 b5 b3 (b7) 1 3 5 1 1 b7 b5 b3 (b7) 1 3 5 3
7 6 4 2 (2) 3 #5 7 6 7 6 4 2 (2) 3 #5 7 1

99 Dm7(b5) G7 Cm7 100 Dm7(b5) G7 Cm7 101 Dm7(b5) G7 Cm7 102 Dm7(b5) G7 Cm7

1 b7 b5 2 (b7) 1 3 5 3 1 b7 b5 b3 5 3 1 b7 5
7 6 4 #1 (2) 3 #5 7 6 7 6 4 2 7 #5 3 2 3 LN

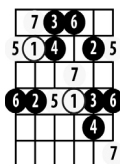
103 Dm7(b5) G7 Cm7 104 Dm7(b5) G7 Cm7 105 Dm7(b5) G7 Cm7 106 Dm7(b5) G7 Cm7 107 Dm7(b5) G7 Cm7 108 Dm7(b5) G7 Cm7

1 b7 b5 b3 5 3 1 b7 5 1 b7 b5 b3 (b7) 5 3 1 (5) 1 5 1 b7 b5 3 1 b7 5 3 1
7 6 4 2 7 #5 3 2 1 7 6 4 2 (2) 7 #5 3 (3) 6 3 7 6 4 2 3 2 7 #5 6 LC

7-5-4-3 on IIIm7b5 (b7-b5-4-b3) - vary the rhythm

This uses a 1-2-3-5 fragment pattern on the third of Dm7b5, making F minor add 9 (an F minor triad with a neighbor tone "2"). The accompaniment plays Dm7b5 G7 Cm7, while the melody plays Fm/9 (Dm7/11b5 no root) G7 Cm7.

Fm add 9 is
IVm/9 of C min.
IIIm/9 of parent Eb
major
Put "2" on F



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



the 1-2-3-5
on the third of
Dm7b5 is Fm/9

109 Dm7(b5) G7 Cm7 Dm7(b5) G7 Cm7

(Fm/9) (Fm/9)

b7 b5 4 b3 (b7) 1 3 5 1 b7 b5 4 b3 (b7) 1 3 5 3

6 4 3 2 (2) 3 #5 7 6 6 4 3 2 (2) 3 #5 7 1

8 9 8 10 8 7 10 8 10 11 10 8 10 9 7 8

113 Dm7(b5) G7 Cm7 Dm7(b5) G7 Cm7

(Fm/9) (Fm/9)

b7 b5 4 2 (b7) 1 3 5 1 b7 b5 4 b3 5 3 1 b7 5

6 4 3 #1 (2) 3 #5 7 6 6 4 3 2 7 #5 3 2 3

LN 10 11 10 7 8 10 9 7 10 8 10 8

117 Dm7(b5) G7 Cm7 Dm7(b5) G7 Cm7 Dm7(b5) G7 Cm7

(Fm/9) (Fm/9) (Fm/9)

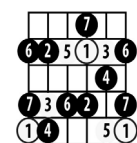
b7 b5 4 b3 3 1 b7 2 3 b7 b5 4 b3 (b7) 5 3 1 (5) 1 5 b7 b5 4 b3 1 b7 5 3 1

6 4 3 2 #5 3 2 7 1 6 4 3 2 (2) 7 #5 3 (3) 6 3 6 4 3 2 3 2 7 #5 6

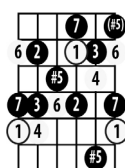
RP 8 9 8 7 8 10 7 8 9 8 10 7 9 10 8 10 7 9 10

7-1-3-5 on IIIm7b5 (b7-1-b3-b5) - vary the rhythm

Dm7b5 is
IIIm7b5 of C min.
VIIIm7b5 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



123 Dm7(b5) G7 Cm7 Dm7(b5) G7 Cm7

b7 1 b3 b5 1 b7 5 3 1 b7 1 b3 b5 3 1 b7 5 b3

6 7 1 4 3 2 7 #5 6 6 7 1 4 #5 3 2 7 1

10 7 10 9 8 10 7 9 10 7 10 9 8 10 7 8

127 Dm7(b5) G7 Cm7 Dm7(b5) G7 Cm7

b7 1 b3 b5 3 5 b7 b2 5 b7 1 b3 b5 5 b7 1 3 1

6 7 1 4 #5 7 2 4 3 6 7 1 4 7 2 4 #5 6

UN 10 7 10 9 9 7 10 9 8 10 7 10 8 7 8

131 Dm7(b5) G7 Cm7 Dm7(b5) G7 Cm7

b7 1 b3 b5 3 5 b7 1 (5) b3 1 5 b7 1 b3 b5 3 5 b7 1 1

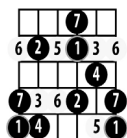
6 7 1 4 #5 7 2 4 (3) 1 6 3 6 7 1 4 #5 7 2 4 6

RP 8 10 8 11 9 7 10 8 8 10 10 8 10 8 11 9 7 10 8 8

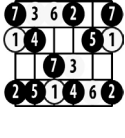
1-2-3-5 on IIm7b5 (b1-2-b3-b5) - vary the rhythm

This uses a 1-2-3-5 fragment pattern on the root of Dm7b5, making D diminished add b9 (D diminished triad with a neighbor tone b2). The accompaniment plays Dm7b5 G7 Cm7, while the melody plays D diminished add b9 G7 Cm7.

D dim add b9 is
IIdim/b9 of C min.
VIIIdim/b9 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



135 Dm7(b5) G7 Cm7 136 Dm7(b5) G7 Cm7 137 Dm7(b5) G7 Cm7 138 Dm7(b5) G7 Cm7

1 b2 b3 b5 1 b7 5 3 1 1 b2 b3 b5 3 1 b7 5 b3
7 1 2 4 3 2 7 #5 6 7 1 2 4 #5 3 2 7 1

139 Dm7(b5) G7 Cm7 140 Dm7(b5) G7 Cm7 141 Dm7(b5) G7 Cm7 142 Dm7(b5) G7 Cm7

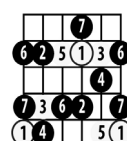
1 b2 b3 b5 3 5 b7 b2 5 1 b2 b3 b5 5 b7 1 3 1
7 1 2 4 #5 7 2 4 UN 7 1 2 4 7 2 3 #5 6

143 Dm7(b5) G7 Cm7 144 Dm7(b5) G7 Cm7 145 Dm7(b5) G7 Cm7 146 Dm7(b5) G7 Cm7

1 b2 b3 b5 3 5 b7 1 (5) b3 1 5 1 b2 b3 b5 3 5 b7 1 1
7 1 2 4 #5 7 2 3 RP (3) 1 6 3 7 1 2 4 #5 7 2 3 6

3-1-7-5 on IIm7b5 (b3-1-b7-b5) - vary the rhythm

Dm7b5 is
IIm7b5 of C min.
VIIIm7b5 of parent
Eb major
Put "7" on D



G7 is
V7 of C minor
III7 of parent
Eb major #5
Put "3" on G



147 Dm7(b5) G7 Cm7 148 Dm7(b5) G7 Cm7 149 Dm7(b5) G7 Cm7 150 Dm7(b5) G7 Cm7

b3 1 b7 b5 1 3 5 b7 5 b3 1 b7 b5 1 3 5 b7 b3
2 7 6 4 3 #5 7 2 3 2 7 6 4 3 #5 7 2 1

151 Dm7(b5) G7 Cm7 152 Dm7(b5) G7 Cm7 153 Dm7(b5) G7 Cm7 154 Dm7(b5) G7 Cm7

b3 1 b7 b5 b7 2 3 1 (5) b3 1 b7 b5 b7 2 3 1 (5) 1 b3 5
2 7 6 4 2 7 #5 3 (3) 2 7 6 4 2 7 #5 3 (3) 6 1 3

155 Dm7(b5) G7 Cm7 156 Dm7(b5) G7 Cm7 157 Dm7(b5) G7 Cm7 158 Dm7(b5) G7 Cm7

b3 1 b7 b5 1 b7 5 3 1 5 1 b3 1 b7 b5 3 1 b7 5 b3 5 1 5
2 7 6 4 3 2 7 #5 6 3 6 2 7 6 4 #5 3 2 7 1 3 6 3

VARY THE TURNAROUND RHYTHM

Here below, the seventeen linear cells are linked to the examples in this section *and* for the Linear Minor II-V-I Section that follows. Number in parenthesis are [1-2-3-5 cells](#), except 5712 and 2715 are [1-3-4-5 cells](#).

linear major II-V-I links

last note	up	down
7	1357, (3457)	5317
1	3571	7531
2	3572 (5672, 5712)	
3	5713	1753, 2753 (7543)
5	7135 (1235)	3175, (2175, 2765)

[linear major II-V-I video](#)

linear minor II-V-I links

last note	up	down
7	1357, (3457)	5317
1	3571	7531
2	3572 (5672, 5712)	
3	5713	1753 (7543)
5	7135 (1235)	3175

[linear minor II-V-I video](#)

Rhythm Options Per Chord

first chord

	pickups	↓ target
none, 1234		
4, 234		
4, 134		
4, 124		
4, 123		
34, 13		
34, 23		
34, 24		
24, 24		
24, 34		

*avoid this when the second note is a not a chord tone

**don't use to begin a tie

second chord

	↓ target
1234	
134	
123	
124	
234	
12	
13	
14	
23	
24	
34	

first or second chord

	↓ target
1, 123	
2, 123	
3, 123	
13, 13	
13, 12	
13, 23	
12, 13	
12, 12	
12, 23	
23, 13	
23, 12	
23, 23	

"first chord" and "second chord"

The first chord would typically be a II-type chord and the second chord would be a V-type chord. They would be followed by a I chord. The same principles can be applied to most three-chord cadences, including $bVI7-V7-Ima7$.

the “third” chord

The third chord would usually be a I-type chord and would typically allow freeform rhythm, since it is not “wedged” in time between two other chords.

progress toward freeform improv with a turnaround basis

Basing the melody on chord tones has always been the foundation of melody. Jazz is heavily based on seventh chord and larger arpeggios. Particularly since the bebop era (1940-1960), players like Charlie Parker, John Coltrane, Cannonball Adderley, Sonny Rollins and Stan Getz practiced playing the changes (the chord progression) in turnarounds, and evolved the turnarounds to freeform improv. Listening to the later, more evolved style of each of them, where they progressed to freeform improv, it may be difficult to hear the relationship to turnarounds. If you listen to their repertoire chronologically, you can hear the evolution. In an interview with Paul Desmond, Charlie Parker said he practiced 11 hours or more per day in the first few years of his development. Usually musicians over-estimate their serious practice time, but listening to the results, Charlie may not have been exaggerating.

Each of us should build our own such evolution.

four-note turnaround basis

In this “Vary the Turnaround Rhythm” section, play the Linear Major II-V-I and Linear Minor II-V-I examples again. They are thorough. Use the options stated above to apply different rhythm options for each of the chords.

rhythms for the first chord

The first chord would typically be a II-type, the first chord of a minor II-V-I or of a major II-V-I. There is usually time to play before the first beat of the first chord (i.e. the II chord), which allows the pickups shown on the left of the “first chord” table above. That implies variation on the original concept of the first chord, with four eighth notes or four sixteenth notes by playing some of the notes early as pickups.

The first chord could alternately be played by dividing its duration in half and playing a triplet in each half. This would usually be two eighth note triplets during two beats.

rhythms for the second chord

The second chord is more confined, being between the first and third chords (i.e. V between II and I). The second chord would typically be a V-type, the second chord of a minor II-V-I or the second chord of a major II-V-I. It can be played as four eighths or four sixteenths. It can be varied by omitting one or two of the notes, as shown on the “second chord” table above.

Like the first chord, the second chord could alternately be played by dividing its duration in half and playing a triplet in each half, usually be two eighth note triplets during two beats.

Four-Pulse Cadence Rhythms

rhythms for the first, middle and last chords in a cadence

Follow the convention of using four notes on each chord as in traditional turnarounds. The first and last chord in a turnaround have the most flexibility. With the first chord, you can play notes early, leading into the intended beat for the chord with pickups and pushes.

If there are three or more chords in the cadence, the middle chords have the least flexibility rhythmically. Since they have a chord before them and after them, they are usually played on the intended beats without much flexibility.

The last chord in a cadence provides the most freedom. Practice segueing into content beginning with the last chord that stays at the same rhythmic level as the turnaround.

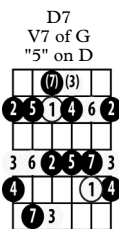
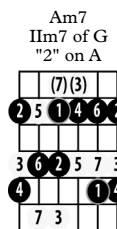
pickups and pushes on the first chord in a cadence, four-note turnarounds

	target ↓	target on 1	target on 3
none, 1234		 	
4, 234		 	
4, 134		 	
4, 124		 	
4, 123		 	
34, 13		 	
34, 23		 	
34, 24		 	
24, 24		 	
24, 34		 	

*avoid this when the second note is a not a chord tone **don't use to begin a tie

II-V Turnarounds with Pickup and Push-play pop funk or Purdie shuffle

♩ = 120 Swing Sixteenths



none, 1234

Am7 D7 Am7 D7

4,234 Am7 D7 Am7 D7

4,134 Am7 D7 Am7 D7

4,124 Am7 D7 Am7 D7

4,123 Am7 D7 Am7 D7

34,13 Am7 D7 Am7 D7

34,23

25 *Am*⁷ 26 *D*⁷ 27 *Am*⁷ 28 *D*⁷

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 e + a 4 e + a 1 e + a 2 e + a play 3 times

T 5 7 5 5 7 5 4 8 7 5 7 5 5 7 5 4 8 7

A 7 5 5 7 5 5 7 5 5 7 5 5 7 5 5 7 5

B 7 5 5 7 5 5 7 5 5 7 5 5 7 5 5 7 5

34,24

29 *Am*⁷ 30 *D*⁷ 31 *Am*⁷ 32 *D*⁷

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 e + a 4 e + a 1 e + a 2 e + a play 3 times

T 5 7 5 5 7 5 7 5 4 5 7 5 7 5 7 5 7 5 4 5

A 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5

B 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5

24,24

33 *Am*⁷ 34 *D*⁷ 35 *Am*⁷ 36 *D*⁷

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 e + a 4 e + a 1 e + a 2 e + a play 3 times

T 5 5 8 5 7 7 5 7 5 5 8 5 7 7 5 7

A 5 5 8 5 7 7 5 7 5 5 8 5 7 7 5 7

B 5 5 8 5 7 7 5 7 5 5 8 5 7 7 5 7

24,34

37 *Am*⁷ 38 *D*⁷ 39 *Am*⁷ 40 *D*⁷

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 e + a play 3 times

T 7 8 5 5 7 5 7 6 5 7 8 5 5 7 5 7 6 5

A 7 8 5 5 7 5 7 6 5 7 8 5 5 7 5 7 6 5

B 7 8 5 5 7 5 7 6 5 7 8 5 5 7 5 7 6 5

Minor II-V-I Turnarounds with Pickup and Push - play **salsa funk** or **Sahara rock**

♩ = 120 **none-,1234**

1 Am⁷ 2 Bm⁷(b5) E⁷ 3 Am⁷ 4 Bm⁷(b5) E⁷ 5 Am⁷

1 + 2 + 3 + 4 + 1 1 2 3 e + a 4 e + a 1
4 2 1 4 3 2 1 2 2 2 4 2 1 4 3 2 1 2 2 2

T 7 6 10 9 8 6 7 7/9 9 7 6 10 9 8 6 7 7/9

A 9 7 6 10 9 8 6 7 7/9 9 7 6 10 9 8 6 7 7/9

B 9 7 6 10 9 8 6 7 7/9 9 7 6 10 9 8 6 7 7/9

4,234

6 Bm⁷(b5) E⁷ 7 Am⁷ 8 Bm⁷(b5) E⁷ 9 Am⁷ 10 Bm⁷(b5) E⁷ 11 Am⁷

1 e + a 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e + a 3 e + a 4 e + a 1 e + a 2
1 3 1 4 1 1 4 3 1 3 2 1 3 1 3 1 4 1 1 4 4 1 3 2 1 3 1 4 1

T 7 10 10 7 9 8 7 5 7 5 9 5 7 10 10 7 9 8 7 5 7 5

A 5 7 5 9 5 7 10 10 7 9 8 7 5 7 5 9 5 7 10 10 7 9 8 7 5 7 5

B 5 7 5 9 5 7 10 10 7 9 8 7 5 7 5 9 5 7 10 10 7 9 8 7 5 7 5

4,134

12 Bm⁷(b5) E⁷ 13 Am⁷ 14 Bm⁷(b5) E⁷ 15 Am⁷ 16 Bm⁷(b5) E⁷ 17 Am⁷

1 e + a 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e + a 3 e + a 4 e + a 1 e + a 2
1 2 3 4 4 3 1 3 3 1 4 1 1 2 3 4 4 3 1 3 3 1 4 1 1 2 3 4

T 7 8 10 10 7 10 9 7 10 6 7 8 10 10 7 10 9 7 10 6 7 8

A 9 10 10 7 10 9 7 10 6 7 8 10 10 7 10 9 7 10 6 7 8

B 9 10 10 7 10 9 7 10 6 7 8 10 10 7 10 9 7 10 6 7 8

4,124

18 Bm⁷(b5) E⁷ 19 Am⁷ 20 Bm⁷(b5) E⁷ 21 Am⁷ 22 Bm⁷(b5) E⁷ 23 Am⁷

1 e + a 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e + a 3 e + a 4 e + a 1 e + a 2
2 1 1 1 1 2 3 3 2 1 4 3 2 1 1 1 1 2 3 3 2 1 4 3 2 1 1 1

T 8 7 7 9 10 10 9 8 11 10 9 8 7 9 10 10 9 8 7 9 10 10 9 8 7 9

A 9 8 7 9 10 10 9 8 11 10 9 8 7 9 10 10 9 8 7 9 10 10 9 8 7 9

B 9 8 7 9 10 10 9 8 11 10 9 8 7 9 10 10 9 8 7 9 10 10 9 8 7 9

4,123

24 Bm⁷(b5) E⁷ 25 Am⁷ 26 Bm⁷(b5) E⁷ 27 Am⁷ 28 Bm⁷(b5) E⁷ 29 Am⁷

1 2 3 4 e + a 1 e + a 2 + 3 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e + a 3 e + a 4 e + a 1 e + a 2
3 4 3 1 3 4 2 1 4 3 2 4 3 4 3 1 3 4 2 1 4 3 2 4 3 4 3 1 3

T 9 10 10 9 7 9 10 12 10 9 8 10 9 10 9 7 9 10 12 10 9 8 10 9 10 9 7 9

A 9 10 10 9 7 9 10 12 10 9 8 10 9 10 9 7 9 10 12 10 9 8 10 9 10 9 7 9

B 9 10 10 9 7 9 10 12 10 9 8 10 9 10 9 7 9 10 12 10 9 8 10 9 10 9 7 9

34,13

30 Bm⁷(b5) E⁷ 31 Am⁷ 32 Bm⁷(b5) E⁷ 33 Am⁷ 34 Bm⁷(b5) E⁷ 35 Am⁷

1 e + a 2 + 3 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e + a 3 e + a 4 e + a 1 e + a 2
4 1 2 3 3 4 1 4 4 1 2 3 4 1 2 3 3 4 1 4 4 1 2 3 4 1 2 3

T 12 7 8 9 10 7 10 12 8 10 11 12 7 8 9 10 7 10 12 8 10 11 12 7 8 9

A 12 7 8 9 10 7 10 12 8 10 11 12 7 8 9 10 7 10 12 8 10 11 12 7 8 9

B 12 7 8 9 10 7 10 12 8 10 11 12 7 8 9 10 7 10 12 8 10 11 12 7 8 9

34,23

Bm⁷(b5) E⁷ Am⁷ Bm⁷(b5) E⁷ Am⁷ Bm⁷(b5) E⁷ Am⁷

1 e+ a 2 + 3 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e+ a 3 e+ a 4 e+ a 1 e+ a 2
4 4 2 3 4 4 3 1 3 2 1 3 4 4 2 3 4 4 3 1 3 2 1 3 4 4 2 3

T
A
B

34,24

Bm⁷(b5) E⁷ Am⁷ Bm⁷(b5) E⁷ Am⁷ Bm⁷(b5) E⁷ Am⁷

1 e+ a 2 + 3 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e+ a 3 e+ a 4 e+ a 1 e+ a 2
3 2 1 4 1 3 3 3 1 4 3 1 3 2 1 4 4 1 3 3 3 1 4 3 1 3 2 1 4

T
A
B

24,24

Bm⁷(b5) E⁷ Am⁷ Bm⁷(b5) E⁷ Am⁷ Bm⁷(b5) E⁷ Am⁷

3 e+ a 4 e+ a 1 e+ a 2 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e+ a 3 e+ a 4 e+ a 1 e+ a 2
3 2 1 4 1 4 1 4 3 1 3 2 1 4 1 4 1 4 3 1 3 2 1 4 1 4 1

T
A
B

24,34

Bm⁷(b5) E⁷ Am⁷ Bm⁷(b5) E⁷ Am⁷ Bm⁷(b5) E⁷ Am⁷

1 e+ a 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 4 1 2 e+ a 3 e+ a 4 e+ a 1 e+ a 2
1 2 3 3 4 1 4 3 4 4 1 1 2 3 3 4 1 4 3 4 4 1 1 2 3

T
A
B

Four-Note Turnarounds with Pickup and Push, Blues Rock

[click to play video](#)

♩ = 130

1234 1/4 4,234 4,234 4,234 4,234 234,1 4,124

85 5 5 7 5 7 5 7 5 8 5 7 5 5 5 8 5 5 5 7 5 8 5 8 5 7/10 8 10 8 9

5 D7 D7 3 A7 4,24 E7#9 4,234 A7 34,24 24 124 24 34,23 the first "3" is a triplet upper mordent 8 10 8 10 10 8

7 5 8 5 5 7 5 7 5 7 5 7 5 5 7 7 5 8 5 7 5 6 7 7 8 5 8 5 8 7 8 5 8 5 8 10 8 10 10 8

9 E7 D7 10 D7 11 A7 12 234,1 Am7 4,234 D7 E7#5#9 A7 Am7 D7 E7#9 A7 34,23 the last "3" is a triplet upper mordent full full full

234,1 4,234 234,1 full 5 8 5 5 7 7 5 8 5 5 5 8 5 5 5 8 5 7 5 7 5 8 5 8 5 5 7 7 5 8 5 5 8 8 5 7 8 5 7

9 9 7 9 9 7 9 8 5 7 5 8 5 8 5 5 5 8 5 7 5 7 5 8 8 5 8 5 5 7 7 5 8 5 5 8 8 5 7 full full full

T A B

Triplets in Turnarounds

triplet rhythms for any chord in a II-V-I cadence [click to play video](#)

These are based on two triplets per chord, written here as two beats of eighth note triplets per chord. The three parts of each triplet are counted below as “123”. “13,23” represents the first and third parts of the first triplet and the last two parts of the second triplet.

Table of Triplet Rhythms for Any Chord In a II-V-I Cadence

start on beat 3, target on beat 1		3	t	1	4	t	1	notation
start on beat 1, target on beat 3		1	t	1	2	t	1	
123, 123	triplet, triplet							
1, 123	beat, triplet							
12, 123	“trip”, triplet							
3, 123	pickup to triplet							
13, 13	swing, swing							
13, 12	swing, Afro-Cuban							
13, 23	swing, waltz							
12, 13	Afro-Cuban, swing							
12, 12	Afro-Cuban, Afro-Cuban							
12, 23	Afro-Cuban, waltz							
23, 13	waltz, swing							
23, 12	waltz, Afro-Cuban							
23, 23	waltz, waltz							
13, 123	swing, triplet							
12, 123	Afro-Cuban, triplet							
23, 123	waltz, triplet							
123, 13	triplet, swing							
123, 12	triplet, Afro-Cuban							
123, 23	triplet, waltz							

The rhythms in the table above could also be played as one beat with two sixteenth triplets (with different counting). The first chord in a II-V-I cadence is II and the first chord in a V-I cadence is “V”.

VARY THE ORDER OF SEVENTH CHORD TONES

Explore All of the Possible Orders of Seventh Chord Tones

There are twenty-four orders of seventh chord tones. Players typically play a few of the possibilities, but don't explore them all. Build your memory of all the possible orders of tones for a particular seventh chord in each of the octave shapes. Start with specific orders of seventh chord tones by playing them in rows or columns in the table below. Then whimsically explore orders of arpeggio tones for a seventh chord all in one octave shape.

include inversions

Include inversion, as permitted by the range of chord tones in the octave shape you are playing in. 1357 can be played in ascending order, or "1" could be followed by the "3" below it in pitch, then ascend to "5" and "7".

Possible Orders of 1-3-5-7

1357	1375	1537	1573	1735	1753
3571	3517	3715	3751	3157	3175
5713	5731	5137	5173	5317	5371
7135	7153	7315	7351	7513	7531

Generic Numbers

The numbers in the table below are "generic". "1" is the chord root, the letter name after which the chord is named. For a Db major seventh chord, "1" represents "Db". "3" represents the third of the chord whether it is a natural third or a flat third. "5" represents the fifth, regardless whether it is a perfect fifth (natural fifth) or a flatted fifth. Likewise, "7" represents flat seven or natural seven.

Learn to create the table above in your mind to prepare to more fluently improvise on a chord in a particular area of the fretboard. All of the fourth digit numbers in each row start with the same number.

The four-digit numbers in the first row all start with "1", in the second row with "3", in the third row with "5" and in the fourth row with "7". With a little study, you should be able to re-create the table without looking at it.

	Cmaj7	C7	C7	Cm7	Cm7
literal numbers:	1 3 5 7	3 5 b7 1	3 5 b7 1	1 b3 5 b7	5 b3 1 b7
generic numbers:	1 3 5 7	3 5 7 1	3 5 7 1	1 3 5 7	5 3 1 7
T		9			8
A					
B	8 7 10 9	10 8 10	7 10 8 10	10 11 10 8	10 8 10 8

the first pair of four-digit numbers in a row (1357 and 1375)

In the sequence of numbers in each row, first the second number is the next-higher pitch in the chord (3 in 1357, for example) followed by the remaining numbers in order of pitch, then in reverse order (1357 ends with “57”, then 1375 ends with “75”).

the second pair of four-digit numbers in a row (1537 and 1573)

Next, the first tone (“1”) is followed by the next higher chord tone (5), then the remaining two numbers, then another version with the remaining numbers in reverse order (1537 ends with “37”, followed by “1573”, which ends with “73”).

the last pair of four-digit numbers in a row (1735 and 1753)

With the last pair of four-digit numbers, the first tone (“1”) is followed by the highest chord tone above it (7), then the remaining two numbers, then another version with the remaining numbers in reverse order (1735 ends with “35”, followed by “1753”, which ends with “53”).

ENHANCED TURNAROUNDS

This section will show the turnarounds most commonly in use. They show the six directional types of turnarounds shown earlier in this chapter: up/down, up/continue up, up/up, down/up, down/continue down and down/down. The tables below shows two or three chords of a turnaround. These are [modal cadences](#) and can be built on any step of a major scale or other seven tone scale.

preview of a typical turnaround study session on a IIm7-V7 cadence

For 90 seconds, play eight notes on IIm7 arpeggio and eight notes on V7 arpeggio.

The image shows a musical exercise for a Swing Eighths IIm7-V7 cadence. On the left, there are two fingering charts. The first chart is for IIm7 (Dm7) and the second is for V7 (G7). Both charts show three rows of notes with fingerings (1-5) indicated. The first row of IIm7 is 7 3 6 2 7, and the first row of V7 is 7 3 6 2 7. The second row of IIm7 is 1 4 7 3 5, and the second row of V7 is 1 4 7 3 5. The third row of IIm7 is 2 5 1 4 6, and the third row of V7 is 2 5 1 4 6. To the right of the charts is a musical staff with a treble clef and a key signature of one flat (Bb). The tempo is marked 'Swing Eighths'. The first measure is labeled 'Dm7' and the second measure is labeled 'G7'. The melody line consists of eighth notes. The first measure of the melody is D4, E4, F4, G4, A4, Bb4, C5, D5. The second measure of the melody is D5, C5, Bb4, A4, G4, F4, E4, D4. The bass line consists of eighth notes. The first measure of the bass line is D3, C3, B2, A2, G2, F2, E2, D2. The second measure of the bass line is D2, C2, B1, A1, G1, F1, E1, D1. The staff ends with a double bar line and repeat dots.

Build a four-note-per-chord turnaround by playing four notes of each arpeggio. Phrase it so the V7 arpeggio starts on the first beat of the V7 chord.

For about five minutes, use the turnaround in improv over an accompaniment that loops (repeats) the IIm7-V7 progression. Use a looper, a program like iReal pro, or a recording of you playing the accompaniment repeatedly for a few minutes. Make it a point to play the original turnaround about every four times through the chord progression, playing it intact. Work to segue seamlessly into and out of the turnaround.

Next, modify the arpeggios with decorations: change of rhythm, add a note or two to lead into the first arpeggio, use bebop ornamentation. See "[Core Melody with Baroque-Bebop Ornamentation](#)".

Again, for about five minutes, use the enhanced turnaround in improv over an accompaniment of the IIm7-V7 progression. Make it a point to play the enhanced turnaround about every four times through the chord progression, playing it intact. Work to segue seamlessly into and out of the turnaround.

Repeat all the steps above with each turnaround cadence.

Building Your Own Enhanced Turnarounds

why can't I just memorize a few turnarounds and be done with it?

You could, but that is likely to only get you through three or four songs. What are you going to use for variety in turnarounds on additional songs and at additional performances? It's good to learn a few great examples of turnarounds, then begin to learn to build your own.

steps to building your own turnarounds

There are innumerable turnarounds and we can't practically memorize all of them. But we can develop a system to quickly conceive and build them while we're playing. We need to have many turnarounds memorized as models and know how to construct more.

1. Thoroughly learn the families of seventh arpeggios, each in five octave shapes.
2. Practice Examples of Basic Turnarounds in Seventh Arpeggios, below.
3. Learn at least major ninth, dominant ninth and minor ninth arpeggios in five octave shapes.
4. Memorize at least the minor eleventh arpeggios in five octave shapes.
5. Practice making up arpeggios with the generic number system on the following pages, so you can voice-lead arpeggios from one to another.
6. During the course of practicing the generic numbering system on the following pages, learn the rhythms with which they are played.

Examples of Basic Turnarounds in Seventh Arpeggios

Typical turnarounds use four notes per chord.

♩ = 120 Cmaj7 Am7 Cmaj7 Am7 Dm7 G7 C C7 A7(b9) Dm7 G7(b9) C

T 7 8 10 8 9 10 7 10 8 7 10 7 9 10 11 8 9 10 7 9

A 10 9 8 7 10 8 9 10 7 10 8 7 10 7 9 10 11 8 9 10 7 9

B 10 9 8 7 10 8 9 10 7 10 8 7 10 7 9 10 11 8 9 10 7 9

voice leading in four-note-per-chord turnarounds

1-2-3-5 fragment pattern, resolve down

Chord sequence: Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7

Melody line: 1-2-3-5 fragment pattern, resolve down

Bass line: 5 7 8 7 5

Tenor line: 5 7 8 7 5

Alto line: 5 7 8 7 5

Stepwise

Chord sequence: Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7

Melody line: 1-2-3-5 fragment pattern, resolve down

Bass line: 7 5 4 7 5

Tenor line: 6 5 7 5 4

Alto line: 5 8 6 5 7

Conceiving Turnarounds in Generic Numbers

four-note turnaround cells

Sets of four numbers are used in these tables to represent the turnaround, such as 1-3-5-7 representing C-E-G-B on a Cma7 chord. The numbers shown on these tables show the scale-tone numbers for the chord scale you are using *generically*, without any flats or sharps. Each set can be adapted to the scale you are using for any particular chord by flattening or sharpening notes as the scale directs. For example, in using Aeolian mode on a minor seventh chord where the four-note set of numbers is 5-6-7-2 would be 5-b6-b7-2, since Aeolian has the numbered scale tones 1-2-b3-4-5-b6-b7.

Most of the turnaround examples in this chapter are linear turnaround cells. When they are non-linear turnarounds instead, they are specified as non-linear. See the earlier [Linear Turnaround Cells](#) and [Non-Linear Turnaround Cells](#), in the [Building Melodic Turnarounds](#) section.

Generic Sets of Numbers for Turnarounds

text description of turnaround cells on a setup chord with generic numbers

Any chord before the last chord in a cadence can be thought of as the “setup chord: in designing its voice-leading to the next chord. 1235-type options are in parenthesis.

End on 5 or 7: ascend 1357, 7135 (3457, 1235); descend 3175, 2175, 5317 (2765). Resolve up or down a scale step.

End on 2: ascend 3572 (5672): ascend from third of a ninth-resolve up or down a scale step.

End on 1: ascend 3571; descend 7531 (5321). Resolve up a fourth (not if the fourth is diminished) or resolve down a minor third if the scale permits.

End on 3: ascend 5713; descend 1753 (7543). Resolve up a scale step or resolve down a minor third if the scale permits.

The turnaround cells on the table below are numbered in chord scale. Each cell represents four eighth notes or four sixteenth notes. The eighths or sixteenths may be swung .

The “last note” of the first chord on the table below doesn’t necessarily progress to the “first note” of the second chord shown in the same row. The last note on the first chord can move to any note within a minor third to start the second chord, including same note (the last note of the first chord the same as the first note of the second chord). See [voice leading turnaround cells](#) below.

table of turnaround cells 1235-type options are in parenthesis.

UP FIRST CHORD		UP SECOND CHORD	
first chord up	last note	first note	second chord up or continue up
1357, (3457)	7	7	7135
3571	1	1	1357, (1235)
3572 (5672, 5712)	2		
5713	3	3	3571, (3457), 3572
7135 (1235)	5	5	5713, (5672, 5712)
DOWN FIRST CHORD		DOWN SECOND CHORD	
first chord down	last note	first tone	second chord down or continue down
5317	7	7	7531 (7543)
7531	1	1	1753
		2	2753 (2765, 2175)
1753, 2753 (7543)	3	3	3175
3175, (2175, 2765)	5	5	5317

voice leading turnaround cells

With the chord scale number context used on the [table of turnaround cells](#), the numbers of the first chord are in a different key than the second chord. When you arrive at the last tone of the four-note turnaround cell played on the first chord, you need to decide on a first note for the second chord within an interval of a minor third or less.

To speed up the decision making. Learn the interval range for each four-note turnaround cell type: root position, first inversion, second inversion, third inversion, 1-2-3-5 and 1-3-4-5. A seventh chord arpeggio ascending it's root to seventh or descending its seven to root is an interval span of a seventh. First, second and third inversions span a sixth. 1-2-3-5 and 1-3-4-5 span a fifth. Learn the graphic shape and fingering for major and minor sevenths, major and minor sixths and for perfect, diminished and augmented fifths. Further, learn all the arpeggios that span these intervals, meaning all fingerings for all seventh chord arpeggios.

extending the table of turnaround cells

To extend the [table of turnaround cells](#) to three or more chords, first treat each chord after the first chord as shown as a “second chord”, paying attention to the first note of the second chord so you voice lead from the last note of the first chord. For additional chords, voice lead the last tone of the previous chord to the *first note* of the current chord, using the “first chord” on the table as the previous chord and the “second chord” on the table as the current chord.

Although the model cadence is II-V-I, the concept of generic numbers for turnarounds can be applied to any cadence. Other common cadences are I-VI-II-V, III-VI-II-V, I-VIm-IV-V and IIm-bII-I.

ascend 3571 (parent 4-6-1-2)

IIIm7 V7

IIIm7: 7 3 6 2 7, 1 4 5 1, 2 5 1 4 6 2
V7: 7 3 6 2 7, 1 4 5 1, 2 5 1 4 6 2

17 Dm7 18 G7 19 Dm7 20 G7

chord scale tones b3 5 b7 1 (3)
fingers 3 3 1 3 1

3 3 3 1 3 1 3 3 1 2

10 10 8 10 7 9 10 8 10 7 10 7 9

21 Dm7 22 G7 23 Dm7 24 G7

b3 5 b7 1 (6)
3 3 1 3 4

2 3 3 3 1 3 4 1 3 2 1 3 3 1

10 10 8 10 12 9 10 10 10 8 10 12 8 10 9 8 10 10 7

ascend 3572 (parent 4-6-1-3)

Fma7 IVma7 of C "4" on F V7

Fma7: 7 3 2 7, 1 4 5 1, 2 5 1 4 6 2
IVma7 of C: 7 3 2 7, 1 4 5 1, 2 5 1 4 6 2
V7: 7 3 6 2 7, 1 4 5 1, 2 5 1 4 6 2

25 Dm7 26 G7 27 Dm7 28 G7

chord scale tones b3 5 b7 2 (5)
maj7 on third
fingers 2 1 4 3 1

2 1 4 3 1 4 4 2 1 4

8 7 10 9 7 8 7 10 9 7 10 10 8 7 10

29 Dm7 30 G7 31 Dm7 32 G7

b3 5 b7 2 (b7)
maj7 on third
fingers 2 1 4 3 4

2 1 4 3 3 3 1 4 3 1 4

8 7 10 9 10 8 7 10 9 10 9 7 10 9 7 10

ascend 5672 (parent 6-7-1-3)

VIIm/9 of C "6" on A V7

VIIm/9 of C: 7 3 6 2 7, 1 4 5 1, 2 5 1 4 6 2
V7: 7 3 6 2 7, 1 4 5 1, 2 5 1 4 6 2

33 Dm7 34 G7 35 Dm7 36 G7

chord scale tones 5 6 b7 2 (5)
1-2-3-5 on fifth
fingers 1 3 4 3 1

1 1 3 4 3 1 2 1 2 3 1 2 1 3

7 9 10 9 7 6 7 9 10 9 7 9 7 9 10 8 9 7 10

37 Dm7 38 G7 39 Dm7 40 G7

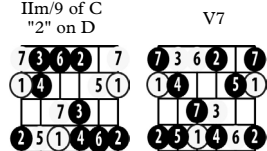
5 6 b7 2 (b7)
fingers 1 3 4 3 4

1 2 3 4 3 4 3 2 1 1 2

7 9 10 10 7 8 9 10 9 10 9 8 6 7 8

ascend 1235

Dm add 9
IIIm/9 of C
"2" on D



65 Dm7 66 G7 67 Dm7 68 G7

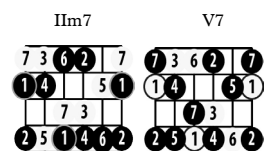
chord scale tones 1 2 b3 5 1 2 b3 5
1-2-3-5 on root 1 2 b3 5
fingers 1 2 3 3 1 2 3 2 1 3 3 3 1 1 2

69 Dm7 70 G7 71 Dm7 72 G7

1 2 b3 5 1-2-3-5 on root 4 1 2 1 4 3 4 1 2 1 4 4 1 2

T A B

descend 5317



73 Dm7 74 G7 75 Dm7 76 G7

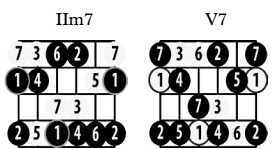
chord scale tones 5 b3 1 b7 (3) 1 4 3 1 3 3 1 3 1 4 3 2 1 3 4 4
fingers 3 3 1 3 3 1 4 3 1 3 3 1 4 3 1

77 Dm7 78 G7 79 Dm7 80 G7

5 b3 1 b7 (5) 4 4 1 4 1 3 3 1 4 3 2 1 3 3 1 4 3 1

T A B

descend 7531



81 Dm7 82 G7 83 Dm7 84 G7

chord scale tones b7 5 b3 1 (1) 2 3 4 1 1 3 3 3 3 1 3 4
fingers 1 3 3 1 2 2 3 4 1 1 3 3 3 3 1 3 4

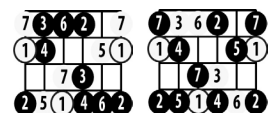
85 Dm7 86 G7 87 Dm7 88 G7

b7 5 b3 1 (3) 1 3 3 1 3 2 4 2 1 2 2 4 2 4 1 1 4 2 3 4 4 2

T A B

descend 5321

Dm add 9
IIIm/9 of C
"2" on D



IIIm/9 on the
root of Dm7
is Dm/9

89 Dm7 G7 Dm7 G7

chord scale tones 5 b3 2 1 (5) 1
1-2-3-5 on root
fingers 4 4 3 1 2

1 2 3 1 3 3 2 1 1 2 3

10 10 9 7 8 7 9 10 8 10 10 10 9 8 7 8 9

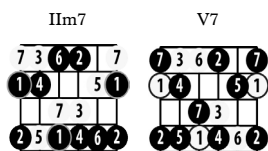
93 Dm7 G7 Dm7 G7

5 b3 2 1 (5)
1-2-3-5 on root
3 3 2 1

1 2 3 1 2 3 3 3 2 3 2 1 4 3 1 2 1

10 10 9 7 7 9 10 7 9 10 10 10 9 10 9 7 7 6 10 8 9 8

descend 1753



97 Dm7 G7 Dm7 G7

chord scale tones 1 b7 5 b3 (1)
fingers 3 1 3 3 1

1 2 3 4 2 4 4 4 4 2 1 4 4 2 3 2

10 8 10 10 8 7 8 9 10 9 10/12 10 10 8 7 11 10 8 9 8

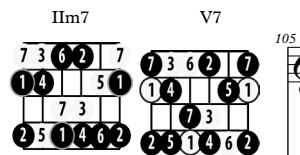
101 Dm7 G7 Dm7 G7

1 b7 5 b3 (b7) 1
3 1 3 3 1

3 1 1 3 1 3 1 3 3 1 2 1 3 3

10 8 10 10 8 10 7 8 10 8 10 8 10 10 8 9 7 10 10

descend 2753



105 Dm7 G7 Dm7 G7

chord scale tones 2 b7 5 b3 (5)
fingers 4 1 3 3 1

4 4 1 3 1 3 4 3 3 1 1 4 1 4 3 2

12 8 10 10 7 12 12 8 10 8 10 12 10 10 7 7 10 7 10 9 8

109 Dm7 G7 Dm7 G7

2 b7 5 b3 (1)
4 1 3 3 1

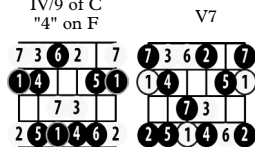
1 3 1 3 3 1 4 1 3 3 1 3 1 3 1 2 1 3 2 2 1 4 1

12 8 10 10 8 7 10 7 10 10 8 12 8 10 10 8 10 8 10 7 9 7 10 9 9 7 10 7

descend 7543

F add 9
IV/9 of C
"4" on F

IVadd9 on the
third of Dm7
is F/9



113 Dm7 114 G7 115 Dm7 116 G7

chord scale tones b7 5 4 b3 (1)
1-2-3-5 on third
fingers 1 3 1 3 1

2 4 2 1 3 1 3 1 3 1 2 3 1 1 3

8 10 8 10 8 10 12 10 8 10 8 10 8 9 10 8 7 10

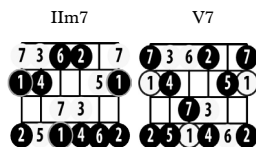
117 Dm7 118 G7 119 Dm7 120 G7

b7 5 4 b3
1-2-3-5 on third
1 3 1 3 1

3 4 1 1 3 3 1 3 1 4 1 2 3 3 2

8 10 8 10 7 10 11 7 8 9 10 8 10 7 10 7 8 9 8

descend 3175



121 Dm7 122 G7 123 Dm7 124 G7

chord scale tones 3 1 b7 5 (root)
fingers 4 1 4 1 4

4 1 4 1 4 1 4 3

10 7 10 7 10 7 10 7 10 7 10 9

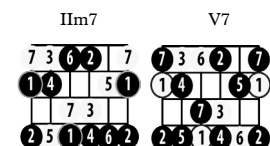
125 Dm7 126 G7 127 Dm7 128 G7

3 1 b7 5 (3)
4 1 4 1 3

3 1 3 1 2 3 2 1 4 4 1 1

10 7 10 7 9 10 7 10 7 8 9 8 7 10 10 6 7

descend 2175



129 Dm7 130 G7 131 Dm7 132 G7

chord scale tones 2 1 b7 5 (root)
fingers 3 1 4 1 4

2 4 2 1 1 4 1 3 1 4 4 2

9 7 10 7 10 12 10 9 7 10 7 9 7 10 10 8

133 Dm7 134 G7 135 Dm7 136 G7

2 1 b7 5 (3)
3 1 4 1 3

2 1 3 3 1 4 4 4 1 3 4 2 4

9 7 10 7 9 8 9 9 7 9 10 9 7 9 10 8 10

descend 2765

IIIm7 V7

7 3 6 2 7 7 3 6 2 7
 1 4 5 1 5 1 4 5 1 4 5 1
 2 5 1 4 6 2 2 5 1 4 6 2

137 Dm7 G7 Dm7 G7

chord scale tones 2 b7 6 5 (root)
 fingers 3 4 3 1 4

3 3 3 4 3 1 4 2 1 2 3 4

141 Dm7 G7 Dm7 G7

2 b7 6 5 (3)
 3 4 3 1 3

1 2 1 4 3 4 3 1 3 1 4 2 1 2

T
 A
 B

9 10 9 7 10 9 10 9 10 9 7 10 8 7 8 9 10

7 8 7 10 9 10 9 7 9 6 10 8 7 8

Turnaround Cell Examples On A Dorian II-V Pop Funk

[click to play video](#)

ascend 1357

♩ = 110 1-3-5-7 of IIm7 (1-b3-5-b7, parent 2-4-6-1)

Swing Sixteenths

Am7 IIm7 of G "2" on A D7 V7 of G "5" on D

1 1 + 2 + 3 + 4 + 1 e + a 2 e + a

3 1 3 1 1 2 4 3 1 1 1 1 2 1

5 7 5 8 7 5 7 5 4 5 4

5 7 5 8 7 5 8 7 5 8 7 5

ascend 3457

3-4-5-7 of IIm7 (b3-4-5-b7, parent 4-5-6-1)

Am7 IIm7 of G "4" on C D7 V7 of G "5" on D

5 7 5 8 7 5 8 7 5 8 7 5

5 7 5 8 7 5 8 7 5 8 7 5

5 7 5 8 7 5 8 7 5 8 7 5

5 7 5 8 7 5 8 7 5 8 7 5

ascend 3457

7-1-3-5 of IIm7 (b7-1-b3-5, parent 1-2-4-6)

Am7 IIm7 of G "2" on A D7 V7 of G "5" on D

b7 1 b3 5 1

5 7 5 8 7 5 8 7 5 8 7 5

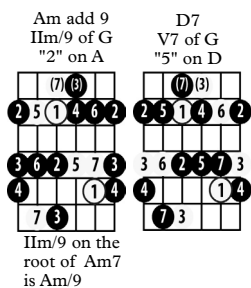
5 7 5 8 7 5 8 7 5 8 7 5

5 7 5 8 7 5 8 7 5 8 7 5

5 7 5 8 7 5 8 7 5 8 7 5

ascend 1235

1-2-3-5 of IIm7 (1-2-b3-5, parent 2-3-4-6)



25 Am7 26 D7 27 Am7 28 D7

1 2 b3 5

7 4 5 5 7 5 6 7 4 5 6 7 4 5 4 7

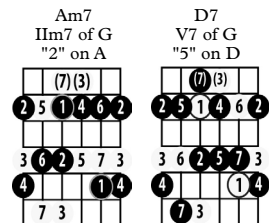
29 Am7 30 D7 31 Am7 32 D7

1 2 b3 5

5 7 8 7 5 9 5 7 8 4/5 7 8 6 5 7 7

descend 3175

3-1-7-5 of IIm7 (b3-1-b7-5, parent 4-2-1-6)



33 Am7 34 D7 35 Am7 36 D7

b3 1 b7 5 1

5 7 5 7 5 7 5 7 4 5 4 4

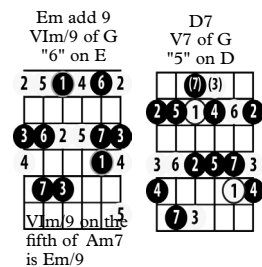
37 Am7 38 D7 39 Am7 40 D7

b3 1 b7 5 1

5 7 5 7 4 4/5 4 5 7 5 7 8 4 7 6 5 6/7 4 5 4 3

descend 2765

2-7-6-5 of IIm7 (2-b7-6-5, parent 3-1-7-6)



41 Am7 42 D7 43 Am7 44 D7

2 b7 6 5 1

4 5 4 7 5 8 5 7 4 5 4 4 5 4 4 7 5 5 8 7 3 4 5

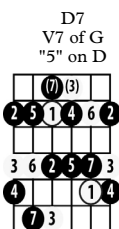
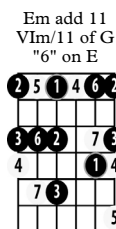
45 Am7 46 D7 47 Am7 48 D7

2 b7 6 5 1

4 5 4 7 4 7 8 7 5 4 5 4 4 5 7 5 7 7

descend 2175

2-1-7-5 of IIm7 (2-1-b7-5, parent 3-2-1-6)



49 Am7 D7 50 Am7 D7 51 52

2 1 b7 5 1

4 7 5 7 5 7 4 5 7 4 5 5 5 7

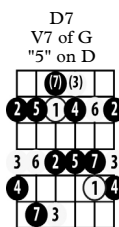
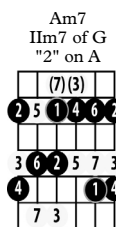
53 Am7 D7 54 Am7 D7 55 56

2 1 b7 5 1

4 7 5 7 4 9 10 8 7 5 8 5 7 8/9 7 5 6 5 7 4 5 7 9 5 8 7 5

descend 5317

5-3-1-7 of IIm7 (5-b3-1-b7, parent 6-4-2-1)



57 Am7 D7 58 Am7 D7 59 60

5 b3 1 b7 3

5 5 7 5 4 5 6 5 5 5 7 7 5 4 5 8 5

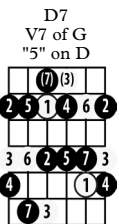
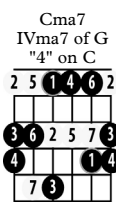
61 Am7 D7 62 Am7 D7 63 64

5 b3 1 b7 3

5 5 7 5 7 5 5 7 6 5 4 7 5 8 7 5

ascend 3572

3-5-7-2 of IIm7 (b3-5-b7-2, parent 4-6-1-3)



65 Am7 D7 66 Am7 D7 67 68

b3 5 b7 2 (5)

8 7 5 4 7 8 7 5 4 7 5 5 8 7 5

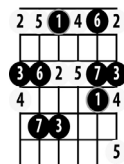
69 Am7 D7 70 Am7 D7 71 72

b3 5 b7 2 (b7)

8 7 5 4 5 8 7 5 5 7 9 5 4 5 7 5 4 5

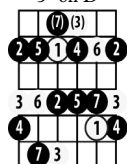
ascend 5672

Em add 9
VIm/9 of G
"6" on E



1-2-3-5 on the
fifth of Am7
is Em/9

D7
V7 of G
"5" on D

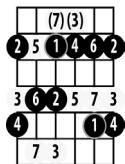


5-6-7-2 of IIm7 (5-6-b7-2, parent 6-7-1-3)

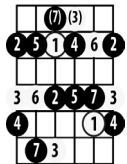


ascend 3571


Am7
IIm7 of G
"2" on A



D7
V7 of G
"5" on D



3-5-7-1 of IIm7 (b3-5-b7-1, parent 4-6-1-2)



SECONDARY DOMINANT

The Dominant

The dominant in any key is on the fifth step of its scale. “G” is the dominant in the key of “C”. In a major key, the most common chord progression is the *authentic cadence* from V to I, a chord built on the fifth step of the scale (“G” or “G7” in the key of “C”) progressing to the chord built on the first step (a “C” chord in the key of “C”).

The V Chord In Minor Mimics the V chord in major

Aeolian mode is converted to harmonic minor in order that the minor key V chord is major (1-3-5) or dominant seventh (1-3-6-b7). In A minor, the E minor chord on its fifth step is more often than not changed to E major or E7, making the stronger cadence from E(7) to Am, replacing the weaker Em(7) to Am.

Likewise with the other two common modes used as keys in the major scale, Dorian and Mixolydian, the V chord in each of those modes can be changed to major or dominant seventh to strengthen the progression. The scales in the key of each of the three types of V chords for Aeolian, Dorian and Mixolydian are named after the mode on each respective V chord, as shown below.

Dominant Chords Can Be Built on All Seven Steps of the Major Scale

See “[Voice Leading Improv with Arpeggio Cadences](#)”/Graphically Voice Leading Improv with Arpeggio Cadences/[Scale-Tone Seventh Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale](#) (includes secondary dominants).

A [secondary dominant](#) chord mimics the V-I (G or G7 to C in the key of C) relationship by preceding any target chord with a major or seventh chord, on the fifth step of the key of the target chord. For an Am target chord, the secondary dominant is E or E7, chords built on the fifth step in the key of A. For an F chord, the secondary dominant is C or C7, chords built on the fifth step in the key of F. To emphasize a change of chord quality even farther for a secondary dominant, use more altered tones such as the flat nine, sharp nine and sharp five that are typically used on the V chord in a minor key.

secondary dominants need to use a noticeable change in quality.

To use a secondary dominant of an F chord in the key of C, use a C7, since C major is already part of the C major scale, while C7 changes the C major scale with the Bb note in the C7 chord. If your target chord is G in the key of C, the secondary dominant could be either D major or D7 (both of which sharp

the F of the C major scale. So secondary dominants are based on changing a minor chord to major or dominant seventh or changing a major to a seventh when doing so changes the scale.

Here's a list of common secondary dominants and their targets for the key of C major: I7 to IV (C7 to F), II or II7 to V (D or D7 to G), III or III7 to VI or VI7 (E or E7 to A), VI or VI7 to IIm or II (A or A7 to Dm or D). V or V7 to I (G or G7 to C) is not a *secondary dominant* to a target, since G and G7 are already part of the C major scale.

In addition to the dominants used on steps III, VI, II and V, dominant chords can be built on I, IV and VII. I dominant seventh is the V of IVma7. IV dominant seventh is the flat V of VIIIm7b5, with root progression up and *augmented* fourth instead of the usual perfect fourth. Practice IV super Locrian to VIIIm7b5.

A seventh modal dominant type is Locrian dominant (using super Locrian), using VII7#5b9 (B7#5b9 in the key of C) to IIm or IIm7 (Em or Em7 in the key of C). Rather than raising Locrian's flat three to natural three, flat its fourth, so the parent scale is major flat three, commonly called melodic minor. This Locrian b4 scale is called super Locrian.

II-V-I Cadences Use Secondary Dominants

All II-V-I cadences use secondary dominants *except* the traditional major II-V-I, where the V dominant chord is part of the scale without modification. II-V-I cadences are all based on three chord roots ascending in perfect fourths, like "D" to "G" to "C". The two classic "II-V-I" cadences are the "major II-V-I" and the "minor II-V-I". The major II-V-I is literal, its "II-V-I" (Dm-G-C, in the key of C). V makes the strongest progression to the target "I". Secondarily, II makes the strongest progression to V. In sequence, they make "II-V-I".

The minor II-V-I is derived from the major scale. It uses chords with their roots ascending in fourths on scale tones VII, III and VI (B, E and A of the C major scale). In terms of the key of the target key A minor, "II" would be "B", "V" would be "E" and "I" would be "A". VIIIm7b5-IIIIm7-VIm (Bm7b5-Em7-Am) in the parent major scale (C major) provides this progression. To strengthen the progression, the IIIIm7 (Em7) is changed to III7 (E7), a dominant seventh chord, mimicking the classic V7-I (G7-C) cadence in a major key. The tactic is to use E7 to A minor as you would use E7 to A major in the key of A.

Modal II-V-I Cadences

Preceding any of the secondary dominants with the chord whose root is down a perfect fourth, can produce various types of "II V" cadences. If the secondary dominant is "V", the root down a perfect fourth from it is "II". By then following through to the target I chord whose root is up a perfect fourth from the dominant V chord, a modal II-V-I cadence is produced.

II-V-I cadences are commonly used in the forms of major IIm7-V7-I (a major II-V-I cadence) and minor IIm7b5-V7-Im (an Aeolian II-V-I cadence) in popular music, especially jazz. The Dorian and

Mixolydian II-V-I cadences are very useful also, though not explored as thoroughly as they could be. The four most common modal II-V-I cadences we'll explore are shown below. The "modal II chord" is built on the second step of the scale of the target chord. The "modal V chord" is built on the fifth step of the scale of the target chord. In each case except the major II-V-I, the modal V chord is changed from its minor quality to a major quality and usually elaborated to a dominant seventh or larger chord. The "modal II chord" and the "modal V chord" below are numbered in terms of the parent major scale. Literal lettered examples in parenthesis (i.e. Bm7b5) use the C major parent scale.

changing modal II-V-I type with V as a secondary dominant

Think in the key of the target chord, but change the mode when making the chord a secondary dominant. In changing the V chord to secondary dominant, it is changed to dominant seventh or altered dominant seventh, unless it already is a dominant seventh, as in major mode with V7 as an unaltered scale-tone chord.

mode	II chord in parent scale	V chord in parent scale	secondary dominant V, chord scale, key scale during secondary dominant V	I chord in parent scale	II-V-I
major	IIm7	V7	V7 (no change) chordscale V Mixolydian key scale major	IIm7	IIm7-V7-IIm7
Dorian	IIIm7	VIIm7	VI7 (VI9, opt. #5) chordscale VI Aeolian dominant key scale melodic minor	IIIm7	IIIm7-V7-Im7
Mixolydian	VIIm7	IIm7	I17 (II13) chordscale II Mixolydian key scale major	V7	IIm7-V7-I7
Aeolian	VIIIm7b5	IIIm7	III7 (III7b9 opt. #5) chordscale E Phrygian dominant key scale harmonic minor	VIIm7	IIm7b5-V7-Im7
melodic minor	IIm7	V7	V7 (V9, opt. #5) chordscale Mixolydian flat 6 key scale melodic minor	Im6	IIm7-V7-Im6
Lydian dominant	V7	Im6	I7 (II13) chordscale Mixolydian key scale major	IV7	I17-V7-I7

changing modal II-V-I types in the same key

For the purpose of [Scale Ambiguity](#), with darkening and brightening, you will also need to be able to play different modal II-V-I cadences all the same key. When you play them all in the same key, each of the four types you may choose from use a different parent major scale. This makes it more complicated, so practice jamming on one of the II-V-I cadences in a particular key at a time until you can freely change between the types.

thinking modal II-V-I cadences in different contexts

At times, you may find it useful to think in each of four different contexts for all three of the chords in the cadence in terms of (1) the parent scale, (2) altered parent scale for the V chord, (3) the chord scale for the dominant V mode, (4) the unaltered II-V of the target chord and (5) the altered II-V of the target chord.

II-V-I Turnarounds For All Seven Major Scale-Tone Chords

The unaltered parent scale for all of these is I major.

target	VIm9	IIm9	V9	Ima9	IVma9	VIIIm11b5b9	IIIm11b9
seventh tones of parent	6135	2461	5724	1357	4613	7246	3572
unaltered V of	IIIm7 (m11b9)	VIm9	IIm9	V9	Ima9	IVma9	VIIIm7b5 (VIIIm11b5b9)
dominant V of	III7b9	VI9	II9	V9	I9	IV9	VII#5#9
altered parent scale	I major #5 or I major b6	I major #1*	I major #4	no change	I major b7	I major b3 (mel. min)	I major b3 (mel. min)
dominant V mode	III Phry. dom. or III super Phry.	VI Aeolian dominant	II Mixolydian (II mel. minor)	V Mixo.	I Mixo	IV Lydian dominant	VII super Locrian
unaltered II V of	VIIIm11b5b9-IIIIm11b9	IIIm11b9-VIm9	VIm9-IIIm9	IIm9-V9	V9-Ima9	Ima9-IVma9	IVma9-VIIIm11b5b9
II-dominant V of target	VIIIm11b5b9-III7b9	IIIm11b9-VI9	VIm9-II9	IIm9-V9	V9-I9	Ima7-IV9(13#11)	IVma9-VII#5#9

*I major #1 (=VII super Locrian) has the same notes as II Dorian natural 7 = II melodic minor.

employ simple modifications to turnarounds (sketching):

- Ascend from the third and tend to use the upper part of ninths.
- Precede the first note with a lower chromatic embellishment.
- Omit any of the four notes (in a four-note turnaround), leaving the others in their place in time. Go to Rhythmic Words and Comping/Four Pulse Rhythmic Words/Strumming Four-Pulse Rhythmic Words and use any of the rhythms that use seven notes.
- Omit two of the four notes. In strumming Four-Pulse Rhythmic Words and use any of the rhythms that use six notes. In playing a II-V with four-note arpeggios, choose the rhythm that has the omitted notes in the appropriate place. If the “II” has no omitted notes, use a rhythm that begins with four sixteenths. The examples are based on two sets of four sixteenths (or four eighths). Wherever you omit notes, use a rhythm that matches. In another sense, there are only 15 different rhythms made with four pulses. Learn them all at Rhythmic Words and Comping/ Four-Pulse Rhythmic Words/All Possible Four-Pulse Rhythmic Words.
- Change the melodic rhythm.

Consecutive Secondary Dominants

A secondary dominant can be a secondary dominant of another secondary dominant. A7 could be the secondary dominant of Dma7, E7 could be the secondary dominant of A7 and B7#9 the secondary dominant of E7. See Secondary Dominant/Consecutive Secondary Dominants.

Avoid Conflicts Between The Current Chord and II-V-I Type

turnarounds are usually based on one parent scale

A cadence is often played in the form of a turnaround with the II-V part of the cadence played at the end of the chord preceding the target chord and the “I” part of the cadence played on the target chord.

The notes of a turnaround are usually tones of a single parent scale. If the V chord in the turnaround has been changed from a minor seventh to dominant seventh to create a secondary dominant, a note in the parent scale is raised to change its third from minor to major. This is the case with IIm7 changing to II7 to act as a V7 of V; IIIIm7 changing to III7 to act as a V7 of VIm; and VIm7 changing to VI7.

A Ima7 chord can be changed to a secondary dominant by flattening its seventh, so it can act as a V7 of IV.

clashes

Clashes can occur when *flatted* versions of numbered notes (like flat three) are used in the turnaround during the chord preceding the target chord and *natural* versions of the same numbered tones (like natural three) are in the target chord. These clashes are mood mis-matches, where the accompaniment chord is dark-mooded and the turnaround arpeggio played over it is brighter in mood.

spot potential clashes by mood and mode and solve the problem

When the chord preceding the target chord sounds darker and/or bluesier, it is likely to have flatted versions of the same numbered tone. Use a darker, bluesier version of the turnaround that matches the chords. Here is an order of turnarounds from dark mood to bright mood:

dark - minor II-V-I turnaround (VIIIm7b5-III7-VIm7 of the parent major scale)

medium dark - Dorian II-V-I turnaround (IIIIm7-VI7-IIm7 of the parent major scale)

medium bright - Mixolydian II-V-I turnaround (VIm7-IIm7-V7 of the parent major scale)

bright - major II-V-I turnaround

In a traditional minor II-V-I cadence in the key of A minor, the chords are derived from C major parent scale-tone chords VIIIm7b5-IIIIm7-VIm7 (Bm7b5-Em7-Am7). The IIIIm7 is changed to III7, making

the progression VIIIm7b5-III7-VIm7 (Bm7b5-E7-Am7). This makes the parent scale all C major, except C major sharp five during the III7 chord.

In a Dorian II-V-I cadence in the key of D minor, the chords are derived from C major parent scale-tone chords IIIIm7-VIm7-IIIm7 (Em7-Am7-Dm7). The VIm7 is changed to VI7, making the progression IIIIm7-VI7-IIIm7 (Em7-A7-Dm7). This makes the parent scale all C major, except C major sharp one during the VI7 chord.

In a Mixolydian II-V-I cadence in the key of D minor, the chords are derived from C major parent scale-tone chords VIm7-IIIm7-V7 (Am7-Dm7-G7). The IIIm7 is changed to II7, making the progression VIm7-II7-V7 (Am7-D7-G7). This makes the parent scale all C major, except C major sharp four (C Lydian) during the II7 chord.

spot potential clashes with key signatures and scale-tone chords

In this order of major scale key signatures, the mood would get brighter from left to right if you used a single tone center through a number of key signatures. For example, the note “G” is in the major scales “Ab” through “D”.

Cb-Gb-Ab-Eb-Bb-F-C-G-D-A-E-B-F#-C#

If you cannot already, learn to recognize scale-tone chord types by reading [Recognizing Scale-Tone Chords](#). If you can recognize the scale tone on which each chord is likely to have been built you can then determine the parent scale.

You can consider the change of parent scale according to key signature. If the chord preceding the target chord uses a flatted numbered tones in relation to the parent scale of the target chord, consider a key signature to the left (in the series above) of the key signature for the parent scale.

changing parent scale produces an Escherian cadence

Changing parent scale during the chord preceding the target chord to avoid conflicts is usually a good thing. You can then change the parent scale type on the target chord and brighten the mood, producing an unexpected bright mood. This is a form of an Escherian Cadence. See [Melodically Superimposed Cadences/Escherian Cadence](#).

example on a G jazz blues progression

Improvising on a blues in G, for example, you may intend on playing a Mixolydian II-V-I turnaround that targets the G9 chord in bar seven. In doing this you would typically play the II-V part of the cadence in a turnaround at the end of bar six. Bar six is a C7 chord, which contains a “Bb” note. If you use a G Mixolydian II-V-I turnaround (VIm9-II9-V9 of the parent scale C major) with the chords Am9-D9-G9, the Am9 arpeggio includes the note “B”. That is likely going to be a problem. Solve

the problem by using a G Dorian II-V and a G Mixolydian I. You might call this a “hybrid II-V-I” turnaround, since it started as G Dorian and ended as G Mixolydian.

[click to play video](#)

♩ = 120
Swing Eighths

conflict

Am9 VIm7 type D9 II7 type G9 V7 type E7(b9)

G Mixolydian II-V cadence target - G Mixolydian

TAB: 10 9 12 12 10 11 12 10 9 12

resolved

Am7b9 IIIIm7 type D9 VI7 type G9 V7 type E7(b9)

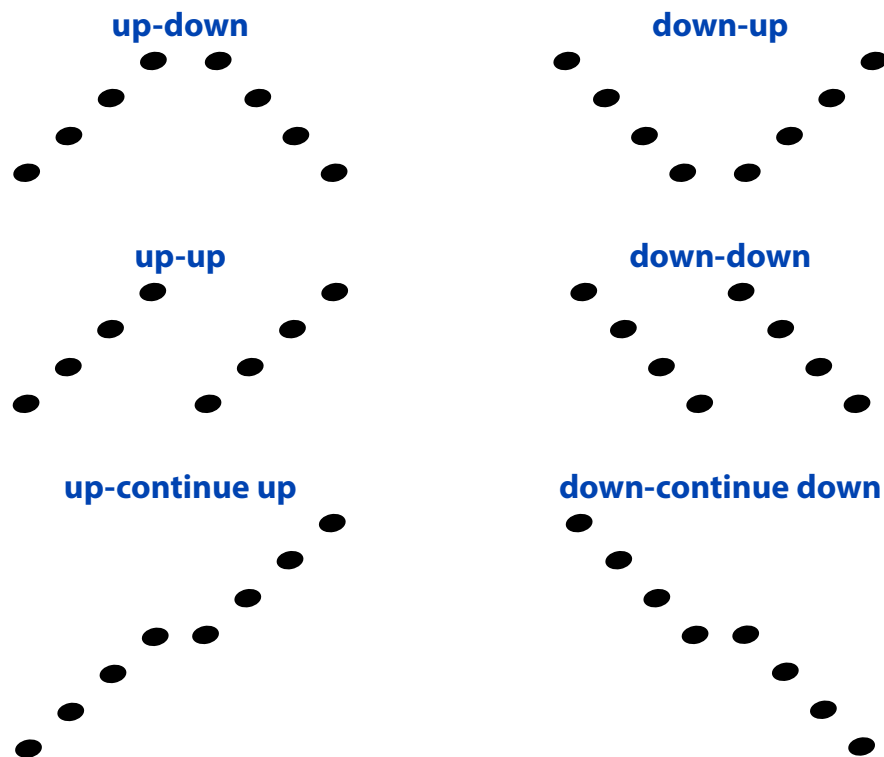
G Dorian II-V cadence target - G Mixolydian

TAB: 10 9 12 11 10 11 12 10 9 12

MAJOR SCALE-TONE TURNAROUNDS IN FOURTHS

Six Directional Designs

See Modal II-V-I Cadences and Turnarounds/Building Melodic Turnarounds/[Six Directional Types of Turnarounds](#). These all use linear four-note cells, continuously ascending or descending for four notes. The examples in this section are grouped in the six directional types of turnarounds. Each type has one of the six designs shown below. Use the link above each graphic below to go to the corresponding section of turnarounds.



voice leading at the transition between four-note cells

If the last note of a four note cell is not the same note as the first note in the next four-note cell, you have the option of going up or down a scale tone to begin the next cell. See [Shared-Note Redundancy](#). In driving styles like bebop and up-tempo blues, it is usually preferred that you make a change so the same note doesn't occur twice consecutively. This can be done by replacing the first note in the second cell with a rest or a sustain. The shared-note redundancy can also be solved by changing the last note of the first cell to a neighboring tone. If the first cell is linearly ascending to a shared-note redundancy, replace the fourth note with an upper neighbor of the first note in the second cell. If the first cell is linearly descending to a shared-note redundancy, replace the fourth note with an lower neighbor of the first note in the second cell.

Up-Down Turnarounds

Down-Up Turnarounds

Up-Up Turnarounds

Down-Down Turnarounds

Up-Continue Up Turnarounds

Down-Continue Down Turnarounds

CHROMATICIZED TURNAROUNDS

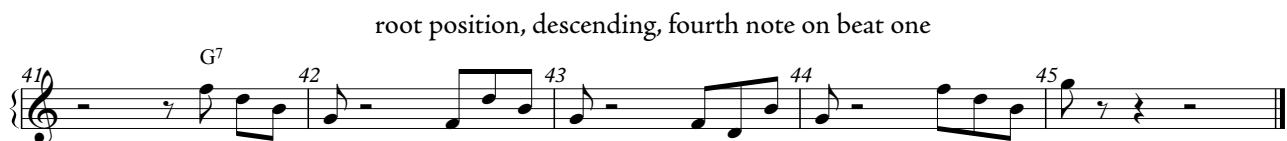
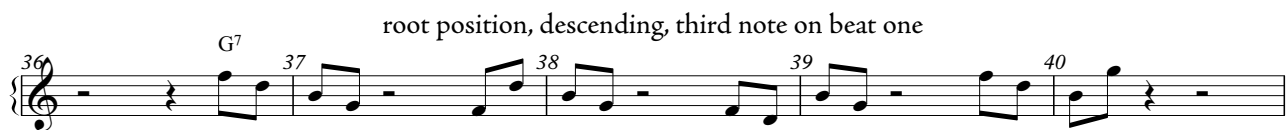
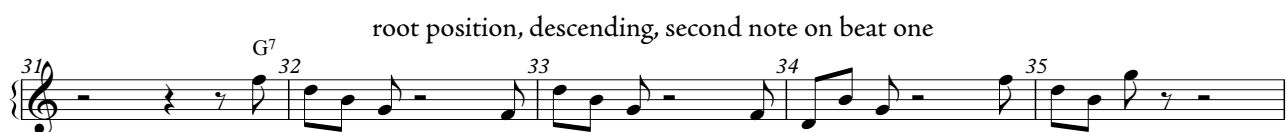
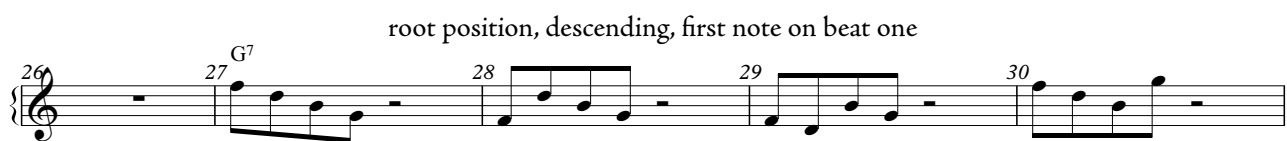
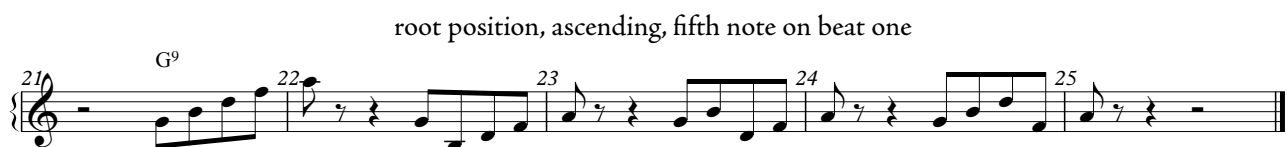
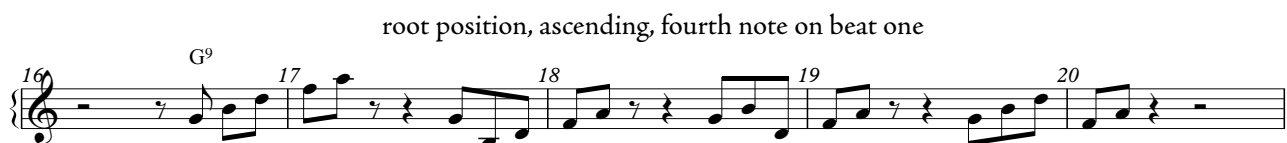
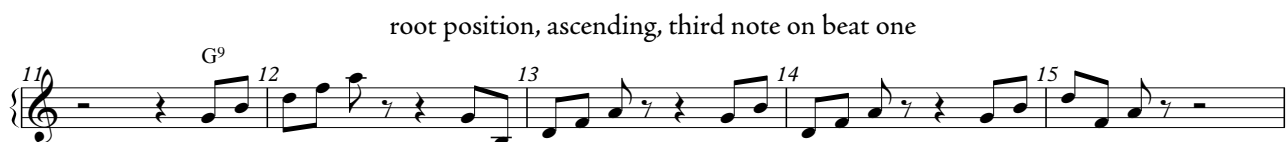
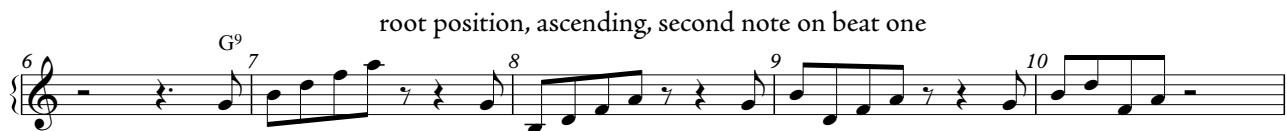
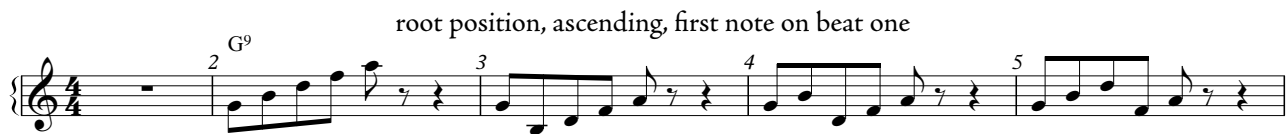
**Arpeggio Inversions and Rhythmic Displacement,
Scalar Chromatic Arpeggio Cell Library,
Scalar Chromatic Cadence Library,
Triplet Arpeggio Chromatics,
Chromatic Arpeggio Encircling,
Linear Chromatics-Repeating Target as Second Note,
Linear Chromatics-Nearby Chord Tone as Second Note,
Linear Chromatics-Nearby Chord Tone as Fourth Note,
Progressive Chromaticized Cadences**

Arpeggio Inversions and Rhythmic Displacement

Omit the last note in any of the ascending G9 examples to make a four-note G7.

On each staff below, octave displacements of the four examples are:

1. no octave displacement, 2. displace second note, 3. displace on third note, 4. displace on thid note



first inversion, ascending, first note on beat one



first inversion, ascending, second note on beat one



first inversion, ascending, third note on beat one



first inversion, ascending, fourth note on beat one



first inversion, descending, first note on beat one



first inversion, descending, second note on beat one



first inversion, descending, third note on beat one



first inversion, descending, fourth note on beat one



second inversion, ascending, first note on beat one



second inversion, ascending, second note on beat one



second inversion, ascending, third note on beat one



second inversion, ascending, fourth note on beat one



second inversion, descending, first note on beat one



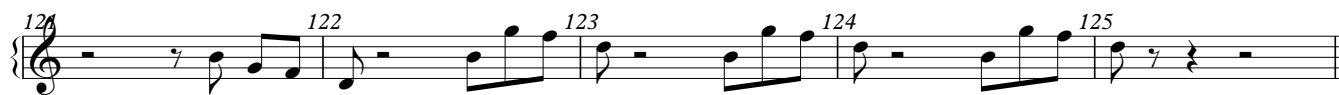
second inversion, descending, second note on beat one



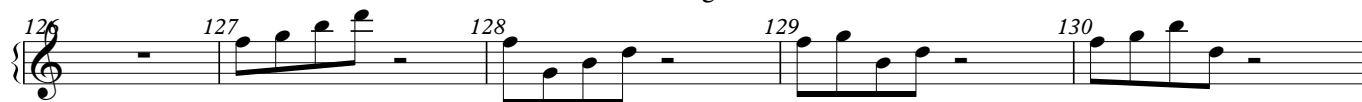
second inversion, descending, third note on beat one



second inversion, descending, fourth note on beat one



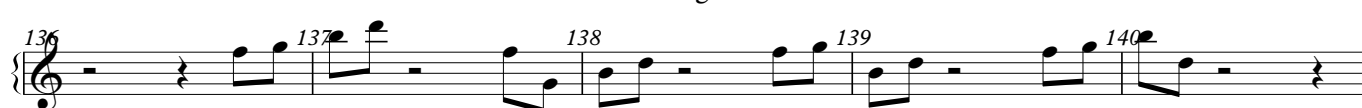
third inversion, ascending, first note on beat one



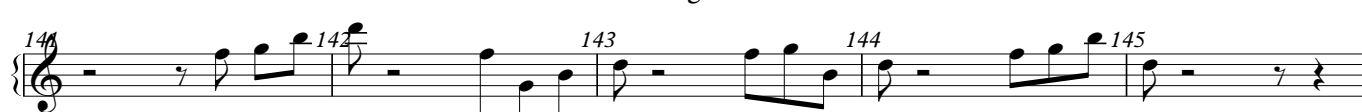
third inversion, ascending, second note on beat one



third inversion, ascending, third note on beat one



third inversion, ascending, fourth note on beat one



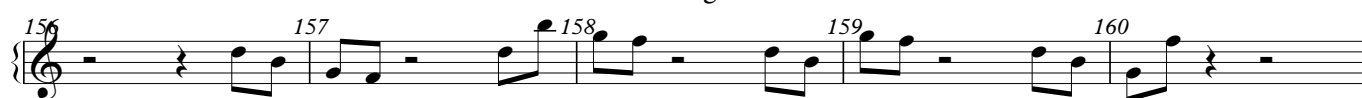
third inversion, descending, first note on beat one



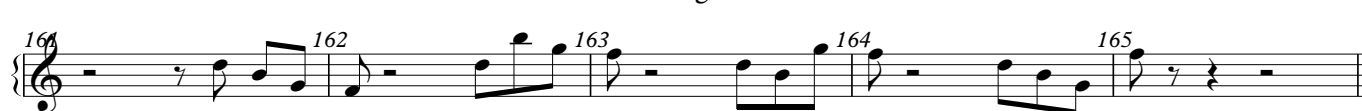
third inversion, descending, second note on beat one



third inversion, descending, third note on beat one



third inversion, descending, fourth note on beat one



Scalar Chromatic Arpeggio Cell Library

When the second chromatic above the target doesn't harmonize well, a scale tone is substituted (labeled "ST"), which is usually a half step higher.

"two above, one below" and "one below, two above"

2A/1B E7(b9)

1B/2A E7(b9)

2A/1B Am9

1B/2A Am9

2A/1B Dm9

1B/2A Dm9

2A/1B G^9

root ST 3 5 b7 9

1B/2A G^9

root ST 3 5 b7 9

2A/1B C^{maj9}

root ST 3 5 ST 7 9

1B/2A C^{maj9}

root ST 3 5 ST 7 9

2A/1B F^{maj9}

root ST 3 5 ST 7 9

1B/2A F^{maj9}

root ST 3 5 ST 7 9

"two below, one above" and "one above, two below"

2B/1A E7(b9)

1A/2B E7(b9)

2B/1A Am9

1A/2B Am9

2B/1A Dm9

1A/2B Dm9

2B/1A G^9

1A/2B G^9

2B/1A C^{maj9}

1A/2B C^{maj9}

2B/1A F^{maj9}

1A/2B F^{maj9}

“two below, two above” and “two above, two below”

2B/2A $E7(b9)$

265 ST root 266 ST 3 268 ST 5 269 b7 270 b9

2A/2B $E7(b9)$

271 ST root 272 ST 3 274 ST 5 275 b7 276 b9

2B/2A $A\text{m}^9$

277 root 278 b3 279 ST 5 280 b7 281 ST 9 282

2A/2B $A\text{m}^9$

283 root 284 b3 285 ST 5 286 b7 287 ST 9 288

2B/2A $D\text{m}^9$

289 root 290 b3 291 5 292 b7 293 ST 9 294

2A/2B $D\text{m}^9$

295 root 296 b3 297 5 298 b7 299 ST 9 300

2B/2A G^9

301 root 302 ST 3 303 5 304 b7 305 9 306

2A/2B G^9

307 root 308 ST 3 309 5 310 b7 311 9 312

2B/2A $C\text{maj}^9$

313 root 314 ST 3 315 5 316 ST 7 317 9 318

2A/2B $C\text{maj}^9$

319 root 320 ST 3 321 5 322 ST 7 323 9 324

2B/2A $F\text{maj}^9$

325 root 326 3 327 5 328 ST 7 329 9 330

2A/2B $F\text{maj}^9$

331 root 332 3 333 5 334 ST 7 335 9 336

Scalar Chromatic Cadence Library

This is a library. Before memorizing it, memorize and practice single instances as you see in [Progressive Chromaticized Cadences](#). Also see “[Chromaticized Arpeggios](#)”, especially “[Chromaticized Arpeggios](#)”/ [Encircling Chromatic Sequences](#). Use any single chord tone where a chord is shown.

chord tone, two chromatics below, scale tone above, target
and chord tone, scale tone above, two chromatics below, target

The exercises are as follows:

- Exercise 1:** 2B/1A Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7(b9). Patterns: root, 3, 5, ST b7, ST b9.
- Exercise 2:** 1A/2B Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7(b9). Patterns: root, 3, 5, ST b7, ST b9.
- Exercise 3:** 2B/1A E7 Am7 E7 Am7 E7 Am7 E7 Am7 E7 Am9. Patterns: root, 3, 5, b7, 9.
- Exercise 4:** 1A/2B E7(b9) Am7 E7 Am7 E7(b9) Am7 E7 Am7 E7 Am9. Patterns: root, 3, 5, b7, 9.
- Exercise 5:** 2B/1A Am7 Dm7 Am7 Dm7 Am7 Dm7 Am7 Dm7 Am7 Dm9. Patterns: root, 3, 5, b7, 9.
- Exercise 6:** 1A/2B Am7 Dm7 Am7 Dm7 Am7 Dm7 Am7 Dm7 Am7 Dm9. Patterns: root, 3, 5, b7, 9.
- Exercise 7:** 2B/1A A7 Dm7 A7 Dm7 A7 Dm7 A7 Dm7 A7 Dm9. Patterns: root, 3, 5, b7, 9.
- Exercise 8:** 1A/2B A7 Dm7 A7 Dm7 A7 Dm7 A7 Dm7 A7 Dm9. Patterns: root, 3, 5, b7, 9.
- Exercise 9:** 2B/1A Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G9. Patterns: root, 3, 5, ST b7, ST 9.
- Exercise 10:** 1A/2B Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G9. Patterns: root, 3, 5, ST b7, ST 9.

2B/1A G^9



1A/2B G^9



2B/1A C^{maj9}



1A/2B C^{maj9}



2B/1A F^{maj9}



1A/2B F^{maj9}



2B/1A G⁷ C^{maj7} G⁷ C^{maj7} G⁷ C^{maj7} G⁷ C^{maj7} G⁷ C^{maj7} G⁷ C^{maj9}

51 root 52 3 53 5 54 7 55 9

1A/2B G⁷ C^{maj7} G⁷ C^{maj7} G⁷ C^{maj7} G⁷ C^{maj7} G⁷ C^{maj7} G⁷ C^{maj9}

56 root 57 3 58 5 59 7 60 9

2B/1A C⁷ F^{maj7} C⁷ F^{maj7} C⁷ F^{maj7} C⁷ F^{maj7} C⁷ F^{maj7} C⁷ F^{maj9}

61 root 62 3 63 5 64 7 65 9

1A/2B C⁷ F^{maj7} C⁷ F^{maj7} C⁷ F^{maj7} C⁷ F^{maj7} C⁷ F^{maj7} C⁷ F^{maj9}

66 root 67 3 68 5 69 7 70 9

chord tone, two chromatics above, chromatic tone below, target

and chord tone, chromatic below, two chromatics above, target

when the second chromatic above the target won't harmonize, a diatonic scale tone is substituted (ST)

2A/1B Bm7 E7 Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7(b9)

ST root ST 3 ST 5 b7 b9

1B/2A Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7 Bm7(b5) E7(b9)

ST root ST 3 ST 5 b7 ST ST b9

2A/1B E7 Am7 E7 Am7 E9 Am7 E9 Am7 E9 Am9

root 3 5 b7 ST 9

1B/2A E7 Am7 E7(#9) Am7 E7 Am7 E9 Am7 E9 Am9

root 3 ST 5 b7 ST 9

2A/1B Am7 Dm7 Am7 Dm7 Am7 Dm7 Am7 Dm7 Am7 Dm9

root 3 5 b7 ST 9

1B/2A Am7 Dm7 Am7 Dm7 Am7 Dm7 Am7 Dm7 Am7 Dm9

root 3 5 b7 ST 9

2A/1B A7 Dm7 A7 Dm7 A7 Dm A7 Dm A7 Dm9

root 3 5 b7 ST 5

1B/2A A7(#9) Dm7 A7 Dm7 A7(#9) Dm A7 Dm A7 Dm9

root 3 5 b7 ST 9

2A/1B Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G9

root ST 3 5 b7 9

1B/2A Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G9

root ST 3 5 b7 9

2A/1B G⁷ Cmaj⁷ G⁷ Cmaj⁷ G⁷ Cmaj⁷ G⁷ Cmaj⁷ G⁷ Cmaj⁹

121 root 122 ST 3 123 5 124 ST 7 125 9

1B/2A G⁷ Cmaj⁷ G⁷ Cmaj⁷ G⁷ Cmaj⁷ G⁷ Cmaj⁷ G⁷ Cmaj⁹

126 root 127 ST 3 128 5 129 ST 7 130 9

2A/1B C⁷ Fmaj⁷ C⁷ Fmaj⁷ C⁷ Fmaj⁷ C⁷ Fmaj⁷ C⁷ Fmaj⁹

131 root 132 ST 3 133 5 134 ST 7 135 9

1B/2A C⁷ F⁷ C⁷ F⁷ C⁷ F⁷ C⁷ Fmaj⁷ C⁷ Fmaj⁹

136 root 137 ST 3 138 5 139 ST 7 140 9

Triplet Arpeggio Chromatics



E^{7(b9)} note the exception to two chromatics below each chord tone regarding the notes between the root and third of this arpeggio



Chromatic Arpeggio Encircling

Also see the chapter [Chromaticed Arpeggios](#), especially Chromaticed Arpeggios/[Encircling Chromatic Sequences](#).

The musical score illustrates the Chromatic Arpeggio Encircling technique for seven chords: **Bm7(b5)**, **E7(b9)**, **Am7**, **Dm7**, **G7**, **Cmaj7**, and **Fmaj7**. Each chord is represented by two staves. The first staff shows the arpeggio, and the second staff shows the chromatic encircling sequence, which starts on the root of the chord and moves chromatically up and down the scale, eventually returning to the root. The sequence is marked with measure numbers (1-4 for Bm7(b5), 5-8 for E7(b9), 10-13 for Am7, 15-18 for Dm7, 20-23 for G7, 25-28 for Cmaj7, and 30-33 for Fmaj7).

V7 to I7 cadence with chromatic arpeggio encircling

variations for 12/8,

Swing Eighths

♩ = 120

a compound time with four beats each divided into three eighth notes

targets the third subdivision of the beat targets the first subdivision of the second beat

1+2 + 3 + 1 + 2 + 3 1+2 + 3 + 1 + 2 + 3 + 1

↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↑ ↓

up down in G Mixolydian

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

D7(b9) G7 D7(b9) G7 D7 G7 D9 G7 D9 G7 D13 G7 D13 G7 D6 G7 D7 G7

root root

3 3 5 5 9 9

down up in G Mixolydian

25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40

D7 G7 D7 G7 D7 G7 D7 G7 D7 G7 D7 G7 D7 G7

root root

3 3 5 5 9 9

V7 to Im7 cadence with chromatic arpeggio encircling

Swing Eighthths
♩ = 120

targets the third subdivision of the beat targets the first subdivision of the second beat

up down in G minor

down up in G minor

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Linear Chromatics, Repeating Target as Second Note

Bm7(b5)

E7(b9) note the exception to two chromatics below each chord tone regarding the notes between the root and third of this arpeggio

Am9

Dm9

G9

Cmaj9

Fmaj9

Progressive Chromaticized Cadences

See “[Chromaticized Scales on Arpeggios](#)” and “[Chromaticized Arpeggios](#)”, especially “[Chromaticized Arpeggios](#)”/Encircling Chromatic Sequences.

two above, one below on each arpeggio tone of one chord

Apply (1) “2 above, one below” (push version) to the tones of C9 on beat 3 in Blues in C by playing four eighths on beat 3, creating a push in that the target tone is on the “+” after four.

tail out

Following each four note cell, immediately continue on the I7 (I9) arpeggio, involving skips and syncopations made with pairs of 4-note cells or 3-note cells. If your target is on 3, for example, follow with b7-1-5.

lead in to beat 3.

Precede each four note cell on beat 3 with improvisation on beats one and two, then with improv pickup to beat one as well.

precede each four note cell with a V7, V9 OR V7b9 (G7, G9, G7b9) arpeggio

Voice the V arpeggio so its last note is close in pitch to the first note of the C7 cell (2 above, one below). The V7 can start beat 3 so the C7 figure is on beat 1, or the V7 can start on beat 1, so the C7 figure is on beat 3 and anticipates beat 1. If the tempo is too slow, the V7 may be too dissonant harmonically on beat 1 or even on beat 3. The G7, G9, G7b9 or G13 arpeggio could be an arpeggiated held chord, in the Charlie Christian style. With consonance of your improv lead in and tail out, the V7 and the first three notes of the chromaticized cell should be more acceptable to the listener in context.

add a chord tone to the beginning of the cell

This changes the chord tones’ relationship to the beat with the target on the beat, instead of pushing the beat. Now, instead of “2 above, one below” as three notes and a target, play it as four notes and a target, as follows: precede the the “2 above, one below” figure with a nearby chord tone on the beat so the remaining four notes end with the target on the beat.

Apply this to the whole series above. Make sure that the added note is on the beat. In swing, it would be the “long” note of the long and short pairs. Solve shared note redundancies (on figures that play the target on the beat) with a push or by replacing the fourth note of the cell with a neighboring tone of the target. You often would need to choose a different voicing of the V chord, so its last note is nearby the added chord tone at the beginning of the C melodic cell.

eleven types of chromaticized arpeggios

Do the whole series above on:

1. “two above, one below” and a triplet version
2. “one below, two above” and a triplet version
3. “two below, one above” and a triplet version
4. “one above, two below” and a triplet version
5. “two below, two above”
6. “two above, two below”
7. triplet arpeggio chromatics
8. chromatic arpeggio encircling
9. linear chromatics repeating the target as the the second note
10. linear chromatics with a nearby chord tone as the second note
11. linear chromatics with a nearby chord tone as the fourth note

cadences (turnarounds)

Make four-beat cadences with all chromaticized cell types, two beat cadences with type 1-4 (not encircling nor 4-note linear).

decorate with mordents, turns and trills.

combining a minor II-V cadence turnaround with arpeggio inversion and basic chromatic encircling on Im7

Swing Eighths

♩ = 150

The musical score is written in 4/4 time with a tempo of 150 beats per minute. It consists of 32 measures, divided into two systems of 16 measures each. The key signature has one flat (B-flat), and the time signature is 4/4. The score is written in treble clef. The first system (measures 1-16) features a sequence of chords: Bm7(b5), E7, Am7, Bm7(b5), E7, Am7, Bm7(b5), E7, Am7, Bm7(b5), E7, Am7, Bm7(b5), E7, Am7, and Bm7(b5). The second system (measures 17-32) features a sequence of chords: Bm7(b5), E7, Am7, Bm7(b5), E7, Am7, Bm7(b5), E7, Am7, Bm7(b5), E7, Am7, Bm7(b5), E7, Am7, and Bm7(b5). The melody is composed of eighth notes and quarter notes, with various arpeggio inversions and chromatic encircling techniques used throughout. Measure numbers 1 through 32 are indicated at the beginning of each measure.

Em^{7(b5)} A⁷ Dm⁷ Em^{7(b5)} A⁷ Dm⁷

Em^{7(b5)} A⁷ Dm⁷ Em^{7(b5)} A⁷ Dm⁷

Em^{7(b5)} A⁷ Dm⁷ Em^{7(b5)} A⁷ Dm⁷

Em^{7(b5)} A⁷ Dm⁷ Em^{7(b5)} A⁷ Dm⁷

THE DORIAN II-V-I CADENCE

Unaltered, the Dorian II-V-I cadence is IIm7-VIm7-Im7 (IIIIm7-VIm7-IIm7 of parent C major, Em7-Am7-Dm7). The VIm7 can also be VI7, a secondary dominant that targets IIm7, making the cadence IIm7-V7-Im7 (Em7-A7-Dm7). See “[Secondary Dominant](#)”, “[Modal II-V-I Cadences and Turnarounds](#)”/ [Secondary Dominant](#) and “[Melodically Superimposed Cadences](#)”/ [Secondary Dominants](#)

IIm7-V7-Im7 (IIIIm7-VI7-IIm7 of parent) chord and arpeggio example

scale-tone chord	Em7 XII	A7 XII	Dm7 XII
chord name			
	1 b5 b7 b3 b7	1 5 b7 3 5	1 5 b7 b3
arpeggio	Em11b9 XII	A9 XII	Dm9 XII
arpeggio and parent scale	Em11b9 and C major XII	A9 and C major sharp one (D melodic minor) XII	Am9 and C major XII

arpeggio-based melody at the sixteenth note level [click to play video](#)

Em¹¹ 2 A⁹ 3 Dm⁹ 4

Em7b9 A7 Dm9

D Dorian IIm7b9-V7-Im9 (IIIIm7b9-VI7-IIm7 of parent)

TAB

14 12 12 15 14 14 14 15 14 13 12

THE MIXOLYDIAN II-V-I CADENCE

Unaltered, the Mixolydian II-V-I cadence is IIm7-Vm7-I7 (VIIm7-IIIm7-V7 of parent C major, Am7-Dm7-G7). The IIm7 can also be II7, a secondary dominant that targets V7, making the cadence IIm7-V7-I7 (Am7-D7-G7). See “[Secondary Dominant](#)”, “[Modal II-V-I Cadences and Turnarounds](#)”/ [Secondary Dominant](#) and “[Melodically Superimposed Cadences](#)”/ [Secondary Dominants](#)

IIm7-V7-I7 (VIIm7-II7-V7 of parent) chord and arpeggio example

scale-tone chord	Am7 XII	D7 XII	G7 XII
chord name			
arpeggio	Am9 XII	D9 XII	G9 XII
arpeggio and parent scale	Am9 and C major XII	D9 and C major #4 (C Lydian) XII	G9 and C major XII

arpeggio-based melody at the sixteenth note level [click to play video](#)

♩ = 170
Swing Eighths

G⁷ 2 Am⁹ 3 D⁹ 4 G⁹

G Mixolydian IIm9-V7-I9 (VIIm9-II9-V7 of parent)

TAB

II-V-I TURNAROUNDS ON BLUES

Modal II -V-I By Key Scale

For a IV7 chord, Dorian IIm7-Vm7-Im7 = parent scale IIIIm7-VIm7-IIIm7)

Modal II -V-I By Chord Scale

For a IV7 chord, Dorian IIIm7-V7-Im7 = parent scale IIIIm7-VI7-IIIm7 with Phrygian dominant or Aeolian dominant on VI7)

IIIm7-V7 type turnarounds on jazz blues example [click to play video](#)

Diagrams are numbered by parent scales.

**first
12-bar
progression**

♩ = 160
Swing Eighthths

Fm7
IIm7 of Eb

Bb7
V7 of Eb

Fm7
IIm7 of Eb

Bb7
V7 of Eb

Bbm7
IIm7 of Ab

chord scales
Eb maj. parent

1 b3 5 b7
2 4 6 1

3 1 b7 5
7 5 4 2

5 b3 1 b7
6 4 2 1

3 5 b7 1
7 2 4 5

chord scales
Ab maj. parent

1 b3 5 b7
2 4 6 1

T
A
B

Eb7
V7 of Ab

Fm7
IIm7 of Eb

Bb7
V7 of Eb

chord scales
Eb maj. parent

3 1 b7 5
7 5 4 2

1 b3 5 b7
2 4 6 1

3 5 b7 1
7 2 4 5

T
A
B

Cm7
IIm7 of Bb

F7
V7 of Bb

Cm7
IIm7 of Bb

F7
V7 of Bb

chord scales
Bb maj. parent

b7 5 b3 1
1 6 4 2

3 1 b7 5
7 5 4 2

Chord scales
Bb maj. parent

1 b3 5 b7
2 4 6 1

3 1 b7 5
7 5 4 2

T
A
B

second 12-bar progression

Bbm7
IIIm7 of Ab

Eb7
V7 of Ab

Fm7
IIIm7 of Eb

Bb7
V7 of Eb

1 **Bb7**
chord scales 5 b3 1 b7
Ab maj. parent 6 4 2 1
Bbm7

2 **Eb9**
chord scales 3 5 b7 1
Eb maj. parent 7 2 4 5
Eb7

3 **Bb7**
chord scales 1 b7 5 b3
Eb maj. parent 2 1 6 4
Fm7

4 **Bb7**
chord scales 1 b7 5 3
Eb maj. parent 5 4 2 7
Bb7

5 **Bbm7**
IIIm7 of Ab

Edim7
#V dim7 of Ab ma. #5

Dm7b5
VIIIm7b5 of Eb

G7
III7 of Eb

5 **Eb7**
chord scales 1 b3 5 b7
Ab maj. parent 2 4 6 1
Bbm7

6 **Eo7**
chord scales b3 1 bb7 b5
Ab major sharp five parent scale 7 #5 4 2
Eo7

7 **Bb7**
chord scales b5 b3 1 b7
Eb maj. parent 4 2 7 6
Dm7(b5)

8 **G7**
chord scales 3 1 b7 5
Eb major #5 parent scale (C harmonic minor) #5 3 2 7
G7

9 **Cm7**
IIIm7 of Bb

F7
V7 of Bb

Fm7
IIIm7 of Eb

Bb7
V7 of Eb

9 **Cm7**
chord scales 1 b3 5 b7
Bb maj. parent 2 4 6 1
Cm7

10 **F7**
chord scales 3 5 b7 1
Eb maj. parent 7 2 4 5
F7

11 **Bb7**

12 **G7**

12 **Cm7**
chord scales 1 b3 5 b7
Eb maj. parent 2 4 6 1
Fm7

13 **F9**

13 **Bb7**
chord scales 3 5
Eb maj. parent 7 2
Bb7

THE LYDIAN II-V-I CADENCE

Unaltered, the Lydian II-V-I cadence is II7-Vma7-Ima7 (V7-Ima7-IVma7 of parent C major, G7-Cma7-Fma7). The Vma7 can also be I7, a secondary dominant that targets Ima7, making the cadence II7-V7-Ima7 (G7-C7-Fma7). See [“Secondary Dominant”](#), [“Modal II-V-I Cadences and Turnarounds”](#)/[Secondary Dominant](#) and [“Melodically Superimposed Cadences”](#)/[Secondary Dominants](#)

II7-V7-Ima7n (V7-I7-IVma7 of parent) chord and arpeggio example

scale-tone chord	G7 XII	C7 XII	Fma7 XIII
chord name			
arpeggio	G9 XII	C9 XII	Fma9 XII
arpeggio and parent scale	G9 and C major XII	C9 and C major b7 (C Mixolydian) XII	Fma9 and C major XII

arpeggio-based melody at the sixteenth note level [click to play video](#)

♩ = 80

Swing Sixteenths

The Lydian Family

Lydian mode

Lydian mode is major with sharp four or a major scale with the tone center on four. In the traditional manner, play a major scale up and down from scale tone four to four (F to F in C major). See Modes/Modes of Four Heptatonic Scales/major scale modes/[Lydian](#).

Lydian Dominant

Lydian dominant mode is major with sharp four and flat seven. It is mode IV of melodic minor (melodic minor with the tone center on scale tone four). Play a melodic scale up and down from scale tone four to four (F to F in C melodic minor makes F Lydian dominant). See Modes/Modes of Four Heptatonic Scales/melodic minor modes/[Lydian dominant](#).

Lydian Dominant as bII of Target

Lydian dominant is the classic [flat five substitute](#). It is a substitute for super Locrian with the same exact notes. Super Locrian, mode VII of melodic minor (B super Locrian as mode VII of C melodic minor) is a source for a super-altered V chord. See Modes/Modes of Four Heptatonic Scales/melodic minor modes/[super Locrian](#) and see "[Substitution](#)"/[Flat Five Substitute](#). Super Locrian contains the notes to include sharp five, flat five, sharp nine or flat nine in a seventh chord. It makes the most dissonant seventh chords. See [Lydian Dominant as Flat Two of I, IV or V](#) and [As Flat Two of Five In A Minor Key](#).

In the same melodic minor scale that contains super Locrian on its seventh step, the mode on the fourth step of melodic minor is an exotic, but much more consonant (less dissonant) than super Locrian. Using the same notes as super Locrian, but building a chord with its root on the fourth step of melodic minor Lydian dominant can be harmonized as a 13#11 chord.

Since the tones centers for Lydian dominant and super Locrian are a flat five (a tritone) apart from one another and share the same notes, they are used as the classic [flat five substitute](#).

Dorian Sharp Four

Dorian sharp four is equal to Lydian dominant with flat three. It is mode II of major sharp five and is mode IV of harmonic minor (See "[Modes](#)"/Modes of Four Heptatonic Scales/major sharp five modes/[Dorian sharp four](#)).

Dorian sharp four can be used as a darkened Lydian version when Lydian dominant is a key scale. It can also be combined with Lydian dominant by generally ascending from one to flat three with Dorian sharp four and generally descending from one to natural three with Lydian dominant.

Lydian Diminished

With its flat three and sharp four, Lydian diminished scale is an interesting scale, exotic and middle-eastern sounding. It contains both minor (major seventh) and diminished seventh chords built on its first step.

THE PHRYGIAN II-V-I CADENCE

Unaltered, the Phrygian II-V-I cadence is bIIma7-Vm7b5-Im7 (IVma7-VIIIm7b5-IIIm7 of parent C major, Fma7-Bm7b5-Em7). The Vma7 can also be V7#5#9, a secondary dominant that targets Im7, making the cadence bII7-V7#5#9-Im7 (Fma7-B7#5-Em7). See “[Secondary Dominant](#)”, “[Modal II-V-I Cadences and Turnarounds](#)”/Secondary Dominant and “[Melodically Superimposed Cadences](#)”/Secondary Dominants

bIIma7-V7#5#9-Im7 (Vma7-VII7#5#9-IIIm7 of parent) chord and arpeggio example

scale-tone chord	Fma7 XIII	B7#5#9 XIII	Em7 XII
chord name			
arpeggio	Fma9 XII	B7#5#9 XI	Em11b9 XII
arpeggio and parent scale	Fma9 and C major XII	B super Locrian C major b3 (C mel. minor) XII	Em11b9 and C major XII

arpeggio-based melody at the sixteenth note level [click to play video](#)

♩ = 80

Swing Sixteenths

Phrygian Family of V Chords in II-V Cadences

T A R G E T ↓ G f o r m E f o r m D f o r m C f o r m A f o r m	Phrygian minor		Phrygian dominant		super Phrygian		target VI minor
	VII Locrian m11b5b9	III Phrygian m11b9	VII Locrian m11b5b9	III Phry. dom. 7b9	VII Locrian bb7 diminished 7	super Phrygian III7#5#9	VIm9 Aeolian
	VII of major	III of major	VII of major	III of major #5	VIII of major b6	III of major b6	VI Of Major

THE LOCRIAN II-V-I CADENCE

Unaltered, the Locrian II-V-I cadence is bIIma7-bVma7-Im7b5 (Ima7-IVma7-VIIIm7b5 of parent C major, Cma7-Fma7-Bm7b5). Even using the bV as a dominant chord (IV7 of parent), this cadence is troublesome. With our current sensibility of tonality, this cadence is not successful in establishing the key on the m7b5 chord. It is difficult to establish a key with a tonic chord that has a flatted fifth *and* the interval from V to I in this cadence is not the traditional perfect fourth we know as a V-I cadence. See “[Secondary Dominant](#)”, “[Modal II-V-I Cadences and Turnarounds](#)”/[Secondary Dominant](#) and “[Melodically Superimposed Cadences](#)”/[Secondary Dominants](#)

blma7-bVma7-lm7b5 (lma7-IV7-VIIIm7b5 of parent) chord and arpeggio example

<p>scale-tone chord</p> <p>chord name</p>	<p>Cma7 XII</p> <p>1 3 5 7 3</p>	<p>F9 XII</p> <p>3 b7 2 5 1</p>	<p>Bm7b5 XII</p> <p>1 b5 b7 b3</p>
<p>arpeggio</p>	<p>Cma9 XII</p>	<p>F9 XII</p>	<p>Bm11b5b9 XII</p>
<p>arpeggio and parent scale</p>	<p>Cma9 and C major XII</p>	<p>F Lydian dominant C major b3 (C mel. minor) XII</p>	<p>Bm11b5b9 and C major XII</p>

arpeggio-based melody at the sixteenth note level [click to play video](#)

$\text{♩} = 80$

Swing Sixteenths

[illegible]

FINGERING II-V-I WITH SECONDARY DOMINANTS

Each of the arpeggios and the scale to which they are elaborated is numbered below in terms of the parent scale. The octave shapes, such as “G form” are shown for the target. For target “2” (IIm, Dm for example), note that “major sharp one” (C major sharp one) is the same as II melodic minor (D melodic minor).

Aeolian II-V-I

using Phrygian dominant

	VII Locrian VIIIm11b5b9	III Phr. dom. III7b9	VI Aeolian VIIm9
TARGET ↓	7 of major	III of major #5	6 of major
G form			
E form			
D form			
C form			
A form			

Dorian II-V-I

using Aeolian dominant

	III Phrygian IIIIm11b9	VI Aeol. dom VI9	II Dorian IIm9
TARGET ↓	3 of major	6 of major #1 (II mel. min.)	2 of major
G form			
E form			
D form			
C form			
A form			

Mixolydian II-V-I

using Mixolydian dominant

	VI Aeolian VIIm9	II Mixolydian II9	V Mixolydian V9
TARGET ↓	6 of major	2 of major #4 (Lydian)	6 of major
G form			
E form			
D form			
C form			
A form			

Ionian (major) II-V-I

using Mixolydian dominant

	II Dorian IIIm9	V Mixolydian V9	I major Ima9
TARGET ↓	2 of major	5 of major	1 of major
G form			
E form			
D form			
C form			
A form			

Lydian II-V-I

using I Mixolydian (major b7)

	V Mixolydian V9	I Mixolydian I9	IV Lydian IVma9
TARGET ↓	5 of major	I of major b7	4 of major
G form			
E form			
D form			
C form			
A form			

Locrian II-V-I

using Lydian dominant

	I major Ima9	IV Lydian b7 IV9	VII Locrian VIIIm11b5b9
TARGET ↓	1 of major	4 of melodic minor	7 of major
G form			
E form			
D form			
C form			
A form			

Phrygian II-V-I

using super Locrian dominant

	IV Lydian IVma9	VII super Locrian VII7#5#9	III Phrygian IIIIm11b9
TARGET ↓	4 of major	7 of major b3 (7 of mel. min.)	3 of major
G form			
E form			
D form			
C form			
A form			

Evolving Turnarounds to Sophisticated, Free-Form Melody

Turnarounds most typically represent chords that are played for two beats each with four eighth notes for each chord. These are important structures, but the listener can tire of them if they are not elaborated into more interesting melody.

In the early development of most jazz improvisers, they practice turnarounds, commonly on major II-V-I cadences, minor II-V-I cadences and other variants like I-VI-II-V, VI-II-V-I and III-VI-II-V. Most of these are chord progressions with roots moving in fourths, but many also involve [flat five substitutes](#) where IIIIm7-VIm7-IIIm7-V7-Ima7 becomes IIIIm7-bIII7-IIIm7-bII7-Ima7. See "[Substitution](#)"/[Flat Five Substitute](#).

At some point in his development, it seems Charlie Parker found standardized ways to apply flurries of notes on arpeggio tones in turnarounds, making them much more exciting to listen to. Along with that, he incorporated scale passages and skips to break up the arpeggios. Most of what he developed as his fast sophisticated melody on cadences is still based on arpeggios. To see his framework, you have to look at the elements, like the ambiguous use of different type of modal II-V-I cadences, bebop ornamentation with upper and lower mordents, turns and inverted turns (I call them upper turns and lower turns to be more descriptive), skips and flurries of scale in place of the passage between two or more arpeggio tones.

Once you can easily play up and down the scale, changing the note if necessary to make the second chord dominant and have gotten started with turnarounds, work on these four types of fast decoration on a chord tone:

1. Play an upper or lower *mordent* (chord tone, neighbor, return to chord tone), or turn. An *upper turn* (traditionally called a "turn") plays chord tone, upper neighbor, return to chord tone, lower neighbor, return to chord tone. A lower turn (traditionally called an inverted turn) plays chord tone, lower neighbor, return to chord tone, upper neighbor, return to chord tone.
2. Play a mordent or turn with scalar encircling: after the turn or mordent play the neighboring tone of the target triad tone for the next chord that is beyond the triad target tone, then play the target triad tone.
3. Play a mordent or turn with a skip to a neighbor of the target triad tone, then play the target triad tone. Skips should be less than an octave, usually a sixth or less.
4. Play a flurry of scalar tones beginning with a chord tone of the current chord and resolve to a note of the target triad. This may involve a few notes ascending or descending and may involve change of direction.

ornamentation at the eighth triplet, sixteenth and faster rhythmic levels

Flurries of ornamentation at the faster note levels can deviate more from the chord. This is common to baroque ornamentation and bebop ornamentation. The “fast” notes or flurries in bebop ornamentation, and other styles that use them is typically at least 500 notes per minute.

Flurries of notes occur in many styles and the same basic principles discussed here will apply to most. Examples of “flurries” are quick licks in blues, blues rock guitar, the fast ornamentation in celtic music; the highly ornamented phases in Indian ragas; the flurries in flamenco melody on the guitar and voice; the blurs of notes in Michael Schenker’s blues rock playing Alan Holdsworth’s and Frank Gambale’s jazz rock playing and John Petrucci’s progressive rock playing in Dream Theater. The list goes on, and that’s just guitar. There’s Art Tatum and Chick Corea on keyboards and Charlie Parker and Chris Potter on sax.

flat nine, eleven and flat thirteen on minor chords

Some upper chord tones don’t sound well when sustained. Most notably, these include flat nine (flat two) and flat thirteen (flat six) on minor chords and elevenths on major seventh type chords.

At the faster rhythmic levels (eight note triplets, sixteenth notes and faster), tones of a chord that would not be acceptable as a sustained chord tone can be treated as chord tones if they are melodically resolved. A flat nine or a flat thirteen (flat six) is not acceptable on a minor chord.

In a sense these unacceptable chord tones can be treated as neighboring tones to the tones of the target chord to which they will resolve. For each of the four modal II-V-I cadences shown on the following pages, I’ll show examples of this melodic tactic, inspired by bebop.

Changing Modal II-V-I Cadence Type between Chords

Using the “[Scale Ambiguity](#)” principle, the modal II-V-I type can be changed during a cadence. Usually such a change would involve a single changed note from the II to the V, either brightening by raising a note chromatically (b9 changed to 9, for example) or darkening (9 changed to b9, for example). The tendency is to darken by flattening a numbered tone if you’re going to a minor key on the target “I” or brighten by making a flattened numbered tone natural if you’re going to a major key on the target “I”.

It is common that more than one note is changed for the arpeggio and scale for the “I” chord when the target is “I” major (I major seventh), creating a surprisingly bright mood. The A section to How High the Moon is a good example of this. Notice that in bars eleven and twelve, G minor has been established as a temporary key, while the overall key is G major. The cadence at the end of bar twelve suggest going to G minor again, but surprisingly, bar thirteen is in G major. Along with the lyric “How High The Moon”, suggesting the bright, romantic moon, the G minor key has changed to the brighter G major key.

Gma7	Gma7	Gm7	C7
Fma7	Fma7	Fm7	Bb7
Ebma7	Ebma7	Am7b5	D7
Gma7	Am7 D7	Bm7 Bb7	Am7 Ab7

SUMMARY OF MODAL II-V-I ARPEGGIO CADENCES

The next two pages show the types of II, V and I arpeggios all in one place. From left to right, the two pages show II types, V types, then I types.

On the first of the two following pages, the four columns on the far left show the types of II chords, then bII13#11, followed by the diminished-sounding modes Phrygian major, super Phrygian and half/whole diminished.

On the second of those two following pages, altered V chords and I chords are shown.

IIm13	IIm11b6	IIm11b9	IIm11b5b9	bII13#11	V7b9	V7b9	V13b9#9#11
Dorian	Aeolian	Phrygian	Locrian	Lydian dom.	Phryg. maj.	super Phrygian	h/w diminished

E form I chord

Bm13 (A major) IV	Bm11b13 (A Mix.) III	Bm11b9b13 (A Dor.) IV	Bm11b5b9b13 (A Ae.) IV	Bb Lyd. dom. V	E7b9 PM III	E7b9 SP III	E13b9#9#11 III

D form I chord

Bm13 (A major) VI	Bm11b13 (A Mix.) VI	Bm11b9b13 (A Dor.) VII	Bm11b5b9b13 (A Ae.) VII	Bb Lyd. dom. VI	E7b9 V	E7b9 SP V	E13b9#9#11 VI

C form I chord

Bm13 (A major) IX	Bm11b13 (A Mix.) IX	Bm11b9b13 (A Dor.) VIII	Bm11b5b9b13 (A Ae.) VIII	Bb Lyd. dom. X	E7b9 VIII	E7b9 SP VIII	E13b9#9#11 VIII

A form I chord

Bm13 (A major) X	Bm11b13 (A Mix.) X	Bm11b9b13 (A Dor.) X	Bm11b5b9b13 (A Ae.) XII	Bb Lyd. dom. XII	E7b9 XI	E7b9 SP XI	E13b9#9#11 XI

G form I chord

Bm13 (A major) I	Bm11b13 (A Mix.) II	Bm11b9b13 (A Dor.) II	Bm11b5b9b13 (A Ae.) I	Bb Lyd. dom. III	E7b9 I	E7b9 I	E13b9#9#11 I

V7#5#9

V7b5#9

V7#5b9

V7b5b9

Ima9/6

I 13

Im13

Im11

Ionian

Mixolydian

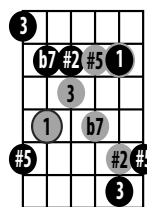
Dorian

Aeolian

E form I chord

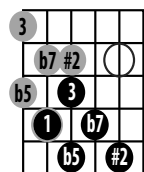
E7#5#9

IV



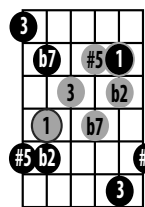
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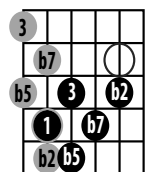
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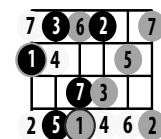
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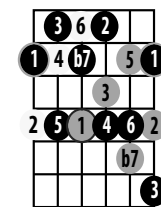
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IV



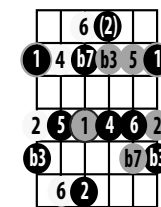
A13

IV



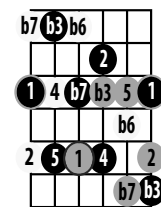
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IV



Am11

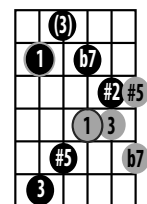
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D form I chord

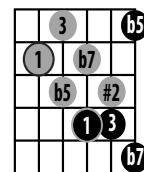
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VI



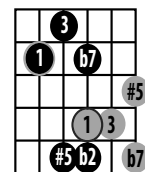
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VI



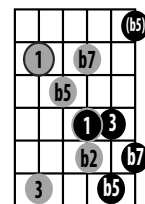
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VI



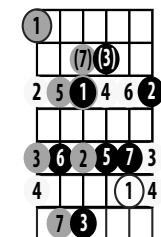
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VI



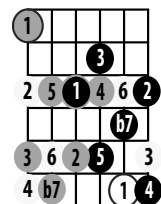
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V



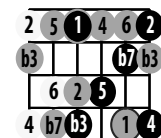
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V



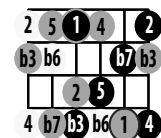
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VII



Am11

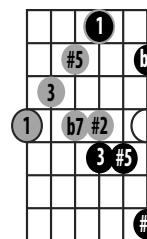
VII



C form I chord

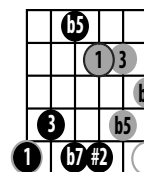
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IX



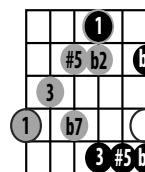
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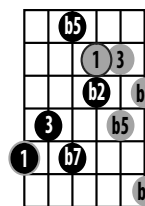
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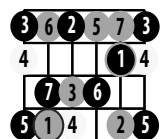
E7b5b9

VIII



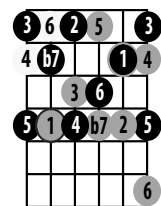
Ama9/6

IX



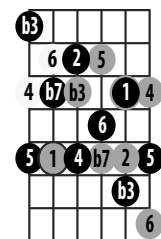
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IX



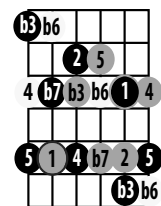
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VIII



Am11

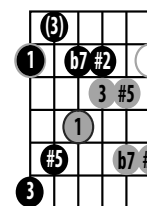
VIII



A form I chord

E7#5#9

XI



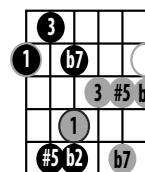
E7b5#9

XI



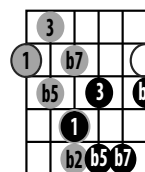
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XI



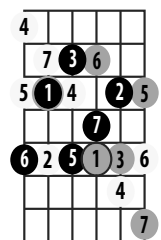
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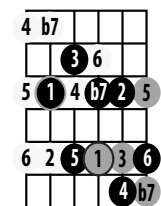
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X



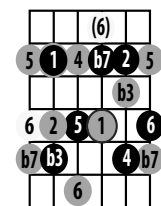
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X



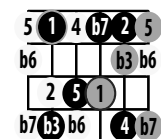
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XI



Am11

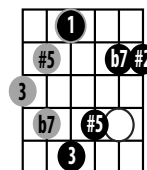
XII



G form I chord

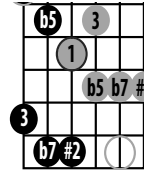
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II



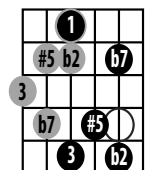
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I



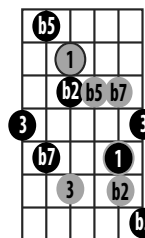
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II



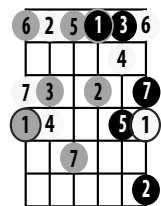
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I



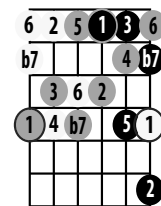
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II



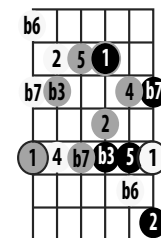
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II



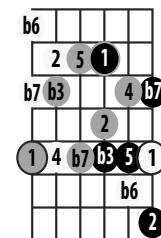
Am13

I



Am11

I



MODAL DOMINANT IMPROV STUDIES

Table of General Turnaround Studies

This will make use of chord roots progressing in perfect fourths, numerically VII-III-VI-II-V-I-IV-VII- etc. Play in a single position, starting with the E form area for tone “1” of the parent scale. Three of the numbers in the cycle create a modal II-V-I. If the target chord (key chord) is VI, VII-III-VI will make a “II-V-I” cadence in the key of VI, by renumbering it so “VI” becomes “I”.

After first experiencing the unaltered V of a particular target, the V may be altered to become a dominant seventh, except for target “I”, where it’s V chord is dominant without altering it.

For each target chord perform the six steps listed below, each with a live or recorded comping to play over. Start by basing the improv below on eighth notes at a moderate to fast tempo. You could also base your improv on sixteenth notes by halving the number of bars recommended below and using sixteenth notes instead of eighth notes, still playing them at the end of the setup chord.

1. In the position you intend on using for this series of six steps, play up and down the parent scale against an accompaniment of the target chord only (VI^m7, for example).
2. Play free improvisation on the “setup” chord (V of target) alone, without changing the parent scale.
3. Play free improvisation on the “target” chord alone.
4. In a repeating cycle, improvise on two bars of the setup chord (V of target) and two bars of the target chord, making a turnaround by playing four eighth notes of the setup chord at the end of its duration and four eighth notes at the beginning of the target chords duration. Tend to play throughout in the key of the target chord, except during the turnaround.
5. Create a II-V-I cadence, modally. If the target is a VI chord, use a VII chord as a II of VI and use a III chord as a V of VI. At first, don’t alter the parent major scale. Play over the same cycle as in step three (above) with two bar of setup chord and two bars of target chord, but make a three chord cadence by “back-cycling” in fourths to include a “II” chord before the “V” setup chord. During the second bar of the setup chord, play the four notes of the II chord followed by four notes of the V chord. In the first bar of the target chord, play four notes of its arpeggio or at least start with a tone of its triad and go into free improv during the target chord.
6. Play the II-V-I cadence as in step three, but change the V chord (setup chord) to dominant. II, III and VI minor chords are made dominant by raising their third from flat to natural. An unaltered IIm7 chord uses parent major scale tones 2-4-6-1, while its dominant version, IIm7, uses parent major scale tones 2-#4-6-1. Similarly, changing III^m7 to III7 sharps the five of the parent scale, or it can flat the six of the parent scale (making super Phrygian). Changing VI^m7 to VI7 sharps the one of the parent scale. Ima7 is changed to the dominant version I7 by flatting the seven of the parent scale. IVma7 is changed to the dominant version

IV7 by flattening the three of the parent scale. For VIIIm7b5, flat the three of the parent scale to make VII7 with sharp or flat five, sharp or flat nine.

Here is a table showing these steps:

	IIIIm7	VIIm7	IIIm7	V7	Ima7	IVma7	VIIIm7b5
V of target	VIIIm7b5	IIIIm7	VIIm7	IIIm7	V7	Ima7	IVma7
dominant V7 of target	VII7±5±9	III7	VI7	II7	V7	I7	IV7
scale for dominant V7	VII super locrian	III Phrygian dominant or III super Phrygian	VI Aeolian dominant	II Mixolydian	V Mixolydian	I Mixolydian	IV Lydian dominant
V dominant of target scale named as parent scale	I melodic minor	I major sharp five or I major flat six	I major sharp one (same as II melodic minor)	I Lydian	I major	I Mixolydian	I melodic minor
II of target	IVma7	VIIIm7b5	IIIIm7	VIIm7	IIIm7	V7	Ima7
II-V-I of target	IV-VII-III	VII-III-VI	III-VI-II	VI-II-V	II-V-I	V-I-IV	I-IV-VII

Using a flat five substitute, VII super Locrian as a V of III can be substituted with IV Lydian dominant, making the IV7 (IV13#11) a flat two of the target III. This is commonly done in jazz, beginning with bebop where the target “III” chord may be any quality with a fifth. So the target three may be a I type, V type, VI type or II type. See [“Substitution”/Flat Five Substitute](#).

the master round

Play on two bars of each chord in the cycle VIIIm7b5-IIIIm7-VIIm7-IIIm7-V7-Ima7-IVma7 (repeat). Use a moderate to fast tempo with an eighth note basis. Perform these three steps:

1. Play free improvisation on each chord, without modifying the parent major scale.
2. On beat three of the second bar of each chord, play a four-note arpeggio (or 1-2-3-5 or 1-3-4-5 on the triad on the root or third of the chord). This is the V of the next chord. On the first beat of the next chord, resolve to a triad tone of that next chord.
3. On beat one of the second bar of each chord, play a four-note arpeggio (or 1-2-3-5 or 1-3-4-5 based on the triad built on the root or on the triad built on the third of the chord) on the II chord of the next target chord. On beat three of the second bar of each chord, play a four-note arpeggio (or 1-2-3-5 or 1-3-4-5 on the triad on the root or third), making a V of the next chord.. On the first beat of the next chord, resolve to a triad tone of that next chord.
4. Repeat step three (above), but change the V chord to a dominant chord.

Table of Detailed Studies in Progressive Order

The studies shown in the following table, shown in the keys of C, F and Bb, focuses on changes of key scale type and pentatonic subsets. The chords and scales below reference the key of “C” as an example, by showing the letter names of the scales and chords in parenthesis as they would occur in the key of “C”. The two primary goals are:

- ✦ **Learn the chord changes.** Get intimately familiar with each of the chord changes and the options for scales. Then you can summarize those ideas when playing on quick chord I-VI-II-V chord changes.
- ✦ **Bebop ornamentation.** Learn to play the end of one chord and the beginning of the next chord each in arpeggio tones to make a turnaround. Then use bebop ornamentation on one or more notes in the turnaround in these four categories:
 1. a mordent or a turn
 2. a mordent or a turn followed by scalar encircling
 3. a mordent or a turn followed by a skip on the current arpeggio, then a resolution to the nearest triad tone of the next chord
 4. flurries of notes around each of multiple arpeggio tones, usually consecutive, but skips are good, too

key of C

progression for study	I	VI	II	V
I major version Ima7-VI7-IIIm7-V7 (Cma7-A7-Dm7-G7)	first, play over the entire progression with I (C) major scale, then with I (C) major pentatonic scale			
	I (C) major scale I (C) major pentatonic			
	play over the entire progression with I (C) major scale and with I major pentatonic, but sharp “1” of each of them on the VI chord.			
	I (C) major scale I (C) major pentatonic	I (C) major scale #1 I (C) major pentatonic #1 = VI (A) 7/11 pentatonic	I (C) major scale I (C) major pentatonic	
	play on I and VI with I major and I major pentatonic, sharpening the “1” on the VI chord, but play through the II and V chords with II (D) Dorian and II (D) minor pentatonic			
	I (C) major scale I (C) major pentatonic	I (C) major scale #1 I (C) major pentatonic #1 (C#) = VI (A) 7/11 pentatonic	II (D) Dorian II (D) minor pentatonic	
I Mixolydian version I7-VI7-IIIm7-V7 (C7-A7-Dm7-G7)	play over the I (C) Mixolydian version with I (C) Mixolydian, then with I (C) major pentatonic			
	I (C) Mixolydian I (C) major pentatonic			
	play over the entire progression with I (C) Mixolydian, and with I major pentatonic, but sharp “1” of each of them on the VI chord.			
	I (C) Mixolydian I (C) major pentatonic	I (C) Mixolydian #1 I (C) major pentatonic #1 = VI (A) 7/11 pentatonic	I (C) major pentatonic I (C) major pentatonic	
	play on I and VI with I (C) Mixolydian and I (C) major pentatonic, sharpening the “1” on the VI (A) chord, but play through the IIIm (Dm) and V (G) chords with II (D) Aeolian and II (D) minor pentatonic			
	I (C) Mixolydian I (C) major pentatonic	I (C) Mixolydian #1 I (C) major pentatonic #1 (C#) = VI (A) 7/11 pentatonic	II (D) Aeolian II (D) minor pentatonic	
combined version	I (C) major scale I (C) major pentatonic	I (C) major scale #1 I (C) major pentatonic #1 = VI (A) 7/11 pentatonic	I (C) Mixolydian I (C) major pentatonic	I (C) major scale I (C) major pent.
two-chord parts of I-VI-II-V	I	VI	II	V
Ima7-V7, key of I major (Cma7-G7, key of C major)	I (C) major scale I (C) major pentatonic	skip these two chords, this row is for Ima7 and V7 only		II (D) Dorian II (D) min. pent.
Ima9nr-VI7, key of I major (Em7-A7, key of C major)	I (C) major scale III (E) minor pentatonic	I (C) major scale #1 I (C) major pentatonic #1	skip these two chords, this row is for Ima9nr (Em7) and VI7 (A7) only	
VI7-IIIm7, key of II Dorian (A7-Dm7, key of D Dorian)	skip this chord (VI7 IIIm7 only)	II (D) melodic minor VI (A) 7/11 pentatonic	II (D) Dorian II (D) minor pentatonic	skip this chord (VI7 IIIm7 only)
VI7-IIIm7, key of II Aeolian (A7-Dm7, key of D Aeolian)	skip this chord (VI7 IIIm7 only)	II (D) harmonic minor VI (A) 7/11 pentatonic	II (D) Aeolian II (D) minor pentatonic	skip this chord (VI7 IIIm7 only)
II7-V7, key of II Aeol./Dor. (D7-G7, key of D Aeol./Dor.)	skip this chord (VI7 IIIm7 only)	skip this chord (VI7 IIIm7 only)	II (D) minor pentatonic II (D) Aeolian	II (D) Dorian II (D) min. pent.

key of F

progression for study	I	VI	II	V
I major version Ima7-VI7-IIIm7-V7 (Fma7-D7-Gm7-C7)	first, play over the entire progression with I (F) major scale, then with I (F) major pentatonic scale			
	I (F) major scale I (F) major pentatonic			
	play over the entire progression with I (F) major scale and with I major pentatonic, but sharp “1” of each of them on the VI chord.			
	I (F) major scale I (F) major pentatonic	I (F) major scale #1 I (F) major pentatonic #1 = VI (D) 7/11 pentatonic	I (F) major scale I (F) major pentatonic	
	play on I and VI with I major and I major pentatonic, sharpening the “1” on the VI chord, but play through the II and V chords with II (G) Dorian and II (G) minor pentatonic			
	I (F) major scale I (F) major pentatonic	I (F) major scale #1 I (F) major pentatonic #1 (C#) = VI (D) 7/11 pentatonic	II (G) Dorian II (G) minor pentatonic	
I Mixolydian version I7-VI7-IIIm7-V7 (F7-D7-Gm7-C7)	play over the I (F) Mixolydian version with I (F) Mixolydian, then with I (F) major pentatonic			
	I (F) Mixolydian I (F) major pentatonic			
	play over the entire progression with I (F) Mixolydian, and with I major pentatonic, but sharp “1” of each of them on the VI chord.			
	I (F) Mixolydian I (F) major pentatonic	I (F) Mixolydian #1 I (F) major pentatonic #1 = VI (D) 7/11 pentatonic	I (F) major pentatonic I (F) major pentatonic	
	play on I and VI with I (F) Mixolydian and I (F) major pentatonic, sharpening the “1” on the VI (D) chord, but play through the IIIm (Dm) and V (C) chords with II (G) Aeolian and II (G) minor pentatonic			
	I (F) Mixolydian I (F) major pentatonic	I (F) Mixolydian #1 I (F) major pentatonic #1 (C#) = VI (D) 7/11 pentatonic	II (G) Aeolian II (G) minor pentatonic	
combined version	I (F) major scale I (F) major pentatonic	I (F) major scale #1 I (F) major pentatonic #1 = VI (D) 7/11 pentatonic	I (F) Mixolydian I (F) major pentatonic	I (F) major scale I (F) major pent.
two-chord parts of I-VI-II-V	I	VI	II	V
Ima7-V7, key of I major (Fma7-C7, key of F major)	I (F) major scale I (F) major pentatonic	skip these two chords, this row is for Ima7 and V7 only		II (G) Dorian II (G) min. pent.
Ima9nr-VI7, key of I major (Am7-D7, key of F major)	I (F) major scale III (A) minor pentatonic	I (F) major scale #1 I (F) major pentatonic #1	skip these two chords, this row is for Ima9nr (Am7) and VI7 (D7) only	
VI7-IIIm7, key of II Dorian (D7-Gm7, key of G Dorian)	skip this chord (VI7 IIIm7 only)	II (G) melodic minor VI (D) 7/11 pentatonic	II (G) Dorian II (G) minor pentatonic	skip this chord (VI7 IIIm7 only)
VI7-IIIm7, key of II Aeolian (D7-Gm7, key of G Aeolian)	skip this chord (VI7 IIIm7 only)	II (G) harmonic minor VI (D) 7/11 pentatonic	II (G) Aeolian II (G) minor pentatonic	skip this chord (VI7 IIIm7 only)
II7-V7, key of II Aeol./Dor. (G7-C7, key of G Aeol./Dor.)	skip this chord (VI7 IIIm7 only)	skip this chord (VI7 IIIm7 only)	II (G) minor pentatonic II (G) Aeolian	II (G) Dorian II (G) min. pent.

key of Bb

progression for study	I	VI	II	V
I major version Ima7-VI7-IIIm7-V7 (Bbma7-G7-Cm7-F7)	first, play over the entire progression with I (Bb) major scale, then with I (Bb) major pentatonic scale			
	I (Bb) major scale I (Bb) major pentatonic			
	play over the entire progression with I (Bb) major scale and with I major pentatonic, but sharp "1" of each of them on the VI chord.			
	I (Bb) major scale I (Bb) major pentatonic	I (Bb) major scale #1 I (Bb) major pentatonic #1 = VI (G) 7/11 pentatonic	I (Bb) major scale I (Bb) major pentatonic	
	play on I and VI with I major and I major pentatonic, sharpening the "1" on the VI chord, but play through the II and V chords with II (G) Dorian and II (G) minor pentatonic			
	I (Bb) major scale I (Bb) major pentatonic	I (Bb) major scale #1 I (Bb) major pentatonic #1 (C#) = VI (G) 7/11 pentatonic	II (C) Dorian II (C) minor pentatonic	
I Mixolydian version I7-VI7-IIIm7-V7 (Bb7-G7-Cm7-F7)	play over the I (Bb) Mixolydian version with I (Bb) Mixolydian, then with I (Bb) major pentatonic			
	I (Bb) Mixolydian I (Bb) major pentatonic			
	play over the entire progression with I (Bb) Mixolydian, and with I major pentatonic, but sharp "1" of each of them on the VI chord.			
	I (Bb) Mixolydian I (Bb) major pentatonic	I (Bb) Mixolydian #1 I (Bb) major pentatonic #1 = VI (G) 7/11 pentatonic	I (Bb) major pentatonic I (Bb) major pentatonic	
	play on I and VI with I (Bb) Mixolydian and I (Bb) major pentatonic, sharpening the "1" on the VI (G) chord, but play through the IIIm (Dm) and V (C) chords with II (G) Aeolian and II (G) minor pentatonic			
	I (Bb) Mixolydian I (Bb) major pentatonic	I (Bb) Mixolydian #1 I (Bb) major pentatonic #1 (C#) = VI (G) 7/11 pentatonic	II (C) Aeolian II (C) minor pentatonic	
combined version	I (Bb) major scale I (Bb) major pentatonic	I (Bb) major scale #1 I (Bb) major pentatonic #1 = VI (G) 7/11 pentatonic	I (Bb) Mixolydian I (Bb) major pentatonic	I (Bb) major scale I (Bb) major pent.
two-chord parts of I-VI-II-V	I	VI	II	V
Ima7-V7, key of I major (Bbma7-F7, key of Bb major)	I (Bb) major scale I (Bb) major pentatonic	skip these two chords, this row is for Ima7 and V7 only		II (G) Dorian II (G) min. pent.
Ima9nr-VI7, key of I major (Dm7-G7, key of Bb major)	I (Bb) major scale III (D) minor pentatonic	I (Bb) major scale #1 I (Bb) major pentatonic #1	skip these two chords, this row is for Ima9nr (Dm7) and VI7 (G7) only	
VI7-IIIm7, key of II Dorian (G7-Cm7, key of C Dorian)	skip this chord (VI7 IIIm7 only)	II (C) melodic minor VI (G) 7/11 pentatonic	II (C) Dorian II (C) minor pentatonic	skip this chord (VI7 IIIm7 only)
VI7-IIIm7, key of II Aeolian (G7-Cm7, key of C Aeolian)	skip this chord (VI7 IIIm7 only)	II (C) harmonic minor VI (G) 7/11 pentatonic	II (C) Aeolian II (C) minor pentatonic	skip this chord (VI7 IIIm7 only)
II7-V7, key of II Aeol./Dor. (C7-F7, key of C Aeol./Dor.)	skip this chord (VI7 IIIm7 only)	skip this chord (VI7 IIIm7 only)	II (C) minor pentatonic II (C) Aeolian	II (C) Dorian II (C) min. pent.

LYDIAN DOMINANT AS bII OF I, IV OR V

In beginning our study of modal II-V-I cadences, we're looking at a substitute progression for V-I (G7 C). We're using a *flat five substitute*, employing a chord that is a flat fifth of V, in place of V. So, bII to I (Db7 to C) is a substitute for V to I (G7 to C). The "I" chord may be minor or major; it may be any chord quality that includes an un-altered fifth. It is possible to resolve to I chords with an altered fifth but takes careful preparation to make it work.

Develop this first by playing improvisation (especially arpeggio-based) on the chord that precedes the I chord and play four consecutive notes of the bII^{13#11} arpeggio immediately before the I chord. Play the bII^{13#11} arpeggio tones as the last four eighth notes or the last four sixteenth notes in the bar.

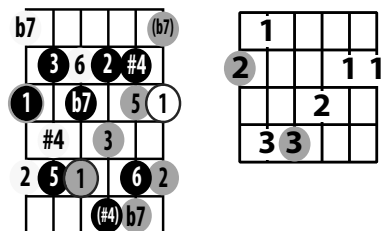
Voice-lead to the nearest triad tone of the I chord, its root, third or fifth. The more complex your improvisation, generally the more need there is for a straight-forward resolution, such as to the root triad. If you instead resolve to some other tone of the I chord, it will help to follow with another consecutive or two of the target I chord.

Starting our study with the bII^{13#11} to I is more colorful than V-I and is not *that* much more difficult.

bII^{13#11} to I major in E form, A form and C Form

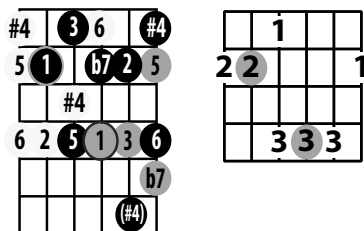
E form Bb major target

Bb^{13#11} V Bb major V



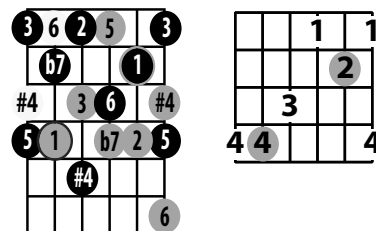
A form Eb major target

Eb^{13#11} VI Eb major V



C form F major target

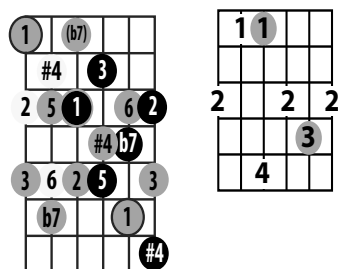
Fb^{13#11} VI F major V



bII^{13#11} to I major in D Form and G Form

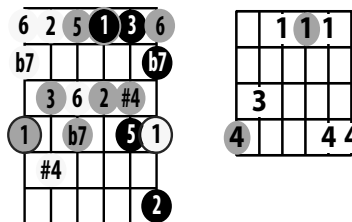
D form G major target

Ab^{13#11} IV G major IV



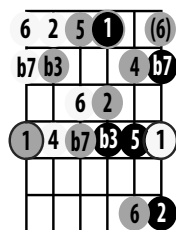
C major target

Db^{13#11} VI C major V

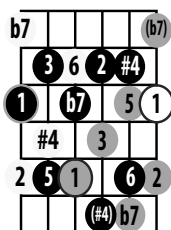


IIIm13-bII|13#11-Valt-|13

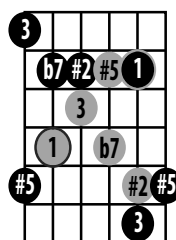
E form target G form IIIm13, Dorian



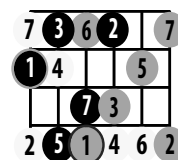
E form bII13#11, Lydian dom.



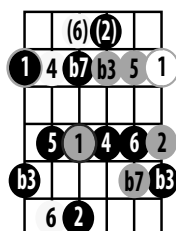
C form V7#5#9, super Locrian



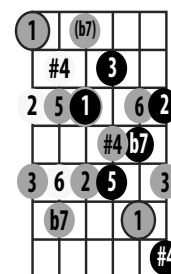
E form Ima9/6, major



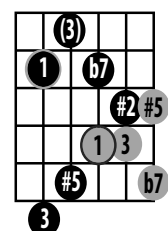
D form target E form IIIm13, Dorian



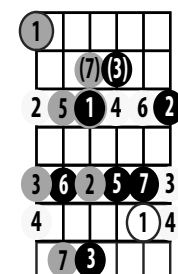
D form bII13#11, Lydian dom.



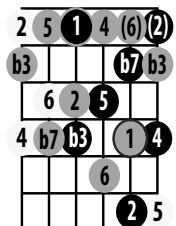
A form V7#5#9, super Locrian



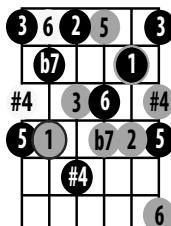
D form Ima9/6, major



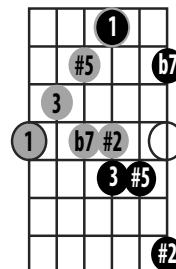
C form target D form IIIm13, Dorian



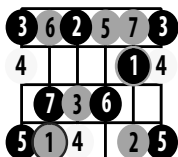
C form bII13#11, Lydian dom.



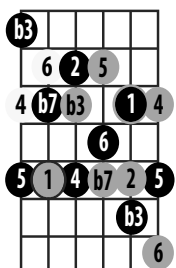
G form V7#5#9, super Locrian



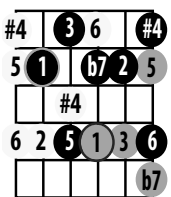
C form Ima9/6, major



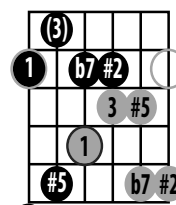
A form target C form IIIm13, Dorian



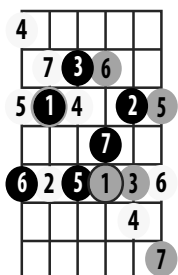
A form bII13#11, Lydian dom.



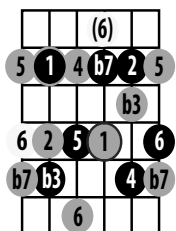
E form V7#5#9, super Locrian



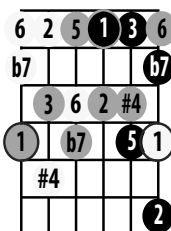
A form Ima9/6, major



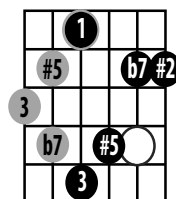
G form target A form IIIm13, Dorian



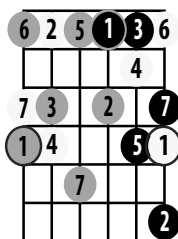
G form bII13#11, Lydian dom.



D form V7#5#9, super Locrian

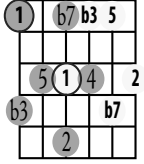
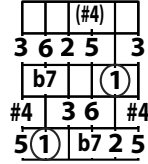
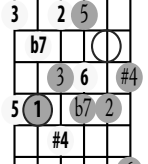
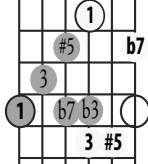
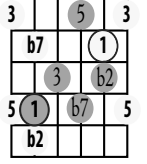
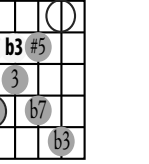
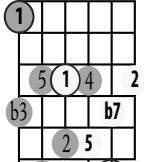
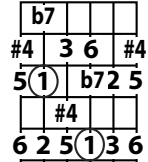
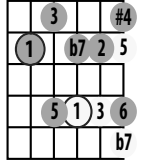
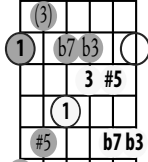
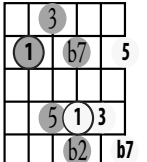
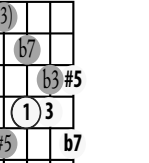
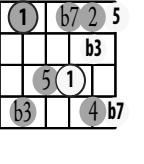
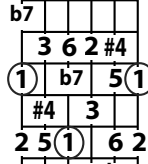
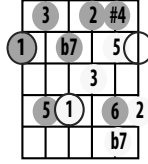
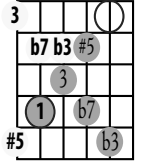
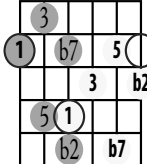
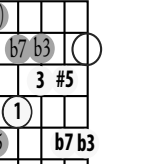


G form Ima9/6, major



LYDIAN DOMINANT AS bII OF V IN A MINOR KEY

Am-Am-Bø⁷-E⁷ and Am-Am-F⁹-E⁷

Am ¹¹ V	<div> <div>F Lydian dom. V</div> <div>F¹³#¹¹ V</div> <div>B⁷#⁹#⁵ IV</div> </div>			E ⁷ b ⁹ IV	E ⁷ # ⁹ # ⁵ V
	  				
Am ¹¹ V	<div> <div>F Lydian dom. VI</div> <div>F¹³#¹¹ VII</div> <div>B⁷#⁹#⁵ VI</div> </div>			E ⁷ b ⁹ VI	E ⁷ # ⁹ # ⁵ VI
	  				
Am ¹¹ XII	<div> <div>F Lydian dom. XI</div> <div>F¹³#¹¹ XII</div> <div>B⁷#⁹#⁵ XI</div> </div>			E ⁷ b ⁹ XI	E ⁷ # ⁹ # ⁵ XI
	  				

THE PHRYGIAN FAMILY

Phrygian Mode

In relation to a major scale on the same tone center, Lydian mode is major with flat two, flat three flat six and flat seven. Modally, Lydian mode is or a major scale with the tone center on three. In the traditional manner, play a major scale up and down from scale tone three to three (E to E in C major). See “[Modes](#)”/Modes of Four Heptatonic Scales/major scale modes/[Phrygian](#).

Harmonic Minor

In relation to a major scale on the same tone center, harmonic minor scale is major with flat three and flat si. Modally, harmonic minor is mode VI of [major sharp five scale](#). Play a major sharp five scale up and down from scale tone six to six (A to A in C major sharp five makes A harmonic minor). See “[Modes](#)”/Modes of Four Heptatonic Scales/[major sharp five scale](#)

Phrygian Dominant

In relation to a major scale on the same tone center, Phrygian dominant is major with flat two, flat six and flat seven. It is mode V of harmonic minor (harmonic minor with the tone center on scale tone five). Play a harmonic scale up and down from scale tone five to five (G to G in C harmonic minor makes G Phrygian dominant). See “[Modes](#)”/Modes of Four Heptatonic Scales/melodic minor modes/Phrygian dominant.

Super Phrygian

In relation to a major scale on the same tone center, super Phrygian is major with flat two, flat three, flat four (equals three), flat six and flat seven. It is mode III of [major flat six](#). Play a major flat six scale up and down from scale tone three to three (E to E in C major flat six makes E super Phrygian). See “[Modes](#)”/Modes of Four Heptatonic Scales/melodic minor modes/super Phrygian.

ALTERNATE QUALITIES OF LARGE ARPEGGIOS

See “[Substitution](#)”/Alternate Qualities of Large Arpeggios.

Improv Level 4: Arpeggios

- **Chord-Tone Emphasis**
- **Establishing The Chord Progression In Time**
- **Melodically Superimposed Cadences**
- **Voice Leading**
- **Triad Arpeggio Solo Examples**
- **Seventh And Ninth Arpeggio Solo Examples**
- **II-V-I Turnaround Solo Examples**

CHORD TONE EMPHASIS

The primary objective is to emphasize chord tones on the accented parts of the bar, which are typically on the beat but may be established on other parts of the bar by accents that occur in the song. The melody should move by scale step, with two exceptions where you may skip within the range of a sixth: (1) within the tones of the current chord and (2) to a tone which is the upper or lower neighbor of the tone it precedes.

Preparation

Memorize arpeggios for the area first. Determine scales that could be used for each chord. It is preferable that sequences of chords share the same parent scale.

In-Position Arpeggios for the Chord Changes

Begin work on chord progressions of one or two chords per bar, as strict arpeggios are not so interesting when played for longer durations. First play in a strict vertical position (see [Playing in Position/Strict Vertical Position](#)). While this will not allow you to gravitate toward easier and more practical fingerings for some of the chords, it will greatly reduce the number of fingerings you will have to memorize to get started.

Ascend and descend arpeggios linearly. Whenever you reach the extent of the range, reverse direction. Play the chord changes for the song in eighth notes, triplets or sixteenth notes (whichever is appropriate). Look forward to [Voice Leading](#) for decision making in connecting arpeggios smoothly.

More advanced players may find it more productive to set this step aside, begin work with ninth arpeggios shown below, then return to work on the seventh arpeggios as they are often less interesting. Having spent some time with the ninth arpeggios, the sevenths would then be easier to work with (since they are the larger part of the ninth arpeggios).

Two Octave Ninth Arpeggios In Position

Ninth arpeggios can be ascended and descended much like the seventh arpeggios. When you ascend to ninth, you can take the option of descending to the root ("8", a scale step below the ninth) and begin ascending another octave from that root. For this purpose, practice ninth arpeggios in an overlapping fashion, as described below.

Two Octave Ninth Arpeggio Exercises. Choose a position and play ninth arpeggios for each chord in the song (unless restricted to a seventh chord by the chord type such as diminished seventh). Play an arpeggio for each chord in the chord progression once, to preview it.

When you can play two complete octaves of each ninth arpeggio in-position, ascend from the low octave root to the ninth, descend one scale step to the higher octave root and ascend the second octave of the ninth arpeggio. Range solutions:

- ✦ If you can't reach the low octave root, play that note up an octave.
- ✦ If you can't reach the high octave ninth, substitute the root for it.

Once you can play the chord progression in ninth arpeggios, begin to connect the chords with setup and target tones described below.

Study Subsets and Synonyms

With an awareness of the scale of which a chord is a part, you can determine subsets of the chord by thinking of any chord tone and recalling the scale-tone chord of which that note would be the root.

- ✦ Seventh chords (two seventh subsets to each ninth chord).
- ✦ Triads (three subset triads to a ninth chord, two subsets to a seventh or sixth chord).
- ✦ Thirds (most chords are stacked major and minor thirds).

Common examples of chord synonyms are: $\text{IIIm7} = \text{IV } 6$, $\text{IIIIm7} = \text{V6}$, $\text{VIIm7} = \text{I6}$, $\text{VIIIm7b5} = \text{IIIm6}$.

Working Structures into Your Improvisation

Develop fingerings for arpeggio figures as shown below with two versions for the root on strings 6, 5, 4 and 3 (sometimes only one version on string 3). Practice each type of arpeggio figures for a few minutes, then spend about twice that much time improvising with the figure. Learn to creatively and abstractly modify the figures during your improvisation.

Target Tone and Setup Tone

For the purpose of connecting chords smoothly, we need to consider how the last note of the current chord leads to the first note of the chord that follows. The current chord is the *setup chord* and the next chord is the *target chord*.

The general use of setup tones and target tones, can be conceived as used in bass lines. Move toward any chord tone of the target chord at the end of the setup chord with a scale tone above or below a tone of the target chord; or with a note that is the fifth of the target chord *if* it moves to the root. Setup tones don't have to be tones of the setup chord, but it is preferable.

ESTABLISHING THE CHORD PROGRESSION IN TIME

The Rhythmic Pulse Concept

Improvisational music is stronger in rhythmic than in harmonic (chordal) content. An improviser generally conceives a rhythmic idea, then puts a harmonic or scalar structure onto the rhythm. A major part of your study in improvising with arpeggio structures should be done with regular pulse groups such as four sixteenth notes per beat. You will then creatively and abstractly modify these later.

Begin in Step Time

Before playing with a regular tempo, build melodic figures in step time, counting to yourself which part of the beat you are on and stopping wherever necessary to think. Gradually play more regularly, until you are playing at a slow but regular tempo. Then, gradually accelerate the tempo.

Progressive Examples to Work Out Setup and Target Tone in Step Time

It is best to begin your study by limiting the range to approximately an octave, preferably on the smallest four strings.

- ✦ Linear arpeggios, full range. Insert scale tones for the setup tone where necessary.
- ✦ Linear arpeggios, abbreviating the range with an early change of direction.
- ✦ Arpeggios with internal skips (current chord tones only).
- ✦ Arpeggios with passing tones. Use the passing tones on the unaccented part of the bar.
- ✦ Arpeggios with neighboring and passing tones. Use neighboring and passing tones on the unaccented part of the bar.

Move from Setup to Target Tone Stepwise, with at Least Two Exceptions:

- ✦ Where the setup tone is the fifth of the target chord, moving to the root of the target chord.
- ✦ Using a pentatonic upper or lower neighbor in the interval of a minor third.

If you play 9 (=2) on the beat, it should be followed by the appropriate 7 (b7), to communicate the ninth chord. It wouldn't hurt to throw in the fifth after the seventh, either.

Develop an awareness of upper and lower neighbors that can decorate each chord tone, which may form a note group of three or four notes that could be interpreted as part of many scales or arpeggios (including seven and five tone scales. Ultimately, you will develop a melodic sense of decorating chord tones that supersedes scales and arpeggios. Melodic phrases don't have to be interpreted only in terms of a "scale" or "arpeggio" from which the tones came.

MELODICALLY SUPERIMPOSED CADENCES

When a section of a piece has original chord changes with one or more chords per bar, play arpeggios to represent the original changes (such as parts of the last four bars of Billie's Bounce) . Wherever a chord has a duration of over one bar, consider using melodically superimposed cadences. Cadences are also called *turnarounds*. Superimposed cadences are typically those with root movement in fourths, optionally with [flat five substitutes](#) for dominant seventh type chords. They can be practiced first in chords, then expressed with single-note melody. See [Melodically Superimposed Cadences](#), and [Level 4 Improv: Superimposed Cadence Examples](#).

Try to stay in the upper range, in lower positions play predominantly on the first four strings. During each arpeggio, when you run out of range, turn back and go the other direction. Don't play the highest or lowest note twice in succession. At the end of each arpeggio, move to a note in the next arpeggio up or down by scale step. Using stepwise voice movement from the last tone in one chord to the first in the next where possible. Insert a scale tone or chromatic where the last tone of one chord would redundantly be the same as the first note in the next chord.

For now, where the last note of the current chord is also in the next chord, you can progress to the next chord by a third (unless the common tone is a seventh of the next chord, where you can progress up to the root).

Improv on the tune in your existing style of improvisation. Add in one cadence, then another, etc.

MELODIC DEVICES

See the chapter, [Melodic Cells](#).

Resolved Beat and Unresolved Beat Figures

Resolved beat melodic figures are complete within the beat by ending the beat with a chord tone. They complete a chord sound within a beat.

Unresolved beat melodic figures end with a setup tone and are expected to resolve with a chord tone at the beginning of the next beat. Most of the melodic cells shown in [Melodic Cell Types](#) are unresolved beat figures.

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VOICE LEADING

See the chapter on [Voice Leading](#).

Strict Chord Tones As Setup and Target Tones

Target tones are the chord tones of the next chord. Setup tones are those of the current chord. The note that is played last during the current chord is called the setup tone. A setup tone can be a scale tone above or below the target chord tone, as long as the interval is a minor third (one and a half steps or three frets) or less. Once you play a tone of the current chord, you can always move to other tones of the same chord. This is generally where you have the most freedom in playing skips (intervals larger than a scale step). The interval of a minor third occurs in 6/9 type pentatonic scales between “6” and “1”, in minor pentatonic scales between “b3” and “1”. Minor thirds also occur on chords built in harmonic minor and harmonic major scales which contain a minor third interval between scale tones “b6” and “7”. It is very useful to look at the setup and target tones for a pair of chords as sets of tones. Typical voice leading is shown below:

Chord Root Movement In Fourths

The tones on the fifth, seventh and ninth of the current chord will function as upper or lower neighboring tones of the target chord.

The root of and third of the current chord can function as a setup tone to a target chord's root.

Stepwise And Chromatic Chord Root Movement

The root, third and fifth of the current chord up or down to a tone of the target chord. When a chord root descends stepwise, its seventh may be the same note as the root of the target chord, in which case you should usually avoid redundancy by replacing it with another tone that would lead better to the target chord. The replacement tone could be an upper neighbor or the fifth of the target chord (especially if it moves up a perfect fourth to the root of the target chord).

Introduction To Harmony

Music is an expression, a form of communication (therefore, a language). It embodies agreement and disagreement, order and chaos. I typically listen to the instrumental content in a song and am initially oblivious to the lyrical content. I am amazed at others who have memorized lyrics to hundreds of songs (my friend Jim knows a thousand). When I eventually pay attention to the lyrics, I recognize that if the song was well written, there are parallels in emotional and expressive content in the harmony, rhythm and lyric. For example, in analyzing the chord progression to a song, I notice a cadence (chord change) that changes the minor (sad) key to major (happy) progressively over two bars of music. Then I read the lyrics for that section of music and notice the same emotional content and expression in the lyrics as in the harmony and rhythm.

When each melody note is harmonized by another note, a secondary melody is created. Additional melodies could be added so that with each melody note, a chord of three or more notes occurs. Each melody is considered a part, voice, or melody line. Imagine connecting the note heads for each melody in an arrangement with a written line on the music notation (a note head is the oval part of a note written in standard music notation). The line would illustrate a melody line. Each melody line constitutes a voice. The term voice comes from vocal arrangements where each person's voice would proceed through a melody line and create a part of the arrangement.

Voice Leading

The logical movement for each note to the next for each voice in an arrangement is called [voice leading](#). In studying the arrangement of chord tones of one chord moving to those of another, each note in a chord is called a *voice* and has a logical destination in the next chord. As a voice progresses through a number of chords, it creates a *voice path*. The study of the paths used by a number of voices is called *voice mapping*.

Harmonic Types Of Music

Monophonic music has a single melody line. *Homophonic music* has two or more melody lines, with all of the lines moving in parallel rhythmically, that is with no rhythmic individuality. Each part in homophonic music has the same number of notes as another part, each note occurring at the same time as a note in each of the other parts. *Polyphonic music* has rhythmic individuality for each of the parts, with some occurrences of a note in one part not accompanied by notes in all of the other parts.

Counterpoint is the study of note against note in a multi-voiced arrangement. The term comes from the Latin expression *punctus contra punctus*, which means point against point. Think of each note head in music notation as a point. The five species of counterpoint:

1. first species counterpoint: note against note.
2. second species counterpoint: two or three notes to one.

3. third species counterpoint: four or six notes to one.
4. fourth species counterpoint: two notes per melody note with syncopation.
5. fifth species (also called free or “florid” counterpoint): combination of the other species.

Major Scale-Tone Triad Voice Mapping

Since triads are very common and are subgroups of larger chords, it is very advantageous to know the nature of movement of their voices. The most useful voice movement is that where each voice moves to the closest available tone of the next chord. This conservative voice movement is easy for the ear to follow, whereas skips with intervals of a third or larger are generally harder to follow.

root moves up stepwise:all three tones ascend one scale step.

root moves down stepwise:all three tones descend one scale step.

root moves up a third: the root moves down a scale step and the third and the fifth stays the same.

root moves down a third:the fifth moves up a scale step and the root and the third stays the same.

root moves up a fourth:the third and the fifth move up a scale step and the root stays the same.

root moves down a fourth: ...the root and the third move down a scale step and the fifth stays the same.

Effective music has an interplay between predictability (comfort) and surprise (stimulation). Good improvisers can hear the chord quality another musician is suggesting (thinking). A great improviser can hear a repeating (looping) melody and play another melody with it, which creates a harmony for each note.

TRIAD ARPEGGIO SOLO EXAMPLES

Hotel California Style Solo with Triad Arpeggios - 144 BPM - [videotab](#)

1 Bm F#

3 1 3 1 3 4 3 1 1 1 3 3 4 1 1 4 4 3 1 2 3 4 3 1 3 1

10 (10) 7 10 7 9 10 9 7 7 9 9 10 7 6 9 9 8 6 7 9 9 7 9 (9)

5 A E

1 3 1 1 3 1 2 3 1 3 full 3 1 3 1 1 4 3 1 1 3 1 4 4 4 3 1 3 1

7 9 7 7 9/11 9 12 10 12 12 (12) 10 12 10 9 12 11 9 9 11 12 12 11 (11) 9 11 9

9 G D

2 1 2 1 2 3 1 3 3 3 1 3 1 2 1 3 2 3 1 2 3 full 3 1 1 2 3 2 1 3 1 2 1 2 1 3

11 (11) 10 11 10 11 12 10 12 12 9 11 9 10 9 11 12 14 11 10 11 12 11 9 9 11 9 12 12

13 Em F# Bm

3 1 1 1 3 1 1 1 3 3 4 3 3 3 1 3 1 3 3 1 2 1 1 3 1 3 1 2 3 3 1 2 1 2 1 4 2 1 2

12 12 12 14 (14) 12 12 14 14 14 14 12 14 12 14 16 12 15 14 14 17 (17) 14 16 14 15 16 16 13 14 13 13 16 14 13 14

SEVENTH AND NINTH ARPEGGIO SOLO EXAMPLES

Jazz Blues Pentatonic and Chromaticized Arpeggios Solo Example

Swing Eighthths

theme 1

1 4 3 1 2 3 1 2 2 4 3 2 4 1 2 3 4 4 1 4 4 2 3 2 1 1 2 3 4 2

theme 1a

4 4 1 2 3 2 4 3 2 1 2 1 4 4 1 4 4 2 3 2 3 2 4 3 1 3 1

4 1 4 3 2 1 2 1 2 1 4 4 4 3 3 4 4 1 1 1

Theme and variation. Theme 1 is bars 1-3 is varied in bars 5-7, but retains its shape. It is modified in the first two bars of version 1a (bars 5-6) to accommodate the Eb7 chord that has a flatted third of the key and to emphasize triad tones of the Eb, which are 4, 6, 1 of the key. The note "G", for example on the end of the third beat in bar 5 is "6" of the key (Bb).

bar 0 (pickup)

Abma7, built on the next lower scale tone from Bb is a group of all the neighboring tones for the Bb triad that it precedes.

bar 1

Bb major pentatonic scale

bar 2, beats 1-2

Eb13 arpeggio with 3-note linear chromatics. This melodic device inserts two chromatic tones below each chord tone.

16 Eb13

T 13 13 10 11 13 10 11

A 13 12 11 13 13 10 12 10 9 13 11 10 9 13

B

bar 2, beats 3-4 through bar 3

Bb major pentatonic with a C# lower chromatic embellishment to "D" the third of Bb.

bar 4

Bb major pentatonic with a C# lower chromatic embellishment to "D" the third of Bb, then chromatics from "D" (3 of Bb) to F (5 of Bb).

bar 5

Bbm6/9 pentatonic contrasts Bb major 6/9 pentatonic with skips, creating angular melody, like jazz saxophone.

20

T 9 10 11 12 13

A 13 11 12 10 12 11

B 13 10 11 10 12 11 13 14 13

bar 6

Descend Bbm7. Chromaticize from b7 (Ab) to F. Add scale tone 2 between b3 and 1, as in Bb Dorian.

bar 7: same as bar 3

Bb major pentatonic with a C# lower chromatic embellishment to "D" the third of Bb.

24

T 11 13 12 11 10 11 10 13

A 11 13 10 11 13

B 13 11 12 10 12 11

bar 8

hybrid C Aeolian and C harmonic minor descends 7, b7, b6, 5, etc.

the last three notes in bar 8 are G7 chord tones (3, 5 b7)

bar 9

Cm9 arpeggio, ascending to its ninth (D), the to its high-octave third (Eb).

27

3 2 4 3 1 4 3 1 1

T 12 11 13 12 10 13 12 10 9

A 9 12 10 9 12 10 10 13 12 11 10 11

B

bar 9

After ascending Cm9 arpeggio and ending on its flatted third, now we return to its ninth (D), which doubles as the thirteenth of F.

bar 10

To bring out the "heavenly" suspended quality, the melody descends from the thirteenth of F (D) to its eleventh, which sounds as a suspended fourth. The "D" at the end of the bar, anticipates the third of Bb.

31

root third fifth b7 9 11 13

13 11 root nat.7 b7 4 3 of Bb

tones of F13

T
A
B

13 12 10 13 12 11 10

bar 10

Six is the classic bright-mooded coloring tone in swing music. It is driven home at the end.

33

root fifth sixth sixth sixth

tones numbered in the key of Bb

T
A
B

Jazz Blues Basic Arpeggios and Harmonic Minor Solo Example

Swing Eighths

B \flat 9 **E \flat 9** **B \flat 9**

3 2 1 4 3 4 1 3 4 1 4 1 4 3 1 3 1 1 4 1 2 4 1 1 2 1 4

T 8 7 6 9 9 6 8 9 6 9 6 9 8 6 8 6 5 8 5 6 8 5 4 6 5 8

B 8 7 6 9 9 6 8 9 6 9 6 9 8 6 8 6 5 8 5 6 8 5 4 6 5 8

E \flat 9 **B \flat 9** **G7(#9)**

2 1 3 1 1 4 3 1 1 4 3 1 1 3 3 4 3 1 1 3 4 3 2 3 1

T 6 5 8 6 9 8 6 5 9 8 6 5 8 8 9 8 6 5 7 8 7 5 6 4

B 6 5 8 6 9 8 6 5 9 8 6 5 8 8 9 8 6 5 7 8 7 5 6 4

Cm9 **F7(b9)** **B \flat 9** **G7(#9)** **Cm7** **F7(b9)**

2 1 2 2 3 3 1 4 3 1 2 1 2 1 3 2 1 1 1 4 3 4 1 4 4 4 3 2 3

T 5 4 5 7 8 8 6 10 8 5 7 6 7 6 8 7 6 7 6 9 8 9 5 8 9 8 7 6 7

B 5 4 5 7 8 8 6 10 8 5 7 6 7 6 8 7 6 7 6 9 8 9 5 8 9 8 7 6 7

bar 1 - B \flat 9bar 2 - B \flat minor pentatonic,
strategically placing b5 where it
suggests #IVdim7bar 3, beats 1-2 - darken
with B \flat Dorian (b3)bar 3, beats 3-4 - B \flat 9

13

b5 b3

T 8 7 6 9 8 9 6 9 6 9 8 6 8 8 5 6 8 6 8 9 6 5 6 8 5 6

B 8 7 6 9 8 9 6 9 6 9 8 6 8 8 5 6 8 6 8 9 6 5 6 8 5 6

bar 4, beats 3-4 - Bb7
as a V of Eb7,
the IV chord
Bb7

bar 5, beats 1-3
- Eb9

bar 5, beat 3-bar 6, beat 2
3-note linear chromatics on Eb13
(two chromatic tones below each chord tone)

17

2 1 3 1 1 3 2 1 4 3 2 1 4 3 1 1 4 3 2 1 1 4 3 1

T
A
B

4 6 5 8 6 6 5 8 6 8 7 6 9 8 7 6 9 8 6 5 9 8 7 6 5 9 8 6

Bbm9 subset of Eb13

bar 7, beats 3-4
hybrid C Aeolian and C harmonic
minor descends 7, b7, b6, 5, etc.

bar 8 through bar 9, beats 3-4
C harmonic minor on G7, its V7 chord

22

4 3 1 1 4 2 1 4 3 1 2 3 1 1 2 3 1 2 3 1 1 2 3 1 2 3 1 2 4

T
A
B

9 8 6 5 8 6 5 8 7 1 3 4 2 3 5 6 3 5 6 4 5 7 8 6 8 9 7 8 10

bar 9, beats 2-4
Cm9 (with "D"
passing tone)

bar 10
1 2 3 5 fragment on F7b9, the
V7b9 of Bb harmonic minor

27

(stepwise, but intervals like 1 2 3 5 fragment) (stepwise, but intervals like 1 2 3 5 fragment)

1 2 3 3 1 4 1 1 3 1 3 4 1 4 1 3 4 2 3 4 2 1 2 3 1 3 1 1 3 2 3 1 2 4 1 2 1 3

T
A
B

5 7 8 6 10 5 6 8 8 9 6 9 6 8 9 7 8 9 7 5 7 8 5 8 5 6 8 7 8 6 7 10 6 7 5 8

bar 11 -
starting with Bb chord tone,
then hybrid C Aeolian and C harmonic minor on G7b9,
its V7b9 (b7 7 b7 b6 5)

bar 12 -
Bb Mixolydian with chromatics, emphasizing
Cm7 chord tones, then Bb major on F7 chord tones

32

2 1 4 3 1 3 2 1 4 7 6 9 8 6 8 7 5 9 8 9 8 6 8 7 5 8 9 8 7 6 9 8

T
A
B

Cantaloupe Island Style Arpeggio Theme And Variation Solo rhythm track

1 Fm7

5

9 D \flat 9(#11)

13 Dm11

1/2

full

full

full

full

Jazz Blues Pentatonic and Chromaticized Arpeggios Solo Example

Swing Eighthths

theme 1

1 4 3 1 2 3 1 2 2 4 3 2 4 1 2 3 4 4 1 4 4 2 3 2 1 1 2 3 4 2

12 10 13 11 12 10 11 11 13 12 11 13 10 11 12 13 13 10 13 11 12 13

theme 1a

4 4 1 2 3 2 4 3 2 1 2 1 4 4 1 4 4 2 3 2 3 2 4 3 1 3 1

14 13 10 11 12 11 13 12 11 10 11 10 13 13 10 13 11 12 12 11 13 12 9 12 10

9 Cm7 F7 Bb7 G7 Cm7 F7

4 1 4 3 2 1 2 1 2 1 4 4 4 3 3 4 4 1 1 1

10 11 10 11 10 14 13 13 11 12 13 13 10 10 10

Theme and variation. Theme 1 is bars 1-3 is varied in bars 5-7, but retains its shape. It is modified in the first two bars of version 1a (bars 5-6) to accommodate the Eb7 chord that has a flatted third of the key and to emphasize triad tones of the Eb, which are 4, 6, 1 of the key. The note "G", for example on the end of the third beah in bar 5 is "6" of the key (Bb).

bar 0 (pickup)

Abma7, built on the next lower scale tone from Bb is a group of all the neighboring tones for the Bb triad that it precedes.

bar 1

Bb major pentatonic scale

13 Abmaj7 Bb7

12 10 13 12 13 10 12 10 12 11

bar 2, beats 1-2

Eb13 arpeggio with 3-note linear chromatics. This melodic device inserts two chromatic tones below each chord tone.

16 Eb13

T 13 13 10 11 13 10 11

A 13 12 11 13 13 10 12 10

B 9 13 11 10 9 13

bar 2, beats 3-4 through bar 3

Bb major pentatonic with a C# lower chromatic embellishment to "D" the third of Bb.

bar 4

Bb major pentatonic with a C# lower chromatic embellishment to "D" the third of Bb, then chromatics from "D" (3 of Bb) to F (5 of Bb).

bar 5

Bbm6/9 pentatonic contrasts Bb major 6/9 pentatonic with skips, creating angular melody, like jazz saxophone.

20

T 9 10 11 12 13

A 13 11 12 10 12 11

B 13 10 11 10 12 11 13 14 13

bar 6

Descend Bbm7. Chromaticize from b7 (Ab) to F. Add scale tone 2 between b3 and 1, as in Bb Dorian.

bar 7: same as bar 3

Bb major pentatonic with a C# lower chromatic embellishment to "D" the third of Bb.

24

T 11 13 12 11 10 11 10 13

A 11 13 10 11 13

B 13 11 12 10 12 11

bar 8

hybrid C Aeolian and C harmonic minor descends 7, b7, b6, 5, etc.

the last three notes in bar 8 are G7 chord tones (3, 5 b7)

bar 9

Cm9 arpeggio, ascending to its ninth (D), the to its high-octave third (Eb).

27

T 12 11 13 12 10 13 12 10 9 9 12 10 10 13 12 11 10 11

A 12 11 13 12 10 13 12 10 9 9 12 10 10 13 12 11 10 11

B 9 12 10 10 13 12 11 10 11

bar 9

After ascending Cm9 arpeggio and ending on its flatted third, now we return to its ninth (D), which doubles as the thirteenth of F.

bar 10

To bring out the "heavenly" suspended quality, the melody descends from the thirteenth of F (D) to its eleventh, which sounds as a suspended fourth. The "D" at the end of the bar, anticipates the third of Bb.

31

root third fifth b7 9 11 13

13 11 root nat.7 b7 4 3 of Bb

tones of F13

T
A
B

13 12 10 13 12 11 10

bar 10

Six is the classic bright-mooded coloring tone in swing music. It is driven home at the end.

33

root fifth sixth sixth sixth

tones numbered in the key of Bb

T
A
B

Jazz Blues Basic Arpeggios and Harmonic Minor Solo Example

Swing Eighths

B \flat 9 **E \flat 9** **B \flat 9**

3 2 1 4 3 4 1 3 4 1 4 1 4 3 1 3 1 1 4 1 2 4 1 1 2 1 4

T 8 7 6 9 9 6 8 9 6 9 6 9 8 6 8 6 5 8 5 6 8 5 4 6 5 8

B 8 7 6 9 9 6 8 9 6 9 6 9 8 6 8 6 5 8 5 6 8 5 4 6 5 8

E \flat 9 **B \flat 9** **G7(#9)**

2 1 3 1 1 4 3 1 1 4 3 1 1 3 3 4 3 1 1 3 4 3 2 3 1

T 6 5 8 6 9 8 6 5 9 8 6 5 8 8 9 8 6 5 7 8 7 5 6 4

B 6 5 8 6 9 8 6 5 9 8 6 5 8 8 9 8 6 5 7 8 7 5 6 4

Cm9 **F7(b9)** **B \flat 9** **G7(#9)** **Cm7** **F7(b9)**

2 1 2 2 3 3 1 4 3 1 2 1 2 1 3 2 1 1 1 4 3 4 1 4 4 4 3 2 3

T 5 4 5 7 8 8 6 10 8 5 7 6 7 6 8 7 6 7 6 9 8 9 5 8 9 8 7 6 7

B 5 4 5 7 8 8 6 10 8 5 7 6 7 6 8 7 6 7 6 9 8 9 5 8 9 8 7 6 7

bar 1 - B \flat 9bar 2 - B \flat minor pentatonic,
strategically placing b5 where it
suggests #IVdim7bar 3, beats 1-2 - darken
with B \flat Dorian (b3)bar 3, beats 3-4 - B \flat 9

13

b5 b3

T 8 7 6 9 8 9 6 9 6 9 8 6 8 8 5 6 8 6 8 9 6 5 6 8 5 6

B 8 7 6 9 8 9 6 9 6 9 8 6 8 8 5 6 8 6 8 9 6 5 6 8 5 6

bar 4, beats 3-4 - Bb7
as a V of Eb7,
the IV chord
Bb7

bar 5, beats 1-3
- Eb9

bar 5, beat 3-bar 6, beat 2
3-note linear chromatics on Eb13
(two chromatic tones below each chord tone)

17

2 1 3 1 1 3 2 1 4 3 2 1 4 3 1 1 4 3 2 1 1 4 3 1

T
A
B

4 6 5 8 6 6 5 8 6 8 7 6 9 8 7 6 9 8 6 5 9 8 7 6 5 9 8 6

bar 7, beats 3-4
hybrid C Aeolian and C harmonic
minor descends 7, b7, b6, 5, etc.

bar 8 through bar 9, beats 3-4
C harmonic minor on G7, its V7 chord

22

4 3 1 1 4 2 1 4 3 1 2 3 1 1 2 3 1 2 3 1 1 2 3 1 2 3 1 2 4

T
A
B

9 8 6 5 8 6 5 8 7 1 3 4 2 3 5 6 3 5 6 4 5 7 8 6 8 9 7 8 10

bar 9, beats 2-4
Cm9 (with "D"
passing tone)

bar 10
1 2 3 5 fragment on F7b9, the
V7b9 of Bb harmonic minor

27

(stepwise, but intervals like 1 2 3 5 fragment) (stepwise, but intervals like 1 2 3 5 fragment)

1 2 3 3 1 4 1 1 3 1 3 4 1 4 1 3 4 2 3 4 2 1 2 3 1 3 1 1 3 2 3 1 2 4 1 2 1 3

T
A
B

5 7 8 6 10 5 6 8 8 9 6 9 6 8 9 7 8 9 7 5 7 8 5 8 5 6 8 7 8 6 7 10 6 7 5 8

bar 11 -
starting with Bb chord tone,
then hybrid C Aeolian and C harmonic minor on G7b9,
its V7b9 (b7 7 b7 b6 5)

bar 12 -
Bb Mixolydian with chromatics, emphasizing
Cm7 chord tones, then Bb major on F7 chord tones

32

2 1 4 3 1 3 2 1 4 7 6 9 8 6 8 7 5 9

T
A
B

8 9 8 6 8 7 5 8 9 8 7 6 9 8

All Blues Harmonic Minor and Melodic Minor Example **solo** **rhythm track**

Swing Eighths

1 G7

2 1 1 1 3 1 2 1 2 1 4 3 1 1 2 4 1 4 1

3

5 5 4 4 2 5 3 4 3 4 5 8 7 5 4 5 7 4 7 4

3

1 3 3 1 2 3 1 4 3 1 4 3 1 2 1 4 1 2 3 4

6 7 5 8 7 5 8 7 5 8 6 5 8 5 6 7 8

5 C9

1 1 3 4 4 1 3 1 3 1 3 1 3 3 3 1 3 1 1

1 1 5 5 5 3 3 5 7 6 8 5 6 8 5 6 8 7 8 7 5 7 5 4

7 G7

2 2 2 2 1 2 2 4 3 1 1 3 1 3 3 3

8 7 5 5 7 5 7 7 7

9 $D7(\#9)$ ($D7\#5\#9$) $E\flat7(\#9)$ $D7(\#9)$

D super Locrian $E\flat$ har. minor $E\flat13\#11$ ($E\flat$ Lydian diminished = $B\flat$ mel. min.)

3 4 1 2 1 4 1 2 1 4 2 1 1 4 2 2 1 4 2 1

3 4 1 2 1 4 3 4 3 6 4 3 5 8 6 5

T A B 5 6 3 4 3 6 3 4 3 6 4 3 5 8 6 5

11 G^7 $Dm7$ $A\flat7$

1 1 1 4 3 1 1 2 4 1 4 1 1 1 3 1 3 2 3 1

1 4 3 1 1 2 4 1 4 1 1 1 3 13 11 13 12 13 10

T A B 5 5 5 7 5 4 5 7 4 7 4 3 3 13 11 13 12 13 10

13 G^7 ($D7\#5\#9$)

2 $\frac{1}{4}$ 3 1 1 3 3 4 1 4 3 2 1 4 3 1 $\frac{1}{4}$ 3 1

11 11 11 13 13 15 10 13 12 11 10 14 13 11 12 10

T A B 11 12 11 13 13 15 10 13 12 11 10 14 13 11 12 10

15 3 1 3 2 1 2 1 2 1 3 2 3 1 2 1 2 1 1 4 3 4 1 2 1 2 2 4 1

12 10 12 11 10 11 10 12 13 14 13 11 12 10 12 15 15 18 17 18 15 15 16 16 18 15

T A B 12 10 12 11 10 11 10 12 13 14 13 11 12 10 12 15 15 18 17 18 15 15 16 16 18 15

17 C^9

1 4 1 1 2 1 4 1 3 3 3 2 3 2 1 1 3 3 1 3 2 1 1 2 2 4 3 3 3 1

9 12 14 14 15 14 12 12 18 17 18 17 15 15 18 18 15 17 18 15 15 16 16 18 17 18 17 15

T A B 9 12 14 14 15 14 12 12 18 17 18 17 15 15 18 18 15 17 18 15 15 16 16 18 17 18 17 15

19 G⁷

(D7#5#9)

3 1 3 1 2 3 1 3 2 3 1 3 2 1 3 1 2 3

T 17 14 17 15 16 17 15 18 18 17 15 18 17 15 17 18

A B

21 D⁷(#9) E^b7(#9) D⁷(#9)

2 1 2 2 1 2 1 1 3 4 3 1 4 1 1 2 1 4 1 2 1 3

T 10 14 15 15 14 15 14 15 17 18 17 14 14 11 14 15 14 17 14 15 14 16

A B

23 G⁷

4 2 2 1 3 4 1 2 1 2 2 1

T 15 15 14 14 15 14

A B 17 17 15

Cantaloupe Island Chromaticized Arpeggios Solo Example - solo

Sheet music for the solo example "Cantaloupe Island Chromaticized Arpeggios Solo Example - solo". The music is written in 4/4 time, key of F major (three flats), and features chromaticized arpeggios. The solo is divided into five measures, each with a corresponding TAB line below it.

Measure 1: Starts with an Fm⁹ chord. The melody is chromaticized. The TAB line shows fret numbers: 11, 8, 11, (11), 9, 11, 9, 10, 8, 10, 8, 8, 8, 8, 10, 8, 10, 8.

Measure 2: The melody continues with chromaticism. The TAB line shows fret numbers: 11, 10, 8, 10, 9, 8, 11, 8, 8, 8, 10, 11, 8, 11, 10, 10, 8, 9, 10, 9, 10, 8, 11.

Measure 3: The melody continues with chromaticism. The TAB line shows fret numbers: 11, 8, 11, 11, 9, 10, 9, 8, 10, 11, 9, 8, 9, 10, 10, 9, 10, 8, 11.

Measure 4: The melody continues with chromaticism. The TAB line shows fret numbers: 9, 10, 8, 10, 9, 10, 10, 10, 9, 10, 8, 11, 9, 10, 8, 10, 9, 10, 9, 11, 8, 9.

Measure 5: Ends with a Db⁹(#11) chord. The melody is chromaticized. The TAB line shows fret numbers: 9, 11, 11, 9, 11, 9, 8, 9, 8, 10, 9, 10, 10, 13, 12, 11.

11

4 4 1 2 1 4 3 4 4 3 4 3 1 3 2 1 2

15 15 11 12 11 16 15 16 16 15 16 15 (15) (15) (15) 13 15 11 10 11

13

1 4 1 3 2 1 4 1 1 3 3 1 1 3 4 1 2

11 10 13 10 12 11 10 13 10 10 12 12 10 10 12 10 11 13

15

3 1 3 4 1 4 1 2 2 1 4 3 2 3 3 1 1 3 1 1 3 1 1 1 1

12 10 12 13 9 12 9 10 11 10 8 12 11 12 12 10 10 12 10 10 12 10 10 10 10

Misdirected Blues Bebop Improv - [click to play](#)

Swing Eighth

solo 1

♩ = 120

3 213 413122 1/4 3 13131 slightly flat 3 2 213 131 41312133 3 2 142 2 2 4214

3 1 1124 3 2143 1133233 3 13424213 2131 312331 41

4 1/4 114 3323313 13311431 213 3 2114 4 1/4 1141 3/2 13334 312213

1 41 1 1/4 3 1 1/4 1 3 3331 4 331311 22131 113 431 31331

3 2 222 22 131 31 4 4 2 1 43 13 1 2 1 3 1 2 4 2 3 1 4 2 3 2 1 3 3 1 3

2 212123124 13 11 131212213 33 3 6 131 13 3 3 3 1 1 2 1

G hwh dim. scale (G13b9#9#11)

II-V-I TURNAROUND SOLO EXAMPLES

Hold Your Peace - [click to play video](#)

Swing Eighthths

music by Jim Gleason

200 BPM $B\flat^7$ G^7 Cm^7 F^9 $B\flat^7$ $E\flat^9$ $B\flat^7$

1 3 4 1 3 1 1 3 1 2 1 3 3 1 2 3 3 3 1 1 3 4

6 8 9 6 8 6 8 6 7 6 8 8 8 6

$E\flat^9$ $B\flat^7$ G^7

1 3 1 2 3 1 3 3 1 3 2 2 1 2 1 3 2 4 1 1 2 3 4 1 3 4

Cm^7 F^9 Dm^7b5 G^7b9

6 8 6 7 8 6 8 8 5 8 7 6 7 6 8 7 10 6 7 9 6 8 10

Cm^7 F^9 $B\flat^7$ G^7 Cm^7 F^9

1 3 3 1 1 1 3 4 3 1 1 2 1 3 4

Cm^7 F^7

6 8 8 6 5 6 8 9 8 6 5 6 11 10 9 8 8 8 6 8 9

$B\flat^7$ $E\flat^9$ $B\flat^7$

1 3 1 1 3 1 3 1 2 1 3 3 1 2 3 1 2 3 2 1 4 2 2 1 3 2 1

$B\flat^7$ $E\flat^9$ $B\flat^7$ G^7

6 8 6 8 6 8 6 7 6 8 8 6 7 6 10 8 8 7 9 8 6

$E\flat^9$ $B\flat^7$ G^7

3 1 3 1 2 3 1 3 3 1 3 2 2 1 2 1 3 2 4 3 1 3 2 3 1 2 4 3 1 2 4

Cm^7 F^9 $B\flat^7$ G^7

6 10 8 8 9 8 6 8 5 8 7 7 6 7 6 8 7 9 8 6 8 7 8 6 7 9

Cm^7 F^9 $B\flat^7$ G^7 Cm^7 F^9

1 3 3 3 1 3 1 2 1 3 3 1 2 4 2 1 2 3 3 1

Cm^7 F^7 Cm^9 $B^7(b5sub)$

5 8 8 6 8 6 7 6 8 8 6 7 10 8 6 8 9 9 7

Fm^7b5 negative harmony
 $IIIm^7b5$ of $E\flat$

The image displays three systems of musical notation for guitar improvisation, each consisting of a treble staff, a bass staff, and a tablature staff. The notation includes chord symbols, fingering numbers, and fret numbers.

System 1:

- Chord symbols: Bb^7 , Eb^9 , Bb^7
- Fingering numbers: 1 3 1 1 3 1 3, 1 2 1 3 3 1 2, 3 3 3, 1 1 3 4
- Tablature: 6 8 6 6 8 6 8, 6 7 6 8 8 6 7, 8 8 8, 6

System 2:

- Chord symbols: Eb^9 , Bb^7 , G^7
- Fingering numbers: 1 3 1 2 3 1 3, 3 1 3 2 2 1 2 1 3, 2 4 1 1 2 3, 4 1 3 4
- Chord progressions: Cm^7 —————, $F7b9$ —————, $Dm7b5$ —————, $G7b9$ —————
- Tablature: 6 8 6 7 8 6 8, 8 5 8 7 7 6 7 6 8, 7 10 6 7, 9 6 8 10

System 3:

- Chord symbols: Cm^7 , F^9 , Bb^7
- Fingering numbers: 1 1 3 1, 1 1 3 4 3 1 1 2, 4 3 1 1 2
- Chord progressions: Cm^7 —————, F^7 —————
- Tablature: 6 8 8 6 5, 6 8 9 8 6 5 6, 9 8 6 5 6

PART 5 CONTENTS

Core Melody

[Commonality Chords](#)
[Core Melody on Triad Chord Progression](#)
[Core Melody on Quadrad Chord Progression](#)
[Core Melody Built with Duality Tones](#)
[The Melodic Curve](#)
[Theme and Variation](#)
[Bebop and Other Octatonic Scales](#)
[Six-Tone Scales](#)
[Relating Chord Tones to the Beat](#)

Commonality Chords

- **Chord Synonyms**
- **What Are Commonality Chords?**
- **What Are Summary Chords?**

CHORD SYNONYMS

Chord synonyms are alternate names for the same group of notes played as a chord or as an arpeggio. See the chapter [“Chord Naming Conventions”](#).

Alternate Names for Complete Chords

Am7 contains the notes A-C-E-G. C6 contains the notes C-E-G-A. They contain the same notes, so they are chord synonyms. In terms of roman numerals, this can be shown in four pairs of chords built from a major scale, each pair involving a sixth or minor sixth chord. Here are the four pairs: I6 = VIm7, IV6 = IIIm7, V6 = IIIIm7 and IIm6 = VIIIm7b5.

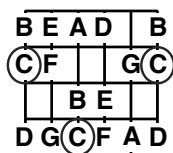
every other scale tone

The common method of chord construction is every other tone of a major scale, or of another harmonizable seven-tone scale (harmonic minor, melodic minor and harmonic major). With seven-tone scales like the major scale, the letter cycle for this is F-A-C-E-G-B-D (repeat). Any three notes in the cycle (F-A-C) creates a triad, a chord with three different notes. F-A-C-F is three *different* notes. When applied to a chord or arpeggio in a musical part, any of the notes can be repeated.

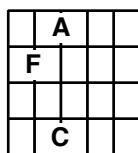
Here is the C major scale in VII position, by letter name. Play the scale, ascending in alphabetical order from “C” to “C” for two octaves (CDEFGABCDEF GABC) from the “C” on the sixth string to the C on the first string and descending for two octaves (CBAGFEDCBAGFEDC) from the “C” on the first string to the “C” on the sixth string. To play a triad, play three notes in the every other note pattern, such as F-A-C. F-A-C is an F major triad. It can be played on strings five and four as a three-note arpeggio or on all six strings, as a complete F major arpeggio in VII position.

Notes in a triad or chord can be repeated. Both the three-note F major arpeggio and the complete VII position F major arpeggios are triad arpeggios, since they are made up of the three F major triad tones. The second row below shows many options of F triad chords, each with three different notes.

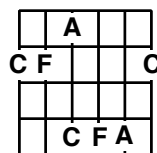
C major scale VII



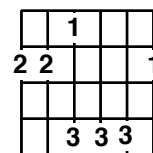
F-A-C, an F major triad arpeggio VII



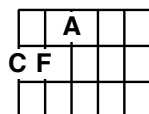
a complete F major triad arpeggio VII



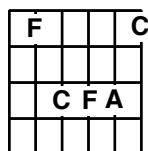
F major triad arpeggio fingering VII



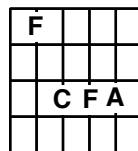
F major VII



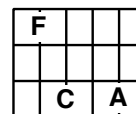
F major VIII



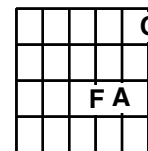
F major VIII



F major VIII

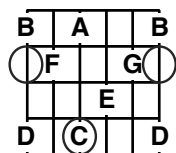
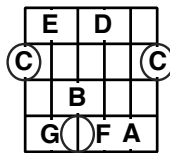
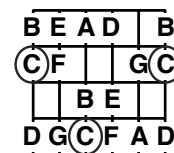


F major VIII



triads built in thirds from the tertian cycle

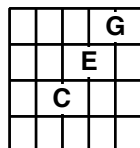
Every other note creates a series of *thirds*, since each note to the next in the every-other-note series is inclusively three notes. The C major scale in thirds is illustrated in the letter cycle C-E-G-B-D-F -A (repeat). Each major scale fingering can be divided into two sets of every other note. These two series of notes are each part of the letter cycle of thirds (C-E-G-B-D-F -A, repeat). They can be called the *tertian cycle*, a cycle made of thirds. Any three consecutive notes on one of the tertian cycles makes a triad (a tertian triad).

C major low
tertian cycle VIIC major high
tertian cycle VIIcomplete
C major scale VII

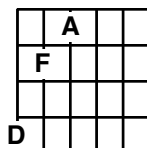
Any four consecutive notes on a tertian cycle makes a seventh chord (tertian quadrad). Here is a table of those triads for C major, with diagrams shown examples of five triads built from them, followed by diagrams of every arpeggio. The arpeggios combine notes from both tertian cycles and can be viewed in the complete C major scale.

scale-tone:	I	II	III	IV	V	VI	VII
triad.....	I major	II minor	III minor	IV major	V major	VI minor	VII dimin.
letter names	C-E-G	D-F-A	E-G-B	F-A-C	G-B-D	A-C-E	B-D-F
numbered in C.....	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
in key of chord	1-3-5	1-b3-5	1-b3-5	1-3-5	1-3-5	1-b3-5	1-b3-b5

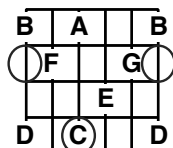
C major VIII



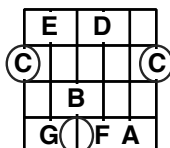
D minor VII



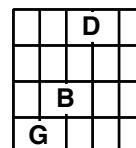
Em minor VII



F major VIII

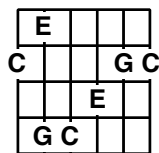


G major VII

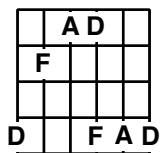


In addition to playing the notes of each arpeggio below in descending and ascending order, experiment making chord voicings of three or more notes by combining at least one of each different lettered note.

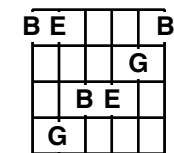
C major VII



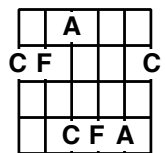
D minor VII



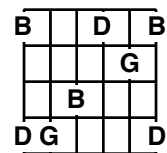
Em minor VII



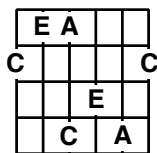
F major VII



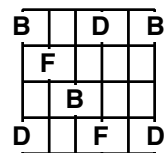
G major VII



Am VII



Bdim VII

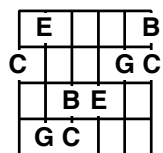


seventh chords

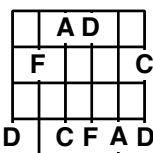
Any four notes in the cycle (F-A-C-E) creates a seventh chord (a tertian quadrad). Here is a table of C major scale-tone seventh chord arpeggios and chord examples extracted from them.

seventh chord Ima7 IIIm7 IIIIm7 IVma7 V7 VIIm7 VIIIm7b5
 letter names C-E-G-B D-F-A-C E-G-B-D F-A-C-E G-B-D-F A-C-E-G B-D-F-A
 numbered in C 1-3-5-7 2-4-6-1 3-5-7-2 4-6-1-3 5-7-2-4 6-1-3-5 7-2-4-6
 in key of chord 1-3-5-7 1-b3-5-b7 1-b3-5-b7 1-3-5-7 1-3-5-b7 1-b3-5-b7 1-b3-b5-b7

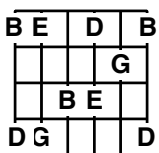
Cma7 VII



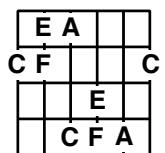
Dm7 VII



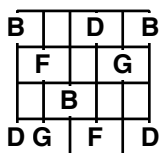
Em7 VII



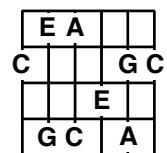
Fma7 VII



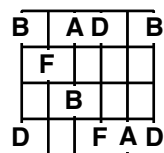
G7 VII



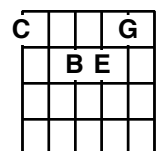
Am7 VII



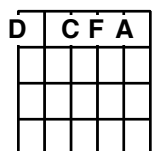
Bm7b5 VII



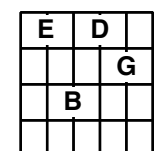
Cma7 VIII



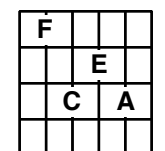
Dm7 X



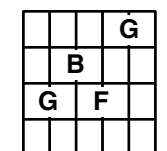
Em7 VII



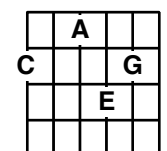
Fma7 VIII



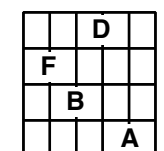
G7 VIII



Am7 VII



Bm7b5 VII

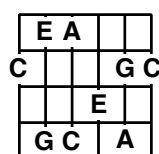


sixth chords

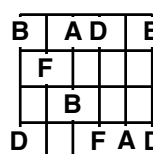
Sixth chords are quadrad made by adding a sixth to a triad. The qualities on steps three, six and seven are not acceptable to listeners, so n/a (not applicable) is shown.

seventh chord I6 IIIm6 n/a IV6 V6 n/a n/a
 letter names C-E-G-A D-F-A-B F-A-C-D G-B-D-E
 numbered in C 1-3-5-6 2-4-6-7 4-6-1-2 5-7-2-3
 in key of chord 1-3-5-6 1-b3-5-6 1-3-5-6 1-3-5-6

C6 VII

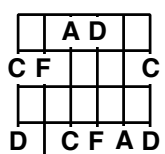


Dm6 IX

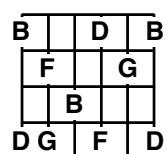


n/a

F6 VII



G6 VIII



n/a

n/a

C6	VII	Dm6	IX	n/a	F6	VII	G6	VIII	n/a	n/a

shared thirds

“Shared thirds” involve a series of notes in the cycle of thirds that are common to two or more chords.

As you can see in the diagrams below, these pairs of chords share the same notes: Am7 and C6; Bm7b5 and Dm6; Dm7 and F6; Em7 and G6.

Both Am7 and C6 use the notes A-C-E-G, so they are *chord synonyms*. In C major, the VIm7 chord is A-C-E-G, a four-note set of every other note in the C major scale. In relation to the “A” major scale named after the root of the Am7 chord, A-C-E-G is 1-b3-5-b7. In relation to the “C” major scale named after the chord root of the C6 chord, C-E-G-A is 1-3-5-6.

Cma7	VII	Dm7	VII	Em7	VII	Fma7	VII	G7	VII	Am7	VII	Bm7b5	VII
		F6	VII	G6	VIII					C6	VII	Dm6	IX

See the [Chord Synonym Library/sixths](#).

ninth chords

Where the sound of the five note chord is acceptable, five notes in the cycle (F-A-C-E-G) creates a ninth chord (a tertian pentad or five note chord built in thirds). Here is a table of those triads for C major.

ninth chord	Ima9	IIm9	no chord	IVma9	V9	VIm9	no chord
ninth chord	Ima9	IIm9	n/a	IVma9	V9	VIm9	n/a
letter names	C-E-G-B-D	D-F-A-C-E		F-A-C-E-G	G-B-D-F-A	A-C-E-G-B	
parent scale tones	1-3-5-7-2	2-4-6-1-3		4-6-1-3-5	5-7-2-4-6	6-1-3-5-7	
numbered in C	1-3-5-7-2	1-b3-5-b7-2		1-3-5-7-2	1-3-5-b7-2	1-b3-5-b7-2	

Alternate Names for Partial Chords

Partial chords have indicated notes in their name that are omitted. C13 no 11, for example has all the odd numbers from 1 to 13, as a C13 does, but omits the eleventh. Bb9 no root has the same notes as Dm7b5 and Fm6, so all three are chord synonyms.

Chord Synonym Library

sevenths without a root

Cma7nr = Em		C7nr = E diminished		Cm7nr = Eb		Cm7b5nr = Ebm	
Em VII	Cma7nr VII	Edim. VI	C7nr VI	Eb major VI	Cm7nr VI	Ebm VI	Cm7b5nr VI

diminished sevenths and seven flat nine chords

The four notes of a diminished seventh chords divide the twelve half steps (one-fret intervals) of the octave into four equal minor thirds (three frets inclusively). From any note in a diminished seventh chord, there is another chord tone of the same diminished seventh chord a minor third above and another chord tone of the same diminished seventh chord a minor third below. Therefore, an entire diminished seventh chord or arpeggio can repeat up or down the fretboard in minor third (three-fret intervals).

Cdim7 = Ebdim7 = Gbdim7 = Adim7 = B7b9nr = D7b9nr = F7b9nr = Ab7b9nr							
Cdim7 X	Ebdim7 X	Gbdim7 X	Adim7 X	B7b9nr X	D7b9nr X	F7b9nr X	Ab7b9nr X
Cdim7 = Ebdim7 = Gbdim7 = Adim7 = B7b9nr = D7b9nr = F7b9nr = Ab7b9nr							
Cdim7 II	Ebdim7 II	Gbdim7 II	Adim7 II	B7b9nr II	D7b9nr II	F7b9nr II	Ab7b9nr II
Cdim7 = Ebdim7 = Gbdim7 = Adim7 = B7b9nr = D7b9nr = F7b9nr = Ab7b9nr							
Cdim7 VII	Ebdim7 VII	Gbdim7 VII	Adim7 VII	B7b9nr VII	D7b9nr VII	F7b9nr VII	Ab7b9nr VII

When a dominant seventh flat nine chord is played without a root (D7b9), the remaining notes are a diminished seventh chord. Since D7b9 without a root is F#dim7, 7b9 chords at three-fret intervals *without a root* would also be diminished seventh chords. Therefore D7b9 no root, F7b9 no root, Ab7b9 no root, and B7b9 no root are the same notes. Note this is only true when these four 7b9 chords are played without a root. This means there are eight synonym chords that share the same notes.

ninths without a root

<p>Cma9nr = Em7</p> <p>Cma9nr VIII Em7 VIII</p>		<p>Cm9nr = Ebma7</p> <p>Cm9nr VIII Ebma7 VIII</p>		<p>Cm9b5nr = Ebm(ma7)</p> <p>Cm9b5nr VII Ebm(ma7) VII</p>			
<p>C9nr = Em7b5 = Gm6 = Gb7#5b9 nr</p>				<p>C9nr = Em7b5 = Gm6 = Gb7#5b9 nr</p>			
<p>C9nr II</p>	<p>Em7b5 II</p>	<p>Gm6 II</p>	<p>Gb7#5b9nr II</p>	<p>C9nr V</p>	<p>Em7b5 V</p>	<p>Gm6 V</p>	<p>Gb7#5b9nr V</p>
<p>C9nr = Em7b5 = Gm6 = Gb7#5b9 nr</p>				<p>C9nr = Em7b5 = Gm6 = Gb7#5b9 nr</p>			
<p>C9nr VII</p>	<p>Em7b5 VII</p>	<p>Gm6 VII</p>	<p>Gb7#5b9nr VII</p>	<p>C9nr VIII</p>	<p>Em7b5 VIII</p>	<p>Gm6 VIII</p>	<p>Gb7#5b9nr VIII</p>
<p>C9nr = Em7b5 = Gm6 = Gb7#5b9 nr</p>				<p>C9nr = Em7b5 = Gm6 = Gb7#5b9 nr</p>			
<p>C9nr XI</p>	<p>Em7b5 XI</p>	<p>Gm6 XI</p>	<p>Gb7#5b9nr XI</p>	<p>C9 XI</p>	<p>Em7b5 XI</p>	<p>Gm6 XI</p>	<p>Gb7#5b9nr XI</p>
<p>C7#9nr = Edim(ma7)</p>							
<p>C7#9nr II</p>	<p>Edim(ma7) II</p>	<p>C7#9nr VII</p>	<p>Edim(ma7) VII</p>	<p>C7#9nr VIII</p>	<p>Edim(ma7) VIII</p>	<p>C7#9nr XI</p>	<p>Edim(ma7) XI</p>

sixths

C6 = Am7 = Fma9nr

C6 I	Am7 I	Fma9nr XI	C6 V	Am7 V	Fma9nr V

C6 = Am7 = Fma9nr

C6 VII	Am7 VII	Fma9nr VII	C6 X	Am7 X	Fma9nr X

C6 = Am7 = Fma7nr

C6 V	Am7 V	Fma7nr V	C6 X	Am7 X	Fma7nr X

Cm6 = Am7b5 = F9nr = B7#5b9nr. See “[ninths without a root](#)” above (C9nr = Em7b5 = Gm6 = Gb7#5b9 nr)

add nine chords

Fadd9 = Am7#5

Fadd9 V	Am7#5 V	Fadd9 X	Am7#5 X

“slash chords”

C9sus4 = Bb/C = Dm7#5

C9sus4 III	Bb/C III	Dm7#5 III	C9sus4 VI	Bb/C VI	Dm7#5 VI

flat five substitutes

See [Substitution/Flat Five Substitute](#)

$C7b5 = Gb7b5$

$C9b5 = Gb7b5\#5$

$C7\#5 = Gb9b5nr$

$C9\#5 = Gb9b5\#5nr$

$C7b9 = Gb7b9\#11nr$

$C13\#11 = F\#7b5\#5b9\#9 = G$ melodic minor

serial patterns

$C \text{ aug.} = E \text{ aug.} = G\# \text{ aug.}$

$C \text{ dim.7.} = Eb \text{ dim.7} = Gb \text{ dim.7} = A \text{ dim.7}$

$C \text{ whole tone scale} = C9b5\#5 = D9b5\#5 = E9b5\#5 = Gb9b5\#5 = Ab9b5\#5 = Bb9b5\#5$

$C13b9\#9\#11 = C \text{ half/whole diminished scale} = Eb13b9\#9\#11 = Gb13b9\#9\#11 = A13b9\#9\#11$

$C \text{ whole tone scale} = D9b5\#5 = E9b5\#5 = Gb9b5\#5 = Ab9b5\#5 = Bb9b5\#5$

WHAT ARE COMMONALITY CHORDS?

A commonality chord is a subset chord of usually three or four notes that are common to two or more chords. The chords they are subsets of usually occur consecutively. A minor (A-C-E), for example, is a commonality chord for Am, Fma7 (F-A-C-E), Dm9 (D-F-A-C-E) and C6 (C-E-G-A). The three notes of A minor (A, C and E) are common to all those chords.

Commonality chords are the basis of abbreviated chord progression and one of the bases of elaborated chord progression. See the chapter [“Abbreviating And Elaborating Chord Progression”](#). Chord progression can be elaborated by conceiving a number of chords that have a commonality chord in common or with the use of superimposed chord progression. See the chapter [“Melodically Superimposed Cadences”](#). Commonality chord types include literal, added harmony and changed-quality.

shared thirds

The most common cause of commonality chords is shared thirds, where the chords involved were build from the same cycle of thirds

6 1 3
4 5
2 7

The most common cause of commonality chords is shared thirds, where the chords involved were build from the same cycle of third, the *tertian* cycle. “Tertian” refers to a series of thirds. In full-tertian arpeggios, each note is a scale tone third from the next in a continuous series of every-other-note, using the numbered cycle 1-3-5-7-2-4-6 (see the circle at the left). They can build major scale-tone arpeggios constructed in thirds (every-other-note).

Two or more chords can share a series of two or more thirds in the cycle. A I major triad (C major with C-E-G) contains tones 1-3-5 of a major scale (C-E-G), while VIm7 (Am7 with A-C-E-G) contains tones 6-1-3-5 of a major scale. The I major triad and VIm7 triad share tones 1-3-5.

Literal Commonality Chords

With the literal type, the tones of the commonality chord are part of every chord to which they are applied, such as an A minor commonality chord (A-C-E) being part of the While My Guitar Gently Weeps verse chord progression Am (A-C-E) Am/G (A-C-E-G), D9/F# (D-F#-A-C-E) and Fma7 (F-A-C-E).

Added Harmony Commonality Chords

With the added harmony type, they are made to consist of common tones by adding one or more notes to one or more of the chords to create commonality. Applying an A minor triad as a commonality chord (A-C-E) to the first three bars of Sunny, Am7 (A-C-E-G), C7 (C-E-G-Bb), Fma7 (F-A-C-E) changes to Am7, C13 (C-E-G-Bb-D-F-A), Fma7, so the C chord includes the notes of A minor (A-C-E) like Am7 and Fma7 do. See [Substitution/Shared Thirds: Secondary Roots](#).

Changed Quality Commonality Chords

The changed quality type can be used on a jazz blues in Bb, for example by making a Bb minor triad (Bb-Db-F) common to the Bb9 (Bb-D-F-Ab-C), Eb7 (Eb-G-Bb-Db) and G7 (G-B-D-F) chords as follows:

- Bb7#9 includes Bb minor by changing the ninth to a sharp nine (Bb-D-F-Ab-C#, C#=Db).
- Eb9 (Eb-G-Bb-Db-F) includes Bb minor by adding the ninth (F) to Eb7 (Eb-G-Bb-Db).
- G7b5#9 includes Bb minor (Bb-Db-F) by adding a sharp nine (Bb) and a flat five (Db). G7 (G-B-D-F) already includes the needed “F” note.

For examples of alternate chord qualities, see the chapter [“Abbreviating and Elaborating Chord Progression”](#). For examples of Commonality Chords, see the chapter [“Voice Leading”/7362514 Common Tone, Common Tone II-V-I and II-bII-Id -II-bII-I and Common Tone Jazz Blues](#).

WHAT ARE SUMMARY CHORDS?

A commonality chord consists of three or more tones that are common to versions of two or more chords. When a commonality chord can represent the key of the song or the key of a section and can be part of most of the chords, it can be called a *summary chord*.

In a summary chord song, you can feature the tones of the summary chord by building themes around it and using scales and arpeggios that feature it. Knowingly or unknowingly, pop composers and improvisers create and perform chord progressions that take advantage of summary chords. If Am is the summary chord of a section of a song, you can largely “jam in A minor” during the section as if it is all an A minor chord.

Blues, R&B, funk, and most American pop music take advantage of the summary chord concept, making it easy for the listener to follow and predict the melody, basing the melody on a scale named after the summary chord.

See the chapter “[Core Melody on Triad Chord Progression](#)”.

Conceiving Many Versions of Chords

With a thorough knowledge of chord construction and chord types, you can consider each chord in a progression and the possibility of a proposed summary chord (usually a triad) for each of the chords in a progression. Spell each of the chords in the progression and consider the addition of the notes of the proposed summary chord. For each note of the summary chord, analyze what tone it would be in the chord you are considering and determine if that tone could be part of a currently acceptable version of the chord.

See [Chord Naming Conventions/Chord Qualities Not Currently Acceptable](#) and [Chord Archtypes](#).

songs with two or more summary chords

Songs sections often have a second summary chord for part of the section. The most common second summary chord is on the V chord of the key. More complex songs have more than two summary chords.

Songs with a Single Summary Chord (with Spotify links)

Aeolian summary chord songs, based on a minor chord

Dorian summary chord songs, based on a minor chord

Mixolydian summary chord songs, based on a major chord

major (Ionian) summary chord songs, based on a major chord

Phrygian dominant summary chord songs, based on a major chord

Songs with Two Summary Chords

Aeolian two summary chord songs

I Aeolian & V Phrygian dominant summary chord songs

Dorian two summary chord songs

major (Ionian) two summary chord songs

Mixolydian and Dorian summary chord songs

Songs with Three or More Summary Chords

Aeolian songs with 3 or more summary chords

Dorian songs with 3 or more summary chords

Major songs with 3 or more summary chords

Mixolydian songs with 3 or more summary chords

Core Melody on Triad Chord Progression

- **Summary of Procedures**
- **Modal Triad Songs for Core Melody Study**
- **Triad Chord and Arpeggio Fingerings**
- **One Core Melody Tone Per Chord**
- **Two Core Melody Tones Per Chord**
- **Three or Four Core Melody Tones Per Chord**
- **Full Elaboration**

SUMMARY OF PROCEDURES

- ✦ All within a range of a few frets, learn an arpeggio for each chord.
- ✦ **One core melody tone per chord.** Choose a chord tone of each chord that will lead to a note in the next chord by an interval of a fifth or less. Those are fundamental core melody tones. Duality tones that are common to many or all the chords are great to use frequently.
- ✦ Play the series of one core melody tone per chord over a backing track of the chord progression. Each note can be played repeatedly to study rhythmic words. See [Rhythmic Words and Comping/Melodic Rhythms Contents](#).
- ✦ **Two core melody tones per chord.** Add another tone during each chord, more often a chord tone of the current chord, but sometimes a neighboring tone or passing tone. Neighboring tones and passing tones should tend to be less emphasized by being of shorter durations and on rhythmically weak parts of the bar like the second and fourth beat in 4/4, the second beat in 3/4 time or on the offbeat.

In syncopated styles like bebop and funk, playing on the offbeat before a rest or sustain on the next beat is a “push” and has much the same effect as playing on the beat.

- ✦ Play the series of two core melody tones per chord over a backing track of the chord progression. Each pair of notes can be played with rhythmic words. See [Rhythmic Words and Comping/Melodic Rhythms Contents](#).
- ✦ **Three or four core melody tones per chord.** Add more chord tones and passing or neighbor tones. Begin to vary the rhythm with simple syncopation and phrase breaks. Learn the scales and their fingerings for key scales and chord scales.
- ✦ Play the series of three or four core melody tones per chord over a backing track of the chord progression. The series of notes can be played with rhythmic words, being careful to emphasize current chord tones. See [Rhythmic Words and Comping/Melodic Rhythms Contents](#).
- ✦ **Full elaboration.** Add melodic and rhythmic decoration to make a full elaboration, using notes of either:
 - ✦ a key scale that includes the notes of all the chords or of a chord scale for each chord (a scale named after each chord, like E major pentatonic on an “E” chord and A major pentatonic on an “A” chord).
 - ✦ or of a chord scale for each chord (a scale named after each chord, like E major pentatonic on an “E” chord and A major pentatonic on an “A” chord).

Include ornate decoration with upper and lower mordents, upper and lower turns, chromaticizing and bursts of fast linear scales or arpeggios.

MODAL TRIAD SONGS FOR CORE MELODY STUDY

Summary chord songs use chord progressions where a single chord sound predominates a chord progression. Here are Spotify playlists of *summary chord songs* in various modes:

- ✦ [major \(Ionian\) summary chord songs](#), based on a major chord
- ✦ [Dorian summary chord songs](#), based on a minor chord
- ✦ [Mixolydian summary chord songs](#), based on a major chord
- ✦ [Aeolian summary chord songs](#), based on a minor chord
- ✦ [Phrygian dominant summary chord songs](#), based on a major chord

Modal Triad Songs Are Depicted by Parent Scale

The modal triad songs in this chapter are depicted by parent scale, allowing a more unified concept of the chords involved, primarily using chords of parent major scales. Modal quadrad (seven and sixth chords) songs in the [Core Melody on Quadrad Chord Progression](#) chapter are depicted in the various key scales. Dorian in this chapter is conceived on step two of a parent major scale, while in the 'Quadrad' chapter Dorian is conceived as a key scale with the key on "1" of Dorian.

Major (Ionian) Triad Songs

The I major triad is common to I, IVma9, VIm7. The VIm triad is common to I6, IVma7, VIm7 and IIm9. Numbers shown after a slash are in the key of the chord root.

Amazing Grace - I-I-IV-I- I-VIm-II-V- I-I-IV-I- I-V-I-I

Getting Better - I-IVadd9-V-IVadd9

Youth - I-IV-VIm-V

Where Are You Going - I-IV-VIm-V

Waiting on the World to Change - I.VIm-IV.I

Beast of Burden - I-VIm.VIm.IV.IV

The A Team - I-VIm-IV-I

Redemption Song - I-VIm-IV-IIm

D'Yer Ma'ker - I-VIm-IV-V

Every Breath You Take - I-VIm-IV-V

Midnight in Harlem - I-IV/5-V/4-I- IV-IIm-IV-IIm (the first 4 all have key "1" in the bass)

Perfect - I-VIm-IV-V

Stand By Me - I-I-VIm-VIm IV-V-I-I

Wonderful World - I-VIm-IV-V

Aeolian Triad Songs

Numbered in the parent scale (relative major) with the key on VI_m. Numbers shown after a slash are in the key of the chord root.

All of Me (John Legend) -verse VI_m.IV-I.V; chorus I-VI_m9-IV-Vsus

Ballad of a Thin Man-VI_m-VI_m(ma7)-VI_m7-II9-IV-II_m-I.III-VI_m-I.III-VI_m.I-IV-VI_m-VI_m

Breakdown-7x (VI_m.V); IV.VI_{ldim}/b3-IVma7.VI_{ldim}/b3

Desert Rose-verse: VI_m-VI_m-V-V-IVma7-IVma7-II_m7-V7sus

Eastside-VI_m.VI_m.V.V-IV.IV.IV.

Fantasy

Give Me Love

I'll Play the Blues for You

In Your Eyes

It Ain't Me

Locked Out of Heaven-verse ||:VI_m.VI_m.VI_m.V-IV.IV.IV.I/b3-II_m-II_m.II_m.II_m-V:||

Love Lies- verse: VI_m.I/5-IV, chorus VI_m.I/5-IV.I

Papa Don't Preach

Red Rain

Rhiannon

Slow Dancing in A Burning Room

St. James Infirmary

You're Somebody Else

VI Aeolian and III Phrygian Triad Songs

two summary chords

Numbered in the parent scale (relative major) with the key on VIm.

Angie

Brothers in Arms

Fragile

Hit the Road Jack

House of the Rising Sun

Hurricane

I Like It Like That

I Put a Spell On You

Location

Losing My Religion

Malaguena Salerosa

Minnie the Moocher

Nao Me Toques

Paint It Black

Santeria

Senorita

Since I've Been Lovin' You

Stolen Dance

Stray Cat Strut

Sultans of Swing

The Thrill is Gone

Time in a Bottle

Work Song

Dorian Triad Songs

Numbered in the parent scale with the key on IIm.

Mary Jane's Last Dance - IIm-I-V-IIm

Boulevard of Broken Dreams - IIm-IV-I-V

Helplessly Hoping - IIm-IV-I-V

Bohemian Like You - IIm-IV-I-V

Mad World- IIm-IV-I-V four times, IIm-V-IIm-V

Chamber of Reflection - IIm.IIm-IV-IIm.IIIIm-VIm

Get Lucky - IIm-IV-VIm-V

Saved - IIm-IV-VIm-V

Evil Ways - IIm - V

Moving On and Getting Over - IIm-V

Oye Como Va -IIm-V

Le Freak - IIm-V.V

New Light - IIm-V-I-IV

John Barleycorn - V-IIm-IV.I-IIm

Mixolydian Triad Songs

numbered in the parent scale with the key on V
numbers shown after a slash are in the key of the chord root

Badge (solo section) - I.I-V

Can't You Hear Me Knocking - IV-V-IV-I.V

Celebration -

Champagne Supernova - V-V/b7-I/3-V

Cissy Strut - V7-V7.V7.IV.I

Dear Mr. Fantasy - V-IV-I-V

Dear Prudence - V-V/b7-IV-IVm

Don't Stop -3x: V.IV-I; 2x: II.V.II7.V

Flying High Again (verse) - V-V-IV-I

Gratitude - I.I.IV.IV -I7.IV-I.IV- I.I.IV.IV

Jessica section A - V-I.I.V.IV

Let It Rain - verse-2x: V-IIIm-IV.IV.I.I-V chorus-2x: V.V.IIm.IIm V.V.IIm.IIm- IV.IV.I.I-V

No Rain - V-V-IV-IV-I- I.I.bVII.bVII -V-V

Norwegian Wood verse (3/4) - V-V-V-V- V-IV-V-V

Rain verse - 2x: V7-I.I.IIsus, I-I-V7-V7; chorus: 2x V-V-IVadd9-IVadd9-V7-V7

She Said She Said (verse) -3x: V-IV-I-I; 2x: V.V.IV.IV -I.I.V.V

Mixolydian and Dorian Triad Songs

two summary chords
numbered in the key scale with the key on I

Day Tripper - I-I-I-I- IV-IV-I-I- II-II-II-II- IV-III-VI-V

Everyday I Have the Blues -

Get Back - 2x: I-I-IV-I; 2x: I-I-IV-I.I.bVII.IV

Key to the Highway

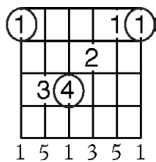
Sledgehammer - verse- 8x: I7; chorus: VIIm.bVII.bVII.bVII-IIIm

Sympathy for the Devil -

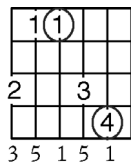
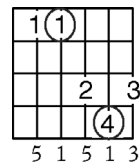
TRIAD CHORD AND ARPEGGIO FINGERINGS

Major Triad Chords

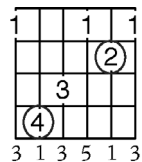
E form



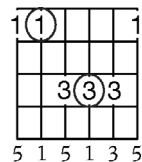
D form



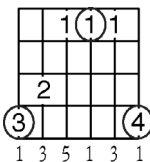
C form



A form

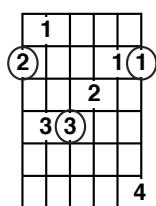


G form

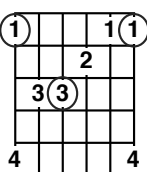


Major Triad Arpeggios

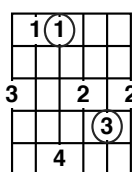
G/E form



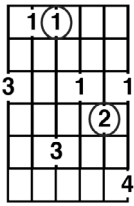
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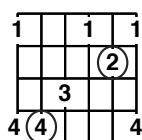
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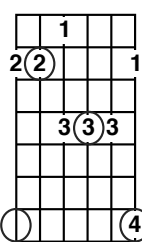
D/C form



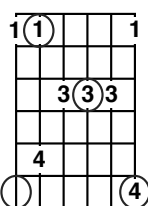
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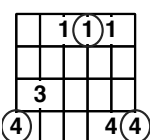
C/A form



A form

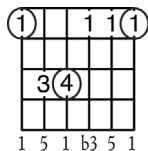


G form

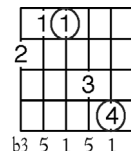
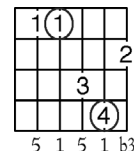


Minor Triad Chords

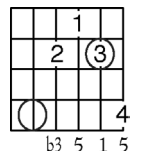
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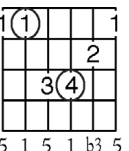
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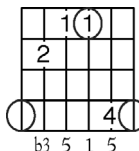
C form



A form

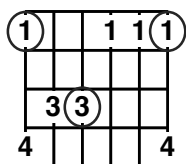


G form

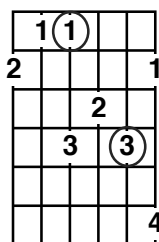


Minor Triad Arpeggios

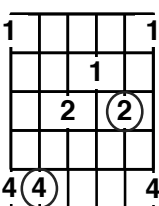
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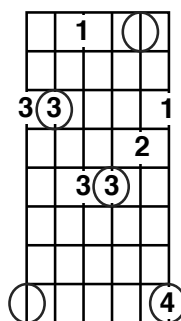
D form



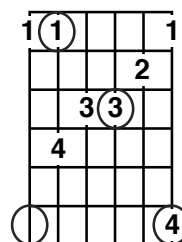
D/C form



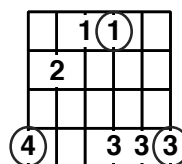
C/A form



A form

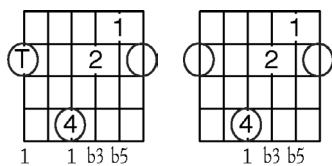


G form

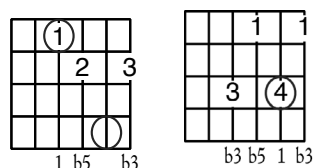


Diminished Triad Chords

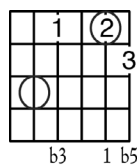
E form



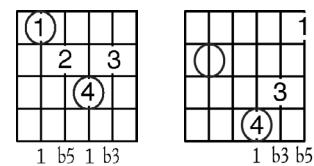
D form



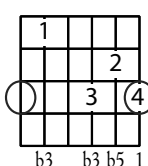
C form



A form

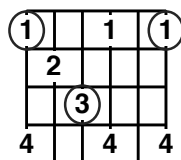


G form

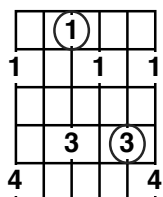


Diminished (triad) Arpeggios

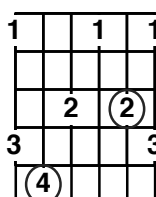
E form



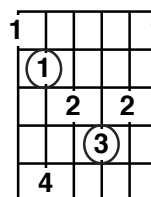
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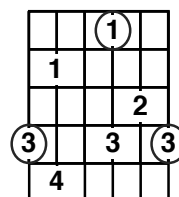
D/C form



A form

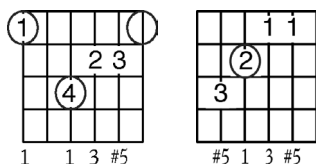


G form

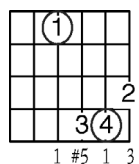


Augmented Triad Chords

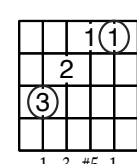
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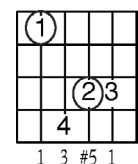
D form



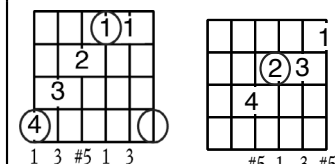
C form



A form

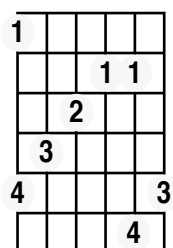


G form

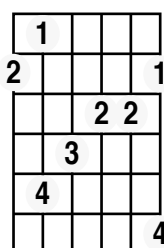


Augmented Triad Arpeggios

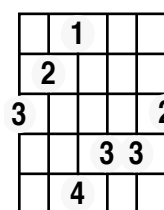
fingering 1



fingering 2



fingering 3



Suspended Fourth (Sus4) Triad Chords

E form	D form	C form	A form	G form

Suspended Fourth (Sus4) Triad Arpeggios

E form	D form	C form	A form	G form

Suspended Second (Sus2) Triad Chords

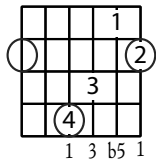
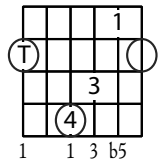
E form	D form	C form	A form	G form

Suspended Second (Sus2) Triad Arpeggios

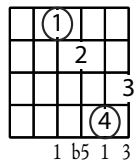
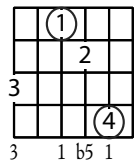
E form	D form	C form	A form	G form

Major Flat Five Triad Chords

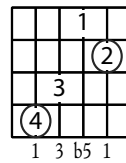
E form



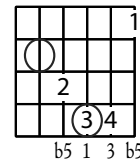
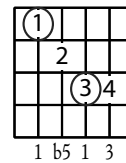
D form



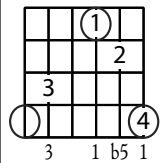
C form



A form

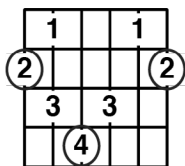


G form

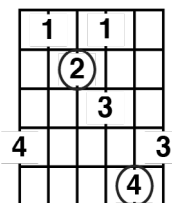


Major Flat Five Triad Arpeggios

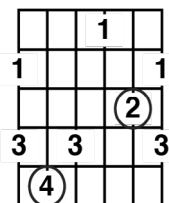
E form



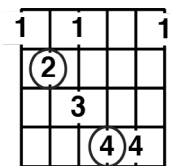
D form



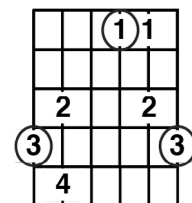
C form



A form



G form



ONE CORE MELODY TONE FOR PER CHORD

Tones common to consecutive chords work great for core melody tones. Summary chord songs use chord progressions where a single chord sound predominates a chord progression.

TWO CORE MELODY TONES PER CHORD

THREE OR FOUR CORE MELODY TONES PER CHORD

FULL ELABORATION

Core Melody on Quadrad Chord Progression

- **Summary of Procedures**
- **Modal Quadrad Songs for Core Melody Study**
- **Quadrad Arpeggio Fingerings**
- **One Core Melody Tone Per Chord**
- **Two Core Melody Tones Per Chord**
- **Three or Four Core Melody Tones Per Chord**
- **Full Elaboration**

SUMMARY OF PROCEDURES

- ✦ All within a range of a few frets, learn an arpeggio for each chord.
- ✦ **One core melody tone per chord.** Choose a chord tone of each chord that will lead to a note in the next chord by an interval of a fifth or less. Those are fundamental core melody tones. Duality tones that are common to many or all the chords are great to use frequently.
- ✦ Play the series of one core melody tone per chord over a backing track of the chord progression. Each note can be played repeatedly to study rhythmic words. See [Rhythmic Words and Comping/Melodic Rhythms Contents](#).
- ✦ **Two core melody tones per chord.** Add another tone during each chord, more often a chord tone of the current chord, but sometimes a neighboring tone or passing tone. Neighboring tones and passing tones should tend to be less emphasized by being of shorter durations and on rhythmically weak parts of the bar like the second and fourth beat in 4/4, the second beat in 3/4 time or on the offbeat.

In syncopated styles like bebop and funk, playing on the offbeat before a rest or sustain on the next beat is a “push” and has much the same effect as playing on the beat.

- ✦ Play the series of two core melody tones per chord over a backing track of the chord progression. Each pair of notes can be played with rhythmic words. See [Rhythmic Words and Comping/Melodic Rhythms Contents](#).
- ✦ **Three or four core melody tones per chord.** Add more chord tones and passing or neighbor tones. Begin to vary the rhythm with simple syncopation and phrase breaks. Learn the scales and their fingerings for key scales and chord scales.
- ✦ Play the series of three or four core melody tones per chord over a backing track of the chord progression. The series of notes can be played with rhythmic words, being careful to emphasize current chord tones. See [Rhythmic Words and Comping/Melodic Rhythms Contents](#).
- ✦ **Full elaboration.** Add melodic and rhythmic decoration to make a full elaboration, using notes of either:
 - ✦ a key scale that includes the notes of all the chords or of a chord scale for each chord (a scale named after each chord, like E major pentatonic on an “E” chord and A major pentatonic on an “A” chord).
 - ✦ or of a chord scale for each chord (a scale named after each chord, like E major pentatonic on an “E” chord and A major pentatonic on an “A” chord).

Include ornate decoration with upper and lower mordents, upper and lower turns, chromaticizing and bursts of fast linear scales or arpeggios.

MODAL QUADRAD SONGS FOR CORE MELODY STUDY

Summary chord songs use chord progressions where a single chord sound predominates a chord progression. See the links to Spotify playlists of *summary chord songs* in various modes in the chapter [Commonality Chords/What Are Summary Chords?](#)

Modal Quadrad Songs Are Depicted by Key Scale

The modal quadrad songs in this chapter are depicted by key scale, allowing a focus directly on the mode, rather than thinking of it as a mode of a parent scale.

Modal trad songs in the [Core Melody on Triad Chord Progression](#) chapter are depicted in the various modes of parent major scales. Dorian in this chapter is conceived as a key scale with the key on “1” of Dorian rather than on step two of a parent maor scale.

Major (Ionian) Quadrad Examples

two or more summary chords

Bloomdido

Blues for Alice

Body and Soul

Breezin'

Fly Me to the Moon

Georgia on My Mind

Gravy Waltz

Have You Met Miss Jones

Here's That Rainy Day

How High the Moon

I Got Rhythm

I'm Getting Sentimental Over You

In a Sentimental Mood

Isn't She Lovely

Joy Spring

Just the Two of Us

Love for Sale

Lovely Day

Misty

One Note Samba

Ornithology

Scrapple from the Apple

St. Thomas

Stormy Weather

Take The "A" Train

There Will Never Be Another You

I Aeolian and V Phrygian Examples

two summary chords (sometimes more than two)

Ain't No Sunshine

Autumn Leaves

Black Magic Woman

Equinox

I Want You

In a Sentimental Mood

Loan Me A Dime

My Funny Valentine

Road Song

Smooth

Sugar

Summertime

Sunny

Topsy

Dorian Quadrad Songs

numbered in the key scale

sometimes two or more summary chords

Chameleon

Chitlins Con Carne

El Condor Pasa (Paul Desmond version) - IIm-V

From the Beginning

Full House

I Wish

It's Too Late

Moondance

Riviera Paradise

Samba De Orfeu

Speak Low

Squib Cakes

Use Me

Mixolydian Quadrad Songs

one or more summary chords

Cucumber Slumber

Don't Give It Up

Sledgehammer (verse)

Soul Sauce - V7-IIIm7

This Little Light of Mine

Wabash III

Mixolydian and Dorian Quadrad Songs

two ore more summary chordss

All Blues -

Cold Duck Time

Everyday I Have the Blues

I Don't Need No Doctor

Let the Good Times Roll

Righteous

Someday After a While

Texas Flood

Phrygian Quadrad Songs

one or more summary chords

Goodie Bag

Phrygian Dominant Quadrad Songs

one or more summary chords

Asturias Leyenda

Caravan

Joy (Shakti)

Malaguena

White Rabbit

Lydian Quadrad Songs

one or more summary chords

Eleanor Rigby (chord scale during the C chord)

Flying in a Blue Dream

Maria

Lydian Dominant Quadrad Songs

one or two summary chords

Night in Tunisia (Eb Lydian dominant chord scale for Eb13#11)

One Note Samba (Cb Lydian dominant chord scale for fourth chord, Cb13#11)

Pawky (Bb Lydian dominant chord scale for Bb13#11)

Pretty Ballerina

Simpsons Theme

Locrian Quadrad Songs

one or two summary chords

Dust to Dust (John Kilpatrick)

Enter Sandman

Sad But True

YYZ

QUADRAD ARPEGGIO FINGERINGS

These fingerings show the lowest complete octave of each arpeggio in black. The remaining notes shown in grey may be above, below or both above and below. Practicing the fingerings in rows or columns allows you to more quickly memorize the fingerings. As you move to the right in each row on this page, a sequence of flatted tones will occur: flat the seventh, flat the third, flat the fifth, double flat the seventh ("bb7" is the same tone as "6"). Any note of diminished seventh can be the root. This same sequence is shown with chord fingerings in [Chord Archetypes/Fingering Families of Seven Seventh Chord Types](#).

	major 7	7	m7	m7b5	dim7 uses only three in-position fingerings 1-b3-b5-6 (bb7)
formula	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-5-b7	
E form					fingering 1 E, G, A or D form
D form					fingering 2 D, C, A or E form
C form					fingering 2 C, A, E or D form
A form					fingering 3 A, G, C or E form
G form					fingering 3 G, E, C or A form

	6	m6	add9	m add9	m(ma7)	dim(ma7)	m7#5
formula	1-3-5-6	1-b3-5-6	1-2-b3-5	1-2-b3-5	1-b3-5-7	1-b3-b5-7	1-b3-#5-b7
E form							
D form							
C form							
A form							
G form							

	7#5	7b5	ma7#5	ma7b5	7sus4	7sus2	ma7sus4	ma7sus2
formula	1-3-#5-b7	1-3-b5-b7	1-2-3#-5-7	1-3-b5-7	1-4-5-b7	1-2-5-b7	1-4-5-7	1-2-5-7
E form								
D form								
C form								
A form								
G form								

ONE CORE MELODY TONE PER CHORD

Tones common to consecutive chords work great for core melody tones. Summary chord songs use chord progressions where a single chord sound predominates a chord progression.

TWO CORE MELODY TONES PER CHORD

THREE OR FOUR CORE MELODY TONES PER CHORD

FULL ELABORATION

Core Melody Built with Duality Tones

- **Duality Tones and Core Melody**
- **Chord Tones in Pentatonic Scales**
- **Core Melodic Tones**
- **The Arpeggio Basis of Core Melody**
- **Melodic Devices to Establish Chord Tones**
- **The Harmonic Density of Melody**
- **The Order of Melodic Importance**
- **Scale-Chord Matching and Contrasting**
- **Modes and Harmony Chosen by Feel**

DUALITY TONES AND CORE MELODY

Duality tones are those notes that are both in the key scale and in the important current chord. Core melody is primarily duality tones. Exceptions include significant chromatics and upper and lower [appoggiaturas](#). See [Tonal Themes And Schemes/Improv Schemes And Comping/Duality Tones](#).

Duality Tones as the Chord Tone Part of a Scale

The chord tones of a particular chord that are part of a scale are duality tones when the scale is used to make melody and the duality tones are emphasized (brought to the listener's attention) in melody. The chord tones that are part of a scale could be called a subset of the scale. Here are links to some examples of such subsets:

- ✦ [“Pentatonic Fingering”/Triads and Pentatonic Scales](#) (the chords and arpeggios are subsets of the pentatonic scales),
- ✦ [“Scale-Tone Triads”/Triad Subsets of the Major Scale](#),
- ✦ [“Scales for Songs in All Keys”](#) (shows pentatonic scale subsets of major scales),
- ✦ [“Prime Scales, Chords and Arpeggios/Arpeggios and Their Scales](#).

Core Melody is Typically One or Two Notes per Bar

Core melody is usually one or two notes per bar. It's a skeletal structure. We'll often hear a core melody sung as a summary obligato behind a lead vocalist or instrumentalist in the background vocals or in an accompanying ensemble like a string or horn section.

All of the core melodic tones are in the key scale, like an A minor pentatonic scale. Most of them are also in the current chord, if it is an important chord. Some chords are short and transitional and are ignored. Rarely, an [appoggiatura](#) is used in a core melody, like Yesterday where a non-chordal tone is used that resolves up or down a scale step to a chord tone.

There can be many core melodies for any chord progression. It is very educational to de-construct existing melodies and determine their core melody. For any particular melody, knowledgeable improvisers would largely agree what the core melody with two notes per bar should be. For any chord progression a many core melodies can be written and many elaborations can be made on each core melody.

Great Improvisers Use Core Melody

Too often, improvised solos are just a bunch of fast scales and cool licks, but no melody. It better when you can remember something singable while listening to an improvisation.

How have great improvisers like Bach, Mozart, Beethoven, Bartok, Charlie Parker, John Coltrane, Keith Jarrett and Chick Corea spontaneously created good melody in improvisation? They learned a lot about chord progression, arranging, theme and variation. And about core melody.

Stimulation

Great melody provides ongoing stimulation for the listener at both the cell and phrase level simultaneously. It needs a balance between familiarity and innovation. It needs a timely balance for the specific listener(s) between the comfortable historical and the risky cutting edge of innovation. Great improvisers and composers like Bach, Beethoven, Louis Armstrong, Oscar Peterson, Chick Corea and Joe Pass found a way to timelessly balance the two.

Make your melody understandable. Punctuate. Memorize phases that lead into a particular chord like the II or VI chord. Be able to execute them flawlessly and know how to vary them. Make them understandable to the listener. Relentlessly keep the attention of the listener like Eddie Murphy in *Delirious* or Robin Williams in *Live On Broadway*. So, it's like comedic timing.

Again, the frequency of setup and target must be just stimulating enough. You have to control stimulation at the cell, phrase and section level. Memorize a lot of boilerplate stuff like licks and core melodies for common progressions. Develop spontaneous composition with them. Keep this subject in mind over the months and years and you'll get good at it.

Study the Four Layers of Core Melody

See [“Phrases Built with Core Melody, Cell Elaboration and Filler”/Build Tonal Layers Based on Core Melody](#).

CHORD TONES IN PENTATONIC SCALES

Finding Tones Common to Chords and a Pentatonic Scale

In rock, pop and blues guitar solos commonly use pentatonic scales. Usually a single pentatonic scale is featured, named after the key. This is called a *pentatonic key scale*. This makes it easy for the listener to predict much of what will be played, which is conducive to them liking it.

Important chords in the accompaniment which are also in the key scale are emphasized by being played louder, longer, more often, ending a phrase. Anything that will draw attention to them. This gives the music more depth and associates the accompaniment with the melodic line. Some chords in the accompaniment are not important and are not referenced with notes in the melody.

how to use the tables of diagrams on the following pages

On the following pages pentatonic fingering and chord commonality is shown. On each page, a particular pentatonic scale fingering is featured. Each fingering may be used for a minor key and for a major key. These are relative major and minor keys and would be played with the same exact notes, but establishing one note or another as the key, as shown by the circled notes on each of the two diagrams at the top of the page. On each diagram, all of the circled notes are the same notes in octaves.

The rest of each page shows elaborations of the scale as part of major scales and shows both the pentatonic part of the major scale and the chord parts of the major scale.

every diagram shows the same pentatonic scale fingering in bold black numbers

Notice that on each entire page, every diagram has bold black numbers in the same pattern as the two pentatonic fingerings at the top of the page. The numbers represent a major scale based on the number "1" in the diagrams. Each diagram in a row is a set representing a single major scale. Each row of diagrams can be played at any fret. The pentatonic scale would be named after the number reflected by the circles in the diagrams at the top of the page.

chords are represented for major scale tones one through six

Major scale-tone triads occur on each step of a major scale, each built with three notes in an every-other-note pattern such as 1-3-5, 2-4-6, etc. The major and minor chords built on steps one through six are commonly used, but not the diminished triad on step seven; so it is not shown here.

finding commonality: grey backed notes in bold black

It is your job to find notes for any chord that are also in the pentatonic scale and emphasize them during the chord. The notes with a grey background are the chord tones. The pentatonic scale tones are bold black. Simpler traditional chord progression is based on chords of a single major scale. Start with that. Find progressions for songs that use a single row.

In modern music, minor chords are changed to major. For the most part, the tones common to the key pentatonic scale and the chord are the same for the major and minor chord versions of the changed chord. Where it is not the same, the note from the minor version of the chord that is in the scale can remain and serve as an intentionally flatted blue note.

For example, House Of The Rising Sun is in the key of A minor. It uses primarily the A minor pentatonic scale for its melody and typical improvisation. House Of The Rising Sun uses the chords of the C major scale with the tone center on "A". The D minor chord in the C major scale is changed to D major, but this changes an "F" note to an "F#" note, and doesn't affect the A minor pentatonic scale. Also, the E minor chord of the C major scale is changed to E major. In this case, that changes a note in the A minor pentatonic scale: "G" changes to "G#". However, continuing to use the "G" note against the E major chord with the "G#" is acceptable as a "blue note", where the E minor sound is intentionally cast against the E major chord for a bluesy (dark mood) effect.

Intro To Pentatonic And Chord Commonality In C major, V position

start with A minor pentatonic, fingering 1

Let's start with the A minor pentatonic scale, fingering one in the fifth position and the C major scale. Learn these six arpeggios: C major, D minor, E minor, F major, G major and A minor. The diminished seventh triad built on the seventh step of the major scale is rarely used and should be ignored at first.

With the pentatonic scale well-memorized, contemplate one of the arpeggios in a range of three or four consecutive strings and, in your mind, determine which notes are common to both the pentatonic scale and the arpeggio.

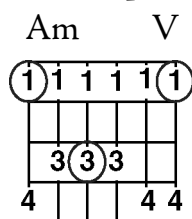
pentatonic, major scale, arpeggios and common tones

In pentatonic-based melody on a chord progression. We should first study melody built on a single major scale, like the C major scale. We need an awareness of four fretboard fingering structures. The pentatonic scale, the major and the parent major scale (or other seven-tone scale), the major and minor arpeggios build on the scale and the notes that are in common with the pentatonic scale and the current chord.

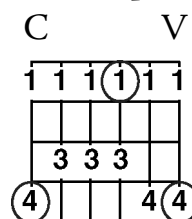
the pentatonic scale

The pentatonic scale fingerings below are identical, except for the notes that name them. Like this pair, every pentatonic fingering has a relative major and minor tone center. Each tone center repeats in octaves.

E form m711 pentatonic



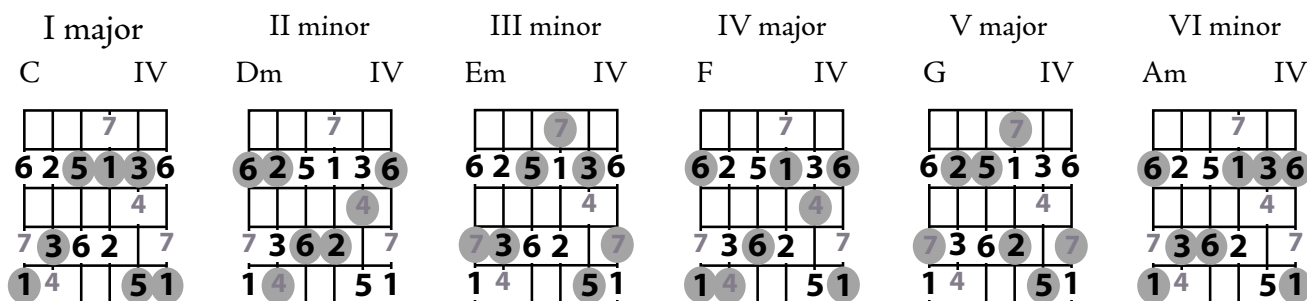
G form ma69 pentatonic



the major scale

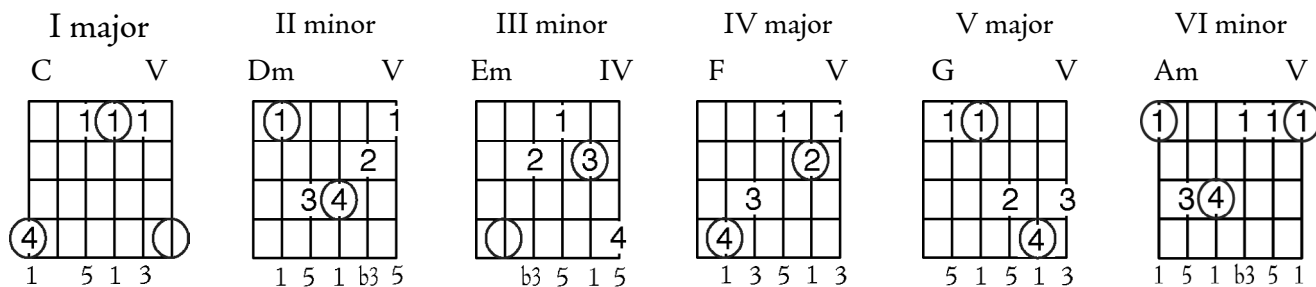
The major scale is every note on the row of diagrams. Disregarding the grey backgrounds and the size of the notes, every diagram has the same numbered major scale pattern.

In all six of the diagrams below, the same pentatonic scale pattern can be seen as the notes with large black numbers, regardless of whether they have a grey background.

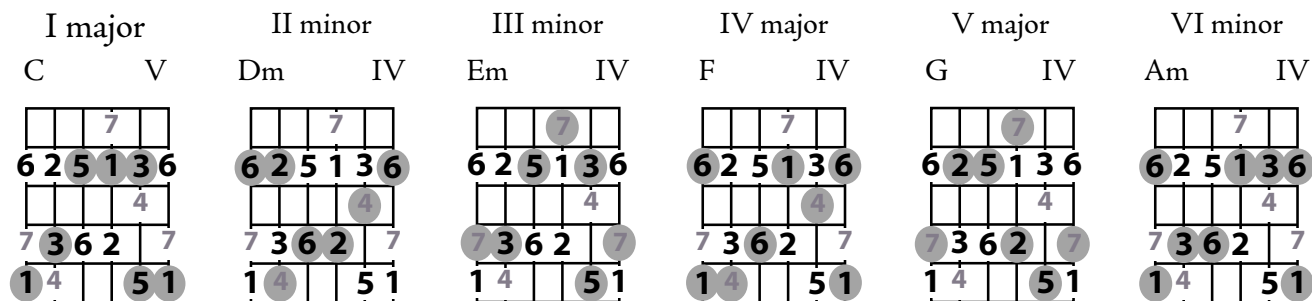


the arpeggios

The set of triads (three-note chords) below are all made up with notes of the notes of the C major scale. The major triads built on steps I, IV and V are C, F and G. The minor triads built on II, III and VI are Dm, Em and Am. In *any* major scale, the chords built on I, IV, V are major and those on II, III, V are minor. The diminished triad that occurs on step VII is rarely used and is omitted from this study.

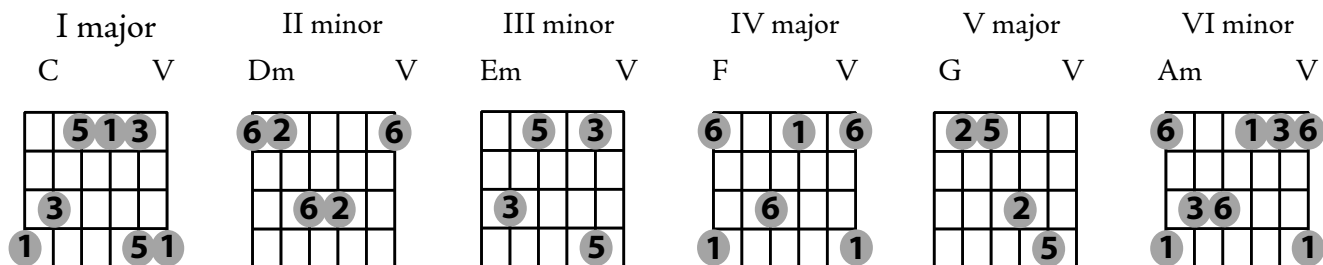


Arpeggios for each of the triads below are shown with the grey-backed notes. Notice that all the notes of each chord above are part of the arpeggio for the same chord name below. Arpeggios can show *every* chord tone in an area of the fretboard, where there are sometimes two notes on the same string. Chord fingerings have one note per string.



pentatonic and chord commonality: core melodic tones

The tones that are both large black numbers *and* grey backgrounds are common to the chord and the pentatonic scale, as you can see in the diagrams above. These are the *core melodic tones*.



song examples

These songs can all be played in fifth position using either A minor pentatonic or C major pentatonic as a basis of improvisation.

House Of the Rising Sun (Am), Crossroad Blues (Am), From Four Until Late (C), Sweet Home Chicago (Am), D'Yer Maker (C), The Entertainer, (C) Cocaine Rag (Am), Nobody Knows You When You're Down and Out (C), While My Guitar Gently Weeps (Am), Don't Think Twice It's Alright (C), Hurricane (Am), Cowgirl in the Sand (Am and C), Let It Be (Am and C), Jam Man (Chet Atkins, Am), Ghost Riders in the Sky, (Am) Hey Hey My My (Am), John Barleycorn (Am), Moondance (Am), On Every Page (Am and C)

Applying to the Full Fretboard in All Keys

To be able to play core melody in all keys and all over the fretboard, you need to memorize four fingerings in each of five octave shapes: pentatonic scale, major scale, major arpeggio and minor arpeggio. Twenty things. You also need to know that major triads are built on steps one, four and five of a major scale and that minor triads are built on steps two, three and six. Then you need to determine the notes are common to both the pentatonic scale and the arpeggio on three or four consecutive strings at a time.

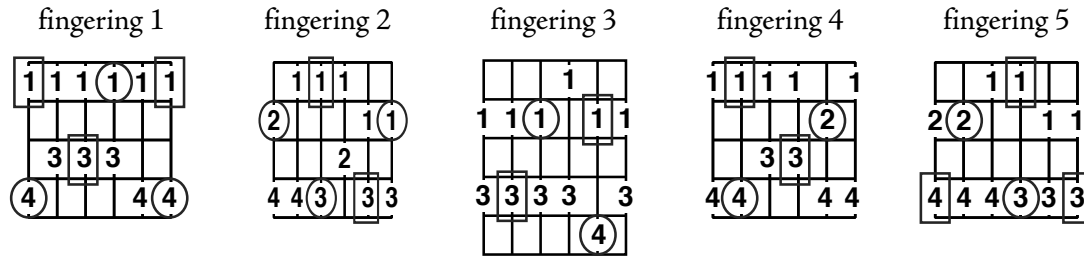
Core melodies can be made with pentatonic scales or heptatonic scales (like the major scale or harmonic minor) and with chromatics. Start with pentatonic scales.

See the next section: [Twenty Fingerings to Memorize](#).

Twenty Fingerings to Memorize

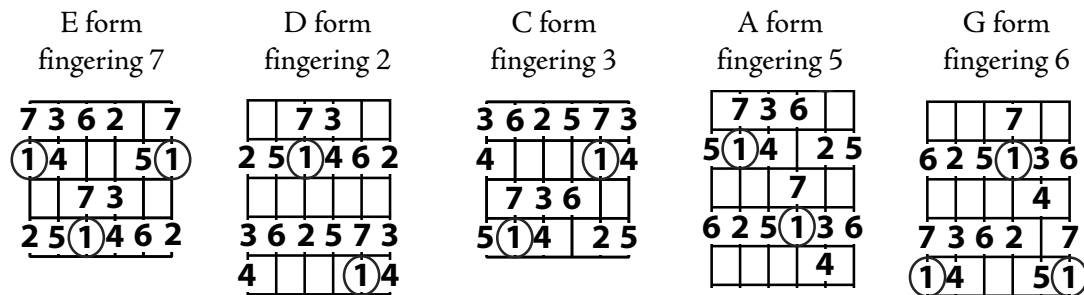
pentatonic

Squares are minor tone centers, circles are major tone centers.

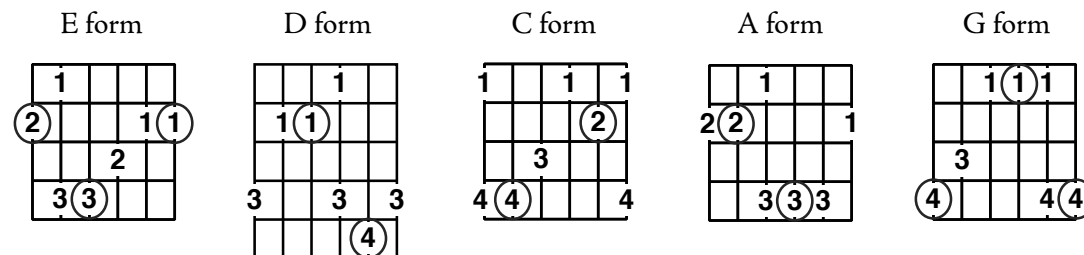


major scale

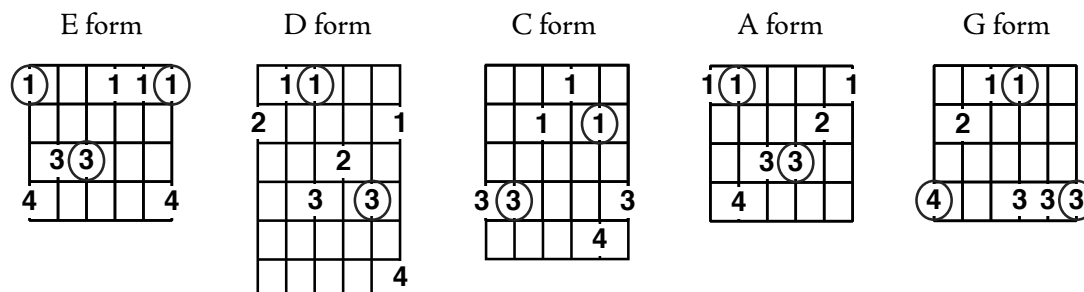
These are numbered according to the lowest-pitched tone on the sixth string.



major arpeggio

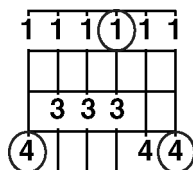


minor arpeggio

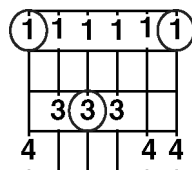


Pentatonic Fingering 1 Chord Commonality

G form ma6/9



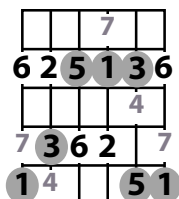
E form m7/11



G Form I major and E form VI minor

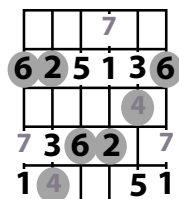
I major

G XI
C IV
F IX



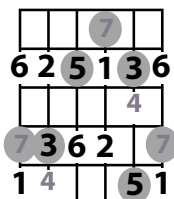
II minor

Am XI
Dm IV
Gm IX



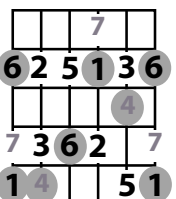
III minor

Bm XI
Em IV
Am IX



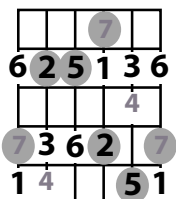
IV major

C XI
F IV
Bb IX



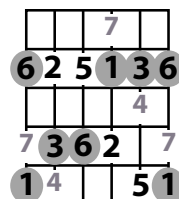
V major

D XI
G IV
C IX



VI minor

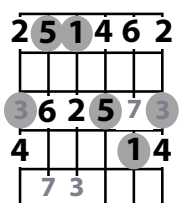
Em XI
Am IV
Dm IX



G Form IV major and E form II minor

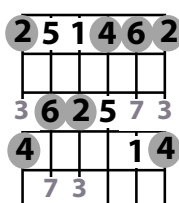
I major

G V
C X
F III



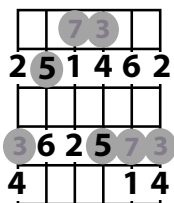
II minor

Am X
Dm X
Gm X



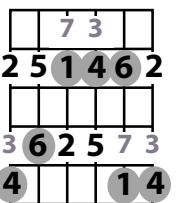
III minor

Bm X
Em X
Am X



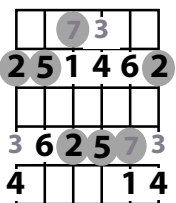
IV major

C X
F IX
Bb X



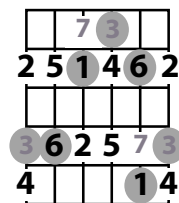
V major

D X
G IX
C X



VI minor

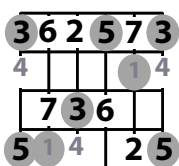
Em X
Am IX
Dm X



G Form V major and E form III minor

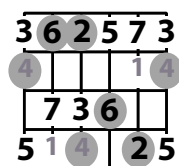
I major

G VII
C XII
F V



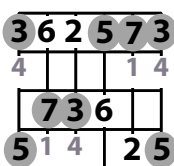
II minor

Am VII
Dm XII
Gm V



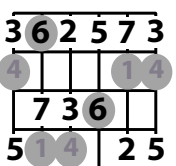
III minor

Bm VII
Em XII
Am V



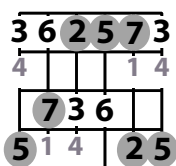
IV major

C VII
F XII
Bb V



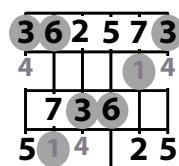
V major

D VII
G XII
C V



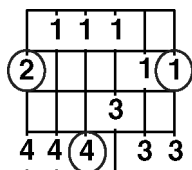
VI minor

Em VII
Am XII
Dm V

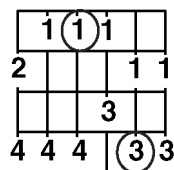


Pentatonic Fingering 2 Chord Commonality

E form ma6/9



D form m711



E form I major and D form VI minor

I major	II minor	III minor	IV major	V major	VI minor
G II	Am II	Bm II	C II	D II	Em II
C VII	Dm VII	Em VII	F VII	G VII	Am VII
F XII	Gm XII	Am XII	Bb XII	C XII	Dm XII

E Form IV major and D form II minor

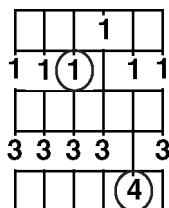
I major	II minor	III minor	IV major	V major	VI minor
G VII	Am VII	Bm VII	C VII	D VII	Em VII
C XII	Dm XII	Em XII	F XII	G XII	Am XII
F V	Gm V	Am V	Bb V	C V	Dm V

E Form V major and D form III minor

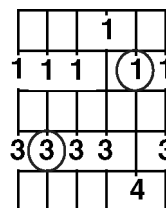
I major	II minor	III minor	IV major	V major	VI minor
G IX	Am IX	Bm IX	C IX	D IX	Em IX
C II	Dm II	Em II	F II	G II	Am II
F VII	Gm VII	Am VII	Bb VII	C VII	Dm VII

Pentatonic Fingering 3 Chord Commonality

D form ma6/9



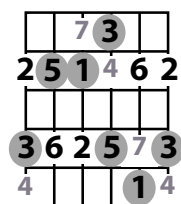
C form m711



D Form I major and C form VI minor

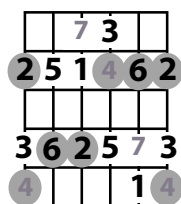
I major

G IV
C IX
F II



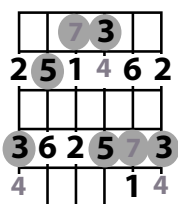
II minor

Am IV
Dm IX
Gm II



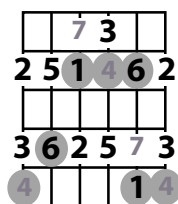
III minor

Bm IV
Em IX
Am II



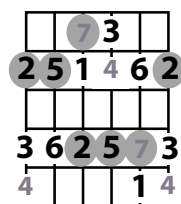
IV major

C IV
F IX
Bb II



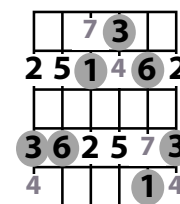
V major

D IV
G IX
C II



VI minor

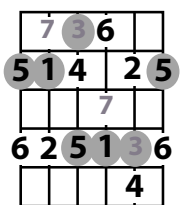
Em IV
Am IX
Dm II



D Form IV major and C form II minor

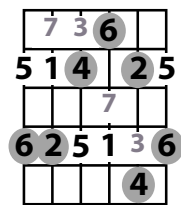
I major

G IX
C II
F VII



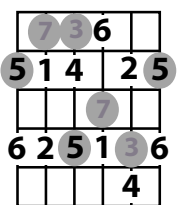
II minor

Am IX
Dm II
Gm VII



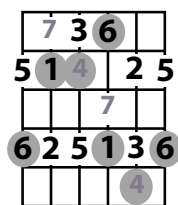
III minor

Bm IX
Em II
Am VII



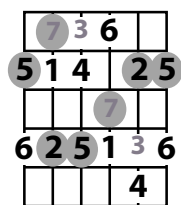
IV major

C IX
F II
Bb VII



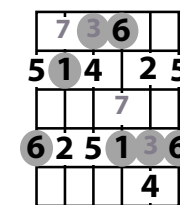
V major

D IX
G II
C VII



VI minor

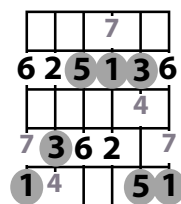
Em IX
Am II
Dm VII



D Form V major and C form III minor

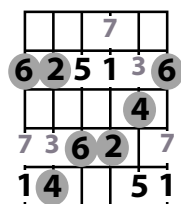
I major

G XI
C IV
F IX



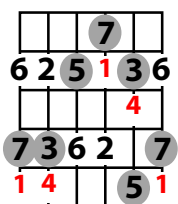
II minor

Am XI
Dm IV
Gm IX



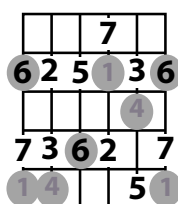
III minor

Bm XI
Em IV
Am IX



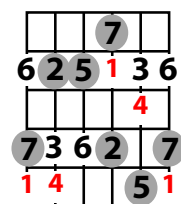
IV major

C XI
F IV
Bb IX



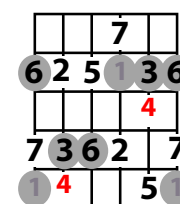
V major

D XI
G IV
C IX



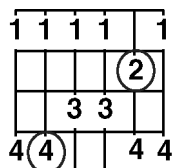
VI minor

Em XI
Am IV
Dm IX

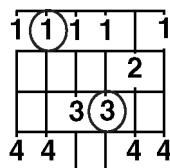


Pentatonic Fingering 4 Chord Commonality

C form ma6/9



A form m711



C Form I major and A form VI minor

I major

G VII
C XII
F V

II minor

Am VII
Dm XII
Gm V

III minor

Bm VII
Em XII
Am V

IV major

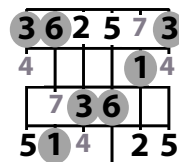
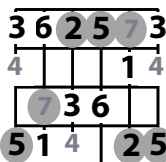
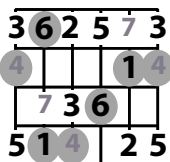
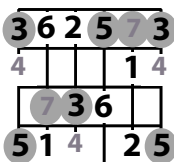
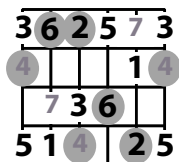
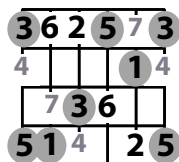
C VII
F XII
Bb V

V major

D VII
G XII
C V

VI minor

Em VII
Am XII
Dm V



C Form IV major and A form II minor

G XI
C IV
F IX
D VI

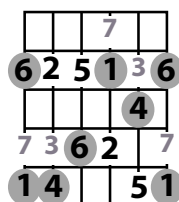
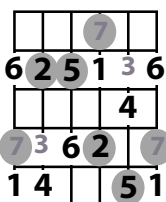
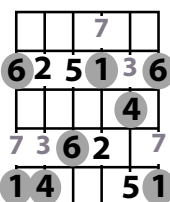
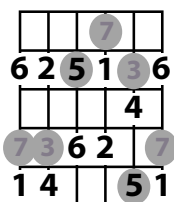
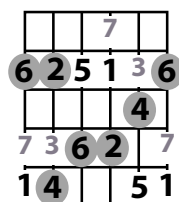
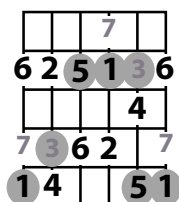
Am XI
Dm IV
Gm IX
Em VI

Bm XI
Em IV
Am IX
F#m VI

C XI
F IV
Bb IX
G VI

D XI
G IV
C IX
A VI

Em XI
Am IV
Dm IX
Bm VI



C Form V major and A form III minor

I major

G II
C VII
F XII

II minor

Am II
Dm VII
Gm XII

III minor

Bm II
Em VII
Am XII

IV major

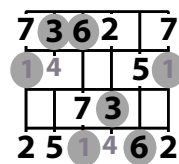
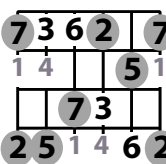
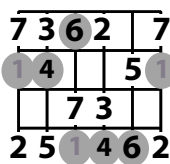
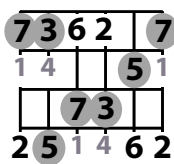
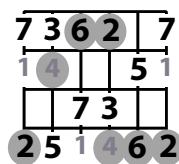
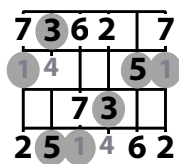
C II
F VII
Bb XII

V major

D II
G VII
C XII

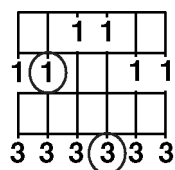
VI minor

Em II
Am VII
Dm XII

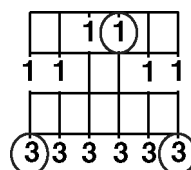


Pentatonic Fingering 5 Chord Commonality

A form ma6/9



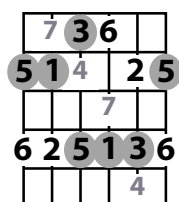
G form m711



A Form I major and G form VI minor

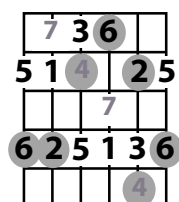
I major

G IX
C II
F VII



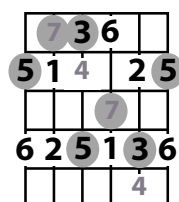
II minor

Am IX
Dm II
Gm VII



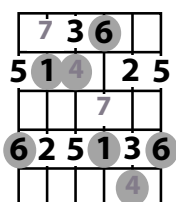
III minor

Bm IX
Em II
Am VII



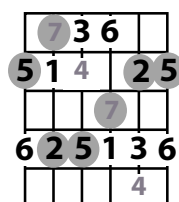
IV major

C IX
F II
Bb VII



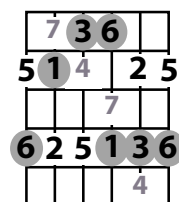
V major

D IX
G II
C VII



VI minor

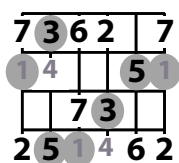
Em IX
Am II
Dm VII



A Form IV major and G form II minor

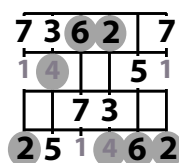
I major

G II
C VII
F XII



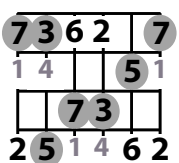
II minor

Am II
Dm VII
Gm XII



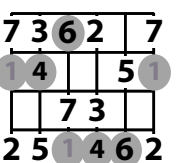
III minor

Bm II
Em VII
Am XII



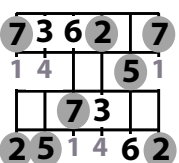
IV major

C II
F VII
Bb XII



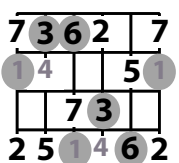
V major

D II
G VII
C XII



VI minor

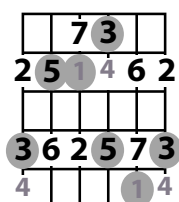
Em II
Am VII
Dm XII



A Form V major and G form III minor

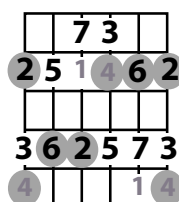
I major

G IV
C IX
F II



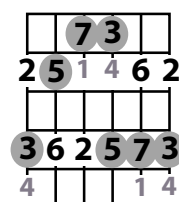
II minor

Am IV
Dm IX
Gm II



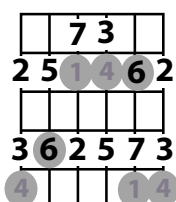
III minor

Bm IV
Em IX
Am II



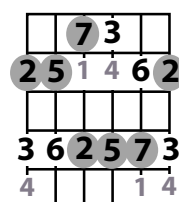
IV major

C IV
F IX
Bb II



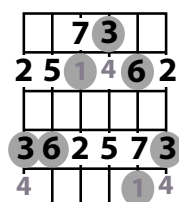
V major

D IV
G IX
C II



VI minor

Em IV
Am IX
Dm II



minor 7/11 pentatonic chord tones

Key Scale Tones →	1	b2	2	b3	3	4	#4/b5	5	#5/b6	6	b7	7	1
I7 tones →	1			→	3		→	5			b7		1
IV7 tones →	5			b7		1				3			5
V7 tones →			5			b7	→	1			→	3	
IV7b9 tones →	5			b7		1	b9			3			5
bVI 7 tones →	3			5			b7		1		9		3
Im7 tones →	1			b3			→	5			b7		1
II7 tones →	b7		1				3			5			b7
IIIm9 tones →	b7		1	→	9	b3				5			b7
III7 tones →			b7	→	1		→		3		5		
VIIm7 tones →	b3			→	5		→	b7		1			b3
VIIm9 tones →	b3			→	5		→	b7		1	→	9	b3
V9 tones →			5			b7	→	1		9	→	3	
I9 tones →	1		9	→	3		→	5			b7		1
Im9 tones →	1		9	b3			→	5			b7		1
I major tones →	1			→	3		→	5					1
IV major tones →	5					1				3			5
IV ma 7 tones →	5			→	7	1				3			5
IV ma 9 tones →	5			→	7	1	→	9		3			5
I major 6 tones →	1			→	3		→	5		6			1
I major 7 tones →	1			→	3		→	5			→	7	1
IV add 9 tones →	5					1	→	2		3			5
Im7b5 tones →	1			b3			b5				b7		1
bVI ma9 tones →	3			5			→	7	1		9		3
Vm7 tones →			5			b7	→	1			b3		
Vm9 tones →			5			b7	→	1		9	b3		
IV minor tones →	5					1			b3				5
IV m7 tones →	5			b7		1			b3				5
IV m9 tones →	5			b7		1		9	b3				5
IV9 tones →	5			b7		1	→	9		3			5
I dim. 7 tones →	1			b3			b5			6			1
VI7 tones →		3		→	5		→	b7		1			

dominant 7/11 pentatonic chord tones

Key Scale Tones →	1	b2	2	b3	3	4	#4/b5	5	#5/b6	6	b7	7	1
I7 tones →	1			→	3		→	5			b7		1
IV7 tones →	5			b7		1				3			5
V7 tones →			5			b7	→	1			→	3	
IV7b9 tones →	5			b7		1	b9			3			5
bVI 7 tones →	3			5			b7		1		9		3
Im7 tones →	1			b3			→	5			b7		1
II7 tones →	b7		1				3			5			b7
IIIm9 tones →	b7		1	→	9	b3				5			b7
III7 tones →			b7	→	1		→		3		5		
VIIm7 tones →	b3			→	5		→	b7		1			b3
VIIm9 tones →	b3			→	5		→	b7		1	→	9	b3
V9 tones →			5			b7	→	1		9	→	3	
I9 tones →	1		9	→	3		→	5			b7		1
Im9 tones →	1		9	b3			→	5			b7		1
I major tones →	1			→	3		→	5					1
IV major tones →	5					1				3			5
IV ma 7 tones →	5			→	7	1				3			5
IV ma 9 tones →	5			→	7	1	→	9		3			5
I major 6 tones →	1			→	3		→	5		6			1
I major 7 tones →	1			→	3		→	5			→	7	1
IV add 9 tones →	5					1	→	2		3			5
Im7b5 tones →	1			b3			b5				b7		1
bVI ma9 tones →	3			5			→	7	1		9		3
Vm7 tones →			5			b7	→	1			b3		
Vm9 tones →			5			b7	→	1		9	b3		
IV minor tones →	5					1			b3				5
IV m7 tones →	5			b7		1			b3				5
IV m9 tones →	5			b7		1		9	b3				5
IV9 tones →	5			b7		1	→	9		3			5
I dim. 7 tones →	1			b3			b5			6			1
VI7 tones →		3		→	5		→	b7		1			
IIIIm7 tones →			b7	→	1		→	b3			5		
IIIm7 tones →	b7		1			b3				5			b7
bVII9 tones →	9		3			5			b7		1		9

ma6/9 pentatonic chord tones

Key Scale Tones →	1	b2	2	b3	3	4	#4/b5	5	#5/b6	6	b7	7	1
I7 tones →	1			→	3		→	5			b7		1
IV7 tones →	5			b7		1				3			5
V7 tones →			5			b7	→	1			→	3	
IV7b9 tones →	5			b7		1	b9			3			5
bVI 7 tones →	3			5			b7		1		9		3
IIm7 tones →	1			b3			→	5			b7		1
II7 tones →	b7		1				3			5			b7
IIIm9 tones →	b7		1	→	9	b3				5			b7
III7 tones →			b7	→	1		→		3		5		
VIIm7 tones →	b3			→	5		→	b7		1			b3
VIIm9 tones →	b3			→	5		→	b7		1	→	9	b3
V9 tones →			5			b7	→	1		9	→	3	
I9 tones →	1		9	→	3		→	5			b7		1
IIm9 tones →	1		9	b3			→	5			b7		1
I major tones →	1			→	3		→	5					1
IV major tones →	5					1				3			5
IV ma 7 tones →	5			→	7	1				3			5
IV ma 9 tones →	5			→	7	1	→	9		3			5
I major 6 tones →	1			→	3		→	5		6			1
I major 7 tones →	1			→	3		→	5			→	7	1
IV add 9 tones →	5					1	→	2		3			5
IIm7b5 tones →	1			b3			b5				b7		1
bVI ma9 tones →	3			5			→	7	1		9		3
Vm7 tones →			5			b7	→	1			b3		
Vm9 tones →			5			b7	→	1		9	b3		
IV minor tones →	5					1			b3				5
IV m7 tones →	5			b7		1			b3				5
IV m9 tones →	5			b7		1		9	b3				5
IV9 tones →	5			b7		1	→	9		3			5
I dim. 7 tones →	1			b3			b5			6			1
VI7 tones →		3		→	5		→	b7		1			
IIIm7 tones →			b7	→	1		→	b3			5		
IIIm7 tones →	b7		1			b3				5			b7
bVII9 tones →	9		3			5			b7		1		9

m6/9 pentatonic chord tones

Key Scale Tones →	1	b2	2	b3	3	4	#4/b5	5	#5/b6	6	b7	7	1
I7 tones →	1			→	3		→	5			b7		1
IV7 tones →	5			b7		1				3			5
V7 tones →			5			b7	→	1			→	3	
IV7b9 tones →	5			b7		1	b9			3			5
bVI 7 tones →	3			5			b7		1		9		3
IIm7 tones →	1			b3			→	5			b7		1
II7 tones →	b7		1				3			5			b7
IIIm9 tones →	b7		1	→	9	b3				5			b7
III7 tones →			b7	→	1		→		3		5		
VIIm7 tones →	b3			→	5		→	b7		1			b3
VIIm9 tones →	b3			→	5		→	b7		1	→	9	b3
V9 tones →			5			b7	→	1		9	→	3	
I9 tones →	1		9	→	3		→	5			b7		1
IIm9 tones →	1		9	b3			→	5			b7		1
I major tones →	1			→	3		→	5					1
IV major tones →	5					1				3			5
IV ma 7 tones →	5			→	7	1				3			5
IV ma 9 tones →	5			→	7	1	→	9		3			5
I major 6 tones →	1			→	3		→	5		6			1
I major 7 tones →	1			→	3		→	5			→	7	1
IV add 9 tones →	5					1	→	2		3			5
IIm7b5 tones →	1			b3			b5				b7		1
bVI ma9 tones →	3			5			→	7	1		9		3
Vm7 tones →			5			b7	→	1			b3		
Vm9 tones →			5			b7	→	1		9	b3		
IV minor tones →	5					1			b3				5
IV m7 tones →	5			b7		1			b3				5
IV m9 tones →	5			b7		1		9	b3				5
IV9 tones →	5			b7		1	→	9		3			5
I dim. 7 tones →	1			b3			b5			6			1
VI7 tones →		3		→	5		→	b7		1			
IIIIm7 tones →			b7	→	1		→	b3			5		
IIIm7 tones →	b7		1			b3				5			b7
bVII9 tones →	9		3			5			b7		1		9

7/11b5 pentatonic chord tones

Key Scale Tones →	1	b2	2	b3	3	4	b5	5	#5/b6	6	b7	7	1
I7 tones →	1			→	3		→	5			b7		1
IV7 tones →	5			b7		1				3			5
V7 tones →			5			b7	→	1			→	3	
IV7b9 tones →	5			b7		1	b9			3			5
bVI 7 tones →	3			5			b7		1		9		3
Im7 tones →	1			b3			→	5			b7		1
II7 tones →	b7		1				3			5			b7
IIIm9 tones →	b7		1	→	9	b3				5			b7
III7 tones →			b7	→	1		→		3		5		
VIIm7 tones →	b3			→	5		→	b7		1			b3
VIIm9 tones →	b3			→	5		→	b7		1	→	9	b3
V9 tones →			5			b7	→	1		9	→	3	
I9 tones →	1		9	→	3		→	5			b7		1
Im9 tones →	1		9	b3			→	5			b7		1
I major tones →	1			→	3		→	5					1
IV major tones →	5					1				3			5
IV ma 7 tones →	5			→	7	1				3			5
IV ma 9 tones →	5			→	7	1	→	9		3			5
I major 6 tones →	1			→	3		→	5		6			1
I major 7 tones →	1			→	3		→	5			→	7	1
IV add 9 tones →	5					1	→	2		3			5
Im7b5 tones →	1			b3			b5				b7		1
bVI ma9 tones →	3			5			→	7	1		9		3
Vm7 tones →			5			b7	→	1			b3		
Vm9 tones →			5			b7	→	1		9	b3		
IV minor tones →	5					1			b3				5
IV m7 tones →	5			b7		1			b3				5
IV m9 tones →	5			b7		1		9	b3				5
IV9 tones →	5			b7		1	→	9		3			5
I dim. 7 tones →	1			b3			b5			6			1
VI7 tones →		3		→	5		→	b7		1			
IIIm7 tones →			b7	→	1		→	b3			5		
IIIm7 tones →	b7		1			b3				5			b7
bVII9 tones →	9		3			5			b7		1		9

CORE MELODIC TONES

Melody, Not Just Licks

Blues players commonly search for decades to find the “sweet” notes in building their licks. Song writers spend countless hours working at their craft, experimenting and trying to find good melody. Too often, they end up developing lots of licks and good technique, but they forget about melody. Great improvisers can create substantial melody in their improvisation spontaneously. How do they do it?

Its best to primarily create intuitively, through experimentation and interaction with other musicians. However, the process can be sped up if you learn something about the basis of good melody.

Good melody expresses a key for the listener, with a melodic line. The melody makes reference to important chords in the progression, so the listener could somewhat imagine the accompaniment even if the heard the melody unaccompanied.

They have a great knowledge of chord progression, arranging, building phrases and licks, theme and variation and they use a core melody. They think of the skeletal structure of their melody and fill in with their licks as they build a melody on a chord progression.

Core melody is usually about two notes per bar, uses primarily the key scale and is almost exclusively made with tones that are common to the key scale and current chord, or a version of the current chord.

The core melody tone might be an added harmony or altered tone in the current chord.

In developing their improvising in an intuitive manner, musicians accumulate a vocabulary of phrases and licks with which to make melody on a chord progression. As they anticipate the sound of each chord or chord group that will come up next, they audition themes (licks or motifs) in their memory, imagining the theme played against the chord progression. Part of this process has to do with chord sound and part of it has to do with rhythm.

Chord sounds can be emulated with scales by emphasizing one or more of the notes in the current chord. It is best if this is most often done with key scales, to retain the sense of key and therefore providing a unifying tonal center for the entire piece (or section) of music.

Core Melodic Tones Are Target Tones

Entire songs or at least sections of songs are typically in a single key, like A minor. Key scales are named after the key. Various types of key scales are used, usually to make each one better harmonize with the chord it is being used with, in the emotive style preferred by the player.

Core melodic tones are those notes that are both in the key scale and in the current chord. Improvisers may develop their craft for decades without consciously thinking about this. Through experimentation,

they find the notes that sound well with each chord. If they were consciously look for core melodic tones as notes both in the key scale and current chord, they would find the notes much faster.

major and minor triad arcs

On a graphic instrument like a fretboard instrument (guitar, bass, mandolin), they can memorize shapes that represent those notes. For guitarists, the basis of those shapes is the arcs of major and minor arpeggios and full-fretboard major scale tones.

Examples In A minor

Am pent V Am V C V Dm V E7 V Fma7 V G V

use notes in the bottom row for →
restricting the range to the first four strings
→
numbered in A

Am V C Dm, D Em, Em7, E, E7 F, Fma7 G

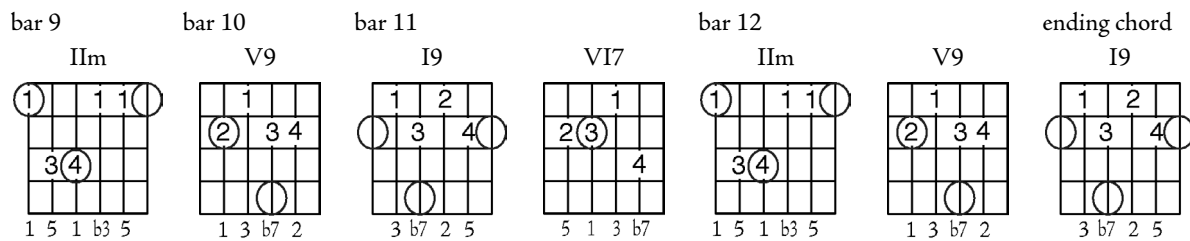
[Otherside example 1 video link](#)

Imagined Notes

Listeners can recall a song with varying degrees of clarity and “play the song back” in their mind. At least they could listen to the recording of song a few times, then stop it at a random point and still hear a few seconds of the part that follows in their memory. Try this with recordings.

If you hear the accompaniment to a blues in C without a “C” note, you’ll probably imagine the C note because of your familiarity with the chord progression. Play the chords below and try it. Strum once a beat in “Freddie Green” style (Count Basie’s guitarist). After playing it, play the sixth string, eighth fret “C” note and see if you were imagining it. It is the tone center we have heard in blues.

bar 1 I9 bar 2 IV9 bar 3 I9 bar 4 I9 bar 5 IV9 bar 6 IV7b9 bar 7 I9 bar 8 VI7



In our memory, each note we hear is kept in our short term memory, especially emphasized notes and notes that relate to something we have heard before. So the notes that are sustained in our short term memory effectively sound as chord tones.

Memories of core melodic tones are created by notes that leave an impression in the listeners memory, such as the last note in a phrase or a note that has been played at the beginning or end of a repeating figure, when the figure is repeated with the note omitted. It doesn't matter so much which instrument or voice is emitting each chord tone. Each note of the chord may be emitted by a different instrument or voice.

Adding Tones to a Chord

If a note is an appropriate addition to the chord, you can emphasize it and add it to the chord sound. If, for example the piano or guitar is playing an "A" major chord and the vocalist is sustaining a note which is the sixth of an "A" scale, the overall sound is "A6".

Find Scale Tones Common to the Current Chord

For each chord in a progression, determine which of key scale tones are also in the current chord, or are likeable additions to the current chord. Begin by learning to play a major scale named after the root of each chord through both octaves in the fretboard area where you intend on soloing. Learn which major scale tones or altered major scale tones will be needed for the chord on which you are improvising. Determine which of those chord notes are also in each scale you will use. Emphasize those scale tones and you'll be emulating the sound of the current chord.

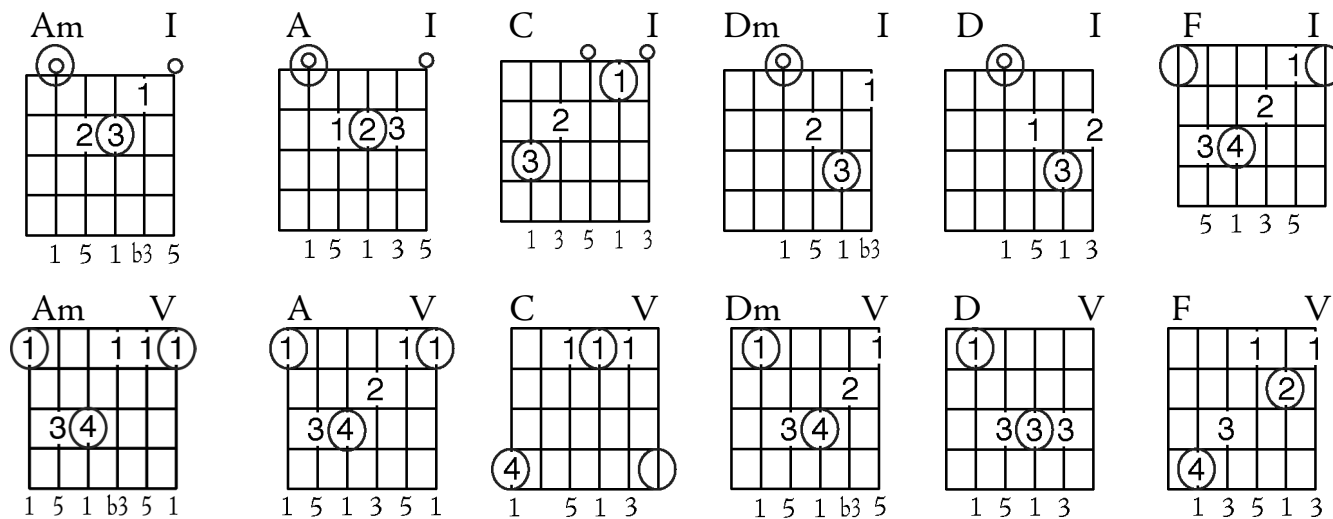
A Summary Chord, Where One Chord Sound Works for Many Chords

See ["Commonality Chords"/What Are Summary Chords?](#).

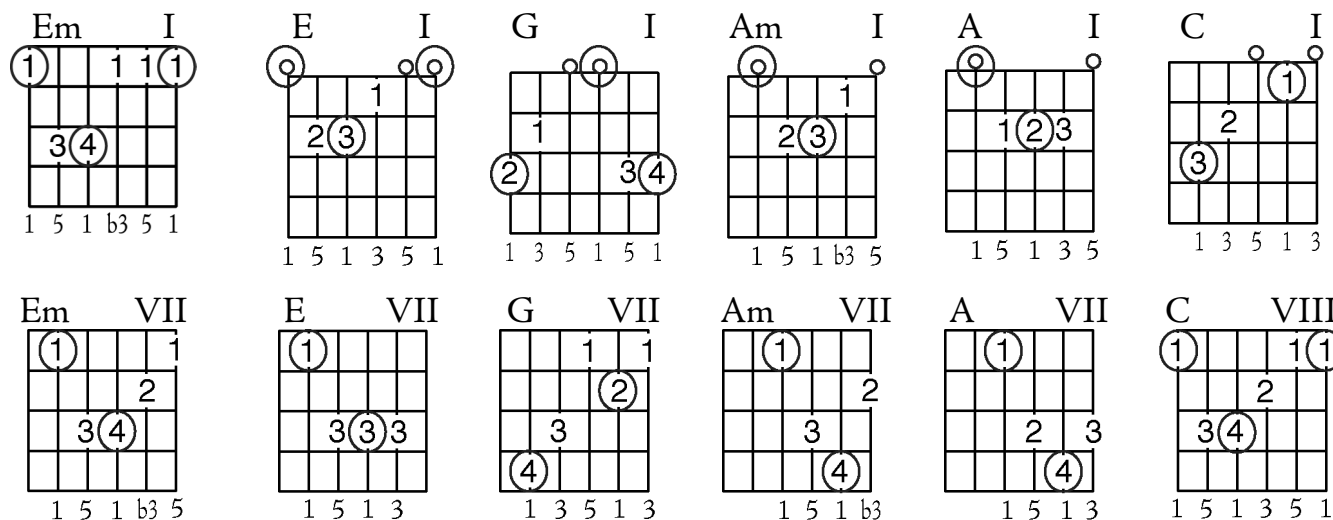
Examples of Summary Chords

examples of chords a minor chord will work on

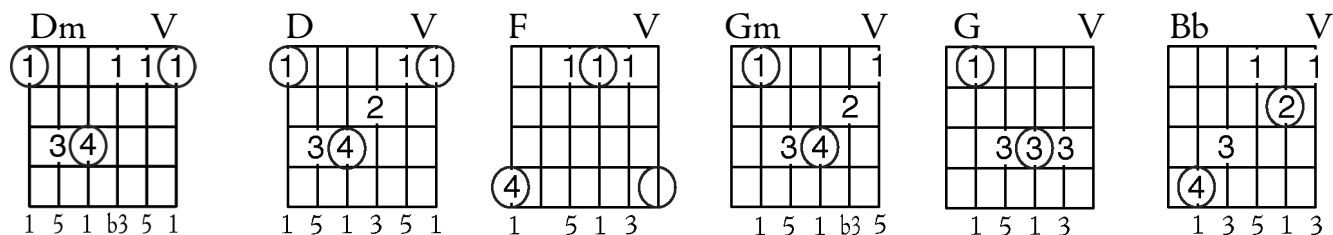
For one reason or another, A minor will work on all of these (see “this works by conceiving...”, below):



E minor will work on all of these (see “this works by conceiving...”, below):



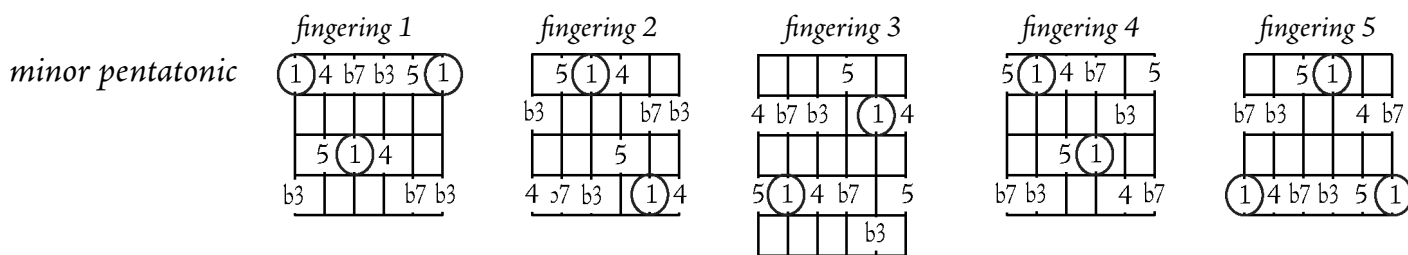
D minor will work on all of these (see “this works by conceiving...”, below):



chords by number that can be represented with a minor chord

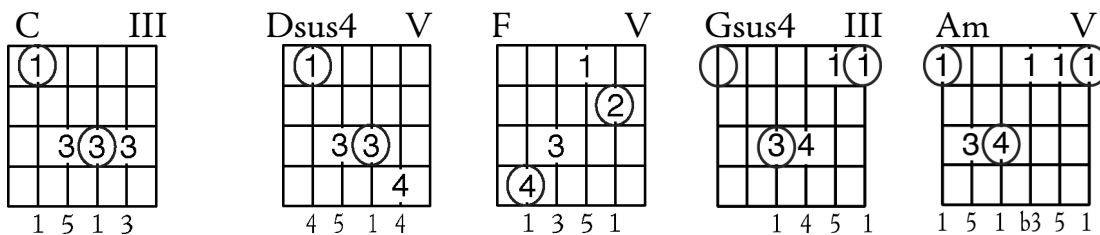
You can find b3 and 4 in pentatonic scales. Look at the minor pentatonic fingerings by number. The next two tones above “1”, the tone center are “b3” and “4”. Flat six is one fret toward the guitar body from “5”, or two frets toward the head of the guitar from “b7”.

by number	I	bIII	IVm	IV	bVI
in A minor	Am	C	Dm	D	F
in E minor	Em	G	Am	A	C
in D minor	Dm	F	Gm	G	Bb
in C minor	Cm	Eb	Fm	F	Ab

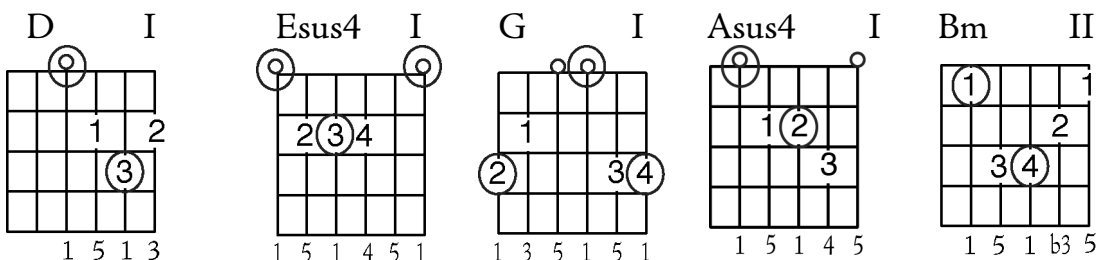


examples of chords a major chord will work on

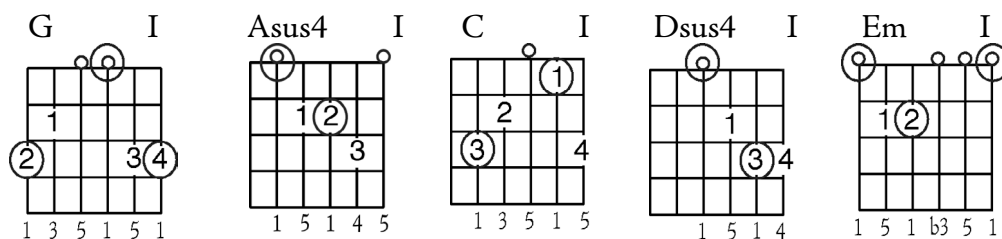
For one reason or another, C major will work on all of these (see “this works by conceiving...”, below):



D major will work on all of these (see “this works by conceiving...”, below):



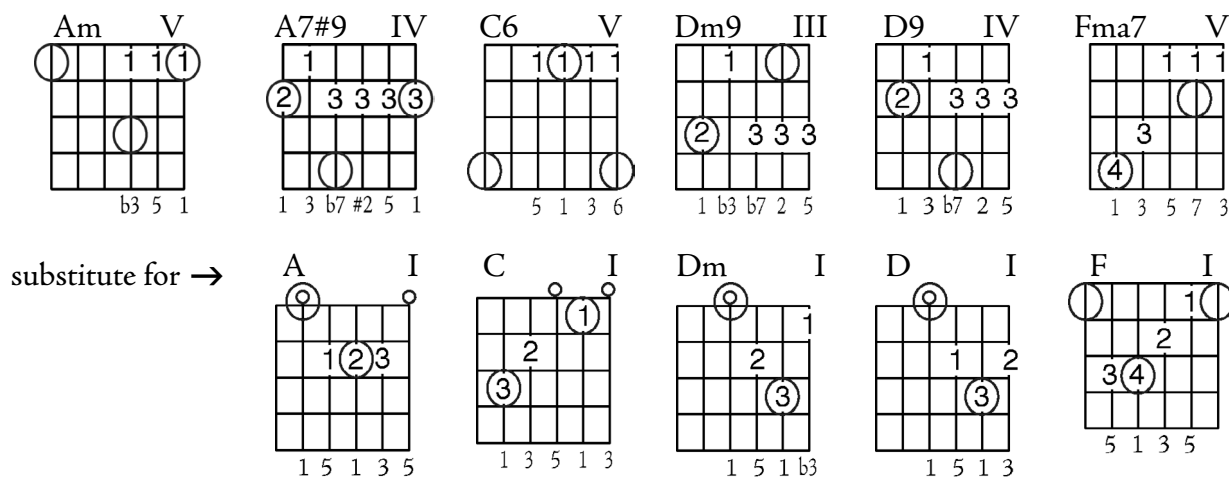
G major will work on all of these (see “this works by conceiving...”, below):



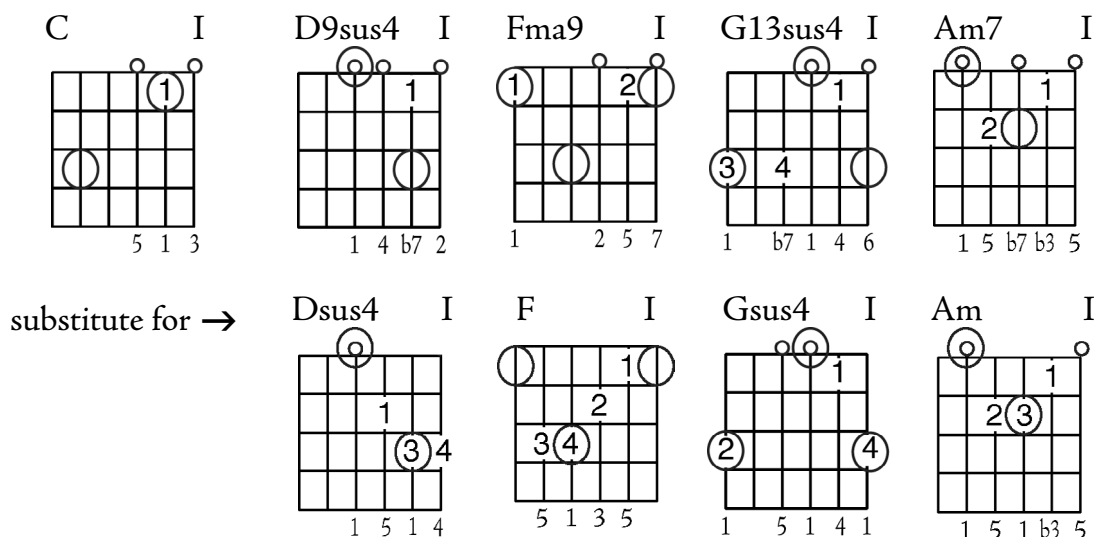
this works by conceiving other versions of the original chords

By thinking of other versions of the original chords with added harmonies or flatted notes, you can make a particular chord part of many chords.

In the diagrams below, you can see that Am is part of A7#9, C6, Dm9, D9 and Fma7.



In the diagrams below, you can see that C major is part of A7#9, C6, Dm9, D9 and Fma7.

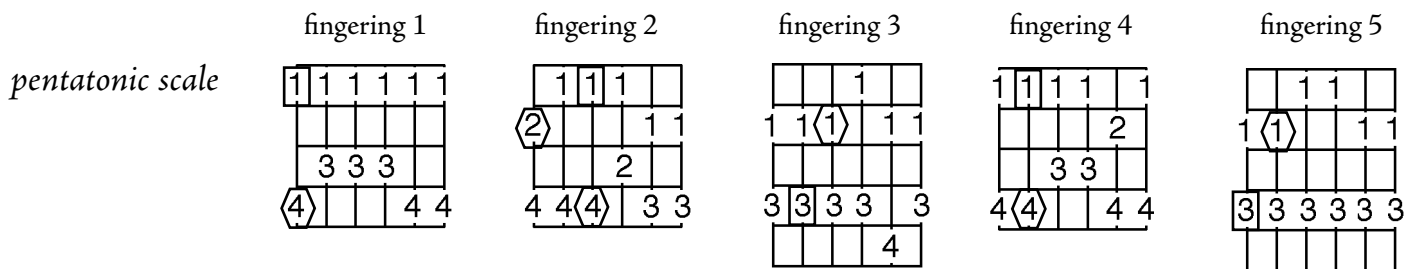


using relative major and minor pentatonic

You may already know that each common pentatonic fingering can be used for a minor key and for a different major key. The scale can be used to represent the major and minor chords named after the keys that the scale is used for. C major and A minor pentatonic share the same scale tones. So, you could use the scale for either C major or A minor.

If you think of the scale in terms of the minor version (like A minor, C major's relative minor), you would tend to emphasize the minor chord part of the scale, making the mood darker. If you think of the scale in terms of the major version (like C major, A minor's relative major), you will emphasize the major chord part of the scale, making the mood brighter.

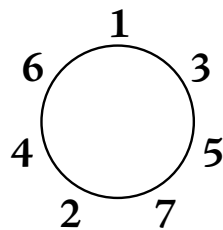
Minor pentatonic tone centers are indicated below with the rectangle (\square). Major pentatonic tone centers are indicated with the hexagon (\hexagon). Notice that when the major and minor tone centers are on the same string, the major tone center is three frets above the minor tone center (three frets toward the body of the guitar). In the same octave shape, the major pentatonic fingering number is one *higher* than the minor for the same tone center.



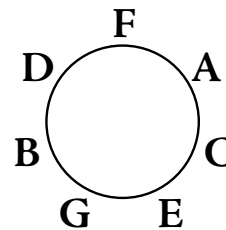
chords built on the third of the original

It is useful to determine which step of a major scale a particular chord was taken from. Study [Major Scale-Tone Triads](#), so you can do this. As part of that study, you would learn the cycle of thirds on which chords are typically built. It is shown below. The letter cycle involves one or more sharps or flats for every key except C major.

the seven number cycle of every-other number



the seven letter cycle of every-other letter



One every major scale tone, a three-note chord (triad) or a four-note chord could be built in thirds. For each of the four-note chords, excluding its root (the note after which it is named), a triad remains.

If you build a four-note chord on “5”, it uses numbers “5-7-2-4”. If you remove the “5”, 7-2-4” remains, which is the same as a triad built on “7”. Notice below that any seventh chord with no root is the same as a triad up a third (up two numbers). Ima7 no third is III minor.

Lettered examples below are for the key of C.

scale tone	triad	numbers	seventh	numbers	seventh, no root
1	I major (C major)	1-3-5	Ima7 (Cma7)	1-3-5-7	III _m = 3-5-7 (E minor)
2	II minor (D minor)	2-4-6	II _m 7 (D _m 7)	2-4-6-1	IV major = 4-6-1 (F major)
3	III minor (E minor)	3-5-7	III _m 7 (E _m 7)	3-5-7-2	V major = 5-7-2 (G major)
4	IV major (F major)	4-6-1	IVma7 (Fma7)	4-6-1-3	VI minor = 6-1-3 (A minor)
5	V major (G major)	5-7-2	V7 (G7)	5-7-2-4	VII dim. = 7-2-4 (B diminished)
6	VI minor (A minor)	6-1-3	VI _m 7 (A _m 7)	6-1-3-5	I major = 1-3-5 (C major)
7	VII diminished (B diminished)	7-2-4	VII _m 7b5 (B _m 7b5)	7-2-4-6	II minor = 2-4-6 (D minor)

chords built on the sixth of the original

using minor instead of major

Visualizing Notes of Each Chord in the Scale

Visualize the scale. Be able to see much or all of it in your mind, graphically on the fretboard. You can build this ability with multiple points of view. See [Devices To Memorize Pentatonic Fingerings, Scale-Tone Arpeggios and Pentatonics/Master Scale Pattern](#).

in your mind, overlay the chord on top of the scale

Not easy. Think in terms of three or four strings. Visualize the scale. Its very effective to visualize the scale in a limited range on the fretboard while playing an arpeggio of the chord in the same range.

Key Chord Sounds

With key chord sounds, the chord sound you are using represents a chord with its root named after the key, very often when the current chord root is a different note. For example, when playing in the key of A during a D9 chord (D9 has the notes D, F#, A, C and E), emphasizing the notes of an A minor chord, A, C and E works well, since those notes are in common A scales *and* in the D9 chord.

Think of the numbers of key scale tones that are also in the current chord. Find ways to relate to those tones in terms of a chord built on the tone center, such as 1-3-5 sounding “major”, 1-b3-5 sounding minor and “4” sounding suspended.

“1-3-5” - the major key chord sound

The major chord has tones “1, 3 and 5” of a major scale on the chord root. The distinguishing note is “3”. When combined in phrases with “b3”, the “natural 3” will predominate, making the chord sound more major and bright in mood than minor and dark or sad (bluesy).

“1-b3-5” - the minor key chord sound

The minor chord has tones “1, 3 and 5” of a major scale on the chord root. The distinguishing note is “b3”. Emphasizing “1, b3 and 5” of a minor pentatonic scale suggests the sad minor chord. The most important note in qualifying the minor chord is the “b3”. In blues, jazz and rock-related styles, the minor chord sound is commonly played against a major chord with the same letter name (E minor against E major, for example) to produce a bluesy effect. Used on chords such as I major or VI minor that have “natural 3” (I major has 1, 3, 5 of the key scale and VI minor has 6, 1, 3 of the key scale), the “b3” can be bent slightly as a “blue note”.

“4” - the suspended fourth key chord sound

Suspended fourth chords have tones “1, 4 and 5”. The distinguishing note is “4”. Emphasizing “4” creates a soft dissonance and need for resolution to a minor or major chord sound on the same root. The “4” - suspended sound is often used when “4” is not in the current chord to add a soft tension and need for resolution.

“b7” - the seventh key chord sound .

A few chords have “b7”, most commonly dominant seventh (such as C7) minor seventh (such as Cm7). Emphasizing the “b7” can serve as an added harmony for a triad, can create a soft tension and need for resolution. Used on chords such as V major that have “natural 7” (V has 5, 7 and 2 of the key scale), the “b7” can be bent slightly as a “blue note”.

“6” - the seventh key chord sound .

In western European folk music, American bluegrass, country and folk, “6” is commonly used as a secondary chord tone, not actually played by the chordal instruments, but emphasized in the melody. In those styles, the emphasis of the sixth is typically less than that of the triad tones.

In swing blues, country swing and swing jazz, the sixth is strongly emphasized in major and minor sixth chords and as part of thirteenth chords. It can commonly be used as a chord tone in most of the chords in a key, in those styles.

“2” - the ninth key chord sound .

Combined with the other notes in seventh chords, the ninth sounds colorful and jazzy. Used with a triad, it makes an add nine chord, which is modern-sounding. Minor ninths can suggest Asian culture.

Too often, improvised solos are just a bunch of fast scales and cool licks, but no melody. It's better when you can remember something singable while listening to an improvisation.

THE ARPEGGIO BASIS OF CORE MELODY

Improvised Melody Based on Triads and Larger Arpeggios

Play triad or larger arpeggios with the rhythms shown in [Sources of Melodic Rhythm](#) below. It's best to start with the one bar versions. Segue into those that start on the first beat (that excludes pickups and pushes) with a fragment pattern or chromaticized arpeggio figure.

Where there are sets of four notes within a melodic rhythm, consider making a chromaticized arpeggio figure. The four notes don't have to be continuous eighths or sixteenths, but too much sustain or rest time after chromatic notes can create too much dissonance.

Sources of Melodic Rhythm

See "[Rhythmic Words and Comping](#)"/[Comping Rhythms and Pop Song Themes](#).

one-bar melodic rhythms

[Charleston Family](#), all but the last two examples

[Evil Ways Family](#), all

[Reggae Family](#), all

Triple Time/[combining triplets and swing eighths](#). The interesting examples start with "Blues Power". The first few examples through "I'm a Man" are "keeping time" rhythms.

Triple Time/[triplets and swing eighths with a backbeat](#). The last two examples are a little interesting, but most are "keeping time" rhythms.

Triple Time/[Polyrhythmic Afro-Cuban](#). Somewhat "keeping time" rhythms, but interesting.

two-bar melodic rhythms

[Clave Family](#), all

[Bossa Nova Family](#), all

[Offbeat Family](#). Many examples are four-bar.

[Pop Song Themes](#). Most are two-bar, a few one-bar at the beginning, a few four-bar at the end.

two-bar melodic rhythms (including the pickup or push)

Pushes. Some have rests at the first beat, other have rest at the end of the bar.

Cadence Pickups and **Pickups** After the pickup to the first beat, most examples have rests from beat one or two on.

Sources of Arpeggio Tones

See “[Full-Fretboard Chord Tones](#)”.

start with a triad and a melodic rhythm, considering all these inversions

51		b51		#51	13	1b3				35	b35	b3b5	3b5	3#5
513	51b3	b51b3	b513	#513	135	1b35	1b3b5	13b5	13#5	351	b351	b3b51	3b51	3#51
5135	51b35	b51b3b5	b513b5	#513#5	1351	1b351	1b3b51	13b51	13#51	3513	b351b3	b3b51b3	3b51	3#513

MELODIC DEVICES TO ESTABLISH CHORD TONES

Anything that draws attention to a note can help establish it as a chord tone. Even an exaggerated tone, such as wah-wah pedal down.

Appoggiatura

An appoggiatura (leaning tone) is an exception. Appoggiaturas create tension with a scale tone *next to* a chord tone, then resolve to the chord tone. In that case, the note the appoggiatura resolved to is the chord tone and the resolution is delayed until the chord tone occurs, when it *then* emphasizes the chord tone.

Metric Devices

Placing a tone on the beat suggests it is a chord tone. Placing a note immediately before the beat and not playing on the beat that follows the note is called a *push*. Pushes also suggest a chord tone.

Frequency

Playing a note frequently helps establish it as a chord tone. In the case of a pivot tone, every other note may be the same repeated note, which establishes it as a chord tone.

Tonal Devices

A series of notes like a scale or familiar melody can suggest leading to a particular note, even if it is not actually played. A chord progression may suggest a particular tone center, even if the tone center is not actually sounded in the chords, but suggested by the progression. For example, the jazz blues progression below suggests the key of "C", yet there is no "C" note. We just know the progression so well that we can imagine it.

C9 VII 3 b7 2 5 1 2 3 4	F9 VII 1 3 b7 2 2 3 4	C9 VII 3 b7 2 5 1 2 3 4	C9 VII 3 b7 2 5 1 2 3 4	F9 VII 1 3 b7 2 2 3 4	F7b9 VII 1 3 b7 b2 1 2 3 4
C9 VII 3 b7 2 5 1 2 3 4	A7#9 VI 5 1 3 b7 2 3 4	Dm7 V 1 5 1 b3 3 4	G13 VII b7 3 6 1 1 2 3 4	same as bars 7-8	same as bars 9-10

THE HARMONIC DENSITY OF MELODY

Three Densities Of Texture

Generally, in improvisation, use three densities of texture: quadrads, seven tone scales (or large tone arpeggios) and chromaticized arpeggios.

Low Density: Quadrads for Simple, Pure Chord Colors

Quadrads are four-note chords. They use four notes per octave. When playing in linear order of pitch, ascending or descending, they have just enough notes to express a chord color without it sounding like a scale. When larger arpeggios like ninths, elevenths and thirteenth are played, they have a less pure, more complex combination of colors.

It is common practice in this course to name pentatonic scales with chord names. Minor pentatonic is a minor 7/11 chord or arpeggio. Like large arpeggios, pentatonic scales have a less pure, more complex combination of colors and sound more like a scale than a chord, which is why they are called scales. The use of chord names for pentatonic scales in this course has the primary purpose of using the system of chord names (see [Chord-Naming Conventions](#)) to name pentatonic scales, since there many names have often been used by musicians and in music literature for the same pentatonic scale.

Use triads with neighbor to build quadrads. You can study this in [Fragment Patterns/Free-form triads with Neighbor Using Quadrads](#).

Medium Density: Seven Tone Scales for More Complex Scale and Chord Sounds

Seven-tone scales like the major scale and the twenty eight [modes of four heptatonic \(seven-tone\) scales](#). Seven-tone scales can be played linearly (ascending or descending by order of pitch), in [fragment patterns](#) or in large arpeggios by playing them in an every-other note sequence. See "[Chord-Naming Conventions](#)"/[Tertian Chords](#) and [All Scale-Tone Chords](#).

High Density: Chromaticized Arpeggios and Chromatic Scale for Dissonant, Thick Texture

Chromaticized arpeggios and chromaticized scales approach twelve notes per octave. With both of them, non-chord tones frequently occur on the beat or are otherwise emphasized making the music more dissonant because the lack of chord tone emphasis in the melody.

Alan Holdsworth used high density by chromaticizing scales and using substitute chord progression with distant relationships to the original chords.

THE ORDER OF MELODIC IMPORTANCE

Primary Structure in Order of Importance

root and fifth

Especially for the bass player, the most important notes are the root and fifth. So important that they are sometimes *not* played since they are so obvious that the listener can imagine them.

third and seventh (or other remaining tones of a quadrad)

The third and seventh are the most important coloring tones in music based on seventh chords like blues and jazz. They are the basis of a principle of most preferred tones to be voiced in chords or suggested in melody in blues and jazz: “the third and seventh (if involved) and any note mentioned in the chord name”. So a C13 chord would suggest the preferred tones 3, b7 and 6 (6 = 13).

chord coloring tones

Next are those added tones that color a basic chord. In triad-based music, this might be a second or a sixth. The coloring tones may be in the chord, like a sixth in C6 used in swing music. Or, it may be a sixth as used melodically in country or folk music on a major chord where the sixth is not actually played by the chording instruments, only played in the melody.

blue notes and exotic tones

Next in the order of importance are tones that further color the mood, more than standard colorations like an second, sixth or suspended fourth.

Blue notes that darken the chord or scale like flat three, flat five and flat seven are used to contrast the natural versions of the same numbered tones. Flat three is used to bluesify a major chord to contrast its natural three.

The blue notes, exotic tones like a major seven on a minor chord (Cm[ma7], 1-b3-5-7) or a sharp eleven in major nine sharp eleven also go further to define the subtle colors of a chord.

non-chordal scales tones

Next are the tones that are not implied to be in the chords, but are in the scale. They can be implied as non-chordal tones by not being sustained nor strongly emphasized. They may also not be expected as chord tones, such as not expecting a ninth in a triad-based style that typically doesn't use ninths.

chromatic tones

Last come the chromatic tones that come between scale tones as passing chromatics or precede chord tones from half step below. Passing chromatics fill with the note in between two scale tones a whole step (two frets) apart. Passing chromatics can also fill in larger intervals, playing every chromatic note from one chord tone to another, such as from flat three up to five.

Passing chromatics can also fill in every chromatic note in scale with minor thirds (tree fret intervals) or larger intervals. The minor third from flat six to natural seven in harmonic minor, for example, be filled in with both chromatic notes. The major third in a dominant seven eleven pentatonic scale (1-3-5-b7) from one to three can be filled in chromatically.

Chord Sounds with Pentatonic Scales

Pentatonic scales are usually based on arpeggios, so I use chord names to identify pentatonic scales. I call the common minor pentatonic scale with 21, b3, 4, 5 and b7 “minor seven eleven pentatonic” (m7/11). Using a chord names to identify the common major pentatonic scale with 1-2-3-5-6, I call it “major six nine pentatonic” (ma6/9).

seven eleven pentatonics

Minor 7/11, alias “blues minor”. The minor seven eleven pentatonic can be used for minor seventh key chord sounds.

7/11 (dominant 7/11), alias “blues major”. By change the “b3” to a natural third (“natural 3”), the common pentatonic scale can be used for bluesy major sounds.

six nine pentatonics

Major 6/9, alias “swing major”. The major six nine pentatonic can be used for major sixth key chord sounds. A fourth is very commonly added, making a six-tone scale of sorts, however the fourth is used more as a neighboring tone than in linear scale passages.

Minor 6/9, alias “swing minor”. By flatting the third (“b3”) of a major pentatonic scale, making minor six nine pentatonic (1-2-b3-5-6), you can get all the chord sounds of major six nine, but with minor instead of major. This works particularly well for theme and variation on I7 and IV7 chords, using the major 6/9 on the I7 chord and the minor 6/9 on the IV7.

For more information, see [“Pentatonic Fingering”](#) and [“Introduction to Improvisation”](#).

Chord-Scale Agreement

common examples

<u>chord</u>	<u>key-scale tones in chord</u>	<u>key scale</u>	<u>key-scale tones</u>	<u>tones in common</u>
Im7	1-b3-5-b7	minor 7/11	1-b3-4-5-b7	1-b3-5-b7
IIm7	2-4-6-1	minor 6/9	1-2-b3-5-6	1-2-6
IV7	4-6-1-b3			

Schemes of Key-Chord Sounds

Make up schemes of chord sounds in time line fashion by writing chord names on a single line and labeling the key chord sounds you will use below them. Keep it simple. Here are some samples:

Hideaway (blues in E) - E minor seven eleven key scale

E7 E7 E7 E7 A7 A7 E7 E7 B7 A7 E7 E7 B7

major b7 minor major b7 4 major 4

Five-Tone Chord Sounds with Ninth Arpeggios

Melodic Sense without a Specific Scale

the function of melodic tones

After detailed study of the emotive effect of each melodic tone by number in the context of tonal structures such as pentatonic scales and ninth arpeggios you will gain a sense of the melodic effect of each tone by number. You won't necessarily need to think in terms of a scale.

SCALE-CHORD MATCHING AND CONTRASTING

Recognizing the Scale that Matches a Chord

Keep increasing your knowledge of all the types of chords built on each step of a scale. See [“All Scale-Tone Chords”](#). Learn the modal structure of chord progression, so you can recognize groups of chords as having come from a particular scale. See [“Recognizing Scale-Tone Chords”](#) and [“Voice Leading”](#).

Superimposing Chord Progression

A secondary chord progression can be suggested. If it is logical and doesn't conflict with the primary chord progression, it can be acceptable to the listener. This does tend to produce momentary dissonances and tends to weaken the sense of key. Don't get so focused on the secondary chord progression that you lose the perspective that the listener will have in hearing both the primary (original) chord progression and the superimposed secondary chord progression.

See [“Melodically Superimposed Cadences”](#).

MODES AND HARMONY CHOSEN BY FEEL

By Feel First

Determine the emotive quality and genre of a phrase or section first. You'll learn which modes (scales), chords (harmony) and rhythms have dark moods, bright moods, angry moods, etc. and play something appropriate.

It's actually more important to get the mood right than the chord quality, scale type or rhythm. If the mood is right, the rest will be close enough. The more subtleties you can hear, the more you'll be able to choose the best scale and chord types in each situation.

The Emotive Qualities of Chords, Rhythm and Tone

Qualities of triads (major, minor, diminished, etc.) affect the feeling of a piece of music. Larger chords are sometimes complex, combining two or more triads and therefore combining multiple moods.

The rhythm can affect the mood. A fast tempo usually suggests a brighter mood and a slow tempo a darker mood.

Tone (timbre) affects the mood. Distortion sounds bold and brash. Soft chorused (the ambient effect) sounds feel calm.

See [Emotive Qualities of Chords and Scales](#).

The Emotive Qualities of Genre

Making reference to particular styles brings to mind whole sets of characteristic rhythm, chord quality and tone used in the style and the emotive qualities that go with it. Genres can even suggest a lifestyle or subculture.

Key Scales for Jazz Dominant Modes

We are using scales based on minor modes that occur on steps six and three of the major scale.

Aeolian key scale

This is the mode on the sixth step of a major scale. Playing the major scale from step six through six up and down suggests the new scale Aeolian. Think of it as a VI type.

harmonic minor key scale

This is the same as an Aeolian scale, but has a natural seven. It has a tone altered at near the top of the octave of A Aeolian.

Aeolian flat one key scale

This may seem odd, but it is very useful. The “flat one” tone functions as a “7” of the key and is part of the V chord, constructed with 5, 7 and 2 of the key. Think of this as having a tone altered at the bottom of the octave of Aeolian, the flat one.

Phrygian flat one key scale

This may seem odd, but it is very useful. The “flat one” tone functions as a “7” of the key and is part of the V chord, constructed with 5, 7 and 2 of the key. This is the same as Aeolian flat one, but also has flat two. Think of this as having two tones altered at the bottom of the octave of Aeolian, the flat one and the flat two.

Representing V-Type Dominant Chords

The preferred tones in voicing a V-type chord are the third and the seventh and anything mentioned in the chord name, like “13”, or any altered tone. The qualities are flexible. V type chords can be abbreviated (a ninth could be represented as a seventh) or elaborated (a seventh could be a thirteenth). A very common representation of a V-type chord is the harmonic minor type, where it is represented with a diminished seventh arpeggio that is a synonym to 7b9 no root.

Ambiguity and Differences with V-Type Modes

For example, 5-b6-b7-7 is common to both “super” modes (super Phrygian and super Locrian). Explore ambiguous melodic ideas that allow more freedom (in completing the scale) for the other players and for the listeners.

The bII Chord

Melodic minor mode VII generates the “Swiss Army” V7#9b9#5b5 chord. Modes are synonyms, and so are some chords they generate. Mode IV of melodic minor generates the chord 13#11. Most of the chords that are subsets of melodic minor IV13#11 are synonyms that are subsets of melodic minor VII#9b9#5b5. The basis of all the subsets is melodic minor IV7b5 = melodic minor VII7b5, which is the core of [flat five substitutes](#). See [Flat Five Substitute Chord Progression](#).

Swiss Army II in a Minor II V Cadence

bVI7 to V7 is fairly common, as in bars 9 and 10 of John Coltrane's "Mr. P.C." bVI7 to V7 can be thought of as a substitute cadence for the minor II V, where the bVI7 (melodic minor IV13#11 type) is a [flat five substitute](#) for IIm7b5 (melodic minor VII7#9b9#5b5, Swiss Army type).

Minor Mode Ambiguity

Key-scale tones b3-4-5-b6 (the middle range) are common to all four minor modes (Aeolian, harmonic minor, Aeolian b1, Phrygian b1).

Aeolian and harmonic minor vary the upper range

Key-scale tones 5-b6-b7-7 (the upper range) are common to both "super" modes on V of target.

Aeolian flat one and Phrygian flat one vary the lower range

Aeolian and harmonic minor have 1-2-b3-4-5-b6 in common (harmonic minor changes the 7). Aeolian b1 and Phrygian b1 have b3-4-5-b6-b7-1 in common (they change the 2).

the Aeolian/harmonic minor hybrid

Use the Aeolian/harmonic minor to both provide all the notes of V7#9 and creates a half-whole-half pattern at 5-b6-b7-7, like 7-1-2-b3. See ["Half-Whole-Half Cells and Diminished Scale"](#).

Commonly-Associated Sources of all the Key Emotive Tones

- 1 the tone center
- b2 Phrygian b1
- 2 Aeolian, harmonic minor, major, Mixolydian, Dorian
- b3 Aeolian, harmonic minor, Dorian
- 3 major, Mixolydian
- 4 Aeolian, harmonic minor, major, Mixolydian, Dorian
- b5 Aeolian b5, Dorian b5 (major b6 mode II)
- 5 Aeolian, harmonic minor, major, Mixolydian, Dorian
- b6 Aeolian, harmonic minor
- 6 major, Mixolydian, Dorian
- b7 Aeolian, Mixolydian, Dorian
- 7 major, harmonic minor, melodic minor

The Melodic Curve

- **Melodic Curve Attributes**
- **Multiple Design Elements and the Emotive Curve**
- **Angle**
- **Contour**
- **Harmonic Tension and Chord Color**
- **Theme Shapes**
- **Core Melodic Rhythm**
- **Rhythmic Word Improv**
includes a [youtube playlist](#) of over 40 hours of examples with guitar bass & drums
- **Syncopation and Change of Rhythm**
- **“Jazzing” the Line**

MELODIC CURVE ATTRIBUTES

Angle

Larger intervals grab your attention. Smaller intervals are smoother.

Contour

The contour is the shape of the melodic line, from linear and smooth to jagged with frequently-changing direction. Rapidly changing direction causes a jagged contour.

Syncopation and Change of Rhythm

Rhythm can define the contour of the melodic line. Syncopation can exaggerate the tension, as in the first three notes of Afternoon in Paris (followed by a smooth up-down-up-down weave). A change in the nature of the melodic rhythm can attract attention.

Harmonic Tension and Chord Color

Perfect and major intervals create less harmonic tension. Minor, diminished and augmented intervals create more harmonic tension. Non-chordal tones can create harmonic tension.

Each chord and region of a chord paints a mood. Larger chords are often complex with regions of varied mood. For example, 13#11 has bright major triad on its root, a dark diminished triad on its third, a sad minor triad on its fifth and an anguished augmented triad on its flattened seventh.

Theme Shapes

See the Theme Shapes section. For each song, read the melody in sheet music to see the specific implementation described. Then apply the same description to a different chord progression with supporting scales and arpeggios.

MULTIPLE DESIGN ELEMENTS AND THE EMOTIVE CURVE

Multiple Design Elements

The melodic attributes shown in this chapter are design elements of pitch, rhythm, chord quality, dissonance and consonance used on a time line, conceivable graphically. In “The [Emotive Curve and Sentiments](#)”, curves on a time line are discussed in terms of pitch, rhythm, dissonance, consonance and timbre.

Music is more inspiring and engaging when there are a sufficient number of design elements. In some styles, there are too few. In the late eighties much of the pop guitar soloing was fast with heavy effects, but with little diversity of design.

Pat Martino was a great player. He often played fast continuous sixteenth notes for long durations (many bars), without a diversity of other elements. At other times, he played with a diversity of design. You will probably find it most pleasing when he played a few bars of continuous sixteenths and periodically played vocal-oriented melody and other designs.

In J.S. Bach’s Brandenburg Concerto No. 3 in G major, he used much repetition of [fragment patterns](#) and [pivot tone](#), yet diversified regularly by changing design and by establishing chord regions with cadences.

Eric Johnson, B.B. King, George Benson, Joe Pass, Barney Kessel, Jim Hall, Paco De Lucia, Jimi Hendrix, Larry Carlton, Jimmy Page, and Jeff Beck have all shown a wealth of design elements and their improvisations benefit by it.

A Minor Diversity - [click to play video](#)

♩ = 105

The score is divided into three systems, each with a guitar staff (top) and a bass staff (bottom). The tempo is marked as ♩ = 105. The key signature has one sharp (F#).

System 1 (Measures 1-3):

- Measure 1: Guitar has a linear scale (F#4, G4, A4, B4); Bass has notes 6, 7, 9, 10.
- Measure 2: Guitar has a melody in vocal context (A4, B4, C5, B4, A4); Bass has notes 7, 9, 9.
- Measure 3: Guitar has a large angle arpeggio (A4, B4, C5, B4, A4) and a pivot tone (A4); Bass has notes 10, 7, 8, 7, 8, 7, 10, 10/12, 9.

System 2 (Measures 4-7):

- Measure 4: Guitar has a melody in vocal context (A4, B4, C5, B4, A4); Bass has notes 12, 13, 12, 12, 13.
- Measure 5: Guitar has a large angle arpeggio and triplets to signify chord change with change of rhythm (A4, B4, C5, B4, A4); Bass has notes 12, 17, 13, 15, 14, 15, 12, 12.
- Measure 6: Guitar has a melody in vocal context (A4, B4, C5, B4, A4); Bass has notes 7, 8, 7, 8, 7, 10, 10/12, 9.
- Measure 7: Guitar has a fragment pattern (A4, B4, C5, B4, A4); Bass has notes 12, 13, 15, 13, 12, 13, 12, 10, 8, 10, 8, 7, 8, 7.

System 3 (Measures 8-11):

- Measure 8: Guitar has a melody in vocal context (A4, B4, C5, B4, A4); Bass has notes 10, 10, 7, 10, 9, 6.
- Measure 9: Guitar has a linear scale (F#4, G4, A4, B4); Bass has notes 7, 6, 8, 7, 10, 12, 9, 9.
- Measure 10: Guitar has a melody in vocal context (A4, B4, C5, B4, A4); Bass has notes 10, 7, 8, 7, 8, 7, 10, 10/12, 9.
- Measure 11: Guitar has a melody in vocal context (A4, B4, C5, B4, A4); Bass has notes 10, 12.

ANGLE

During the same period of time, a greater interval creates a greater angle and mildly more tension.

An Octave To Grab Attention

An octave during a short period is catchy and attention-grabbing. The excerpt below from “B.B. Jump Blues” features an octave theme (three instances) with variation. [click to play video](#)

Swing Eighths

♩ = 140

Here's another attention-grabbing octave example. The excerpt below from “B.B. King Improv Study in G” features an octave skip in the next-to-last bar of the excerpt. [click to play video](#)

♩ = 148

Swing Eighths

Fifths In Blues Melody - [click to play the video](#)

Swing Eighthths

♩ = 120

A fifth is a moderately large interval and grabs your attention. In the Fifths in Blues Melody example below, the fifth from G to D is using during the I chord (G7), reminiscent of a field-holler (the vocal roots of blues melody). During the IV chord (C7), the root of the IV chord (4 of the key) is stated, then followed by ascend to the tone center (G), up a fifth. During the V7 chord (D7), the fifth of the key (D) ascends to the second of the key, suggesting both a ninth of the key (2=9) and the fifth of the V7 chord (A is the fifth of D7).

Linear Diatonic Notes Per Octave

Angles of Linear Diatonic Scales Versus Triad Arpeggios - [click to play video](#)

♩ = 120

Diatonic scales are those seven-tone scales including the modes of major, harmonic minor, melodic minor and harmonic major (28 modes). Played linearly up or down, fewer notes notes per octave are more jarring and attention grabbing. More notes per octave are smoother. In the example below, the ascending diatonic scales sound smooth and calm. The descending triad arpeggios are mildly jarring and grab your attention a bit more.

Angles of Linear Chromatic Scale Versus Triad Arpeggios - [click to play video](#)

♩ = 120

The musical score is written in 4/4 time with a tempo of 120 beats per minute. It consists of two systems of music. The first system contains measures 1 through 4, and the second system contains measures 5 through 8. Each measure features a single melodic line on a treble clef staff. Below the staff, there are three rows of numbers: T (Tonic), A (Arpeggio), and B (Bass). The numbers represent the sequence of notes in the scale or arpeggio for each measure. The first system starts with a C major triad (C-E-G) and a descending chromatic scale. The second system starts with an F major triad (F-A-C) and a descending chromatic scale. The numbers are as follows:

Measure	T	A	B
1	8 7 6 5	9 8 7 6	10 9 8 7
2	8 13 12 15 12 13	12 11 10 9	12 11 10 9
3	13 12 11 10 9	13 12 11 10	14 13 12 11
4	10 15 10 12 8	10 14	
5	10 9 8 7	10 9 8 7	11 10 9 8
6	10 10 8 13 8 10 6	8 12	10
7	8 7 6 5	9 8 7 6	9 8 7 6
8	9 8 7 6	10 9 8 7	10 9 8 7

A chromatic scale plays all twelve notes per octave. Unless particular attention is given to aligning chords tones of the current chord on the beat, a chromatic scale has a generally smooth effect though somewhat dissonant because of the five notes per octave that are not in the current seven-tone diatonic scale. In the example below, a descending chromatic scale is alternated with an ascending triad arpeggio. Like the comparison above with diatonic scales and triad arpeggios, the arpeggios grab your attention a little more and the chromatic scales are smoother.

CONTOUR

The shape of the melodic line, from linear and smooth to jagged with frequently-changing direction defines the contour of the melodic line. Rapidly changing direction causes a jagged contour, like the “A” section of “Afro Blue” or bars 5-7 of Billie’s Bounce.

Interval Size

A pair of notes span an interval. Consecutive notes create a series of intervals, making a [contour](#). Linear melody with small intervals has low tension. Large intervals are jarring and create more tension. Dissonant intervals like diminished fifth, augmented fifth and major seventh create more tension. Large and dissonant intervals such as a diminished fifth compound the tension.

Fragment Pattern Melodic Contours

[click to play video](#)

Textures created by the fragment pattern contours below are much more effective when mixed with other designs. See the Fragment Patterns chapter for more detail on fragment patterns and see the chapter Melodic Cells for all the other melodic designs.

Swing Eighths

♩ = 200

1 Am

T
A
B

Swing Eighths version: more robotic, less playful, less dance-like. original 1-2-3-4 fragment is 4-3-2-1 descending

5

T
A
B

Straight Eighths version: more robotic, less playful, less dance-like. original 1-2-3-4 fragment is 4-3-2-1 descending

9

T
A
B

Swing Eighths

1-2-3-4 fragment displaced with the second note on the beat; becomes 1-2-3-1 ascending and 1-3-2-1 descending

13


T
A
B

9 10 7 9 10 10 | 7 9 10 7 9 10 8 9 || 9 8 10 9 7 10 9 7 | 10 9 7 10 9 7 10 9

1-2-3-4 fragment displaced with the third note on the beat; becomes 1-2-7-1 ascending and 1-7-2-1 descending

17

1-2-3-4 fragment displaced with the fourth note on the beat; becomes 1-6-7-1 ascending and 1-7-6-1 descending

21/ 

T 7 9 10 7 9 10 7 9 10 7 9 10 8 9 10 8 || 8 10 9 8 10 9 7 10 9 7 10 9 7

A 9 10 10

B

$\text{♩} = 150$

1-2-3-4 with its rhythmic grouping changed from four notes to three notes (triplets); becomes the twelve-note fragment with four groups of three: 1-2-3; 4-2-3; 4-5-3; 4-5-6

25 becomes the twelve note fragment with four groups of three: 1 2 3; 1 2 3; 1 9 3; 1 9 3.

T
A/B

7 9 10 7 9 10 7 9 10 7 9 10 8 9 10 8 10 10 8 10 7 8 7 10 8 7 10 8 10 8 10 9 8 10 9 7 10 9 7 9 7 10 9

Swing Eighths

whimsical start points of linear groups create an organic flow

29 whimsical start points of linear groups create an organic flow.

The musical score is for a piece in 4/8 time. It features a single melodic line on a treble clef staff. The melody is composed of eighth and sixteenth notes, with some slurs indicating phrasing. Below the staff, there are two rows of fingerings, labeled 'T' and 'B' (likely Tenor and Bass). The fingerings are numbers 7, 9, 10, 8, and 7, indicating specific fingers for each note. The piece ends with a double bar line and a repeat sign.

original 1-2-3- fragment is 3-2-1 descending

original 1-2-3- fragment is 3-2-1 descending

33

T
A
B

7 9 10 9 10 7 10 7 9 7 9 10 9 10 8 10 8 10 10 7 8 10 8 7 8 7 10 7 10 8 10 8 10 8 10 8 10 8 10 9 10 9 7 9 7 10 7 10 9

1-2-3 fragment displaced with the second note on the beat; becomes 1-2-1 ascending and 1-7-1 descending

37

1-2-3 fragment displaced with the third note on the beat; becomes 1-7-1 ascending and 1-2-1 descending

41

Swing Eighths

1-2-3 fragment with its grouping changed from three notes (triplets) to four notes;
becomes the twelve-note fragment with three groups of four: 1-2-3-2; 3-4-3-4; 5-4-5-6

45

49

original 1-3 fragment ascend 1-3 and descends 3-1

51

1-3 fragment displaced to start on the second note; becomes 2-1 ascending and 1-2 descending

55

Swing Sixteenths

♩ = 95

59 Dm G⁷ C⁷

T
A
B

10 7 8 7 10 7 9 10 7 9 10 8 10 8 7 8 10 9 8 9 11 11 10 10 9 7 11 8 9 9 8 9 7 10 11 8 11 9 10 7 10 8

Pivot Tone Melodic Contours[click to play video](#)

Pivot tone melodic contours are an interesting design with a single pitch alternating with a descending or ascending scale. See [Melodic Cells](#)/Melodic Cell Types/Linear Scales and Arpeggios as Cells/[Pivot Tone](#).

Swing Eighths

♩ = 160

1 Am

T
A
B

7 7 9 7 10 7 7 7 9 10 7 7 7 10 10 8 10 10 10 9 10 7 10 10 10 10 10 7 10 10 10 10 10 7 10 9 10 10 8 10 7 7 7 7 9 7 10 7 7 7 9 7 10 7 7 10

HARMONIC TENSION AND CHORD COLOR

Harmonic Tension

Perfect and major intervals create less harmonic tension. Minor, diminished and augmented intervals create more harmonic tension. Non-chordal tones can create harmonic tension. Adding a non-chordal tone can introduce a pleasing, colorful harmony to an existing chord, in which case it becomes part of the chord, such as an added sixth or ninth.

Chord Color

Each chord and region of a chord “paints” a mood. Larger chords are often complex with regions of varied mood. For example, 13#11 has bright major triad on its root, a dark diminished triad on its third, a sad minor triad on its fifth and an anguished augmented triad on its flattened seventh.

THEME SHAPES

“Ain’t Misbehavin’”

section A - offbeat three-note weave, up a fourth or fifth.

“All of Me”

Three descending notes with eighth note syncopation, quarter note triplet three-note weave as a pickup to another three descending notes with eighth note syncopation.

“All the Things You Are”, bars 1-8 and 9-16

Two notes with long duration ascending a fourth; twice: a repeated note followed by another ascending fourth; resolve down.

“Angel Eyes”

Ascend a fifth, then descend immediately to the dark flat fifth; descend to interplay the flat third and root; ascend and descend the key minor ninth including a skip of a fifth from the fifth to the ninth (1-b3-5-9-root-5).

“Another Star” section A

Ascend minor root to fifth in quarter note triplets, starting on the second triplet note; scalar weave down to the root. Repeat except end with a weave down to flat three and up to five.

“April In Paris” section A

Three times: repeat a note in a quarter-note triplet, followed by scalar encircling to the next lower scale tone. Ascend to a chord tone by thirds.

“Autumn Leaves” section A

Four times: ascend three scale tones, then ascend a fourth.

“Bags’ Groove”

(1) sustain the key scale fifth; (2) play the key scale fourth, its lower neighbor, then the fourth; (3) the key scale flatted third, its lower neighbor then the flatted third; (4) the key scale tone center, its lower neighbor then the tone center; (5) end on the key scale flatted seventh to create a mild tension.

“Begin the Beguine”

Repeat this design, as you see on the sheet music: quarter note triplet with chord tone ascending to passing tone then the next higher chord tone, use scalar encircling to a lower chord tone of the same or of the next chord.

“Chitlins Con Carne”

With pivot tone and a little syncopation, the Chitlins Con Carne melody has a jagged design, not too jarring. Use key scale 1 as a pivot tone, ascending to b3, 4, then sustain 5, pivot 1 to b3; then pivot tone 1 to b3 and 4 again. Repeat. Play a third time, but instead of sustaining 5, pivot to 5 and sustain b7.

“Confirmation”

Two-note core melody with skips and syncopation.

“Days of Wine and Roses” section A

Beginning with a long, rolling key major pentatonic melody, followed by a two-chord-tone pickup to each chord, when the second note is an anticipation repeated at the beginning of the chord and descending a fifth. Section A ends with a rolling major pentatonic then key major scale melody, ending on 2.

CORE MELODIC RHYTHM

Separate from the pitch design components of melody, there is a simple rhythmic basis of melody. This could be called the core melodic rhythm. You can learn to identify it by pursuing the rhythmic foundation in the endless repertoire of music. Once you get a sense of the nature of core melodic rhythm and use the concept to compose and improvise your own melody.

Attributes of Core Melodic Rhythm

These attributes can contribute to core rhythm status for notes and places in time:

- ✦ the one, two or three rhythmically most important locations in time in bar
- ✦ rhythmic locations used by many instruments (or voices) in the arrangement
- ✦ notes that stand out because of accent, skip to a high pitch or change the scale
- ✦ a harmonic change note that sharps or flats a note in the parent scale
- ✦ a note of a familiar theme, even if only hinted

Identifying Duality Tones

Notes common to both the current scale and the current chord are duality tones. This can be arbitrary, since there are usually options for both the current scale and the current chord.

Reverse-Constructing Core Melodic Rhythm

Once determined, a core melodic rhythm can be elaborated in many ways to make melodies.

Elaborating the Core

The core melodic rhythm can be elaborated with many rhythmic devices, including pickups, pushes and syncopation, serial repetition and anti-metric grouping.

Filling in Around Core Melodic Rhythm Phrases

“Breaths” (sustains and rests) between phrases of core melody rhythm can be replaced by rhythmically regular (continuous pulses) or irregular linear or non-linear scales, arpeggios. The “filler” may use fragment patterns, melodic devices and ornamentation. See [“Fragment Patterns”](#), [“Melodic Cells”](#) and [“Core Melody with Baroque-Bebop Ornamentation”](#).

RHYTHMIC WORD IMPROV

**Link this [Rhythmic Word Improv playlist](#) on Youtube
with over 40 hours of guitar, bass and drums**

Each page of examples features a particular rhythmic word, so you can build auditory memories of them to use in improvisation. They are in all keys and wide range of positions from the third to fifteenth. They also cover a wide range of styles. In most cases, each examples is played four times.

Rudimentary Guitar Rhythms with Rhythmic Words

These rhythms are presented in monotone pitch. The exceptions are upper and lower mordents, where a mordent is implied involving an upper or lower neighboring tone.

multitasking pitch and rhythm

With one bar at a time, your goal is to get a rhythm in mind and play it in various parts of the scale or arpeggio on the fretboard, in various fingerings. This is a very useful skill.

The first instance in A Dorian is shown in notation here, along with a link to see and hear it. You will need to audition it and focus on one bar at a time. Other instances are shown with links to videotab only and their links are shown below *after the A Dorian version*.

rhythmic words

Each study features one rhythmic word, such as “all four” or “gallop”. These exercises can train you to use a variety of rhythms. See “[Rhythmic Words and Comping](#)”.

mordents and turns

Sixteenth triplets are frequently shown, which imply an upper mordent (not, hammer, pull-off) or a lower mordent (note, pull-off, hammer). Turns are shown with four thirty second notes (three beams).

Rudimentary Guitar Rhythms in A Dorian - [link to video](#) [link to playlist in many keys](#)

Swing Sixteenths

♩ = 100

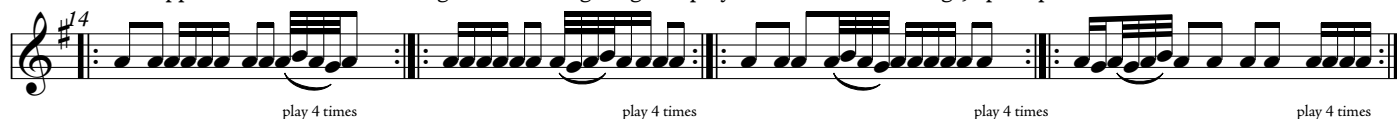
all four sixteenths



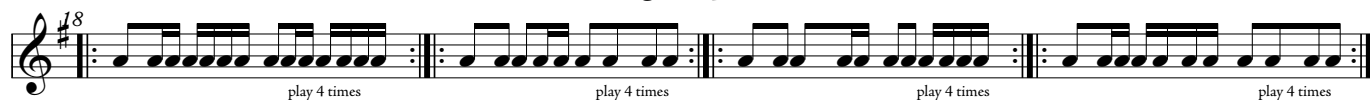
use upper or lower mordent according to ease of fingering



Use upper or lower turn according to ease of fingering. To play the turn on two strings, opt to pick the fourth note.



gallop



use upper or lower mordent according to ease of fingering



Use upper or lower turn according to ease of fingering. To play the turn on two strings, opt to pick the fourth note.



jingle bells



use upper or lower mordent according to ease of fingering



Use upper or lower turn according to ease of fingering. To play the turn on two strings, opt to pick the fourth note.



Creedence



↓ ↓ ↓ ↓ ↑ ↑ ↓ ↓ ↑ ↑ ↑ ↑



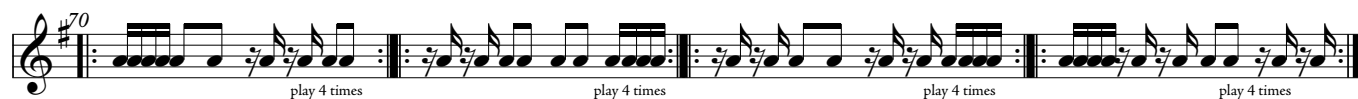
use upper or lower mordent according to ease of fingering



Use upper or lower turn according to ease of fingering. To play the turn on two strings, opt to pick the fourth note.



2-4



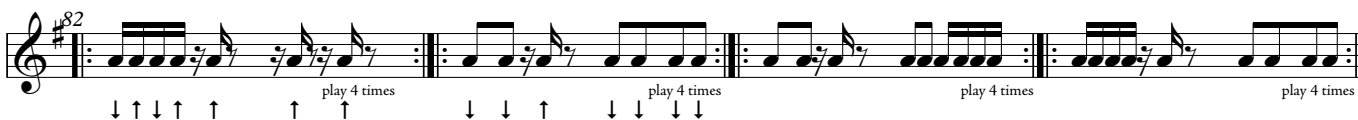
use upper or lower mordent according to ease of fingering



Use upper or lower turn according to ease of fingering. To play the turn on two strings, opt to pick the fourth note.



2 (the second sixteenth)



use upper or lower mordent according to ease of fingering



Use upper or lower turn according to ease of fingering. To play the turn on two strings, opt to pick the fourth note.



2-3-4, followed by a rest



use upper or lower mordent according to ease of fingering



Use upper or lower turn according to ease of fingering. To play the turn on two strings, opt to pick the fourth note.



Swing Eighths

♩ = 140

triplet and swing eighths

Measures 114-127. The notation is in treble clef with a key signature of one sharp (F#). It features a series of eighth notes and triplets. Brackets below the staff indicate groupings: three eighth notes grouped as a triplet, and groups of four eighth notes. Rehearsal marks are present at measures 114, 119, 123, and 127. The tempo is marked as ♩ = 140.

♩ = 140

waltz

Measures 131-143. The notation is in treble clef with a key signature of one sharp (F#). It features a series of eighth notes and triplets. Brackets below the staff indicate groupings: three eighth notes grouped as a triplet, and groups of four eighth notes. Rehearsal marks are present at measures 131, 135, 139, and 143. The tempo is marked as ♩ = 140.

♩ = 140

Afro-Cuban

Measures 147-159. The notation is in treble clef with a key signature of one sharp (F#). It features a series of eighth notes and triplets. Brackets below the staff indicate groupings: three eighth notes grouped as a triplet, and groups of four eighth notes. Rehearsal marks are present at measures 147, 151, 155, and 159. The tempo is marked as ♩ = 140.

♩ = 140

3 of 3

Measures 163-178, 3 of 3. This section consists of four staves of music in treble clef with a key signature of one sharp (F#). The tempo is marked as ♩ = 140. The notation includes various rhythmic patterns, primarily using eighth and sixteenth notes, with many measures containing triplets. Rehearsal marks are present at measures 163, 167, 171, and 175. The first three staves each have four measures, and the fourth staff has four measures. The notation is complex, with many measures containing triplets and repeated patterns. The first staff has measures 163-166, the second 167-170, the third 171-174, and the fourth 175-178. The notation includes many triplets and repeated patterns, with some measures marked 'play 4 times'.

♩ = 140

2 of 3

Measures 179-191, 2 of 3. This section consists of four staves of music in treble clef with a key signature of one sharp (F#). The tempo is marked as ♩ = 140. The notation includes various rhythmic patterns, primarily using eighth and sixteenth notes, with many measures containing triplets. Rehearsal marks are present at measures 179, 183, 187, and 191. The first three staves each have four measures, and the fourth staff has three measures. The notation is complex, with many measures containing triplets and repeated patterns. The first staff has measures 179-182, the second 183-186, the third 187-190, and the fourth 191. The notation includes many triplets and repeated patterns, with some measures marked 'play 4 times'.

Rhythmic Word Improv with Arpeggios and Scales

[click to play video](#)

Swing Sixteenths

♩ = 100

gallop and 1-3 on Am triad

Measures 1-8: gallop and 1-3 on Am triad. The melody includes eighth and sixteenth notes with triplet markings. The bass line consists of a steady eighth-note pattern. Fingerings and string numbers are indicated below the notes.

gallop, gallop, Creedence, 2-3 on Am11

Measures 9-16: gallop, gallop, Creedence, 2-3 on Am11. The melody includes eighth and sixteenth notes with triplet markings. The bass line consists of a steady eighth-note pattern. An Am11 chord is indicated above measure 10. Fingerings and string numbers are indicated below the notes.

jingle bells, 2-4, Creedence, 2-4

Measures 17-20: jingle bells, 2-4, Creedence, 2-4. The melody includes eighth and sixteenth notes with triplet markings. The bass line consists of a steady eighth-note pattern. An Am11 chord is indicated above measure 17. Fingerings and string numbers are indicated below the notes.

mix of 2-3-4, 2-3, 1-3 and all four

Measures 21-26: mix of 2-3-4, 2-3, 1-3 and all four. The melody includes eighth and sixteenth notes with triplet markings. The bass line consists of a steady eighth-note pattern. An Am11 chord is indicated above measure 21. Fingerings and string numbers are indicated below the notes.

pairing gallop and Creedence with chromaticized ninth arpeggios

gallop with chromatic tension notes on the last half of the beat

Am¹¹

Creedence with chromatic tension notes on the last 3/4 of the beat

pairing triplet and waltz

Am¹¹

SYNCOPIATION AND CHANGE OF RHYTHM

Once the meter (beat) has been established, contradicting it by playing on the offbeats (syncopation) can grab the listener's attention. *Consistently* playing syncopated notes on the offbeats becomes less compelling and draws less attention.

A change in the nature of the rhythm can draw attention. Rhythmic theme and variation can first establish a repeating rhythmic theme, then change it to attract attention. A change of section, such as from the end of a verse to the beginning of a guitar solo, can be underscored by a change of rhythm in changing from eighth notes in the melody to quarter note triplets.

Anti-Metric Grouping

click to play video

three-note pitch groups and four-note rhythm groups (Dm pentatonic)

♩ = 120

2 Dm7

3

4

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"JAZZING" THE LINE

Melodic Curve and Melodic Line

The melodic line is a conceptual line that connects the notes of a melody on a timeline. The melodic curve is essentially the same, but refers a bit more to the contour of the melody.

Jazz melody includes these attributes: dissonant intervals and chords, syncopation (off-beat rhythm) and chromatics. The dissonant intervals and chords express the oppression of slavery, the syncopation comes from African rhythm and the chromaticizing comes from middle eastern and eastern European music that influenced African-American musicians through their study of classical music.

During slavery, African Americans heard music publicly in marching bands and less often in classical music performance when they were part of the staff servicing the performance. They were allowed to play military band instruments such as the fife (Portuguese flute) and marching drums. Rudimentary rhythms taught to military percussionists were adapted by slaves and mixed with the syncopation of African rhythm.

Bugle Calls with Darkened Chords, Syncopation and Chromaticizing

The bugle plays only the notes of a single major chord. There are bugle versions with F, G, C and Bb major. Bugle is always written in "C" major. It can be quite insightful to hear U.S. Army bugle calls (bugle melodies used as alerts) modified to include the attributes of jazz applied by African American jazz musicians: darkened chords, darkened scales, syncopation and chromaticizing. You can hear the evolution of jazz.

Listen to some of the darkened, syncopated and chromaticized bugle calls and try to modify one of the original bugle calls in the same manner yourself.

U.S. Army bugle calls with darkening, syncopation and chromaticizing

Each bugle call below is shown in its original version, followed by the "jazzed" version. Imagine the jazzed version played by Louis Armstrong on trumpet.

[click to play Bugle Calls video](#)

♩ = 116

Adjutant's Call

Swing Sixteenths

♩ = 116

Straight Sixteenths

♩ = 200

Assembly Call

Swing Sixteenths

♩ = 115

2

♩ = 90 ♩ = 150

Call to Quarters

Swing Sixteenths

♩ = 110

Straight Eighths

♩ = 260

Charge

Swing Eighths

♩ = 110

Straight Eighths

♩ = 60



Church Call

Swing Sixteenths

♩ = 115



Drill Call

♩ = 144 Straight Sixteenths



Swing Sixteenths

♩ = 79



4 ♩ = 200

Fatigue Call

Straight Eighths



Swing Eighths

Phrygian dominant



Fire Call

♩ = 120 Straight Sixteenths



Swing Sixteenths

♩ = 112



First Call

♩ = 240 Straight Eighths



Swing Eighths

♩ = 220



$\text{♩} = 100$ Guard Mount

39

Swing Sixteenths
Phrygian dominant

44

$\text{♩} = 120$ Straight Eighths Mess Call

49

Swing Sixteenths

57

161

169

o Straight Sixteenths
 $\text{♩} = 130$ Reveille

73

82

89

Swing Sixteenths
 $\text{♩} = 130$

198

207

215

Bugle Calls

Taps

7

♩ = 60

223

The musical score consists of three staves of music. The first staff is in 4/4 time and begins with a treble clef and a key signature of one flat (B-flat). It contains measures 223 through 230. The second staff begins at measure 231 and continues to measure 234. The third staff begins at measure 235 and continues to measure 242. The music features various rhythmic patterns, including eighth notes, quarter notes, and sixteenth notes, as well as rests and triplets. The key signature changes to two flats (B-flat and E-flat) at measure 231. The score concludes with a double bar line at the end of the third staff.

Theme and Variation

- **Harmonic Theme and Variation**
- **Rhythmic Theme and Variation**
- **Hooks**
- **Melodic Curve Exercises**
- **Theme and Variation Songlist**

HARMONIC THEME AND VARIATION

Themes that are modified to fit each chord, changing versions of numbered tones and/or substituting adjacent scale tones to cause matching.

The Melodic Curve

A melodic curve has two components: pitch and time. To conceive a melodic curve, imagine a phrase written in standard music notation with all of the elements of notation omitted except the oval note heads and the relative spacing of the notes vertically and horizontally. Now imagine an alternate system of notation on grid paper, where each grid space horizontally represents a half a beat (or some regular part of a beat) and the each grid space vertically represents a half step (an interval of one fret).

Harmonic Variation

First imagine harmonic variation by playing a melodic line on one chord, then applying it to another chord. Usually, the notes that were chord tones of the first chord should also be chord tones in the application of the melodic curve on the second chord.

The character of each chord needs to be established appropriately. When a theme played previously on a C major chord is nearly identical with its application to an A minor chord, it can help to change the scale to A harmonic minor to dramatize the sadness of the minor chord. When given the option of using a major sixth or major seventh on a major chord in a swing blues tune, you would probably choose the sixth, since the sixth chord is more common to that style than a major seventh chord.

Retaining The Range Of Pitch Or Not

It is generally easiest to hear melodies using harmonic variation when the phrases for each chord retain a given range of pitch. It can be interesting to jump around in range also, yet that requires a more obvious statement of each chord, since the listener is being distracted by the changes of range.

Two or Three Significant Parts

The listener can only process two or three significant musical parts at once. If you overburden the listener with too many different rhythmic or harmonic ideas at once, they won't understand your music and probably won't like it.

some parts are just background

Some musical parts don't require the attention of the listener and are part of the textural background. These parts tend to be more regular and just "keep time".

notable parts need to be distinctly the same or distinctly different

Musical parts that stand out to the listener should be few in number. If there are more than two or three notable parts, some of them should be made similar enough to be considered a single idea to lessen the number of different notable ideas.

RHYTHMIC THEME AND VARIATION

See [Rhythmic Themes and Layers](#).

Rhythmic Selection From A Regular Pulse

Rhythms are traditionally selected from a regular pulse that represents the beat.

“air guitar” strumming while speaking

Start by moving your hand in the air, in evenly-timed sets of down-up-down-up. The hand should move very regularly like a metronome or pendulum. Speak the selections you intend to make of each set of four. Start by speaking “down-up-down-up”, and “1-2-3-4” alternately. Gradually touch the strings and strum a single chord.

Now repeat the procedure for gallop. Speak the selections you intend to make of each set of four. Start by speaking “down-(miss)-down-up”, and “1-um-3-4” alternately. Gradually touch the strings and strum a single chord. You should be missing the strings on the first “up”, which is “2”

Syncopation

Syncopation is the emphasis of notes not on the beat, followed by either a sustain onto the next beat (most often written with a tie), or a silence on the next beat (a rest). Sustain syncopation sustains onto the next beat, while rest syncopation is followed by a rest on the next beat.

Rhythmic Words

Conceived primarily in terms of three or four pulses per beat, rhythmic words constitute all of the possible selections from those parts of the beat. All of these should be progressively memorized, beginning with those rhythmic words that have no rests (silences). There are eight four pulse rhythmic words without silences and four three-pulse rhythmic words without silences. See [Rhythmic Words and Comping](#)

The Rhythmic Theme

While a melodic curve has the two components of pitch and time. Rhythmic themes may seem simpler, but they have many subtle components. Rhythmic themes have a relation to the meter (beat). They involve selection from a regular pulse, rhythmic words and rhythmic concepts, such as syncopation, pickups and polyrhythm. See [Rhythmic Words and Comping/Melodic Rhythms Contents, Building Melodic Rhythms](#) and [Comping Rhythms Contents](#).

Metric Placement And Beat Subdivision

Rhythmic themes are placed in time in relation to the beat. Meter is the regular structure of beats in units, such as four beats to the measure (bar and measure mean the same thing). You, the other musicians and the audience all need to be imagining the same regular pulse and its subdivisions. In duple time, beats are subdivided into two parts: there are two equally spaced pulses on each beat called the downbeat and upbeat. In triple time, beats are subdivided into three parts: there are three equally spaced pulses on each beat. In swing time, there are three parts per beat conceptually, but you focus on hearing the first and third parts of each beat.

Pickups and Pushes

Pickups involve groups of notes rhythmically located immediately before the first beat of a chord (most commonly where the first beat of the chord is on the first beat of the bar). They can be regular, such as four sixteenth notes, or irregular, such as a combination of eighth and sixteenth notes. In common time (4/4), sixteenth notes are a quarter beat each and eighth notes are a half beat each.

anticipating the next beat

Pickups and pushes both anticipate the next beat by playing something at the end of the previous beat.

progressive eighth pickup exercise

Swing Eighths

♩ = 120

1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4

ba ba um um um um ba ba ba um um um ba ba ba um um um ba ba ba um um um ba ba ba um um um

↑ ↓ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓ ↑ ↓

5 3 5 5 3 5 5 5 3 5 5 5 5 3 5 5 5 5 3

play 4 times

pickup

In the example below, four beats are each divided into four parts, making sixteenth notes in 4/4. The four sixteenth notes on each beat are labeled in the row “sixteenth-note counting”. The fourth division of the second beat, labeled “a”, anticipates the third beat. This is called a *pickup*.

pickup to beat three

strum/pick	↓				↓				↑	↓						↓
selection	1				2				a	3						4

full groups of four 1 e + a 2 e + a 3 e + a 4 e + a

push

The example below is identical to the one above, except it *doesn't* play on beat three. This is called a *push*. This is often done where a chord is expected to begin on a particular beat (like beat three) and it is played early. Pushes make the music more interesting and contradicts the “tyranny of the bar line”, which can make music too march-like. There is an art to coordinating pushes. See [Comping Strategies](#).

The stroke on the last division *could* be a downstroke, since there are so many un-played pulses. If you replace a downstroke with an upstroke for that reason, you should test your rhythm by selecting from a continuous down-up motion, to make sure you are playing the rhythm correctly.

push beat three

strum/pick	↓				↓				↑							
selection	1				2				a							
full groups of four	1	e	+	a	2	e	+	a	3	e	+	a	4	e	+	a
chord changes	C7								F7							

Note that the “F7” chord is played “early” on the “a” after “4”. Modern composition has established this push (F7 on the “a” after “4”) associates the chord with the second bar.

You can also read about pickups and pushes in [Rhythmic Words and Comping/Varying Rhythm](#).

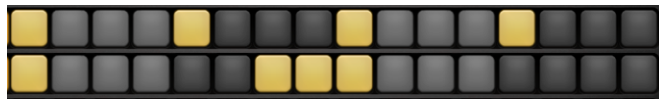
multiple note pickups and pushes

Pickups commonly involve two or more notes of each value at the end of the previous beat. Here are examples of two-note and three-note pickups and pushes:

original: strumming on beats and and three

strum/pick	↓								↓							
selection	1								1							
sixteenth counting	1	e	+	a	2	e	+	a	3	e	+	a	4	e	+	a
chords	C7								F7							

two-note pickup to beat three


$$\begin{array}{ccccccc}
 & & & & \downarrow & \uparrow & \downarrow \\
 1 & & & & + & a & 3 \\
 1 & e & + & a & 2 & e & + & a & 3 & e & + & a & 4 & e & + & a
 \end{array}$$

two-note push to beat three


$$\begin{array}{ccccccc} & \downarrow & & & \downarrow & \uparrow & \\ 1 & & & & + & a & \\ 1 & e & + & a & 2 & e & + & a & 3 & e & + & a & 4 & e & + & a \end{array}$$

three-note pickup to beat three


$$\begin{array}{ccccccc}
 & & & & \uparrow & \downarrow & \uparrow & \downarrow \\
 1 & & & & e & + & a & 3 \\
 1 & e & + & a & 2 & e & + & a & 3 & e & + & a & 4 & e & + & a
 \end{array}$$

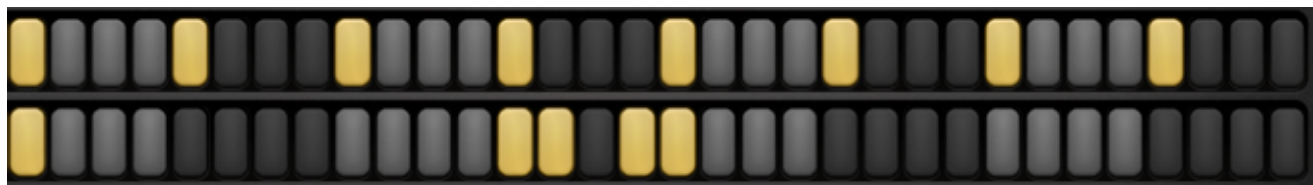
three-note push to beat three


$$\begin{array}{ccccccc} \downarrow & & & & \uparrow & \downarrow & \uparrow \\ 1 & & & & e & + & a \\ 1 & e & + & a & 2 & e & + & a & 3 & e & + & a & 4 & e & + & a \end{array}$$

irregular pickups and pushes

Pushes and pickups can also be irregular rhythms, not consecutive pulses. The example of a pickup below occurs on the fifth beat and is the “124” rhythmic word, nicknamed “Creedence”.

irregular three-note pickup to beat one

[illegible]

Rhythmic Displacement

Rhythmic displacement retains the relative spacing between notes in a rhythmic theme, but moves in forward or backward in time.

rhythmic displacements in swing eighth notes - [click to play](#)

Measures 1-31: A musical score in 4/4 time, key of G minor (one flat). The melody consists of eighth notes with various rhythmic displacements. The bass line provides harmonic support with chords and single notes. Measure 2 is marked with a 'Gm' chord symbol. The score includes fingerings and articulation marks.

2

begin on one

Measures 32-36: Continuation of the rhythmic theme. Measures 33, 34, 35, and 36 are marked 'play 4 times'. The score includes fingerings and articulation marks.

begin on the "and after four"

Measures 37-40: Continuation of the rhythmic theme. Measures 38, 39, and 40 are marked 'play 4 times'. The score includes fingerings and articulation marks.

begin on the "and after one"

Measures 41-45: Continuation of the rhythmic theme. Measures 42, 43, 44, and 45 are marked 'play 4 times'. The score includes fingerings and articulation marks.

begin on four

46 47 48 49 50

play 4 times

play 4 times

begin on two

51 52 53 54 55

play 4 times

begin on the "and after three"

56 57 58 59

play 4 times

Gm

begin on the "and after two"

60 61 62 63 64

play 4 times

65 66 67 68 69 70 71

play 3 times

Cannonball Shuffle rhythmic displacement studies - [click to play](#)

rhythmic displacement with #2-3-5-6-1 and variation 2-b3-5-6-1

the phrase labeled "in B" treats E7 as of IV chord in B, mimicking D7 as a IV chord in A

♩ = 127

Swing Eighthths

Measures 1-13 of the study. Chords E7 and A7 are indicated. Measure 10 has a first ending bracket. Measure 13 is labeled "in B: 2".

2

rhythmic displacement with 5-4-3-1-b7 and variation 5-4-b3-1-6

Measures 14-26 of the study. Chords E7, A7, and D7 are indicated. Measure 14 has a second ending bracket. Measure 26 is labeled "in B: 5".

rhythmic displacement with 5-4-3-1-b7 and variation 5-4-b3-1-6 with 5-b7 fills

5

27 **A7**

4 3 1 b7 5 4 3 1 b7 5 4 3 1 b7 5 5 3 b7 5 b7 5 b7 5

31 **D7** **A7**

4 b3 1 6 5 4 b3 1 6 5 4 3 1 b7 5 b7 b7 5 b7 5 b7 5 b7 5 b7

35 **E7** **D7** **A7** **E7**

5 b7 5 b7 5 b7 5 4 b3 1 6 5 4 3 1 b7 5 3 b7 5 b7 b7

Cannonball Shuffle - rhythmic displacement studies

4 rhythmic displacement with 3-1-b7-1-b3-4-#4-5-b3-4-3-1, variation b3-1-6-1-b3-4-5-b3-4-3-6 and 3-1-3-2

39 **A7**

in A: 3 1 b7 1 b3 4 #4 5 b3 4 3 1 push 3 1 b7 1 b3 4 #4 5 b3 4 3 1 elab.

43 **D7** **A7**

b3 1 6 1 b3 4 #4 5 b3 4 b3 6 push 3 1 b7 1 b3 4 #4 5 b3 4 3 1

47 **E7** **D7** **A7** **E7**

3 1 3 2 b3 1 b3 2 b3 1 6 3 1 b7 1 b3 4 #4 5 b3 4 3 1

rhythmic displacement with 1-b3-1-3-4-5-3-4-3-b7 and variation 1-b3-1-b3-4-5-b3-4-3-b7

51

#4 5 b3 4 3 1 1 b3 b3 1 3 4 5 3 4 3 b7 1 1 b3 b3 1 3 4 5 3 4 1 1

11 12 8 10 9 17 17 13 13 14 13 14 15 12 14 15 13 14 12 17 17 13 13 14 13 14 15 12 14 15 17 17

56

b3 b3 1/4 1 b3 4 5 b3 4 b3 b7 1 1 b3 b3 1/4 1 3 4 5 3 4 abbrev. 1 1 1

13 13 14 12 13 15 12 13 15 12 17 17 13 13 14 13 14 15 12 14 15 17 17 17

60

b3 b3 b3 1/4 1 3 4 5 3 4 b3 b7 1 1 b3 b3 1/4 1 3 4 5 3 4 abbrev. 1 1

13 13 13 14 13 14 15 12 14 15 13 14 12 17 17 13 13 14 14 15 12 14 15 17 17

6

3-5-6-1-3, b3-2-6-1-2-6-1

64

3 5 6 1 b3 put your own filler here, but don't over-power the core melody b3 2 6 1 2 6 1 put your own filler here, but don't over-power the core melody b3 5 6 1

15 12 7 5 6 5 7 5 7/10 8 7 5 7 7 5 7 4/5 5 7 5

69

b3 (6) (b3) put your own filler here, but don't over-power the core melody 3 2 6 1 2 6 1 put your own filler here, but don't over-power the core melody 3 5 6 1

7/10 8 7 8 9 7 7 5 7 7 5 7 5 6 5 7 5

73

3 2 6 1 2 6 1 play very sparse, or play nothing to signify the end of the section 3 5 6 1

8 5 7 5 8 7 9 7 7 5 7 7 5 7 5 6 5 7 5

Cannonball Shuffle - rhythmic displacement studies

1-5-b3-1-b7-1-3, 5-4-b3-1-5

7

77 **2.** **A⁷**
 in A: 1 5 b3 1 b7 1 3 optional filler here, but don't over-power the core melody 1 5 b3 1 b7 1 b7 optional filler here, but don't over-power the core melody 1
 T 8/10 (2) 8 5 7 5 5 8/10 8 5 7 5 7 5 8/10 7 7
 A B

82 **D⁷** **A⁷**
 4 b4 b3 optional filler here, but don't over-power the core melody 1 5 b3 1 b7 1 3 optional filler here, but don't over-power the core melody 3
 T 7 7 6 5 8/10 8 5 7 5 7 5 7 5 7 5
 A B

86 **E⁷** **D⁷** **A⁷** **E⁷**
 5 3 4 b3 1 5 5 3 4 b3 1 4 3 1 3 1. 1
 full full full full Robert Johnson ending 1
 T 7 5 7 7 5 7 7 5 7 5 2/4 2 5 2 5 4 3 5 0 3 8/10
 A B

8 **2.** **E⁷** **A⁷** **5-6-5-1-3-1, 3-4-5-4-3-1-5**
 5 6 5 1 3 1 3 4 5 4 3 1 5 6 5 1 3 1 3 4 5 4 3 1 5 5
 0 1 2 0 1 1 2 3 0 3 1 2 0 3 1 1 2 3
 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3
 T 5 0 3 5 7 5 7 10 6 7 9 7 5 7 5 7 10 6 7 9 10 9 5 8 8 5
 A B

95 **D⁷** **A⁷**
 1 2 1 1 0 3 4 5 4 b3 5 6 5 1 3 1 3 4 5 4 3 1 A minor pentatonic
 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3
 T 7 10 9 7 8 5 7 9 7 5 5 7 5 7 10 9 6 7 9 7 5 7 5 7 5 7
 A B

99 **E⁷** **D⁷** **A⁷** **1A⁷** **E⁷**
 A minor pentatonic 5-1-b7-5 A minor pentatonic b3-4-5-4, shape similar to beginning of bar 10 sixths in A Dorian with chromatics
 2 2 3 2 3 2 3 2 1 1/4 1/4
 T 7/9 10 8 9 9 8 10 8 10 12 10 8 10 9/12 12 11 10 9 8 10 8 9 9
 A B

5-b5-4-3-1-5, 6-5-3-6-1

103 2A⁷ E⁷

5 5^{b5} 4 3 1 5 6 5 3 6 1 5 5^{b5} 4 3 1 5

10 8 9 9 10 11 10 8 10 9 12 12 12 (12) 11 10 10 11 10 8 10 9 7 10 7 9 8 10 8 10 11

108 D⁷

5 5^{b5} 4 3 1 6 6 5 3 6 5 5^{b5} 4 3 1 5

10 11 10 8 10 11 12 12 12 (12) 11 10 11 10 8 10 9 9 8 10 9 8 10 11 10 12 12 12 9 10

112 E⁷ D⁷ A⁷ 1. E⁷

E Mixolydian with same shape as bar 1, chord tones on the beat 6 5 3 6 A minor pentatonic with major 3

12 10 9 10 9 9 12 12 12 (12) 11 10 12 10 9 10 9 10 9 9

10 2. E⁷ A⁷ D⁷ D^{#9} E⁷ E^{b9} D⁷ E⁷(^{#9}) A¹³ 105 40 105

rit. 5 8 7 6 5 7 6 7 8 5 6 5 6 5 7 6 7 5 7 5 6 5 8 5

HOOKS

Hooks are catchy fixed themes repeated, usually without variation, at regular intervals of time, in strategic locations (like the beginning of the song or between sections) or in a pattern in time so the listener expects them, even though they may be dissonant against some of the chords.

Listeners come to expect hooks. They have heard many songs where a hook is repeated in a regular or patterned manner in a song and they expect it to repeat. Hooks should be composed so they stand the test of time and the listener doesn't tire of hearing them over and over.

Triad Hooks [click to play video](#)

Peggy Sue $\text{♩} = 148$

6 **D**

9 **A** **E** **D** **A** **D** **A** **E**

Another Brick In the Wall $\text{♩} = 114$

14 **Dm** **C** **Dm** **C** **G** **F**

17 **F** **C** **Dm**

Back In Black $\text{♩} = 180$

21 **E** **D** **A** **D** **E** **D** **A** **D**

30. ♩ = 110 **Badge**

33. ♩ = 102 **Beast of Burden**

37. ♩ = 128 **Behind Blue Eyes**

41. ♩ = 142 **Born To Be Wild**

44. ♩ = 127 **Brown Sugar**

49. **Can't Get Enough**

53. ♩ = 122

The musical score consists of five systems, each representing a different song. Each system includes a treble staff and a bass staff. The songs are: **Badge** (measures 30-32), **Beast of Burden** (measures 33-36), **Behind Blue Eyes** (measures 37-40), **Born To Be Wild** (measures 41-43), and **Brown Sugar** (measures 44-53). The score is in G major and 4/4 time. The songs are: **Badge** (measures 30-32), **Beast of Burden** (measures 33-36), **Behind Blue Eyes** (measures 37-40), **Born To Be Wild** (measures 41-43), and **Brown Sugar** (measures 44-53). The score is in G major and 4/4 time. The songs are: **Badge** (measures 30-32), **Beast of Burden** (measures 33-36), **Behind Blue Eyes** (measures 37-40), **Born To Be Wild** (measures 41-43), and **Brown Sugar** (measures 44-53).

60 $\text{♩} = 173$ **Communication Breakdown** E D A D

63 $\text{♩} = 120$ **Conga** Em D Em D Em D Em D C D C D C D Em D Em D Em D C D C D C D

68 D Em C D C D C D Em D C Em D Em D

72 $\text{♩} = 136$ **Crazy Train** A E/A D/A A

75 $\text{♩} = 216$ **Desire** D A E A E A

78 $\text{♩} = 164$ **Feel Like Makin' Love** D C/D G G(sus4) G D C/D G/D G(sus4)/D G D

87 $\text{♩} = 155$ **Fire and Rain** A Em7 D A

92 A E Gmaj7

♩ = 127 Freddie Freeloader in the key of each chord, this uses VIm and Vm with a pedal point root

Swing Eighths

Measures 96-104: Freddie Freeloader. Chords: B \flat 6, B \flat 9, B \flat 6, B \flat 9, E \flat 6, E \flat 9, B \flat 6, B \flat 9, E7, F7. The piece is in the key of each chord, using VIm and Vm with a pedal point root.

♩ = 120 Gloria

Straight Eighths

Measures 112-117: Gloria. Chords: E, D, A, D, E, D, A, D, E, D, A, E, D, A. The piece is in the key of each chord, using VIm and Vm with a pedal point root.

♩ = 127 Here Comes the Sun

Measures 117-123: Here Comes the Sun. Chords: A, F, C, G, D, A. The piece is in the key of each chord, using VIm and Vm with a pedal point root.

♩ = 112 Highway to Hell

Measures 124-129: Highway to Hell. Chords: A, D/F#, G, D/F#, G, D/F#, G, D/F#, A. The piece is in the key of each chord, using VIm and Vm with a pedal point root.

♩ = 115 Honky Tonk Women

This musical score for 'Honky Tonk Women' is in 3/4 time with a tempo of 115 beats per minute. It features a melody in the right hand and a bass line in the left hand. The key signature has one sharp (F#). The score is divided into four systems, each with a treble and bass staff. Chords are indicated above the melody. The first system (measures 130-136) includes chords G, C, F/C, and C. The second system (measures 137-142) includes G, A, D/A, A, D, G/D, D, and G. The third system (measures 143-148) includes G, C, F/C, C, and G. The fourth system (measures 149-154) includes G, D, G/D, D, G, C/G, G, G, C/G, G, and C/G. The bass line consists of a steady eighth-note pattern in the right hand and a simple bass line in the left hand.

♩ = 127 Hurts So Good

This musical score for 'Hurts So Good' is in 3/4 time with a tempo of 127 beats per minute. It features a melody in the right hand and a bass line in the left hand. The key signature has two sharps (F# and C#). The score is divided into two systems, each with a treble and bass staff. Chords are indicated above the melody. The first system (measures 147-152) includes A, Bm/A, A, A6, A, A, Bm/A, A, A6, A, A, Bm/A, A, A6, and A. The second system (measures 153-158) includes A, Bm/A, A, A6, A, A, Bm/A, A, A6, A, A, Bm/A, A, A6, and A. The bass line consists of a steady eighth-note pattern in the right hand and a simple bass line in the left hand.

♩ = 135 I Can See For Miles

This musical score for 'I Can See For Miles' is in 3/4 time with a tempo of 135 beats per minute. It features a melody in the right hand and a bass line in the left hand. The key signature has three sharps (F#, C#, and G#). The score is divided into two systems, each with a treble and bass staff. Chords are indicated above the melody. The first system (measures 154-159) includes E, G, A, E, E, and G6/E. The second system (measures 160-165) includes G6/E, A/E, C/E, D(add9)/E, and E. The bass line consists of a steady eighth-note pattern in the right hand and a simple bass line in the left hand. A 'play 3 times' instruction is present above the second system.

♩ = 135 I Can't Explain

This musical score for 'I Can't Explain' is in 3/4 time with a tempo of 135 beats per minute. It features a melody in the right hand and a bass line in the left hand. The key signature has three sharps (F#, C#, and G#). The score is divided into two systems, each with a treble and bass staff. Chords are indicated above the melody. The first system (measures 166-171) includes E, D, A, and E. The second system (measures 172-177) includes E, D, A, and E. The bass line consists of a steady eighth-note pattern in the right hand and a simple bass line in the left hand.

♩ = 120 **I Fought the Law**

This musical score is for the song 'I Fought the Law' in G major, 4/4 time, with a tempo of 120 beats per minute. It consists of four systems of music. The first system (measures 168-172) features a melody in the treble clef and a bass line in the bass clef, with chords G, C, D, G, D, C, D, G. The second system (measures 173-176) continues the melody and bass line, with chords C, G, C, G, C, G, D, C. The third system (measures 177-180) continues the melody and bass line, with chords C, G, C, G, C, G, D, C. The fourth system (measures 181-184) concludes the piece with chords G, D, C, D, G.

♩ = 120 **Island in the Sun**

This musical score is for the song 'Island in the Sun' in G major, 4/4 time, with a tempo of 120 beats per minute. It consists of one system of music (measures 183-186). The melody is in the treble clef, and the bass line is in the bass clef. The chords are G, Am, D, G.

♩ = 110 **Jack and Diane**

This musical score is for the song 'Jack and Diane' in G major, 4/4 time, with a tempo of 110 beats per minute. It consists of two systems of music. The first system (measures 186-190) features a melody in the treble clef and a bass line in the bass clef, with chords A, E/A, A, E/A, D/F#. The second system (measures 191-194) continues the melody and bass line, with chords A, E, D, E, A, E, D, E, A.

= 80 Kashmir

195

T 15 14 13 12 10 9 3 3 1 1
 A 15 14 13 12 10 9 3 3 1 1
 B 16 14 14 12 11 9 3 4 3 2

♩ = 168 The Last Time

198 E D A E E D A E

11/13 12 12 12 10 10 10 9 9 9 7 11/13 12 12 10 10 10 9 9 9 7 9 9 8 10 10 10 8 9

full full

[illegible]

212 Lights $\text{♩} = 110$

Musical notation for measures 212-215. Measure 212 is a whole rest. Measure 213 has a D chord. Measure 214 has a Bm7 chord. Measure 215 has a D chord. Measure 216 has an A chord.

TAB: 7 9 7 9 7 7 7 7 2 4 2 3 5 3 2 3 7 9 7 9 7 7 7 0 2 2 3 2 3 2 3

[illegible]

Measures 227-232 of the song. The guitar part (top staff) features a complex chord progression: Em (227), Em (228), G (229), D (230), B (231), and D (232). The bass line (bottom staff) consists of a steady eighth-note pattern. The vocal melody (middle staff) is not present in this section.

231 Em G D Em G D

235 G A B D

239 Em G D Em G D Em

$\text{♩} = 122$ Love Rollercoaster C B \flat A B \flat C C B \flat A B \flat C

$\text{♩} = 96$ Love the One You're With A D/A A A D/A A G D G D G D A
do do do do do do di dit do do do do do do di di dit di di dit

253 G D G D G D A G D G D G D A A
do do do do do do di dit do do do do do do di di dit di di dit

$\text{♩} = 105$ Magic Carpet Ride D C G D C G

259 $\text{♩} = 146$ Panama E Esus⁴ D E Esus⁴ B D D(sus⁴) A

264 E Esus⁴ E Esus⁴ B D D(sus⁴) A C[#]m

268 C[#]m B A C[#]m B2 R

272 C[#]m B A B 24 fret harmonic E

278 $\text{♩} = 124$ Photograph E B A(sus²) A(sus⁴) E B Bm⁷/A A(sus²) A(sus⁴) A(sus²) A(sus⁴)

$\text{♩} = 120$ Pinball Wizard B(sus⁴) B A(sus⁴) A

283 G(sus⁴) G F[#](sus⁴) F[#] B A D E

307 ♩ = 85 Shooting Star

A E D

[illegible]

Suite: Judy Blue Eyes
 D/E C#m/E
 316

Musical score for Suite: Judy Blue Eyes, measures 316-319. The score includes a piano part with chords and a guitar part with tablature. The guitar part features a melodic line with a pull-off and a slide, and a bass line with a pull-off and a slide. The key signature is one sharp (F#) and the time signature is 4/4.

321

D/E C#m/E D/E C#m/E D/E C#m/E Bm/E

325

A Bm F#m D E A Bm F#m D E

play 3 times

♩ = 136 Summertime Blues

329

A D E A

play 4 times

♩ = 80 Ten Years Gone

332

A⁹ A⁶ Dm/A A A⁹ A⁶ Dm/A A

Saturday Night's Alright for Fighting

337

♩ = 150

D⁷ G D⁷ G C⁷ F C⁷ G⁷ C G⁷ C

♩ = 134 Unchained

342

E E(sus4) C/E D/E E E(sus4) G D

Vertigo $\text{♩} = 140$

347

D E D E D E A A^b G

Wheel In the Sky $\text{♩} = 104$

350

Dm C/E F C Dm C/E F C Dm C/E F C B^b

You Never Give Me Your Money $\text{♩} = 92$

359

C G/B A

You Shook Me All Night Long $\text{♩} = 125$

362

G C G C G D G D G D

367

G C(add9) G/B D(sus4) C(add9) G/B

You Wreck Me $\text{♩} = 154$

371

D A E play 4 times G D A

376

D A E G A D A E

Ziggy Stardust $\text{♩} = 154$

384

G D C(add9) G/B A⁷(sus4)

Individual Songs with Hooks

Here are titles of songs with notable hooks:

Ain't Misbehavin'

All Blues

All the Things You Are

April in Paris 1-16

Autumn Leaves

Autumn Leaves horn intro, Cannonball Adderley

Bag' Groove

Blue Bossa

Blue Monk

Blue Moon

Blue Train

Blues by Five

Canteloupe Island

Chitlins Con Carne

Dizzy Atmosphere

Don't Get Around Much Anymore

Equinox

Europa

Excuse My Blues

Freddy Freeloader

Giant Steps

Gibson Creek Shuffle

The Good, the Bad and the Ugly

How High the Moon

I Got Rhythm

Iko Iko

Mercy Mercy Mercy

Milestones

Minnie the Moocher intro

Moanin'

Moondance

My Favorite Things

My Funny Valentine

Night and Day

Now's the Time

One for Daddy-O

One Note Samba

Pawky

The Preacher

Put It Where You Want It

Red Baron

Road Song

Satin Doll

The Shadow of Your Smile

So What

Softly, As in a Morning Sunrise

Solar

Someday My Prince Will Come

Somewhere Over the Rainbow

Song for My Father

Sonnymoon for Two

Soul Sauce

Speak Low

St. Thomas

Stand by Me

Still Got the Blues

Straight, No Chaser

Sugar

Summertime

Summertime intro, Miles Davis

Sunny

Sweet Georgia Brown

Take Five

Take the “A” Train

Tea for Two

Tenderly

Tenor Madness

Topsy

Town Without Pity

Tune Up

The Way You Look Tonight

When the Saints Go Marching In

Willow Weep for Me

Witchcraft

The Work Song

individual songs with hooks based on arpeggios

Harlem Nocturne

Night in Tunisia

In a Sentimental Mood

Beatles hooks

Yesterday - the melody and chord progression are so strong, it doesn't need a hook. You could call "I believe in Yesterday" a hook.

Here Comes the Sun (early 1969)- catchy melody & variation. Hook at the end of the verse. "Classical Gas" (1968) style interlude at 1:30.

Come Together- bass theme at the beginning.

Twist and Shout - updated rhythm guitar hook at the beginning is more driving than the Isley Brothers update of the original surf style song by the Top Notes. Probably influenced by 1957 La Bamba.

Hey Jude (Aug '68) - stylized piano comping with chord on the beat. Striking change of mode with anthem-like Mixolydian chorus at the end.

Let It Be (Piggies sessions Sep '68) - stylized piano comping with chord on the beat copied from Hey Jude (Aug '68) and later used on Imagine (1971). Interlude at 1:44 elaborates on the the short phrase at the end of the verse.

In My Life - hook at the beginning.

Blackbird - stylized manner of scalar passages harmonized in tenths with offbeat single notes or pairs of sixteenth strums.

Something - hook at the beginning with remote modulation.

Day Tripper - guitar theme (inspired by Oh, Pretty Woman?)

Stones hooks

Paint It Black

Start Me Up

Can't You Hear Me Knocking

Satisfaction

Gimme Shelter

Beast of Burden

Sympathy for the Devil

Monkey Man

Angie

Miss You

Honky Tonk Women

Wild Horses

Brown Sugar

Jumpin' Jack Flash

You Can't Always Get What You Want

Led Zeppelin hooks

Stairway to Heaven

Immigrant Song

Whole Lotta Love

Black Dog

Rock and Roll

Good Times, Bad Times

Ramble On

Kashmir

Over the Hills and Far Away

Rock and Roll

Communication Breakdown

Black Dog

Heartbreaker

Babe, I'm Gonna Leave You

Houses of the Holy

The Ocean

Ten Years Gone

The Rover

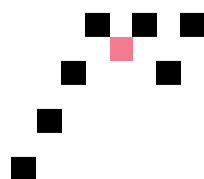
MELODIC CURVE EXERCISES

The *melodic curve* or *melodic line* conceptually represents rhythm horizontally and pitch vertically on a timeline. Melodic curves are shown below with black and grey squares. The black squares are triad chord tones and the grey squares are scale tones.

Melodic Curve Examples Represented Graphically

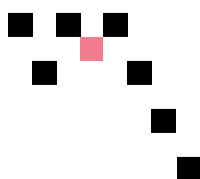
original example

1-3-5-8-7-8-5-8
3-5-1-3-2-3-1-3
5-1-3-5-4-5-3-5



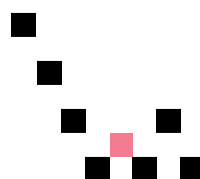
horizontal inversion

8-5-8-7-8-5-3-1
3-1-3-2-3-1-5-3
5-3-5-4-5-3-1-5



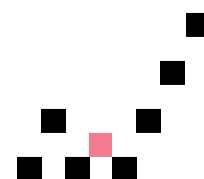
vertical inversion

8-5-3-1-2-1-3-1
3-1-5-3-4-3-5-3
5-3-1-5-6-5-1-5



dual inversion

1-3-1-2-1-3-5-8
3-5-3-4-3-5-1-3
5-1-5-6-5-1-3-5



The Secondary Dominant Chord Cycle

See [Secondary Dominant/Scale-Tone Secondary Dominants](#). Apply a melodic curve implied by the graphics below to each chord in the secondary dominant chord cycle. The repeating pattern for the cycle is:

- up a scale-tone third to a dominant seventh (or altered dominant seventh with option sharp or flat five, optional sharp or flat nine).
- up a perfect fourth to a scale-tone triad (or altered scale-tone chord, usually preferring to retain the triad part of the quality).

One exception, the seventh letter of the scale will be represented with bVII major, after which the steps are continued. bVII would go up a third to II7.

In the key of C, the secondary dominant cycle would be: C-E7-Am-C7-F-A7-Dm-F7-Bb-D7-G-B7-Em-G7, then repeat. For examples of the Secondary Dominant Cycle you can play, see [The Original 1-3-5-8-7-3-5-8 Example](#), [Comping Design/Secondary Dominant Patterned Arpeggio Exercises](#) and [Open Position Basslines/Roots and Fifths in Basslines/The Secondary Dominant Progression, Roots and Fifths in the Bass](#).

Represent seventh chords with their triad basis (1-3,-5) and substitute the b7 for a root only if the root can still be represented at least once. Learn to alter major scale-tone chords to make dominant sevenths on every step of a major scale and be aware of the changes that makes in the major scale.

Conforming Modes To the Relative Major and Minor System

To practice establishing temporary or permanent keys on each step of the major scale, each of the chords that follow a seventh chord in the Secondary Dominant Chord Cycle is standardized to a relative major or relative minor scale (major or Aeolian). This means melodies for major chords will use a major scale on their root and minor chords will use Aeolian mode (also called natural minor). Aeolian mode places a tone center on the sixth step of a major scale, so D Aeolian has the same notes as the F major scale and B Aeolian has the same notes as the D major scale. We usually make an exception with scale tone five and leave it in Mixolydian mode, since that mode has been well-established in blues, jazz and rock. So a Secondary Dominant Cycle for C major, would use the C major scale for a G major chord, but the scale would use the mode name “G Mixolydian”.

For scale tone seven, use a major chord on flat seven. Use a major scale on the root of the chord on flat seven. In [Secondary Dominant Cycle](#) for C major, the seventh step would be a Bb major chord with a Bb major scale.

<u>Blues by Five</u>	Bb	harmonic	listen for the single note melody on the piano in the head without the added harmonies four bar theme transposes to IV during the IV chord (bars 5-6), then back to I in bar 7
<u>Mr. P.C.</u>	C	harmonic	four bar theme transposes to IV during the IV chord (bars 5-6), then back to I in bar 7
<u>It Don't Mean a Thing</u>	F#m	harmonic rhythmic	bars 1-4 use a theme with descending minor bassline bars 5-8 use a repeated three-beat theme in 4/4
<u>Naptown Blues</u>	F	fixed	theme emphasizes b7 during IV, which is dissonant but acceptable because of the strong repetition

The Original 1-3-5-8-7-8-5-8- Example

applied to the secondary dominant thirds and fourths chord cycle discussed above. [Click to play.](#)

The musical score is divided into six systems, each containing a treble clef staff with a melody line and a bass staff with fingerings. The chords and their corresponding fingerings are as follows:

- System 1:** Chords C, E⁷_{b9}, Am. Fingerings: C (1 4 2 2 1 2 2 2), E⁷_{b9} (1 4 2 2 1 2 2 2), Am (1 4 3 1 4 1 3 1), C (1 4 3 1 4 1 3 1), E⁷_{b9} (1 4 4 2 1 2 4 2), Am (1 4 4 2 1 2 4 2).
- System 2:** Chords C⁷, F, A⁷_{b9}. Fingerings: C⁷ (1 4 3 3 1 2 2 2), F (1 4 3 3 1 2 2 2), A⁷_{b9} (1 1 4 2 1 2 4 2), C⁷ (1 1 4 2 1 2 4 2), A⁷_{b9} (1 4 4 3 1 3 4 3), F (1 4 4 3 1 3 4 3).
- System 3:** Chords Dm, F⁷, B^b. Fingerings: Dm (2 1 4 4 2 4 4 4), F⁷ (2 1 4 4 2 4 4 4), B^b (1 1 4 2 1 2 4 2), Dm (1 1 4 2 1 2 4 2), F⁷ (2 1 1 4 2 4 1 4), B^b (2 1 1 4 2 4 1 4).
- System 4:** Chords D⁷, G, B⁷_{b9}. Fingerings: D⁷ (2 1 4 4 2 4 4 4), G (2 1 4 4 2 4 4 4), B⁷_{b9} (2 2 1 4 2 4 1 4), D⁷ (2 2 1 4 2 4 1 4), B⁷_{b9} (1 3 1 4 2 4 1 4), G (1 3 1 4 2 4 1 4).
- System 5:** Chords Em, G⁷. Fingerings: Em (1 4 2 1 4 1 2 1), G⁷ (1 4 2 1 4 1 2 1), Em (2 2 1 4 2 4 1 4), G⁷ (2 2 1 4 2 4 1 4).
- System 6:** Chords C, E⁷, Am, G⁷, C. Fingerings: C (1 4 2 2 1 2 2 2), E⁷ (1 4 3 1 4 1 3 1), Am (1 4 4 2 1 2 4 2), G⁷ (2 2 1 4 2 4 1 4), C (1).

These exercises are to be played within a range of nine or ten scale tones of a heptatonic scale, such as the major scale. A nine-note scale can be played within the range of a scale fingered on three consecutive strings. Some heptatonic scale-tone triads will need to have a tenth note added to the scale in order to play a four-note version of the triad (which doubles one of the notes an octave apart).

A melodic curve should be applied to each chord in a chord progression, retaining the same range of notes. This will cause some chords to have their root as the lowest tone (root position), some chords the third (first inversion), and some chords the fifth as the lowest tone (second inversion).

The chords will be primarily treated as triads, but seventh and ninth chords can be implied by occasionally substituting the seventh for the root and incorporating a ninth in place of a scale tone (where possible).

Learn to construct each chord in both the formula and scale-tone methods. In the formula method, the root of the chord is scale tone “1” of a major scale and the remaining notes of the chord are expressed with numbers in relation to that major scale. Common chord formulas are “1-3-5” for major, “1-b3-5” for minor and “1-b3-b5” for diminished.

In the scale-tone method of triad chord construction, a chord is built on each step of the major scale from the number cycle 1-3-5-7-2-4-6-1-3-5, etc. Scale-tone triads for C major are: C (1-3-5), Dm (2-4-6), Em (3-5-7), F (4-6-1), G (5-7-2) Am (6-1-3) and B diminished (7-2-4).

Fez secondary dominant harmonic theme & variation

[click to play](#)

Swing Eighths

♩ = 120

6 Am C E^{7b9}

10 F A⁷

14 Dm F⁷

18 B^b D^{7b9}

22 B^{7b9}

26 Em G⁷

9 5 5 7 5 9 7 9 7 9 5 9 7 5 5 7 5 9 7 9 7 8 5 9 7 5 5 7 5

30 C E^{7b9}

5 7 7 9 7 5 8 5 8 6 7 5 5 8 9 5 9 9 6 5 7 5 9 7 9 7 8 6 9 8 7 9 5 9

34 Am G⁷ C

9 7 7 9 7 5 9 10 9 6 7 5 8 7 9 5 9 7 5 5 7 5 9 7 9 7 8 5 9 7 5 5 7 5 : 5 7 5 3

Frills secondary dominant harmonic theme & variation

[click to play](#)

Lowest Scale Tone "1"

♩ = 100

The musical score is written for guitar, featuring a treble clef and a key signature of one flat (Bb). The tempo is marked as ♩ = 100. The score is divided into six systems, each containing a melodic line and a guitar-specific line with fret numbers and fingerings. The melodic line includes triplets and slurs. The guitar line includes fret numbers and fingerings. The systems are labeled with chords: C, E7b9, Am, C7, F, A7b9, Dm, F7, Bb, D7b9, G, and B7b9. The score is numbered 1 through 22.

1 2 2 1 2 1 4 2 4 2 1 2 1 4 1 2 2 1 2 1 4 2 4 2 1 2 1 4 1 1 2 1 2 1 4 1 4 1 1 2 1 4 1 1 2 1 2 1 4 1 4 1 1 2 1 4

3 5 5 4 5 4 7 5 7 5 3 5 3 7 3 5 5 4 5 4 7 5 7 5 3 5 3 7 2 2 4 2 4 2 6 3 6 3 2 3 2 5 2 2 4 2 4 2 6 3 6 3 2 3 2 5

6 Am C7

1 2 2 1 2 1 4 3 4 3 1 3 1 4 1 2 2 1 2 1 4 3 4 3 1 3 1 4 1 2 2 1 2 1 4 2 4 2 1 2 1 4 1 2 2 1 2 1 4 2 4 2 1 2 1 4

3 7 5 4 5 4 7 6 7 6 3 6 3 7 3 7 5 4 5 4 7 6 7 6 3 6 3 7 3 5 5 3 5 3 7 5 7 5 3 5 3 7 3 5 5 3 5 2 5 7 5 3 5 3 2

10 F A7b9

1 1 2 1 2 1 4 2 4 2 1 2 1 3 1 1 4 2 4 2 4 2 4 2 1 2 1 2 1 2 1 2 3 1 3 1 3 2 4 2 1 2 1 4 1 2 3 1 3 1 3 2 4 2 1 2 1 4

3 5 3 5 3 7 5 7 5 3 5 3 5 3 3 5 3 5 3 7 5 7 5 3 5 3 5 4 5 6 3 6 3 7 5 7 5 3 5 3 7 4 5 6 3 5 3 7 5 7 5 3 5 3 7

14 Dm F7

2 4 4 2 4 2 1 3 4 3 1 3 1 1 2 4 4 2 4 2 1 3 4 3 1 3 1 1 1 1 2 1 2 1 4 2 4 2 1 2 1 3 1 1 2 1 2 1 4 2 4 2 1 2 1 1

6 7 5 7 5 3 7 8 7 5 7 5 3 5 7 7 5 7 5 3 7 8 7 5 7 5 3 3 5 3 5 3 7 5 7 5 3 5 3 6 3 5 3 5 3 7 5 7 5 3 5 3 6

18 Bb D7b9

3 1 4 2 4 2 1 3 4 3 1 3 1 1 3 1 4 2 4 2 1 3 4 3 1 3 1 1 1 4 4 2 4 2 1 3 4 3 1 3 1 1 1 4 4 2 4 2 1 3 4 3 1 3 1 1

3 7 5 7 5 3 7 8 7 5 7 5 3 3 7 5 7 5 3 7 8 7 5 7 5 3 5 7 7 5 7 5 3 7 8 7 5 7 5 4 5 7 7 5 7 5 3 7 8 7 5 7 5 4

22 G B7b9

2 2 4 2 4 2 1 2 4 2 1 2 1 1 2 2 4 2 4 2 1 2 4 2 1 2 1 1 3 1 4 1 4 1 1 2 4 2 1 2 1 1 3 1 4 1 4 1 1 2 4 2 1 2 1 1

5 5 7 5 7 5 4 7 9 7 5 7 5 3 5 5 7 5 7 5 4 7 9 7 5 7 5 3 6 4 8 5 8 5 4 7 9 7 5 7 5 4 6 4 8 5 8 5 4 7 9 7 5 7 5 4

26 Em G⁷

1 1 2 1 2 1 3 2 3 2 1 2 1 3 1 1 2 1 2 1 3 2 3 2 1 2 1 3 2 2 4 2 4 2 1 2 4 2 1 2 1 1 2 2 4 2 4 2 1 2 4 2 1 2 1 1

T
A
B

7 7 7 9 7 5 4 5 4 7 9 7 5 7 7 5 5 5 7 5 7 5 4 7 9 7 5 7 5 3 5 5 7 5 7 5 4 7 9 7 5 7 5 3

30 C E^{7b9} Am G⁷ C

1 2 2 1 2 1 4 2 4 2 1 2 1 4 1 1 2 1 2 1 4 1 4 1 1 2 1 4 1 2 2 1 2 1 4 3 4 3 1 3 1 4 2 2 4 2 4 2 1 2 4 2 1 2 1 1

T
A
B

3 5 5 4 5 4 7 5 7 5 3 5 3 7 2 2 4 2 4 2 6 3 6 3 2 3 2 5 7 5 4 5 4 7 6 7 6 3 6 3 7 5 5 7 5 7 5 4 7 7 5 7 5 3 5 3

Syncostep secondary dominant harmonic theme & variation

[click to play](#)

Swing Sixteenths

♩ = 90

G

Lowest Scale Tone "1"

B^{7b9}

Measures 1-5: G, B^{7b9}

Measures 6-9: Em, G⁷

Measures 10-13: C, E^{7b9}

Measures 14-17: Am, C⁷

Measures 18-21: F, A^{7b9}

Measures 22-25: D, F^{#7b9}

26 Bm D7

30 G B7b9 Em D7 G

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THEME AND VARIATION SONGLIST

Categories

rhythmic

Themes that fit to the chords by phrasing them to align notes with chord tones...or sub-phrases are played repeatedly with different relationships to the beat each time.

harmonic

Themes that are modified to fit each chord, changing versions of numbered tones and/or substituting adjacent scale tones to cause matching.

fixed

Fixed themes are repeated without variation at regular intervals of time or in a pattern in time so the listener expects them, even though they may be dissonant against some of the chords.

Songs in Progressive Order

<u>title</u>	<u>category</u>	<u>comments</u>
C Jam Blues	C fixed chord	recording flat the two most basic tones, 5 and 1 harmonies added to harmonize with each
My Little Suede Shoes	Eb harmonic	major triad and lower neighbor, mostly 1235 of Eb
In the Mood	Ab harmonic fixed	triads on each chord, I, IV and V tones 5 3 b5, then IVma7 arpeggio
Dizzy Miss Lizzy	A fixed	eight note theme
Bag's Groove	F fixed	all minor pentatonic
Sonnymoon for Two	F fixed	all minor pentatonic
Chitlins Con Carne	C harmonic	fixed on I and IV, second theme for V
S.K.J.	Db fixed	all minor pentatonic

You Know What I Mean	D	harmonic	I Mixolydian theme IV Mixolydian in sixths and licks in IVm7/11 licks in Vm7/11 on V chord
Satch Boogie	A	harmonic	based on minor pentatonic
I Know a Little	A	harmonic	first 12 bar is mainly major pentatonic
Don't Give It Up		harmonic	built with major triads and minor pentatonic scale
Hot Cha	Bb	harmonic	thirds, relative major and minor pentatonic
Highlander Boogie	A	harmonic	major pentatonic and Mixolydian with chromatics
Guitar Boogie Shuffle	E	harmonic	theme and variation throughout themes and solos
Honky Tonk part 1 Honky Tonk part 2	Eb	harmonic	(fretted in E, tuned down) major pentatonic, minor pentatonic, Mixolydian, Dorian, thirds and sixths theme and variation throughout themes and solos
Bessie's Blues	Eb	harmonic	repeated architecture and elaboration
All Blues	G	harmonic	ostinato bass through I and IV, secondary melody through V and bVI
Footprints	C	harmonic	theme in quartal harmony
True Blues	C	harmonic	top-voice leading with minor pentatonic for bars 1-8 single note theme in I ma6/9 during VI to IIIm (8-9) single note theme in Im7/11 with major third in V to I (10-11)
In a Mellow Tone	Ab	fixed	variation especially in the chordal responses the single-note themes
One for My Baby	F	harmonic	Mixolydian theme in key of I, Mixolydian theme in key of IV, secondary theme for II V

Straight No Chaser	Bb	harmonic & rhythmic	crafty variation in phrasing and changing scale to fit the chords
Ornithology	B	harmonic	bars 1-2: theme 1 and variation, completion in 5-6 bars 7-10 theme 2 and variation, ending with repeated fixed triplet and four-note turnaround cells
Don't Get Around Much Anymore	Db	harmonic	variation especially in the chordal responses the single-note themes
Riviera Paradise	Eb	harmonic	(fretted in E, tuned down) 0:28-0:43 bIII ^{ma} 7 theme on Im7 to IV9 0:43-0:59 key of bVI: IV ^{ma} 7 theme on IV ^{ma} 7 to V9 1:00 -1:08 key of bV: IV ^{ma} 7 theme on IV ^{ma} 7 to V9, then IIm V7 ^{alt} Im7 cadence in original key
Billie's Bounce	F	rhythmic	rhythmic variation on a theme in bars 1-4 and 11-12 secondary themes in bars 5-10.
Joy Spring	F	harmonic	32 bars first 8: theme and variation in original key second 8: variation on same theme key of bII third 8: four two-bar recaps in II, I, bVII and bII fourth 8: theme and variation in original key
		harmonic	arpeggio theme and variation
Rule of Thumb	Eb	harmonic	(fretted in E, tuned down, out of tune) three four-bar chord solo style phrases
Blues by Five	Bb	harmonic	listen for the single note melody on the piano in the head without the added harmonies
			four bar theme transposes to IV during the IV chord (bars 5-6), then back to I in bar 7
Mr. P.C.	C	harmonic	four bar theme transposes to IV during the IV chord (bars 5-6), then back to I in bar 7
It Don't Mean a Thing	F#m	harmonic	bars 1-4 use a theme with descending minor bassline
		rhythmic	bars 5-8 use a repeated three-beat theme in 4/4

Night Train	Bb	harmonic	major pentatonic theme on I, repeat on IV7 with key b3
One for Daddy-O	Bb	harmonic	ascend minor 6/11, descend minor 7/11 pentatonics
Satin Doll	C	harmonic	theme of two notes in bars 1-2 and 3-4, 5-6 begin with a theme of two notes finishes with another pair of notes and a final note
Things Ain't What They Used to Be	D	harmonic	I6, then IV6 arpeggio tones in the same range repeated key tone 1, b7 5 figure on II V
Star Cycle	F	harmonic	comping theme in key of I then in keys of VI and IV main melody starts in I Mixolydian continues in same range in VI Mixolydian (during VI7 chord), finishing during IV7 on a key tone 2, common to all three keys
No Blues	F	harmonic	minor pentatonic with natural 3 on the I and VI, key b3 on bar two IV7; focus on key b5 in bars 5-6 IV7; focus on key 2 in bar 9-10 II V
Tenor Madness	Bb	harmonic	Ima6/9 on I, Im6/9 on IV; Ima6/9 on V in bar 12 IIIm7 IIIm(ma7) IIIm7 IIIm6 on II V
Comin' Home Baby	F	harmonic	theme modified to contrast I and IV, secondary theme for V
Thelonius	F#	harmonic	Dorian
West Coast Blues	Bb	harmonic	I7 theme repeated on bVII Im7 variation of I7 theme for IV9 I Mixolydian theme emphasizing Vm7 in bar 9 I Dorian theme emphasizing IVm9 tones in bar 10
Gibson Creek Shuffle	Bb	harmonic	Mixolydian focusing on swing-sounding sixth
Day Tripper	E	harmonic	guitar/bass theme in each key, I and IV vocal theme almost fixed, slight harmonic variation

Blues in the Closet	Ab	harmonic	minor pentatonic theme with major third during the I II _m and V chords; harmony in thirds second time
Gee I Wish	Bb	harmonic	head is almost fixed solos uses much harmonic theme and variation
Hideaway	E	harmonic	theme and variation throughout themes and solos
The Stumble	E	harmonic	Im6/9 pentatonic on IV, Im7/11 on I and V, sixths in E Dorian and E Mixolydian on I VI _m II _m V
Green Onions	F	harmonic	theme and variation throughout themes and solos
Blue Monk	Bb	harmonic	four-note theme with variation and elaboration
Now's the Time	F	fixed	embellishments with harmonic variation
Blue Wind	E	harmonic	(intro in A) 0:28-0:52, Mixolydian theme & variation
Let Boots	G	harmonic	minor pentatonic with natural 3, Mixolydian
Well You Needn't	F	harmonic	four sets of eight bars (AABA): the "A" sections are based on pairs of four-note cells; the "B" section is based on one four note cell of eighth notes with the second eighth on the first or third beat
You Know What I Mean	D	harmonic	I Mixolydian theme IV Mixolydian in sixths and licks in IV _m 7/11 licks in V _m 7/11 on V chord
Satch Boogie	A	harmonic	based on minor pentatonic
I Know a Little	A	harmonic	first 12 bar is mainly major pentatonic
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Riviera Paradise	Eb	harmonic	(fretted in E, tuned down) 0:28-0:43 bIII ^{ma} 7 theme on Im7 to IV9 0:43-0:59 key of bVI: IV ^{ma} 7 theme on IV ^{ma} 7 to V9 1:00 -1:08 key of bV: IV ^{ma} 7 theme on IV ^{ma} 7 to V9, then IIm V7 ^{alt} Im7 cadence in original key
Billie's Bounce	F	rhythmic	rhythmic variation on a theme in bars 1-4 and 11-12 secondary themes in bars 5-10.
Joy Spraing	F	harmonic	32 bars first 8: theme and variation in original key second 8: variation on same theme key of bII third 8: four two-bar recaps in II, I, bVII and bII fourth 8: theme and variation in original key
		harmonic	arpeggio theme and variation
Rule of Thumb	Eb	harmonic	(fretted in E, tuned down, out of tune) three four-bar chord solo style phrases

Bebop and Other Octatonic Scales

- **What Are Bebop Scales and Octatonic Scales?**
- **Octatonic Scale-Tone Chords and Parent Scales**
- **Bebop and Octatonic Scale Fingerings**
- **Target Phrasing with Bebop/Octatonic Scales**
- **Major Bebop Scales**
- **Mixolydian Bebop Scales**
- **Dorian Bebop Scales**
- **Aeolian Bebop Scales**
- **Phrygian Dominant Octatonic Scale**
- **Melodic Minor Octatonic Scale**
- **Diminished Scale (Octatonic)**

WHAT ARE BEBOP SCALES AND OCTATONIC SCALES?

Bebop Scales

During the development of bebop music, beginning in 1939 with Charlie Parker, Dizzy Gillespie, Charlie Christian, Thelonius Monk and others, manners of improvisation developed which put chord tones on the beat (or with a "push" on the offbeat before a rest or sustain). In playing with continuous eighth notes to establish drive (ongoing movement) with four-note seventh or sixth chords, notes were needed to play on the off beats while moving up and down scales. This was not often done for an entire octave as you might in practicing scales but in smaller ranges of pitch as you would in making melody by ear.

In 1988, David Baker coined the term "bebop scale" in his book *How To Play Bebop* and professed the use of eight-note (octatonic) scales designed to play on four note chords, usually seventh chords and sixth chords of any quality with the chord tones on the beat and non-chord tones on the offbeat. To be authentic, it should be remembered that the in-between notes, the non-chordal tones in bebop scales were originally added in organically, not as part of a practiced "bebop" scale. Barry Harris' method of adding half steps between certain scale tones is closer to the way it's done in bebop and in this chapter.

It is typical that a bebop educator presents four or five examples of bebop scales: major, Mixolydian, Dorian, Aeolian, etc. Why not expand this as many advanced improvisers have done to as many usable versions as possible. Since these might not be recognized by all as "bebop scales", call them "octatonic scales". See below.

Octatonic Scales

All bebop scales are octatonic scales, having eight notes per octave. To play a chord tone on every beat and a non-chordal tone on every offbeat, one note needs to be added to each seven tone scale. The tones are most commonly added are sharp five (flat six) and natural seven. Tones can be added between every whole step in a major scale. Similar to the naming of pentatonic scales, there is a lack of global agreement as to the naming of bebop scales.

An Added Sixth Or Flatted Seventh and One Instance of Added Sharp One

When these scales are played with two notes on each beat, linearly ascending or descending in pitch, the set of four tones that begin each of four consecutive beats produce a chord with a major sixth or with a flatted seventh. The qualities include major sixth (C6, 1-3-5-6), minor sixth (Cm6, 1-b3-5-6), diminished seventh (Cdim7, 1-b3-b5-6), seventh (C7, 1-3-5-b7), minor seventh (Cm7) and minor seventh flat five (Cm7b5, 1-b3-b5-b7). Diminished seventh fingerings are shown in [Prime Scales, Chords and Arpeggios/Arpeggios and Their Scales/Diminished Seventh Arpeggio and Diminished Scale](#).

In one rare case, Mixolydian sharp one, the original scale is mode V of major sharp five. Major sharp five is the parent scale on harmonic minor, where harmonic minor is built on the sixth step of major sharp five. See [Modes/Modes of Four Heptatonic Scales/Major Sharp Five Modes](#).

OCTATONIC SCALE-TONE CHORDS AND PARENT SCALES

The Most Usable Octatonic Scales Ordered by Parent Scale

The scales in the modal groups below are harmonizable except Dorian add natural three, which defies the principal of bebop scales. When ascending from the tonic "D" in D Dorian add natural three, the first, third, fifth and seventh tones don't create a sixth or seventh chord as all the other scales below do.

When the first, third, fifth and seventh tones of an octatonic scale don't create a usable chord on the root, they will create another chord. In that case, the scale can be use as a key scale for the chord it created when the created chord is the current chord in the chord progression.

When a modal group can be harmonized, build a scale ascending or descending in the bass or in the top voice, alternating between inversions of the two chords in the family on consecutive scale tones, like I6 and VIIm7 (or VIIIm7b5 and I6) in the I major add #5/b6 family.

See [Bebop and Octatonic Scale Fingerings](#). There are many octatonic parent scale fingerings which are used for more than one bebop/octatonic scale, making your memorization easier.

<u>parent scale & chromatics</u>	<u>chord scale modal groups</u>	<u>chords</u>
I diminished whole/half	I diminished whole/half bII diminished half/whole	Idim7 bII dim7
I major add #1/b2	#I super Locrian add 7 II Dorian add nat. 7	#Im7b5 IIIm7
I major add #2/b3	V Mixolydian add #5 IV Lydian dom add nat.7	V6 IV7
I major add #4/b5	II Dorian add natural 3* #IV super Phrygian add 7 V Mixolydian add 7	IIIm7 #IVIm7b5 V7
I major add #5/b6	VI Aeolian add 7 VII Locrian add 7 I major add #5	VIIm7 VIIIdim7 I6
I major #5 add #2/b3	III Phry. dom. add nat. 7 IV Lydian dom. #2 add 7	III7 IV7
I melodic minor add #5/b6	VI Aeolian b5 add 7 VII super Locrian add 6 I melodic minor add #5	VIIm7b5 VIIIdim7 Im6

♦ Every other tone does not create a sixth or seventh chord.

ordered by octatonic chord scale

<u>octatonic chord scale</u>	<u>chord</u>	<u>parent scale & chromatics</u>
I major add #5/b6	I6	I major add #5/b6
I major add #2/b3	Ima9 no root	I major add #2/b3
I major b6 add #2/b3	Ima9 no root	I major b6 add #2/b3
I melodic minor add #5/b6	Im6	I melodic minor add #5/b6
I diminished whole/half	Idim7	no additions necessary
<u>#I super Locrian add 7</u>	<u>#Im7b5</u>	I major add #1/b2
bII diminished half/whole	bII dim7	no additions necessary
II Dorian add natural 3	IV7	I major add #4/b5
II Dorian add #5/b6	II m6	I Mixolydian add 7
II Dorian add #4	II m11 no root, no 3	I major add #5/b6
II Dorian add nat. 7	II m7	I major add #1/b2
II Dorian #4 add #5/b6	II m6	I major #5 add #6/b7
II Dorian #4 add nat 7	II m7	I major #5 add #1/b2
II Dorian b5 add #5	II dim7	I Mixolydian b6 add 7
II Dorian b5 add nat. 7	II m7b5	I major b6 add #1/b2
II Dorian b2 add #5	II m6	I Dorian add 7
II Dorian b2 add nat. 7	II m7	I melodic minor add #1/b2
III Phrygian add nat. 7	III m7	I major add #2/b3
III Phry. dom. add nat. 7	III 7	I major #5 add #2/b3
III super Phry. add nat. 7	III m7	I major b6 add #2/b3
IV Lydian add #5/b6	IV 6	I major add #1/b2
IV Lydian dom. add #5/b6	IV 6	I melodic minor add #1/b2
IV Lyd. dom. add nat. 7	IV 7	I melodic minor add #2/b3
IV Lydian add #2/b3	IV ma9 no root	I major add #5/b6
IV Lydian dom. add #2/b3	IV 9 no root	I major add #5/b6
IV Lydian #2 add #5	IV 6	I major #5 add #1/b2
V Mixolydian b2 add #2/b3	I 7	I Mixolydian b6 add 7
V Mixolydian b2 add #5/b6	V 6	I major b6 add #2/b3
V Mixolydian b2 add 7	V 7	I major b6 add #4/b5
V Mixolydian add #2/b3	I 7	I major add #4/b5
V Mixolydian add #5/b6	V 6	I major add #2/b3
V Mixolydian add 7	V 7	I major add #4/b5
V Mixolydian b6 add #2/b3	I 7	I Dorian add 7
V Mixolydian b6 add 7	V 7	I melodic minor add #4/b5
V Mixolydian #1 add 1	#V dim7	I major add #5/b6
VI Aeolian add 7	VI m7	I major add #5/b6
VI Aeolian add #4/b5	VI m11 no root, no 3	I major add #2/b3
VI Aeolian b1 add 1	bVI dim7	I major add #5/b6
VI Aeolian b5 add 7	VI m7b5	I melodic minor add #5/b6
VII Locrian add 6	VII m7b5	I major add #5/b6
VII Locrian add 7	VII m7b5	I Dorian add 7
VII super Locrian add 7	VII m7b5	I melodic minor add #5/b6
VII Locrian nat. 6 add 7	VII dim7	I major #5 add #6/b7
VII Locrian bb7 add 7	VII dim7	I Mixolydian b6 add 7

ordered by octatonic parent scale

Underlined (and preceded by " → ") octatonic scale names build a chord on the root using the first, third, fifth and seventh tones.

<u>parent scale & chromatics</u>	octatonic <u>chord scale</u>	<u>chord</u>
I diminished whole/half.....→	<u>I diminished whole/half</u>	<u>Idim7</u>
	→ <u>bII diminished half/whole</u>	<u>bII dim7</u>
I major add #1/b2.....→	→ <u>#I super Locrian add 7.....</u>	<u>#Im7b5</u>
	→ <u>II Dorian add nat. 7.....</u>	<u>IIIm7</u>
	III Phrygian add nat. 6	IIIIm6
	IV Lydian add #5/b6.....	IV6
I major add #2/b3	→ <u>V Mixolydian add #5/b6.....</u>	<u>V6</u>
	→ <u>IV Lydian dom add nat.7</u>	<u>IV7</u>
	III Phrygian add nat. 7	IIIIm7
	I major add #2/b3	Ima9 no root
	VI Aeolian add #4/b5	VIIm11 no root, no 3
I major add #4/b5	→ II Dorian add nat. 3	IV7
	→ <u>#IV super Phrygian add nat. 7.....</u>	<u>#IVm7b5</u>
	→ <u>V Mixolydian add 7</u>	<u>V7</u>
	→ <u>VI Dorian add #5/b6</u>	<u>VIIm6</u>
I major add #5/b6.....→	→ <u>VI Aeolian add 7</u>	<u>VIIm7</u>
	→ <u>VII Locrian add 7.....</u>	<u>VIIIm7b5</u>
	→ <u>I major add #5/b6</u>	<u>I6</u>
	II Dorian add #4	IIIm11 no root, no 3
	IV Lydian add #2/b3.....	IVma9 no root
	V Mixolydian #1 add 1.....	#Vdim7
I major #5 add #1/b2	<u>II Dorian #4 add nat 7.....</u>	<u>IIIm7</u>
	<u>IV Lydian #2 add #5.....</u>	<u>#Im7</u>
	III Mixolydian b2 add #5	III6
	IV Lydian #2 add #5.....	IV6
I major #5 add #2/b3	→ <u>III Phry. dom. add nat. 7</u>	<u>III7</u>
	→ <u>IV Lydian dom. #2 add 7</u>	<u>IV7</u>
I major #5 add #6/b7	→ <u>I major #5 add #6/b7</u>	<u>I7#5</u>
	→ <u>VII Locrian nat. 6 add 7</u>	<u>VIIIm7b5</u>
	II Dorian #4 add #5/b6.....	IIIm6
I major b6 add #1/b2	<u>II Dorian b5 add nat. 7.....</u>	<u>IIIm7b5</u>
	<u>super Locrian bb6 add 7</u>	<u>#Im7b5</u>
I major b6 add #2/b3	I major b6 add #2/b3.....	Ima7
	<u>V Mixolydian b2 add #5/b6</u>	<u>V6</u>
	<u>IV Lydian dim. (Lydian dom. b3) ...</u>	<u>IVm7</u>
	<u>III super Phry. nat. 5 add nat. 7</u>	<u>IIIIm7</u>
I major b6 add #4/b5	<u>V Mixolydian b2 add 7</u>	<u>V7</u>
	<u>bVI Lydian #2, #5 add 7.....</u>	<u>bVI7#5</u>
I Mixolydian b6 add 7	<u>I Mixolydian b6 add 7.....</u>	<u>I7</u>
	<u>II Dorian b5 add #5.....</u>	<u>II dim7</u>
	IV melodic minor add #4/b5	IVdim.7
	V Mixolydian b6 add #2/b3	I7
	bVI Lydian #5 add #2/b3	bVI dim.7
	VII Locrian bb7 add 7.....	VII dim.7
I melodic minor add #1/b2	→ <u>II Dorian b2 add nat. 7.....</u>	<u>IIIm7</u>
	→ <u>IV Lydian dom. add #5/b6</u>	<u>IV6</u>
	<u>bIII Lydian #5 add 7.....</u>	<u>bIII7#5</u>
I melodic minor add #4/b5	<u>V Mixolydian b6 add 7</u>	<u>V7</u>
	<u>#IV super Locrian nat. 7 add 6.....</u>	<u>#IV dim7</u>
I melodic minor add #5/b6.....→	→ <u>VI Aeolian b5 add 7</u>	<u>VIIm7b5</u>
	→ <u>VII super Locrian add 6</u>	<u>VII dim7</u>
	→ <u>I melodic minor add #5/b6</u>	<u>Im6</u>
I Dorian add 7	→ <u>VII Locrian add 7.....</u>	<u>VIIIm7b5</u>
	→ <u>I Dorian add 7.....</u>	<u>Im7</u>
	II Dorian b2 add #5	IIIm6
	V Mixolydian b6 add #2/b3	I7

BEBOP AND OCTATONIC SCALE FINGERINGS

During the course of memorizing scales from the diagrams below, get to the point where you use the diagrams as a confirmation that you are building the scale correctly. Learn where to add the tones by number.

Bebop and Octatonic Scale Fingerings by Chord Scale

learn these most common versions first (each is shown again on the following pages)

	1-3-5-6 I6 major add #5	1-3-5-6 V6 Mixolydian add #5	1-b3-5-6 IIIm6 Dorian add #5	1-3-5-b7 V7 Mixolydian add natural 7	1-b3-5-b7 IIIm7 Dorian add natural 7	1-b3-5-b7 VIIm7 Aeolian add natural 7	1-3-5-b7 III7 Phrygian dom. add natural 7	1-3-5-b7 IV7 Lydian dom. add natural 7
E form								
D form								
C form								
A form								
G form								

add sharp five scales

	1-3-5-6 I6 major add #5	1-3-5-6 V6 Mixolydian add #5	1-3-5-6 V6 Mixo. b2 add #5	1-b3-5-6 IIIm6 Dorian add #5	1-b3-5-6 IIIm6 Dorian #4 add #5	1-b3-5-6 IIIm6 Dorian b2 add #5
E form						
D form						
C form						
A form						
G form						

more add sharp five scales

	1-b3-b5-6 Idim7 Dorian b5 add #5	1-3-5-6 IV6 Lydian add #5	1-3-5-6 IV6 Lydian dom. add #5	1-3-5-6 IV6 Lydian #2 add #5	1-b3-5-6 Im6 mel. min. add #5
E form					
D form					
C form					
A form					
G form					

add natural seven scales

	1-3-5-b7 V7 Mixolydian add natural 7	1-3-5-b7 V7 Mixo. b6 add natural 7	1-3-5-b7 V7 Mixo. b2 add natural 7	1-b3-5-b7 IIIm7 Dorian add natural 7	1-b3-b5-b7 IIIm7b5 Dorian b5 add natural 7	1-b3-5-b7 IIIm7 Dorian #4 add natural 7	1-b3-5-b7 IIIm7 Dorian b2 add natural 7	1-b3-5-b7 VIIm7 Aeolian add natural 7	1-b3-b5-b7 VIIm7b5 Aeolian b5 add natural 7
E form									
D form									
C form									
A form									
G form									

diminished scale, add natural one scales, add sharp two scales, add sharp four scales

Diminished half/whole scale could be depicted as Lydian dominant, replacing "2" with both "b2" and "#2". #V7/Mixolydian #1 could also be called bVIdim7/Aeolian b1 add "1".

	1-b3-5-6 Idim7 dim. whole/ half scale	b2-3-5-b7 bldim7 dim. half/ whole scale (form by "b2")	#1-3-5-b7 #Vdim.7 Mixo. #1 add natural 1	b1-2-4-b6 VII dim.7 Aeolian b1 add natural 1 VIdim7=bldim7 "b1" shown as "7" (form by "7")	3-5-7-2 Ima9nr major add #2 (form by "1")	3-5-7-2 IVma9nr Lydian add #2 (form by "1")	3-5-7-2 IV9nr Lydian dom. add #2 (form by "1")	5-b7-2-4 IIIm11nrn3 Dorian add #4 (form by "1")	5-b7-2-4 IIIm11nrn3 Aeolian add #4 (form by "1")
E form									
D form									
C form									
A form									
G form									

Half Octave Ranges of Bebop/Octatonic Scale Fingerings

root up to fifth and fifth up to root

	5#5-6-7-1	5#5-6-b7-1	5-6-b7-7-1	5-b6-b7-7-1	b5-6-b7-7-1	b5-b6-b7-7-1	b5-b6-bb7-7-1	b5-#5-6-7-1	5-6-b7-1-b2	5-6-b7-1-#1
1-2-3-4-5	major+#5	Mixo.+#5	Mixo.+7	Mixo.b6+7						
1-2-3-#4-5	Lydian+#5	Lydian dom.+#5	Lydian dom.+7							
1-2-b3-4-5	mel.min.+#5	Dorian+#5	Dorian+7	Aeolian+7						
1-2-b3-4-b5					Dorianb5+7	Aeolianb5+7		dim. wh		
1-2-b3-#4-5					Dorian#4+7					
1-b2-b3-4-5				Phrygian+7						
1-b2-3-4-5				Phry.dom+7						
1-b2-3-b4-5				super Phry.+7						
1-b2-b3-4-b5					Loc.nat.6+7	Locrian+7	Loc.bb7+7			
1-b2-b3-b4-b5						super Loc.+7				
1-#2-3-#4-5	Lydian #2+#5									
b2-#2-3-#4-5									dim. hw	
#1-2-3-4-5										Mixo.#1+1

third up to sixth or seventh and sixth or seventh up to third

	6-7-1-2-3	6-b7-1-2-3	b7-7-1-2-3	6-b7-1-2-b3	b7-7-1-2-b3	b7-7-1-b2-b3	b7-7-1-b2-3	6-7-1-2-b3	b6-b7-1-2-3	bb7-7-1-2-b3	b7-1-b2-#2-3	b7-1-#1-2-3
3-4-5-#5-6	major+#5	Mixo.+#5										
3-#4-5-#5-6	Lydian+#5	Lydian dom.+#5										
3-4-5-6-b7			Mixo.+7	Dorian+#5				mel.min.+#5				Mixo.#1+1
3-#4-5-6-b7			Lydian dom.+7									
b3-4-5-6-b7					Dorian+7							
b3-4-b5-6-b7					Dorianb5+7							
b3-#4-5-6-b7					Dorian#4+7							
b3-4-b5-b6-b7					Aeolianb5+7	Locrian+7				Loc.bb7+7		
b3-4-b5-6-b7						Loc.nat.6+7						
b3-4-5-b6-b7					Aeolian+7	Phrygian+7						
3-4-5-b6-b7			Mixo.b6+7				Phry.dom+7		Mixo.b6+7			
b3-b4-5-b6-b7						super Phry.+7						
b3-b4-b5-b6-b7						super Loc.+7						
b3-4-b5-#5-6								dim. wh				
b3-#4-5-6-b7											dim. hw	

Bebop and Octatonic Scale Fingerings by Parent Scale

Scales are shown below in relation to the parent scale. IIm7 is 2-4-6-1 of its parent I major scale, whereas it is 1-b3-5-b7 in the key of the chord as shown by chord scale on the previous "Bebop Scales by Chord Scale" page.

Octave shapes are shown below according to the top named chord. Where there are two or more possible chords, the octave shape shown at the left of each row is oriented to the top chord, which is built in thirds (part of the 1-3-5-7-2-4-6-1-3, etc. series).

diminished scale

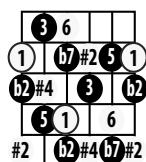
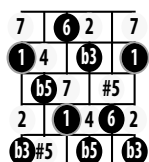
1-b3-5-6

Idim7
diminished whole/
half scale

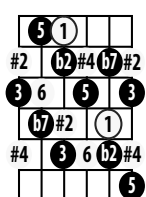
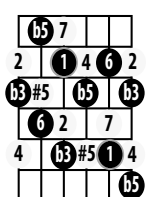
b2-3-5-b7

Bldim7
diminished half/
whole scale

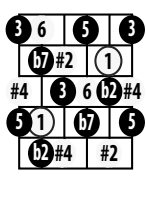
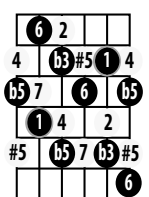
E
form



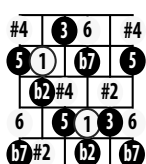
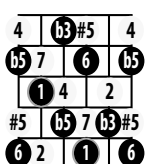
D
form



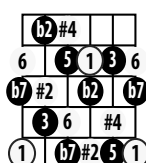
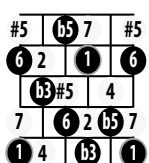
C
form



A
form



G
form



2-4-6-1

IIIm7
Dorian add 7

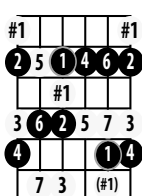
4-6-1-2

(form of 2-4-6-1)

IV6

Lydian add #5

parent major



add #1/b2 to parent

2-4-6-1

IIIm7
Dorian #4 add 7

4-6-1-2

(form of 2-4-6-1)

IV6

Lydian #2. add #5

parent major #5

2-4-b6-1

IIIm7b5
Dorian b5 add 7

parent major b6

2-4-b6-1

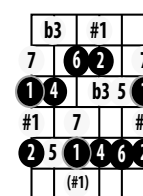
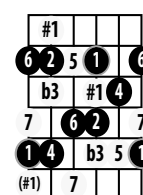
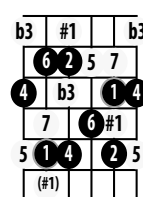
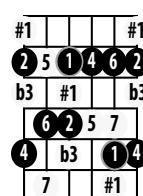
IIIm7
Dorian b2 add 7

parent mel. min.

4-6-1-2

IV6
Lydian dom. add #5

parent mel. min.



add #2/b3 to parent

3-5-7-2

Illm7
 Phrygian add 7
 Ima9 nr
 major add #2
 VIm11nr,n3
 Aeolian add #4

3-#5-7-2

III7
Phrygian dominant
add 7

3-5-7-2

III m7
super Phrygian
add 7

4-6-1-b3

IV7
Lydian dominant
add 7

5-7-2-3

(form of 3-5-7-2)
V6
Mixolydian add #5

5-7-2-3

(form of 3-5-7-2)
V7
Mixolydian b2
add #5

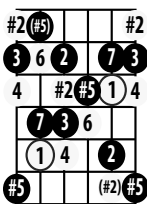
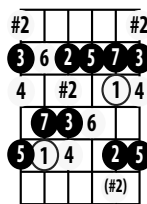
parent major

parent major #5

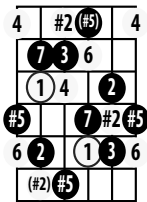
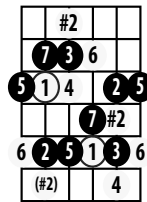
parent major b6

parent mel. min.

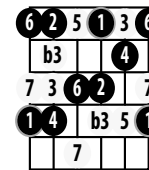
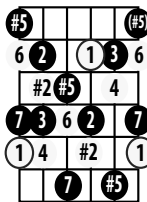
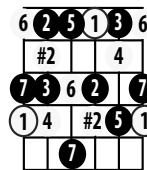
E
form



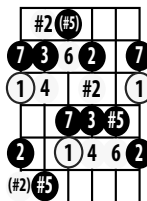
D
form



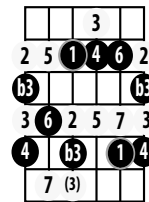
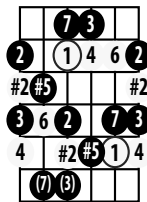
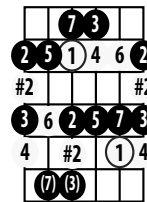
C
form



A
form



G form



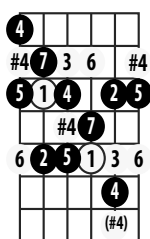
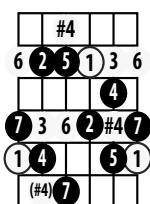
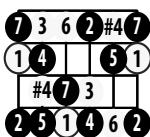
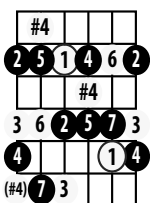
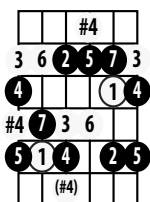
add #4/b5 to parent

5-7-2-4V7
Mixolydian add 7**5-7-2-4**V7
Mixolydian b6
add 7**5-7-2-4**V7
Mixolydian b2
add 7

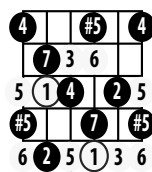
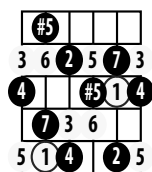
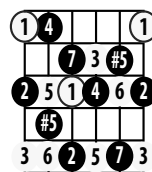
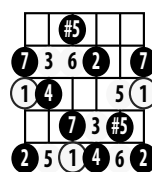
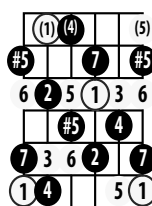
parent major

parent major b6

parent major b6

E
formD
formC
formA
formG
formadd 5 to
parent**#5-7-2-4**#Vdim7
#V Mixo. #1
add 1

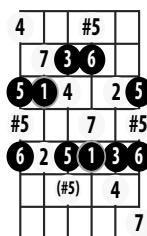
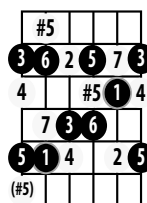
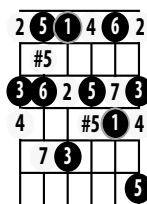
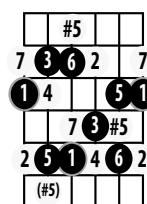
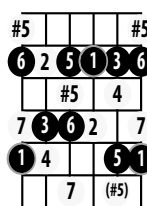
parent major #5



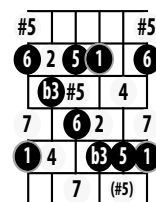
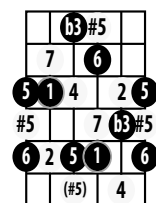
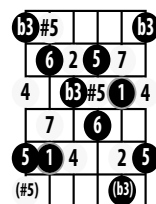
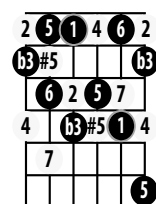
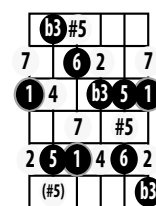
add #5/b6 to parent

6-1-3-5VIIm7
Aeolian add 7
IIIm11nrn3
Dorian add #4
IVma9nr
Lydian add #2**1-3-5-6**
(form of 6-1-3-5)I6
major add #5

parent major #5

**1-b3-5-6**Im6
melodic minor
add #5**6-1-b3-5**
(form of 1-b3-5-6)VIIm7b5
Aeolian b5 add 7IV9nr
Lyd. dom. add #2

parent mel. min.

add 6 to
parent**b6-7-2-4**bVIIdim7
bVI Aeolian b1
add 1

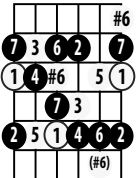
parent major b6

add #6/b7 to parent

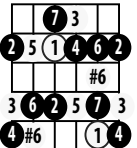
2-4-6-1 IIIm7b5 Dorian #4 add #5	2-4-b6-1 IIIm7b5 Dorian b5 add #5	2-4-6-1 IIIm7 Dorian b2 add #5	7-2-4-6 VIIIm7b5 Locrian add 7	7-2-4-6 VIIIm7b5 super Locrian add 7	7-2-4-6 VIIIm7b5 Locrian natural 6 add 7	7-2-4-b6 diminished 7 Locrian bb7 add 7
-----------------------------------------------	------------------------------------------------	---------------------------------------------	---------------------------------------------	------------------------------------------------------	----------------------------------------------------------	------------------------------------------------------

2-4-6-7
(form of 7-2-4-6)
IIIm6
Dorian add #5

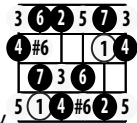
E
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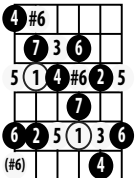
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form



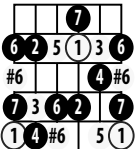
C
form



A
form



G
form



TARGET PHRASING WITH BEBOP/OCTATONIC SCALES

Start on the Beat with Chord Tones, Off the Beat with Passing Tones

Targeting a Specific Beat

two chord tones and a target

This is five notes (including the target) if starting on the beat, six notes starting on the offbeat.

three chord tones and a target

This is seven notes (including the target) if starting on the beat, eight notes starting on the offbeat.

four chord tones and a target

This is nine notes (including the target) if starting on the beat, ten notes starting on the offbeat.

MAJOR BEBOP SCALES

body text

MIXOLYDIAN BEBOP SCALES

body text

DORIAN BEBOP SCALES

body text

AEOLIAN BEBOP SCALES

body text

PHRYGIAN DOMINANT OCTATONIC SCALE

body text

MELODIC MINOR OCTATONIC SCALE

body text

DIMINISHED SCALE (OCTATONIC)

body text

Six-Tone Scales

- **Add to Pentatonic or Delete From Heptatonic**
- **Major Pentatonic Add Four**
- **Minor Pentatonic Add Two**
- **Mixolydian No Six**
- **Phrygian Dominant No Flat Six**
- **Minor Pentatonic Add Flat Two**
- **Locrian No Flat Six**
- **Whole Tone Scale**
- **Augmented Scale**

Six-tone scales may also be called *hexatonic scales*.

ADD TO PENTATONIC OR DELETE FROM HEPTATONIC

Numbered in Relation to the Major Scale

Some of these six-tone scales are more easily conceived in terms of a pentatonic scale, others more easily conceived in terms of a seven-tone (heptatonic scale). Regardless, the tones should be numbered after a major scale named after the tone center of the six tone scale.

The C Mixolydian no six six-tone scale has the formula “1-2-3-4-5-b7”, indicating those numbered tones of a C major scale. The “b7” indicates the flattened seventh “Bb” note of C Mixolydian.

A Pentatonic Scale with an Added Note

“Minor pentatonic add two” is usually a better way to conceive “1-2-b3-4-5-b7”. If are more familiar with Dorian and Aeolian mode than with minor pentatonic, you may want to conceive it as Dorian no six or Aeolian no six. The only difference between Dorian and Aeolian is that Dorian has a natural six and Aeolian has a flattened six, so without the “six”, they are the same.

A Heptatonic (Seven-Tone) Scale with a Note Deleted

“1-2-3-4-5-6” can be either “major pentatonic add four” or “major scale no seven”. “1-b2-3-4-5-b7” is best conceived as “Phrygian dominant no six” (or Mixolydian flat two, no six). Phrygian dominant is “1-b2-3-4-5-b6-b7” and Mixolydian flat two is “1-b2-3-4-5-6-b7”.

Use the More Familiar Context or Both

The C major pentatonic add four six-tone scale has the formula “1-2-3-4-5-6”, indicating those numbered tones of a C major scale. It could also be conceived as a C major scale with no seven. If you are more familiar with the major pentatonic fingering used in the fretboard area you are playing “C major pentatonic add four”, think in terms of adding “four” to the C major pentatonic scale. If you are more familiar with the seven-tone C major scale in the fretboard area you are playing, think in terms of “C major scale no seven.” It may be a toss-up and either would work.

Mixolydian, no six could also be conceived as a dominant 7/11 pentatonic with an added two or a ninth arpeggio with all the tones in the same octave (with the ninth as a “two”).

MAJOR PENTATONIC ADD FOUR

“1-2-3-4-5-6” could be called “major pentatonic add four”, “major scale no seven” or “Mixolydian no seven”. It is shown all three ways below with the “1-2-3-4-5-6” scale in the top row, then the other three scales it can be derived from below.

black and gray backgrounds

Triad tones have a black background. The remaining pentatonic tones have a gray background. The added “4” has no colored background.

	E form	D form	C form	A form	G form
1-2-3-4-5-6 major pentatonic add four					
major pentatonic					
major scale					
Mixolydian scale					

MINOR PENTATONIC ADD TWO

“1-2-b3-4-5-b7” could be called “minor pentatonic add two”, “Dorian no six” or “Aeolian no six”. It is shown all three ways below with the “1-2-b3-4-5-b7” scale in the top row, then the other three scales it can be derived from below.

black and gray backgrounds

Triad tones have a black background. The remaining pentatonic tones have a gray background. The added “2” has no colored background.

	E form	D form	C form	A form	G form
1-2-b3-4-5-b7 minor pentatonic add two					
minor pentatonic					
Dorian mode					
Aeolian mode					

MIXOLYDIAN NO SIX

“1-2-3-4-5-b7” could be called “Mixolydian no six” or “dominant seven/eleven pentatonic add 2”. It is shown both ways on the first two rows below followed by the bottom row with the Mixolydian mode it can be derived by omitting the sixth.

black and gray backgrounds

Triad tones have a black background. The remaining pentatonic tones have a gray background. The added “2” has no colored background.

	E form	D form	C form	A form	G form
1-2-3-4-5-b7 dominant 7/11 pentatonic add two					
dominant 7/11 pentatonic					
Mixolydian mode					

PHRYGIAN DOMINANT NO FLAT SIX

“1-b2-3-4-b5-b7” could be called “dominant 7/11 pentatonic add flat two” or “Phrygian dominant no flat six”. It is shown both ways below with the “1-2-3-4-b5-b7” scale in the top row, then the other two scales it can be derived from below.

black and gray backgrounds

Triad tones have a black background in all the scales. For dominant 7/11 and dominant 7/11 add flat two, the remaining pentatonic tones have a gray background and the added “b2” has no colored background. For Phrygian dominant scale, the “b7” and “b2” tones in gray complete a 7b9 chord (1-3-5-b7-b9).

	E form	D form	C form	A form	G form
1-b2-3-4-5-b7 dominant 7/11 pentatonic add flat two					
dominant 7/11 pentatonic					
Phrygian dominant scale					

MINOR PENTATONIC ADD FLAT TWO

“1-b2-b3-4-5-b7” could be called “minor pentatonic add flat two” or “Phrygian no flat six”. It is shown both ways below with the “1-b2-b3-4-5-b7” scale in the top row, then the other three scales it can be derived from below.

black and gray backgrounds

Triad tones have a black background. The remaining pentatonic tones have a gray background. The added “2” has no colored background.

	E form	D form	C form	A form	G form
1-2-b3-4-5-b7 minor pentatonic add two					
minor pentatonic					
Phrygian mode					

LOCRIAN NO FLAT SIX

“1-b2-b3-4-b5-b7” could be called “minor pentatonic flat five add flat two” or “Locrian no six”. It is shown both ways below with the “1-2-b3-4-b5-b7” scale in the top row, then the other two scales it can be derived from below.

black and gray backgrounds

Triad tones have a black background. The remaining pentatonic tones have a gray background. The added “b2” has no colored background.

E form

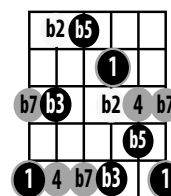
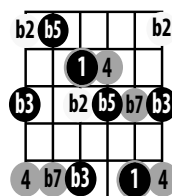
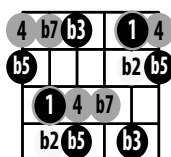
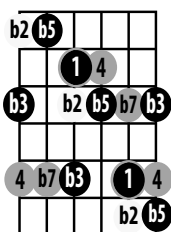
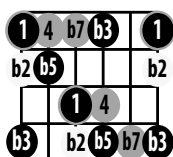
D form

C form

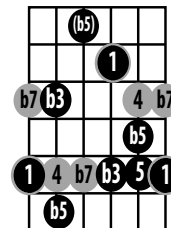
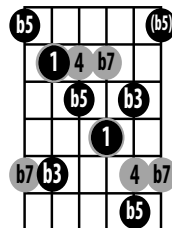
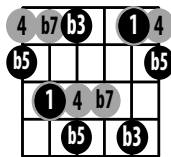
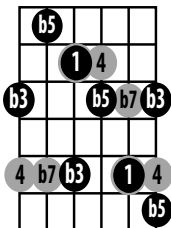
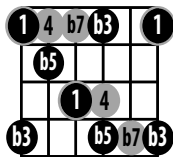
A form

G form

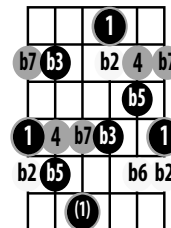
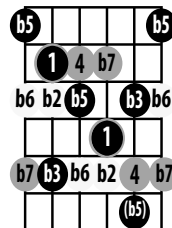
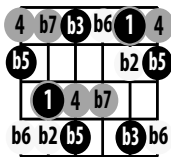
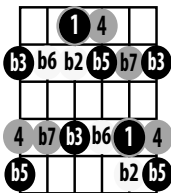
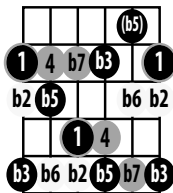
1-b2-b3-4-b5-b7
minor pentatonic
flat five add flat
two



minor pentatonic
flat five



Locrian mode



WHOLE TONE SCALE

AUGMENTED SCALE

Relating Chord Tones to the Beat

- **Imagine Melody and Play It Spontaneously**
- **Choosing a Fretboard Area**
- **Fundamental Melodic Principles**
- **Emulating Chords**
- **Seven-Tone Scales with Triad Tones on the Beat**
- **Changing Chords**
- **Shared-Note Redundancy**
- **Six-Tone Scales with Triad Tones on the Beat**
- **Seven-Tone Scales with 7th, 9th, 11th or 13th Tones on the Beat**
- **Bebop/Octatonic Scales with Seventh Chord Tones on the Beat**
- **Chord-Beat with Sextatonic Scales, Octatonic Scales and Ninth Arpeggios**
- **Substituting Pentatonics with Chromatics**
- **Using Triplets**
- **Using Sixteenth Notes**
- **Chromaticed Arpeggios**
- **Voice Leading Cadences with Emulated Chord Tones**

IMAGINE MELODY AND PLAY IT SPONTANEOUSLY

Conceive melody in a vocal context, so the listener can imagine and predict it with you. Prepare by singing small parts of each scale, arpeggio and melodic design, so you can free associate them, imagine phrases and teach them back to yourself on the guitar. Work to quicken this process, so you can hear melody and play it spontaneously.

Outline Of Procedures

Try imagining a melody, rhythmic theme or chord progression and build on it

Choosing A Fretboard Area That Accommodates the Chord and Scale Tones

Scales: Two, Three or Four Notes Per Beat

Emulating Chords with Arpeggios and Scalar Passing Tones

Triad Arpeggios

Seventh Arpeggios

Ninth, Eleventh and Thirteenth Arpeggios

Chord Tones On the Beat or Pushes

Using Triplets

Using Sixteenth Notes

Making Transitions when the Linear Scale Moves to a Non-Chordal Tone on the Beat

Decoration with Resolved versus Unresolved Melodic Cells

Unresolved cells need to be followed by a target, resolved cells don't.

Scale-tone [Voice Leading](#)

Imagine A Melody, Rhythmic Theme Or Chord Progression First

imagine a melody first and apply a chord progression to it

imagine a rhythmic theme first and apply melodic cells to it

determine a chord progression first and apply a core melody to it

CHOOSING A FRETBOARD AREA

Choose a fretboard area that accommodates the chord and scale tones. For each major or minor chord, there are three regions that are best. See [“Note Sets, Structures and Design”/Triad Arcs](#). For all styles, become familiar with [“Triad Arpeggio Exercises”/Triad Chord and Arpeggio Fingering](#), [“Scale-Tone Arpeggios and Pentatonics”/Open Position Major Scales and Triad Arpeggios](#) and [Major Scale-Tone Triads](#). For jazz and blues, become intimately familiar with [“Prime Scales, Chords and Arpeggios”/Seven-Tone Scales In Seven Areas With Tertian Fingerings In Black And Gray](#) and [ninth arpeggios](#).

Chords

First, play chord fingerings in the position you will be studying. Play chords that will help you memorize many of the available chord tones. Barre chords cover many chord tones, learn a few fingerings for the same chord, if possible to become aware of more available chord tones. See [Fingering Common Chords](#).

Arpeggios

triads

Learn the triad arpeggios in [“Prime Scales, Chords and Arpeggios”/Triad Arpeggios](#). Also, study them in modal context in [Key Scales, Parent Scales and Chord Scales](#)/Parent Scale and Chord Scale Fingerings.

seventh chords

Learn the triad arpeggios in [Prime Scales, Chords and Arpeggios”/Triad Arpeggio](#). Also, study them in modal context in [Key Scales, Parent Scales and Chord Scales](#)/Parent Scale and Chord Scale Fingerings.

ninth, eleventh and thirteenth arpeggios

Learn the triad arpeggios in [Prime Scales, Chords and Arpeggios”/Ninth Arpeggios](#) and [Eleventh and Thirteenth Arpeggios](#).

FUNDAMENTAL MELODIC PRINCIPLES

When you establish a musical architecture, even a somewhat complex one, a listener (even a non-musician) comes to expect its repetition and variation. “Music lives in the imagination” (Aaron Copeland).

Music expresses relationships between scales and chords, so use scale that includes most or all the notes of a chord and draw attention to the chord tones by putting them on the beat. Or play them as the last note before the beat followed by a rest or sustain onto the beat, which is a “push”.

Relate to the Scale

Melody is constructed from a scale that includes all or most of the notes in the chords involved.

Play the C major scale in eighth notes against an accompaniment chord progression made with chords of the C major scale, such as Dm7 G7 Cma7 Am7 (repeating, one bar per chord, ending on Cma7).

Relate to the Chord Tones

To show the relationship to the chord, chord tones are played on emphasized pulses which by are typically placed on the beat. This brings attention to the chord tones and shows a relationship to them. This can also be done with an [appoggiatura](#) (leaning tone), where a non-chordal tone is played on the beat, then immediately resolved to the nearest chord tone by the interval of a scale step.

A pleasing added or changed chord tone. A note played during a chord may not be in the written, spoken or originally conceived version of the chord, but if it is a pleasing addition or change to the chord, it may be added. Functionally, it doesn't matter at first if you know the name of the chord it produces, its enough that it sounds good.

A phrase can also *predict* the sound of the chord immediately after it. For example, in the last two beats of a bar on E7, you may play a phrase that clearly emphasizes tones of the Am chord beginning the next bar.

So, the three exceptional types of notes that can be emphasized during a chord that are not in the chord are:

1. an appoggiatura (leaning tone), where a non-chordal tone is played on the beat then resolved to the nearest chord tone immediately afterward
2. an added (or changed) chord tone
3. notes that anticipate the *next* chord

Use Chord Tone Preferences

The root, third or fifth usually work best to begin a chord. The seventh is usually obscure and weak to begin a chord. If the ninth (or rarely the thirteenth) is prominent in the arrangement it can be used to begin a chord.

Avoid Redundancy

To avoid redundancy, it is preferred that the last note played on one chord is not the same as the first note played on the next chord. This keeps things moving.

Key Scale, Chord Scale and Parent Scale

A *key scale* is the appropriate scale for the current chord group that is named after the key. Most tones in the chord group should be in the key scale.

A *chord scale* is the appropriate scale for the current chord, named after the chord root. All tones of the chord should be in the chord scale.

A *parent scale* is the major scale (or major sharp five, major flat three or major flat six) which is the origin of a key scale or chord scale. A “I” chord would always have the same chord scale and key scale.

The chord scales for groups of chords are commonly modes of the same parent scale.

Using the key scale concept retains your focus on the eventual target chord that the key is named after for both you and the listener. By continually thinking in terms of one major scale, you’ll be able to more effectively retain the sense of key. The examples in this study are therefore shown in relation to the C major parent scale. The key is C major or A minor (“A” is relative minor or “C”). During the VII-III-VI part of the chord progression, the key is VI minor (A minor).

Scales are shown with formula numbers, which are scale-tone numbers in relation to the major scale named after the tone center (in this case, “C”). Arpeggios and chord fingerings are shown with finger numbers on the grid, formula numbers below.

EMULATING CHORDS

Start with Linear Scales

Begin your study with linear scales, ascending up or down the scale. Within the range of the scale that contains an arpeggio as every other note, play two notes per beat (eighth notes) with four beats to the bar. The goal is to play chord tones (1, 3 and 5) on the beat and the non-chordal tones (2 and 4) between the arpeggio tones on the offbeat. Counting the eighth notes with the traditional syllables “1-and-2-and-three-and-four-and” for eighth notes in 4/4/ time, the chord tones would be on the numbered beats and the non-chordal tones on the “ands”.

The Universal Chord Tone-Beat Relationship

In all styles of music, in all cultures, melody relates to the beat by regularly (not always) placing the chord tones on the beat. Most often on the first beat, next most often on the third beat in 4/4 time.

Chords constructed in thirds use every other note of a seven tone scale like the major scale (1-3-5-7-2-4-6 from the root). The chords include triads, seventh, ninth, eleventh and thirteenth chords. A chord is constructed through a range of notes in a scale. The range of notes for a chord constructed with “1”, “3”, and “5” is scale tones “1” through “5”. A skip is playing non-consecutive tones, like 1 to 3 or 2 to 4.

When beginning with a chord tone on the beat and playing the scale without skips in eighth notes through the range of the scale from which the chord was constructed, a chord tone will occur on every beat.

If you have to skip to stay on a chord, make the skip small. The root, third or fifth (sometimes ninth) usually work best to begin a chord. Skip to any chord tone during a chord, but use the odd-number version of it's name.

There are 28 seven-tone harmonizable scales that can be used to place chord tones on the beat with four-note chords like seventh and sixth chords. They are the [Modes of Four Hepatatonic Scales](#) shown in the Modes chapter. Six-note scales like minor add 2-4-b7 minor add 2-4-6, major add 2-4-b7 and major add 2-4-6 can be used with triads.

Every-Other Note of a Major Scale: Full-Tertian Arpeggios

When you play every other note of a major scale (or any other seven-tone scale), it orders the notes in thirds, since note to the next spans inclusively three notes of the scale, such as “one to three” or “two to four”.

“Tertian” refers to a structure of thirds. In Greek, “tertian” means of or concerning thirds. In full-tertian arpeggios, each note is a scale tone third from the next. They are a continuous series of every-other-note, using the numbered cycle 1-3-5-7-2-4-6, repeat. They can provide the master pattern to build major scale-tone arpeggios constructed in thirds (every-other-note).

The fingerings shown at the right are a major scale playing in an order to build arpeggios and chords. Consecutive groups of the black notes can build chords or arpeggios. Consecutive groups of the gray notes can also build chords or arpeggios.

The tertian cycle is F-A-C-E-G-B-D-F-A-C-E-G-B-D letters (shown beginning on F to spell “face”) or 1-3-5-7-2-4-6-1-3-5 in numbers (from “1” to show the four odd numbers “1-3-5-7” followed by the four even numbers “2-4-6”). It is every other note of a major scale. One tertian cycle for C major is C-E-G-B-D-F-A-C (1-3-5-7-2-4-6-1), as shown ascending in gray at the right. Another tertian cycle for C major is BDFACEGBD.

For other keys, apply the key signature. F major is F-A-C-E-G-B \flat -D-F-A-C-E-G-B \flat -D. G major is F \sharp -A-C-E-G-B-D-F \sharp -A-C-E-G-B-D. See [Scale-Tone Arpeggios & Pentatonics/Major Scale-Tone Full-Tertian Arpeggios](#).

fingering 7

parent major scale by finger number

parent major scale by scale number

lowest full-tertian

Ilm15 with “low 6”

next-lowest full-tertian

Ima13

best major scale full-tertian fingerings

	fingering 1/2	fingering 2	fingering 3	fingering 4/5	fingering 5/6	fingering 6	fingering 7
parent major scale by finger number							
parent major scale by scale number							
lowest full-tertian	Ima13 	IIIm15 	V15 with "low 6" 	IVma13#11 	V13 	VIm11 + IIIm7 	IIIm15 with "low 6"
next-lowest full-tertian	IIIm15 	V13 with "low 6" 	IVma13#11 	V13 	VIm11 	IIIm15 with "low 6" 	Ima13

major arpeggios

E form	D form	D/C form	C form	A form	G form

minor arpeggios

E form	D form	C form	C form	A form	G form

SEVEN-TONE SCALES

WITH TRIAD TONES ON THE BEAT

C major scale tone triads

chord quality	I major	II minor	III minor	IV major	V major	VI minor	VII diminished
chord name in C	C major	D minor	E minor	F major	G major	A minor	B diminished
numbered tones	135	246	357	461	572	613	724
letters in C	CEG	DFA	EGB	FAC	GBD	ACE	BDF

In the VII position area, speak the letter name and chord quality (C), followed by singing the name and pitch as you play each note in each of the seven triads built on the unaltered major scale.

Linear Seven-Note Scales in Eighth Notes

Triads, seventh and ninth chords can be constructed from every other note of a scale (1-3-5-7-9 from the root). A chord is constructed through a range of notes in a scale. The range of notes for a chord constructed with “1”, “3”, and “5” is scale tones “1” through “5”. When beginning with a chord tone on the beat and playing *the scale in eighth notes through the range of the scale from which the chord was constructed*, a chord tone will occur on every beat. Remember, you may change direction at any time.

Use chord changes with two bars of 4/4 time for each chord. Eighth notes each chord from the root up to the highest odd-numbered chord tone and back. Start on the root and ascend or start on the ninth and descend. Stay within the range of the arpeggio. You are likely to have intervals over a scale step at the chord change.

linear ascent on the scale

Linear ascent on the scale means playing the notes in forward numerical or alphabetic order without skipping, such as “C-D-E-F-G-A-B-C” or “1-2-3-4-5-6-7-1”.

linear descent on the scale

Linear descent on the scale means playing the notes in reverse numerical or alphabetic order without skipping, such as “C-B-A-G-F-E-D-C” or “1-7-6-5-4-3-2-1”. The non-chordal tones during your linear ascent or descent on the scale are passing tones.

During a chord constructed with tones “1, 3, and 5” of a scale, “2” would be a passing tone between “1” and “3”. “4” would be a passing tone between “3” and “5”. “6” and “7” would be passing tones ascending from “5” to “1”.

play linearly up and down the scale from step one through five without skips

The order 1-2-3-4-5 is linear. So is 5-4-3-2-1. Each note should be one scale tone higher or lower than the previous. "Skips" are non-consecutive intervals like one to three or two to four. Don't use skips in this exercise. You can change direction at any time, but without skipping. So this is legal: 1-2-3-4-5-4-3-2-1-2-3-2-3-4-3-4-5-4-3-4-3-2-1-2-1-2-3. This is not legal: 1-2-3-5-4-3-1-2-3-4-2, because of the movements from 3 to 5, 3 to 1 and 4 to 2.

expand to include the neighbor tones six above five and seven below one

These neighbors can be added without violating the linear "no skip" rule: 1-7-1-2-3-4-5-6-5-4-3-2-1-7-1-2-3-4-3-4-3-2-1-7-1-2-3-2-3-4-5-4-5-6-5.

Black Mountain Rag chord-beat exercise, bars 1-7 - [click to play](#)

linearly up and down from one to five, add six above five, and seven below one

♩ = 150

C C

C major key scale C major key scale

T A B

Hill Street Blues chord-beat exercise, bars 1-7 - [click to play](#)

linearly up and down from one to five, add six above five, and seven below one

♩ = 197

E E

E major key scale E major key scale

T A B

Fragile chord-beat exercise, bars 1-5 - [click to play](#)

linearly up and down from one to five, add flat seven above five, and flat seven below one

♩ = 82

Em Em

E Aeolian key scale E Aeolian key scale

T A B

ascending from five to one

In using linear seven-tone scales on triads, you can transition to the next octave with a version of a sixth or a version of a seventh as the only tone ascending from five to one or descending from one to five.

Using the linear, no-skip rule, play on C major triad with C major scale in the range from one to five. Ascend to the high octave "1" by playing "6", "7" or "b7" between five and 1. This is an "octave transition" for triads, a way to move into the next higher octave.

On minor chords in modes with a flat seventh, ascend from scale tone five to one omitting the sixth and playing only the flat seventh in moving between the fifth and root. On major chords in modes with a flat seventh, omit the sixth or seventh in moving between the fifth and root. On major chords in modes with a major seventh, usually omit the seventh in moving between the fifth and root.

descending from "one" down to "five"

Using the linear, no-skip rule, play on C major triad with C major scale in the range from one to five. Descend to the five below one by playing "6", "7" or "b7" downwardly between one and five. This is an "octave transition" for triads, a way to move into the next lower octave.

Black Mountain Rag chord-beat exercise, bars 8-22 - [click to play](#)

ascend to the octave above and descend to the octave below

C

C major key scale (no 7)

F

F major (no 7) chord scale (C Mixolydian key scale)

G

C major scale (G Mixolydian chord scale, no 6)

Hill Street Blues chord-beat exercise, bars 8-22 - [click to play](#)

ascend to the octave above and descend to the octave below

E

E major key scale (no 7)

TAB

11 13 14 12 14 12 14 12 14 11 14 12 14 11 12 14 11 14

A

A Lydian (no 7) chord scale (E Major key scale)

TAB

11 14 12 14 11 12 14 12 11 14 12 14 11 14 13 11 14 12 14 12 14 11 13 14

B

E major scale (B Mixolydian chord scale, no 6)

TAB

11 13 14 11 14 12 14 11 12 14 12 11 14 12 14 11 14 13 11 14 12 14 12 14 11 12 14

Fragile chord beat exercise, bars 6-13 - [click to play](#)

ascend to the octave above and descend to the octave below

Em

E minor pentatonic add 2

TAB

11 12 14 12 15 12 15 12 14 12 11 14 12 14 12 15 14 12 14 15 12 14 12 14

Am

A minor pentatonic add 2

TAB

12 14 12 13 15 12 15 12 15 13 12 14 12 14 12 15 14 12 15 12 15 12 14 15 12 14

B

B Phrygian dominant chord scale, no b6 (G major sharp five scale, omit one)

TAB

12 13 11 12 14 12 11 13 12 14 11 14 13 15 14 12 14 12 11 12 14 12 14

Change of Direction

Play eighth notes on each chord, beginning with a chord tone on the beat. Use stepwise motion only, no skips (except the lower neighbor sixth, as mentioned in the previous step). Start on any chord tone and ascend or descend within the range of the arpeggio.

You may change direction at any time, but stay within the range of the arpeggio. When changing direction on a non-chordal tone, the non-chordal tone becomes a *neighboring tone*. Remember, the non-chordal tones during your linear ascent or descent are *passing tones*.

Inserting Consecutive Arpeggio Tones

Passages of arpeggios constructed in thirds may replace stepwise passages. Three consecutive arpeggio tones (or any odd number of them) followed by stepwise scalar movement will also keep arpeggio tones on the beat. Consecutive arpeggio tones cause chord tones on the offbeat, in addition to on the beat. When you play a chord tone on the offbeat, be sure to play another chord tone on the following beat.

Skips are allowed within the arpeggio, which can be used to approach another octave of the same chord. Once you are in the next octave higher or lower, be sure to play the last consecutive chord tone on the beat, then move to a neighboring scale tone on the offbeat.

Black Mountain Rag chord-beat exercise, bars 24-42 - [click to play](#)

add change of direction

C major key scale (no 7)

23 24 25 26 27

T
A
B

insert consecutive chord tones

C major key scale (no 7)

28 29 30 31 32

T
A
B

F

F major (no 7) chord scale (C Mixolydian key scale)

T
A
B

7 8 | 10 10 10 10 7 10 8 | 7 10 8 7 8 10 8 10 | 7 10 10 8 10 11 10 8 | 10 10 10 10 8 7 8 |

G

C major scale (G Mixolydian chord scale, no 6)

T
A
B

10 9 7 8 7 | 10 8 7 10 8 7 9 10 | 7 8 7 8 7 10 8 7 | 9 7 10 10 7 9 10 | 7 10 9 10 9 7 8 7 |

Hill Street Blues chord-beat exercise, bars 24-42 - [click to play](#)

add change of direction

E

E major key scale (no 7)

T
A
B

12 14 12 14 12 14 12 14 13 11 13 11 14 11 14 11 13 11 13 11 13 14 12 14 12

insert consecutive chord tones

E

E major key scale (no 7)

T
A
B

14 13 12 12 14 12 14 13 14 14 11 14 11 14 11 13 14 13 14 14 11 12 14 11 14 13 12 14 12 14 12 12 13 14

A

A Lydian (no 7) chord scale (E major parent)

T
A
B

11 13 14 14 14 11 14 13 11 14 11 12 12 14 11 14 14 12 14 11 14 12 14 14 14 14 13 11 12

B

E major scale (B Mixolydian chord scale, no 6)

T
A
B

14 13 11 12 11 14 12 11 13 14 11 12 11 12 14 12 11 13 11 14 14 11 13 14 11 14 13 13 11 12 11

Fragile chord-beat exercise bars 15-25 - [click to play](#)

add change of direction

14#

Em

E minor pentatonic add 2

insert consecutive chord tones

17#

Em

E minor pentatonic add 2

Am

20#

A minor pentatonic add 2

B

23#

B Phrygian dominant chord scale, no b6 (G major sharp five scale, omit one)

Dreams chord tone-beat exercise, D7/11 & D Mixolydian - [click to play](#)

Swing Eighthths
♩ = 127

These examples primarily ascend or descend linearly. D9sus could be called C/D or C6/D.

See the "D min pent with nat 3, D major pent.pdf"

D Mixolydian (G major parent)

D⁹(sus4) D D⁹(sus4) D play 4 times

on the beat rest pushes pickup

1 4 5 1 5 4 1 3 5 1 5 3 1 4 5 1 5 4 1 3 5 1 5 3

Dsus4 tones on the beat D major tones on the beat Dsus4 tones with rest pushes D major tones with rest pushes

1 4 5 1 5 4 1 3 5 1 5 3 1 4 5 1 5 4 1 3 5 1 5 3

Dsus4 tones on the beat D major tones on the beat Dsus4 tones with sustain pushes D major tones with sustain pushes

Associate 1-4-5 to D9sus4 and associate 1-3-5 to D with the beat

by putting those tones on the beat or pushing them with rest pushes (RP) or sustain pushes (SP)

See the "D min pent with nat 3, D major pent.pdf"

D⁹(sus4) D D⁹(sus4) D

1 3 4 5 b7 1 b7 5 4 1 3 4 5 b7 1 b7 5 4 3 1 3 4 5 b7 1 b7 5 4 1 3 4 5 b7 1 b7 5 4 3

RP RP RP SP SP SP

Associate 1-4-5 to D9sus4 and associate 1-3-5 to D with the beat

by filling in with a neighboring tone (NT), passing tone (PT) or skip to chord tone (SCT).

See the "E form D7-Mixo. and Dm7-Dorian.pdf". The neighboring or passing tones 2 and 6

may be less preferred stylistically when they may draw attention away from the dominant 7/11 scale sound.

D⁹(sus4) D D⁹(sus4) D

1 3 4 5 1 b7 1 b7 5 4 b7 1 3 4 5 5 b7 1 b7 5 4 3 1 3 4 6 5 b7 1 b7 5 4 b7 1 b7 5 4 3 4 5 b7 1 4 3

SCT RP NT NT NT NT RP NT

1 b7 5 3 4 3 1 3 4 5 4 3 1 4 3 6 5 4 5 4 3 b7 1 3 4 3 4 3 4 5 1 b7 5 3 4 6 5 4 3 1 b7 5 b7 1 3 4 5

NT NT NT NT NT NT NT NT

53 $D^9(sus4)$ 54 D 55 $D^9(sus4)$ 56 D 57 $D^9(sus4)$ 58 D 59 $D^9(sus4)$ 60 D

T							
A	10	10	10	10	10	10	10
B							

61 $D^9(sus4)$ 62 D 63 $D^9(sus4)$ 64 D 65 $D^9(sus4)$ 66 D 67 $D^9(sus4)$ 68 D

in C: 1 3 5 1
in D: b7 2 4

T							
A	10	9	8	8	9	10	7
B							

69 $D^9(sus4)$ 70 D 71 $D^9(sus4)$ 72 D 73 $D^9(sus4)$ 74 D 75 $D^9(sus4)$ 76 D

T							
A	10	9	8	10	8	9	10
B							

starting and ending each triplet with a chord tone: Am9 for D9sus4 and D9 for D

77 $D^9(sus4)$ 78 D 79 $D^9(sus4)$ 80 D 81 $D^9(sus4)$ 82 D 83 $D^9(sus4)$ 84 D

T							
A	12	10	12	10	12	10	12
B							

Dreams chord tone-beat exercise, pentatonic add 4 - [click to play](#)

Using key scaleD major pentatonic add 4 and chord scale C major pentatonic add #4.

They share the same notes and contain all the notes of the D major and C major triads.

The accompanying bassline establishes D as the key with constant emphasis of the "D" note.

Swing Eighths
♩ = 140

D Mixolydian
(G major parent)

D Mixolydian
(G major parent)

1 3 5 3 1 5 5 1 3 5 3 1 1 2 3 #4 5 6 5 #4 3 2 1 3 3 4 5 4 3 2 1 b7 5 b7 1

numbered in the
"C" chord scale

numbered in the
"D" key scale
(and "D" chord scale)

numbered in the
"C" chord scale

numbered in the
"D" key scale
(and "D" chord scale)

T
A
B

Mountain Jam chord tone-beat exercise - [click to play](#)

Playing triplets with a seven-tone scale where the first and last note of the triplet is a ninth arpeggio tone
 123 567 345 712 567 123 712 345 can be combined as 123 567 123 567 or 345 712 345 712
 765 321 217 543 321 765 543 217

♩ = 140
 "E" Mixolydian

the full progression: emulating E9 on E and Bm9 on the D/E

numbered in E: 1 2 3 5 6 b7 1 2 3 5 6 b7 1 2 3 2 1 b7 5 4 3 2 1 in B: 1 2 b3 5 6 b7 1 2 b3 5 4 b3 2 1 b7 5 4 b3 2 1 b7 5 4 3

T
A
B

in E: 1 2 3 5 b7 1 3 4 5 b7 1 2 1 b7 5 3 2 1 b7 6 5 3 2 1 in B: b7 1 b3 4 5 b7 1 b3 1 b7 5 b3 2 1 b7 6 5 b3 4 5 b7 6 5

substitute 5-b7-1 for 5-6-b7 substitute 1-b7-5 for b7-6-5 substitute 5-b7-1 for 5-6-b7 substitute 1-b7-5 for b7-6-5

T
A
B

prep study Emulating E9 with E Mixolydian on the E chord

in E: 1 2 3 5 6 b7 1 2 3 5 6 b7 1 2 3 2 1 b7 5 4 3 2 1 b7 5 4 3 2 1 b7 1 b7 1 2 3 4 5 b7 1 2 3 4 5

T
A
B

b7 1 2 3 2 1 b7 6 5 3 2 1 b7 6 5 3 2 1 5 1 2 3 5 b7 1 3 4 5 b7 1 2 1 b7 5 3 2 1 b7 6 5 3 2 1 b7

substitute 5-b7-1 for 5-6-b7 substitute 1-b7-5 for b7-6-5

T
A
B

prep study emulating Bm9 with B Dorian on the D/E chord

numbered in B: 5 6 b7 1 2 b3 5 6 b7 1 2 b3 5 4 b3 2 1 b7 5 4 b3 2 1 b7 5 4 3 5 b3 4 5 b7 1 2 b3 4 5 b7 6 5

T
A
B

2

D/E

The musical score consists of a melody line in treble clef with a key signature of two sharps (F# and C#). The melody starts at measure 14, marked with a repeat sign. It features a series of eighth and quarter notes, with measure numbers 14, 15, 16, and 17 indicated above the staff. The melody concludes with a double bar line and repeat dots. Below the melody is a fretboard diagram with three staves labeled T (Treble), A (Alto), and B (Bass). The diagram shows the fret numbers for each string across measures 14, 15, 16, and 17. Measure 15 includes a text annotation: "substitute 5-b7-1 for 5-6-b7". Measure 16 includes a text annotation: "substitute 1-b7-5 for b7-6-5".

substitute 5-b7-1 for 5-6-b7

substitute 1-b7-5 for b7-6-5

Measure	T	A	B
14	15 14 12	14 13 11	12 11
15	14 12 11	14 12 11	14 10 14
16	12 14	11 14	12 14
17	12	14 11	12 11

CHANGING CHORDS

Target Tones And Setup Tones

A *setup tone* is the last note played before a *target tone* (chord tone). It usually progresses to the target tone up or down a scale step. The setup tone creates a stronger feeling of movement if it is not in the current chord. The scale can be a seven tone scale or pentatonic scale, as long as the interval from the setup tone to the target tone is a minor third or less. A *setup tone* can also be the fifth of the target tone chord (usually approaching from below).

An *upper neighboring tone* is a scale tone immediately above a chord tone in pitch. A *lower neighboring tone* is a scale tone immediately below a chord tone in pitch. Upper and lower neighbors must be the interval of a minor third (three frets, inclusive) above or below the target tone, so pentatonic scales can be used for upper and lower neighboring tones *except* not where the interval is over a minor third.

So, a *target tone* is a chord tone which is preceded by a *setup tone*. A lower neighbor can be the seventh (or b7) of the target tone, the next lower tone in a seven tone scale, or the sixth (as in a 6/9 type pentatonic scale), where the chord quality permits (I, IV, V and IIm chords). An upper neighbor can be the minor third (b3) of the target tone chord.

If the target chord tone is a chord root (has the same letter name as the chord), the fifth of the target tone may be used as a setup tone to approach the target tone from below.

Chromatic setup tones approach a target tone from a half step (one fret) below. They may approach from above target tone *if* they are filling in a whole step between an upper neighbor and the target tone. When a scale tone occurs a half step above a target tone, it doesn't need to be called "chromatic".

Setup tones and target tones are notably used in bass lines. It is typical for bass lines to use chord tones more frequently and setup tones are critical in making the transitions.

Odd-Numbered and Even-Numbered Tones of the Chord Scale

These procedures are primarily applicable to scale-tone chords constructed in thirds, such as seventh and ninth chords. In terms of the chord scale (the scale named after the root of the current chord), these are odd-numbered tones: "1, 3, 5, 7, 9, 11 or 13". You would play eighth notes through the range of the scale from which the chord was constructed, moving from one scale tone to another. You may change direction at any time.

In terms of the current chord scale, many tones of the next chord will be even-numbered. Once you begin playing on the next chord, the tones are re-numbered in terms of its chord scale. When you descend from the root of a chord, the root needs to be numbered "8", instead of "1". When you ascend to the next higher octave of a chord root, it also needs to be numbered "8", instead of "1".

SHARED-NOTE REDUNDANCY

Preserve Energy and Drive by Avoiding Shared-Note Redundancy

Up tempo music like bebop, swing and bluegrass share a preference to keep the notes changing, unless repeating a note consecutively with a thematic rhythm. This sustains the drama of the melodic line, keeps the melody exciting.

shared-note redundancy

As you are improvising and you see that the last note of the current chord (the setup tone) and the first note of the next chord (the target tone) would be the same note, the situation could be called a “shared note redundancy”. Avoiding the shared-note redundancy will preserve energy and drive.

Devices To Avoid Shared-Note Redundancy

when the setup tone and target tone would be the same note

Remember, when the setup tone and the target tone would be the same note, the situation is called a “shared note redundancy”. This term is used repeatedly below.

change the setup tone to a neighbor of the target

An option for a shared-note redundancy is to choose a neighbor one tone beyond the target, replacing the setup tone with a tone approached by a skip to a neighbor of the target tone. This is usually more effective if the skip is an interval of a sixth or less. The alternate tone can be below or above the target. The alternate tone should not be the same note as the note before it (the second note before the target tone) or *that* would create a redundancy with two of the same note consecutively.

This usually produces a scalar encircling, which occurs when the melody skips to a target tone neighbor that passes the target tone then moves to the target tone, it could be said that you are “encircling” the target tone. You can encircle by ascending to an upper neighboring tone of the target tone, then resolve down to the target tone. You can also encircle by descending to a lower neighboring tone of the target tone, then resolve up to the target tone.

Hill Street Blues chord-beat exercise, bars 43-51 - [click to play](#)

changing chords-solve shared note redundancy with scalar encircling

Chords: E, A, B, E
 Fingerings: T, A, B

Fragile chord-beat exercise bars 27-30 - [click to play](#)

changing chords-solve shared note redundancy with scalar encircling

Chords: Em, Am, B, Em

pushed target tones

By playing a chord tone on the offbeat (the “and” of the beat) and following it with a rest or sustain onto the next beat, the note the offbeat functions the same as a chord tone on the beat. This is called a “push” This is acceptable and even preferable in syncopated styles like bebop, swing, up-tempo blues and funk.

A “push” could be used to solve shared-note redundancy by omitting the target tone when would have been the same note as the setup tone. In place of the setup tone, a rest or a sustain of the setup tone onto

the beat would have much the same effect in establishing a chord tone at the beginning of a chord that a target tone would. It is another version of a target tone.

Hill Street Blues chord-beat exercise, bars 52-59 - [click to play](#)

changing chords-solve shared note redundancy with pushes

52 E 53 54 55 A

sustain push rest push

56 B 57 58 59 E

sustain push

Fragile chord-beat exercise bars 31-34 - [click to play](#)

changing chords-solve shared note redundancy with rest pushes

31 Em 32 Am

rest push rest push

33 B 34 Em

rest push

use a current chord tone in place of the setup tone

When the setup tone and target tone would be the same note, another option is to play another chord tone of the current chord in place of the setup tone, as long as it is not a note of the target tone chord. Since you will then be playing two consecutive chord tones, the chord tones can span an interval up to a sixth and still be followed by the listener.

SIX-TONE SCALES WITH TRIAD TONES ON THE BEAT

Six-note scales are in common use, but not often recognized as such.

Minor pentatonic is often used with an added “2”, making a six-tone scale with tones 1-2-b3-4-5-b7. This scale could be called “minor pentatonic add two” or “minor eleventh scale”, since it has the notes of a minor eleventh chord. Since Aeolian and Dorian mode each contain 1-2-b3-4-5-b7, this scale could also be called “Aeolian no six” or “Dorian no six”.

Major pentatonic is very often used with an added “4”, making the six-tone scale with tones 1-2-3-4-5-6. This scale “major pentatonic add four”, “major no seven” or “Mixolydian no seven”.

A variant of “minor pentatonic add two” is “dominant 7/11 pentatonic add two” with tones 1-2-3-4-5-b7, which could be called “dominant eleventh scale”, since it has the notes of a dominant eleventh chord. It could also be called “Mixolydian no six”.

Anticipate Shared-Note Redundancy and Respond

To sustain the energy in your improvisations on moderate and up-tempo pieces, it is preferred that you don't repeat notes consecutively unless you are using the repeated note to state a rhythmic theme. This situation where the last note of one chord and the first note on the next chord are the same can be called a shared note redundancy. Anticipate situations where the last note on one chord would be the same note as the first note on the next chord and use a melodic device to avoid the redundancy. Read the previous section [Shared Note Redundancy](#).

recognizing shared-note redundancy

During approximately the last four notes before a chord change, visualize the location of the tones of the next chord, most importantly the triad part of the next chord. If you don't have a thorough knowledge of triad arpeggio fingering, acquire it. At first, at least acquire it for the current situation.

Imagine playing the last four notes of the current chord. Perform one of the responses below in moving from the last note of the current chord to the first note in the next chord.

small interval Whether or not the last note of the current chord is in the next chord, move from the last tone of the current chord to the nearest tone in the next chord, preferably by an interval of a minor third or less.

If the last note of the current chord is in the next chord, use one of these options:

- ✦ **create a push** don't play at the beginning of the next chord. Sustain the last note of the current chord (sustain push) through the beginning of the next chord or leave a rest at the beginning of the next chord (rest push).
- ✦ **scalar encircling** Go one note beyond the target, then play the target.

Can't You See - anticipate redundancy, respond - [click to play](#)

ct= chord tone, SI = small interval, SP = sustain push, RP = rest push, SE = scalar encircling

♩ = 160

1 D 2 G 3 D 4 G

ct ct SI ct ct ct ct ct SP ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

5 D 6 G 7 D 8 G

ct ct RP ct ct ct ct ct SE ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

9 D 10 G 11 D 12 G

ct ct SI ct ct ct ct ct SP ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

13 D 14 G 15 D 16 G

ct ct RP ct ct ct ct ct SE ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

17 D 18 G 19 D 20 G

ct ct SI ct ct ct ct ct SI ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

21 D 22 G 23 D 24 G 25

ct ct SI ct ct ct ct ct ct SP ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

7 9 7 10 9 10 7 9 8 7 9 7 10 7 10 8 7

26 D 27 G 28 D 29 G

ct ct RP ct ct ct ct ct SE ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

7 9 7 10 7 10 8 7 7 9 7 9 10 7 10 8 7

30 D 31 G 32 D 33 G

ct ct SI ct ct ct ct ct SP ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

7 9 7 9 7 10 9 7 10 7 9 7 9 7 10 7 10

34 D 35 G 36 D 37 G

ct ct RP ct ct ct ct ct SE ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add 4 G ma. pent. add 4

7 9 7 9 7 10 7 10 7 9 7 7 9 7 10 7 10

38 D 39 G 40 D 41 G

ct ct SI ct ct ct ct ct SI ct ct ct

D ma. pent. add 4 G ma. pent. add 4 D ma. pent. add four G ma. pent. add four

10 8 7 9 7 10 9 7 10 10 8 7 9 8 9 7 10 9

Can't You See chord tone-beat exercise, small skips to the next chord - [click to play](#)

♩ = 160

1 D

D major pentatonic add four, emphasizing "D" triad tones on the beat during the "C" chord

2

3 C

4

5 G

G major pentatonic add four

6

7 D

D major pentatonic add four

8

9 D

D major pentatonic add four, emphasizing "D" triad tones on the beat during the "C" chord

10

11 C

12

13 G

G major pentatonic add four

14

15 D

D major pentatonic add four

16

17 D

D major pentatonic add four

18

19 C

C major pentatonic add four

20

21 G

G major pentatonic add four

22

23 D

D major pentatonic add four

24

25

26

Can't You See chord tone-beat exercise, avoid shared-note redundancy - [click to play](#)

Where the last note on one chord would be the same note beginning the next chord, opt to keep the energy moving with changing notes with scalar encircling or a push. SE = scalar encircling, RP = rest push, SP = sustain push.

♩ = 160

The exercise consists of four systems of guitar notation, each with a treble staff and a bass staff (TAB). The tempo is 160 BPM. The key signature is one sharp (F#).

System 1: Treble staff starts with a whole rest, then measures 1-4. Measure 1: D major pentatonic add four (10 8 7 9 7 9). Measure 2: D major pentatonic add four (7 9 7 9 7 9). Measure 3: C major pentatonic add four (7 10 7 9 10 9) with a sustain push (SP) from the previous measure. Measure 4: C major pentatonic add four (10 7 10 8 10 8 7 10).

System 2: Treble staff measures 5-8. Measure 5: G major pentatonic add four (7 10 7 9 10 7 9) with a rest push (RP). Measure 6: G major pentatonic add four (7 10 9 7 10 7 9). Measure 7: D major pentatonic add four (7 10 9 10 7 9 7 9) with a scalar encircling (SE) from the previous measure. Measure 8: D major pentatonic add four (7 9 7 9 7 10 9 7).

System 3: Treble staff measures 9-12. Measure 9: D major pentatonic add four (10 7 10 7 9 7 9 10). Measure 10: D major pentatonic add four (7 9 7 9 7 9 10). Measure 11: C major pentatonic add four (7 10 7 9 10 9 7) with a rest push (RP) from the previous measure. Measure 12: C major pentatonic add four (9 7 10 7 10 8 7 10).

System 4: Treble staff measures 13-16. Measure 13: G major pentatonic add four (7 10 7 9 7 9 10) with a sustain push (SP) from the previous measure. Measure 14: G major pentatonic add four (9 7 10 7 10 7 10 9). Measure 15: D major pentatonic add four (7 10 7 9 7 9 7 9) with a scalar encircling (SE) from the previous measure. Measure 16: D major pentatonic add four (7 9 7 9 7 9 7 9).

17 D 18 19 C 20

RP SE

D major pentatonic add four C major pentatonic add four

TAB 7 9 7 8 7 9 7 9 7 10 7 9 7 10 9 7 7 10 7 9 10 9 7 9 7 10 7 10 8 7 8

21 G 22 23 D 24 25 26

SP

G major pentatonic add four D major pentatonic add four

TAB 10 7 10 7 9 10 7 9 8 9 7 9 7 10 9 7 9 7 9 7 10 9 10 7 9 7 9 7 8 7

Pick Up the Pieces chord tone-beat exercise - [click to play](#)

Swing Sixteenths
♩ = 100
Em⁷

Em pentatonic add 2 scale (1-2-b3-4-5-b7)

1 2 b3 4 5 b7 1 2 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1

12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 15 12 14 15 12 14

Em pentatonic add 2 scale (1-2-b3-4-5-b7) to target chord tones 1-b3-5

1 5 b3 1 5 b3 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1

12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 15 12 14 15 12 14

Em⁷ arpeggio
downbeats versus upbeats

1 2 b3 4 5 b7 1 2 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1

12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 15 12 14 15 12 14

continuous sixteenths versus compound time offbeat sixteenths

1 2 b3 4 5 b7 1 2 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1

12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 15 12 14 15 12 14

Em⁷ pentatonic add 2 scale (1-2-b3-4-5-b7)

SCT = skip to chord tone

Em⁹ arpeggio

1 2 b3 4 5 b7 1 2 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1

12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 15 12 14 15 12 14

building core melody with a repetitive, vocally-oriented, rhythmic idea, example 1

original theme

vertical inversion

1 2 b3 4 5 b7 1 2 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1 3 1 1 3 1 4 1 3 4 3 1 4 1 3 1 1

12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 12 14 15 12 14 15 12 14 15 12 14 15 12 14

original theme with pickup

Em⁷

25 to determine a descending scalar pickup, 1 play the same number of notes ascending from the target, then reverse the order

26 b3 1

27 to determine an ascending scalar pickup, 5 play the same number of notes descending from the target, then reverse the order

28 b3 5 5

TAB

12 14 12 11 14 14 12 14 14 14 12 14 14 11 12 14 12 12 12 12 12 12

vertical inversion

decorate with slurs

Em⁷

29 3 1 3 2 1 3 3 1 3 1 3 3 1 3

30 3 1 1 3 3 1 1 3 1 1 3

31 full full full

TAB

12 10 12 11 9 12/14 12 14 9 12/14 12 14 14 11 12 14 12 12 14 12 12 14

5 3

building core melody with a repetitive, vocally-oriented, rhythmic idea, example 2

original theme, example 2

Em⁷

33 1 2 4 1

TAB

12 12 14 12 14 12 14 12 14 12 15 12 14 12 11 12 14 10

vertical inversion

Em⁷

35 3 3 1 3 1 1 2 4 2 1 4 1 2 1 1 3 1 4

TAB

14 14 12 14 12 11 12 14 12 11 14 11 12 11 12 14 12 15

decorate original theme example 2 with slurs

Em⁷

37 full full full full full

38 4 1 3 1 1 1 2 4 1

TAB

14 14 14 12 14 14 14 12 14 15 12 14 12 12 11 12 14 10

decorate example 2 vertical inversion with slurs

Em⁷

Em⁷ Em pentatonic add 2 (in E: 1-2-b3-4-5-b7) Em9 arpeggio
SCT = skip to chord tone

Em pentatonic add 2 (in E: 1-2-b3-4-5-b7) legato E Dorian

Em pentatonic add 2 (1-2-b3-4-5-b7) with 5-4-3-2-1-2 fragment pattern

Em pentatonic blues

A⁷ Am pent. natural 3, add 2 (1-2-3-4-5-b7) A9 arpeggio "Woody Woodpecker" lick

Em⁷ Em pentatonic add 2 (in E: 1-2-b3-4-5-b7)

SEVEN-TONE SCALES WITH 7TH, 9TH, 11TH OR 13TH TONES ON THE BEAT

playing scales on seventh chords with chord tones on the beat

- ✦ transition to the next octave by converting even tones to odd
- ✦ transition bebop/octatonic scales to emulate seventh arpeggio

Moving Down from the Root on Seventh or Larger Chords

In playing on seventh or larger arpeggios on a single chord, moving down melodically from the root to the seventh requires a transition similar to that moving to another chord. A setup tone is needed to move down to the seventh. Replace stepwise movement down to the seventh with the interval of a third or a chromatic, (only when the chord tone is a flatted seventh).

Odd-Even Transitions by Rhythm

When a the current chord tones are odd-numbered tones of its chord scale, the target tone for the next chord is often an even-numbered to of the scale of the current chord. When this is the case, a transition needs to be made. Once the transition is made, a new chord scale is considered for the new chord where the even-numbered note is then re-assigned an odd number.

When you approach the root of the current chord in the upper octave, it is virtually treated as a new chord, in that its root is “8”, and is not an odd-numbered tone. Therefore, a transition from odd to even needs to be made.

Change The Rhythm On The Last Beat

Use a single note on the last beat of the current chord.

One of the following sets of three notes:

an eighth and two sixteenths

two sixteenths and an eighth

a sixteenth, an eighth and a sixteenth

a triplet.

Odd-Even Transitions by Fragment Pattern

Beginning on an odd-numbered chord tone, play four sixteenths with a “1-3-4-5” or “1-2-3-5” fragment pattern to transition to even-numbered tones.

Ninth, Eleventh and Thirteenth Arpeggios with Passing Tones

Ascending from the root to the ninth in eighth notes, chord tones 1-3-5-7-9 will occur on the beat. Descending from the ninth to the root in eighth notes, chord tones 9-7-5-3-1 will occur on the beat. Within the range of the chord, you may change direction on an upper neighbor at the top of a chord (1-2-3-4-5-6-7-8-9-10-9), or on a lower neighbor at the bottom of a chord (5-4-3-2-1-7-1), or on any other tone (within the range of the chord).

Ninth Chords with Three Common Tones

Use chord changes with one or more bars of 4/4 time for each chord. Use scale-tone ninth chords. Any part of IIm7b9 VIm9 IIm9 V9 Ima9 IVma9 will work, such as B7b9#9n3 Em9 Am9 D9 Gma9 Cma9 of G major (IIm7b9 = III7b9#9 no third).

At the chord change, make sure you are playing with the range of chord tones common to the current and next chord. In the VIm9 IIm9 V9 Ima9 IVma9 chord progression, the root, third and fifth of each chord become the fifth, seventh and ninth of the next.

No transition will be necessary at the chord change. Venture into the non-contiguous part of each arpeggio (the part not common to both chords) as long as you get back to the contiguous area (common to both chords) at the chord change.

The musical notation shows a sequence of ninth chords in G major: B7b9#9 no third (= Bm7b9), Em9, Am9, D9, Gma9, and Cma9. The notation is presented in two systems. The first system contains the first four chords (B7b9#9 no third, Em9, Am9, D9) and the second system contains the last two (Gma9, Cma9). Each chord is represented by a single staff with a treble clef and a key signature of one sharp (F#). Below each staff is a bass staff showing the fret numbers for the T (Treble), A (Alto), and B (Bass) strings. The fret numbers are: B7b9#9 no third (T: 7, 8, 10, 12, 10, 8, 7, 10; A: 4; B: 4), Em9 (T: 7, 10, 8, 10, 8, 7, 9, 7; A: 10; B: 7), Am9 (T: 9, 7, 9, 7, 10, 9, 10, 7; A: 9; B: 7), D9 (T: 9, 7, 10, 7, 10, 9, 7, 10; A: 9; B: 7), Gma9 (T: 7, 10, 9, 10, 7, 10, 9, 7; A: 10; B: 7), and Cma9 (T: 10, 8, 7, 8, 10, 8, 7, 5; A: 10; B: 7).

Similarly, scale-tone seventh chords have two tones in common with one another when their root progression is in fourths. Scale-tone eleventh chords have four notes in common with root progression in fourths and such thirteenth chords have five in common.

Playing a Scale Linearly Through the Range of an Arpeggio Spanning Over an Octave

Ninth, eleventh and thirteenth arpeggios can be ascended or descended with scalar passing tones between the chord tones through their range which exceeds an octave.

lower neighboring sixth

The lower neighbor may be the seventh of the scale, or a sixth, where the sixth is a major sixth (such as and “A” note as a sixth for a “C” root). Below, the lower neighbors are the sixth of the root which they precede. In the major scale this occurs with the chords constructed on major scale tones one, four, five (on which major chord are constructed) and on scale tone two. In the G major scale example shown below, this would be for the chords Am9, D9, Gma9 and Cma9.

Using Consecutive Upper Chord Tones to Move into the Next Higher Octave

Arpeggio tones greater than an octave (the ninth, eleventh and thirteenth) are stepwise neighbors to the lower arpeggio tones of the same chord in the next higher octave. Conversely, the lower arpeggio tones of a chord are the stepwise neighbors of the tones greater than an octave for the same chord in the next lower octave.

Transitions to these arpeggio tones of the same chord in another octave are similar to transitions to the notes of another chord, in that the tones not in one chord are in the other.

Ascending an arpeggio constructed with odd-numbered tones larger than an octave skips the even-numbered tones eight, ten, etc., which begin the *upper* octave of the same chord. The note an octave (eight) above the lower arpeggio's root is the root of the upper arpeggio. The note a tenth above the lower arpeggio's root is the third of the upper arpeggio. The twelfth above the lower root is the fifth of the upper and the fourteenth of the lower root is the seventh of the upper.

upper neighbor to the highest chord tone

Practice descending the arpeggios as well as ascending. This example descends each arpeggio from the ninth with an upper neighboring tone:

The musical notation shows six descending arpeggios, each starting from the ninth and including an upper neighbor tone. The chords are B7b9, Em9, Am9, D9, Gma9, and Cma9. The notation includes a treble clef, a key signature of one sharp (F#), and a 4/4 time signature. Below each staff, the fingerings for the thumb (T), index (A), and middle (B) fingers are indicated with numbers 1-10.

B7b9

Em9

Am9

D9

Gma9

Cma9

BEBOP/OCTATONIC SCALES WITH SEVENTH CHORD TONES ON THE BEAT

[Bebop and Other Octatonic Scales](#) are in common use and are known to many jazz musicians. As eight-note scales, every other note can emulate a four-note chord, usually a seventh chord or sixth chord.

CHORD-BEAT WITH SEXTATONIC SCALES, OCTATONIC SCALES AND NINTH ARPEGGIOS

key scales for single note improv

The important part of melody is usually conceived in the vocal context. These scales should usually follow that idea and emphasize the tonic chord after which the key is named. The six-tone scales below are used in bluegrass and celtic music as a main resource in addition to the vocal context. The octatonic scales should be used in part to build phrases, rather than ascending and descending an entire octave.

chord scales for double stops and chord scale

Double stops tend to use a scale named after each chord. Some melody is based on the chord scale when chords have shorter durations (in seconds). Since these chords have long durations, you can play in the key of the chord. In terms of melody conceived in the vocal context, still strive for key scale melody.

IV major pentatonic add four

Four major pentatonic add four is part of IV major scale, rather than Lydian. In modern pop styles that use pentatonic scales, the chord scale for the IV chord is often used as IV major scale.

E Form Parent Scale

	I major	II minor	III minor	III major	IV	V	VI minor	VII dim.
six-tone scale (sextatonic)	I ma pent add 4	II minor pent add 2	III min pent add b2	III dom. 7/1 1 pent add b2	IV major pent add 4	V ma pent add 4	VI minor pent add 2	VII Locrian no b6
other 6-tone	III minor pent add b2 (I ma9)				VI minor pent add 2 (IV ma9#11)	V Mixolydian no 6		
eight-tone (octatonic)	I major add #5	II Dorian add 7	III Phrygian add 7	III Phry. dom. add 7	IV Lydian add #5	V Mixolydian add 7	VI Aeolian add 7	VII Locrian add 7
ninth arpeggios	major ninth major	minor ninth Dorian		seven flat nine Phry. dom.	major ninth Lydian	dominant ninth Mixolydian	minor ninth Aeolian	

melodic cells

Four-note chromatic cells, including linear, encircling, every-other and skip chromatics; triads with neighbor.

D Form Parent Scale

	I major	II minor	III minor	III major	IV	V	VI minor	VII dim.
six-tone scale (sextatonic)	I ma pent add 4	II minor pent add 2	III min pent add b2	III dom. 7/1 1 pent add b2	IV major pent add 4	V ma pent add 4	VI minor pent add 2	VII Locrian no b6
other 6-tone	III minor pent add b2 (I ma9)				VI minor pent add 2 (IV ma9#11)	V Mixolydian no 6		
eight-tone (octatonic)	I major add #5	II Dorian add 7	III Phrygian add 7	III Phry. dom. add 7	IV Lydian add #5	V Mixolydian add 7	VI Aeolian add 7	VII Locrian add 7
ninth arpeggios	major ninth major	minor ninth Dorian		seven flat nine Phry. dom.	major ninth Lydian	dominant ninth Mixolydian	minor ninth Aeolian	

melodic cells

Four-note chromatic cells, including linear, encircling, every-other and skip chromatics; triads with neighbor.

C Form Parent Scale

	I major	II minor	III minor	III major	IV	V	VI minor	VII dim.
six-tone scale (sextatonic)	I ma pent add 4 	II minor pent add 2 	III min pent add b2 	III dom. 7/1 1 pent add b2 	IV major pent add 4 	V ma pent add 4 	VI minor pent add 2 	VII Locrian no b6
other 6-tone	III minor pent add b2 (I ma9) 				VI minor pent add 2 (IV ma9#11) 	V Mixolydian no 6 		
eight-tone (octatonic)	I major add #5 	II Dorian add 7 	III Phrygian add 7 	III Phry. dom. add 7 	IV Lydian add #5 	V Mixolydian add 7 	VI Aeolian add 7 	VII Locrian add 7
ninth arpeggios	major ninth major 	minor ninth Dorian 		seven flat nine Phry. dom. 	major ninth Lydian 	dominant ninth Mixolydian 	minor ninth Aeolian 	

melodic cells

Four-note chromatic cells, including linear, encircling, every-other and skip chromatics; triads with neighbor.

A Form Parent Scale

	I major	II minor	III minor	III major	IV	V	VI minor	VII dim.
six-tone scale (sextatonic)	I ma pent add 4	II minor pent add 2	III min pent add b2	III dom. 7/1 1 pent add b2	IV major pent add 4	V ma pent add 4	VI minor pent add 2	VII Locrian no b6
other 6-tone	III minor pent add b2 (I ma9)				VI minor pent add 2 (IV ma9#11)	V Mixolydian no 6		
eight-tone (octatonic)	I major add #5	II Dorian add 7	III Phrygian add 7	III Phry. dom. add 7	IV Lydian add #5	V Mixolydian add 7	VI Aeolian add 7	VII Locrian add 7
ninth arpeggios	major ninth major	minor ninth Dorian		seven flat nine Phry. dom.	major ninth Lydian	dominant ninth Mixolydian	minor ninth Aeolian	

melodic cells

Four-note chromatic cells, including linear, encircling, every-other and skip chromatics; triads with neighbor.

G Form Parent Scale

	I major	II minor	III minor	III major	IV	V	VI minor	VII dim.
six-tone scale (sextatonic)	I ma pent add 4	II minor pent add 2	III min pent add b2	III dom. 7/1 1 pent add b2	IV major pent add 4	V ma pent add 4	VI minor pent add 2	VII Locrian no b6
other 6-tone	III minor pent add b2 (I ma9)				VI minor pent add 2 (IV ma9 #11)	V Mixolydian no 6		
eight-tone (octatonic)	I major add #5	II Dorian add 7	III Phrygian add 7	III Phry. dom. add 7	IV Lydian add #5	V Mixolydian add 7	VI Aeolian add 7	VII Locrian add 7
ninth arpeggios	major ninth major	minor ninth Dorian		seven flat nine Phry. dom.	major ninth Lydian	dominant ninth Mixolydian	minor ninth Aeolian	

melodic cells

Four-note chromatic cells, including linear, encircling, every-other and skip chromatics; triads with neighbor.

SUBSTITUTING PENTATONICS WITH CHROMATICS

Five-note pentatonic figures including a chromatic tone which chromaticize a triad can be substituted for four consecutive scale tones of a major scale (or other appropriate seven tone scale).

With major pentatonic (1-2-3-5-6 of major), the numbered tones 1-2-#2-3-5 (5-3-b3-2-1) can be substituted for 1-2-3-4-5 (major or Mixolydian) or for 1-2-3-#4-5 (Lydian). This puts the “b3” on the beat and darkens the mood slightly. This is used on the D9, Gma9 and Cma9 in the example below.

With minor pentatonic (1-b3-4-5-b7 of major), 1-b3-4-#4-5 can be substituted for 1-2-b3-4-5 (Dorian, Aeolian or harmonic minor) or for 1-b2-b3-4-5 (Phrygian). Use this in ascending form only for now. We will need to use a special chromatic treatment later in descending. This is used on Em9 and Am9 in the example below.

With dominant 7/11 pentatonic (1-3-4-5-b7 of major), 1-3-4-#4-5 can be usually be substituted for 1-2-3-4-5 of Mixolydian D9 as shown in the example below. 1-3-4-#4-5 can usually also substitute for 1-b2-3-4-5 of Phrygian major, as used on the B7b9 chord in the example below.

NEEDS EXAMPLE

The fifth, seventh and ninth of the VIm7, IIm7 and V7 chords each constitute a minor triad. Each of those triads can be chromaticized, as with the examples above.

USING TRIPLETS

Scalar eighth note triplets would include a chord tone on the first of every two beats. They should typically be started on the first and/or third beats, since those are metrically stronger accents. Triplets can be made to align chord tones on the beat by filling in thirds chromatically or by using two setup tones. Major thirds have four half steps, a triplet bridging a major third must involve one whole step.

In ascending and descending a minor ninth chord with triplets and inserted chromatics, use a chromatic scale from the root to ninth except omit the major third and major seventh. With a Mixolydian ninth chord, omit the major second and minor seventh. With a Phrygian major ninth chord (7b9) omit the major second. With a major ninth chord, omit the minor second and omit the minor sixth or minor seventh.

USING SIXTEENTH NOTES

Most of the principles outlined for scalar eighths may be used in “double time” with scalar sixteenths.

Beat units of scalar sixteenths may be combined with scalar eighths.

CHROMATICIZED ARPEGGIOS

The [Chromaticized Arpeggios](#) chapter shows how to emphasize chord tones on the beat while adding chromatics to arpeggios.

VOICE LEADING CADENCES WITH EMULATED CHORD TONES

(preceding a chord root from it's fifth is also included)

Root progression refers to the change from the letter name of one chord to the letter name of the next chord. Each chord tone listed in the at the top of the columns in the diagrams below (root, third, fifth, seventh and ninth) will have specified possible movements shown below it. See [Voice Leading](#).

Scale-Tone Ninth Chords with Root Progression up A Fourth (equals down a fifth)

chord root progresses up a fourth

The root and third of the arpeggio representing the current chord will each move to the root of the arpeggio representing the next chord (root up a fourth and third up a scale tone). The fifth, seventh and ninth of the current chord arpeggio can each move up or down a scale tone and either way will arrive on an arpeggio tone of the next chord.

chord root progresses down a fifth

The root, third and fifth of the current chord are respectively the same tones as the fifth, seventh and ninth of the chord whose letter name is down a fifth. The seventh and ninth of the current chord are out of range of the arpeggio for the next chord whose root is down a fifth (from the root of the current chord).

root progression	root	third	fifth	seventh	ninth
up a fourth	up a fourth	up a scale tone	up or down a scale tone		
down a fifth	common tone			out of range	out of range

Scale-Tone Ninth Chords With Root Progression Down A Fourth (equals up a Fifth)

chord root progresses up a fifth

The root and third of the arpeggio representing the current chord are out of range of the arpeggio for the next chord whose root is up a fifth (from the root of the current chord). The fifth, seventh and ninth of the current chord are respectively the same tones as the root, third and fifth of the chord whose letter name is up a fifth.

chord root progresses down a fourth

The root, third and fifth of the current chord arpeggio can each move up or down a scale tone and either way will arrive on an arpeggio tone of the next chord. The seventh of the current chord becomes the third of the next chord. The ninth of the current chord can move down a fifth to the root of the next chord.

root progression	root	third	fifth	seventh	ninth
up a fifth	out of range	out of range	common tone		
down a fourth	up or down a scale tone			common tone	down a fifth

Other Voice Leading

In making a transition to the next chord root down a third, the movement can be from the root of the original chord down a fourth, then up a step to the new root.

PART 6 CONTENTS

MELODIC CELLS

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Melodic Cells

- **Melodic Cells Defined**
- **Cells on Setup Chords or Target Chords**
- **Integrating Cells into Your Improv**
- **MELODIC CELL TYPES**
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 - **Melodic Rhythm Cells**
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MELODIC CELLS DEFINED

Cells are the smallest units of melodic design. They are made with structures like scales, arpeggios, intervals and chromatics. Cells usually are used with various expressive design elements involving technique, phrasing, rhythm, dynamics, etc. Melody is the designed repetition of cells.

Cells of Creative Origin

Cells may be created organically with the right brain, by recalling and modifying known melodic ideas. In improvisational music, these cells are called *licks*. In classical music, cells are created compositionally and are called *motifs*.

Cells of Logical / Mathematical Origin

A composer may imagine an idea, then process it logically to conceive variations. An improviser can expand their capabilities by studying variations on a cell and integrating those variations into their improvisational style.

Cells may be varied as to their chord type, scale type, rhythmic word, rhythmic displacement. They usually may be played in reverse order.

CELLS ON SETUP CHORDS OR TARGET CHORDS

Target Chords

A tonic chord is the chord after which a key is named and is the chord you would expect the song to end on. Many chords in a progression can be treated as temporary tonic chords to enjoy the melodic and harmonic designs that support them. It is common that I, II, IV, V and VI chords are treated in as temporary tone centers.

The actual tonic chord and any temporary tonic chords can be treated as *target chords*, as if they were tonic chords. This is done by anticipating them with scales or chords.

Preview the Target Chord

Probably the simplest way to anticipate a target chord is to play its arpeggio or a scale containing its arpeggio *before* the target chord, during another chord. This should be usually be done for about one second, at most (see The One Second Rule, below).

Cadences

anticipate with cadences

Chords can anticipate a target chord by use of well-known short chord progressions called *cadences* that, in the repertoire in which we have known them, have established the key. Over and over, in most styles of music, we have heard a chord built on the fifth step of the tonic scale (scale named after the key) anticipating the tonic chord, such as G7 (V7) to C (I) in the key of C. In classical and jazz, then pop music, we have heard chords in sequences of fourths (7, 3, 6, 2, 5, 1, 4) that lead to the I chord, especially IIm, V, I (Dm, G, C in the key of C) or IIm7b5, V, Im (Dm7b5, G, Cm in the key of C minor).

A common jazz variation that became popular with bop music is the [flat five substitute](#), where an altered V chord (such as G7b5b9) is substituted with a synonym chord (Db7b5#11) whose root is a flatted fifth up or down. Since a flatted fifth interval is a half an octave, it produces the same note up or down.

represent cadences with arpeggio

Cadences can be represented with arpeggios and those arpeggios can be decorated with scales.

The One to Two Seconds Rule

It is common that melodies emulate a chord immediately before a target chord that have little or nothing to do with the chord in the accompaniment at the time.

For example, you may be playing in bar two of a jazz blues in C where the current chord is F7, but you are playing G7b9 at the end of the bar to anticipate the C7 chord that begins bar three with a cadence. The notes of the G7b9 are largely different from those of the F7 in the accompaniment and would sound pretty bad if you did not hear them resolve to the C7 chord. If the listener only hears this discrepancy for about one to two seconds (two to four beats at 120 beats per minute), they won't have time to contemplate the discrepancy and will hear the resolution to C7 soon enough. If, on the other hand, you played the G7b9 sound for over two seconds, the listener may have time to recognize that it does not harmonize with the F7 chord actually being played in the accompaniment.

This phenomenon is not restricted to jazz. It occurs in every popular style of improvisational music (rock, blues, jazz, folk, reggae, funk, punk, etc.).

INTEGRATING CELLS INTO YOUR IMPROV

Get four-note cells into your memory, in a melodic context. Not only memorize the cell, but create ideas that use them and incorporate those ideas into your improv. Sing your lines as you play them.

Practice Each Separate Cell

If possible, practice a series of related cells (each changing only a note or two, or the same structure played on a different chord tone or different fingerings). Learn to phrase each cell against the chords, starting in the appropriate part of the bar.

Free Improv at the Same Rhythmic Level as the Cell

Establish familiar, easy improv with continuous rhythm (i.e. continuous eighth notes) without these new cells at the same rhythmic level as the cell.

Whimsically Combine Cells and Free Improv

Combine the cells with free improv by improvising right up to the cell, playing the cell on the intended part of the bar, and coming out of the cell back into continuous free improv. Progress from playing on a simple chord progression or even a single chord to more complex progression.

whimsical games

Globalize any element (see [Globalizing](#)). Practice a set of instances of an element (like a melodic cell). Improvise on something conducive to using an instance of the element and whimsically incorporate one instance on call, then two, then more. For example, play up and down the tones of a ninth arpeggio. As you approach any one of the numbered tones (1-3-5-b7-9), think that number and play the melodic cell that decorates it, such as two chromatic tones below it. Practice this until it is easy for you to think and apply the melody cell to any chord tone.

Personalize Your Cells

Evolve the use cell with your personalized treatment such as slurring, decorating, phrasing and incorporate it into your improvisational style so you'll review it when you improvise. In improvising, you recall previously learned ideas and modify them to fit what you are playing on. We are working at adding cells to your mental library, and will work on the modifications necessary to adapt a cell to what you are playing on.

Personalize each cell by deciding on variations of it with changes of slurs, dynamics, rhythm, scale and chord quality to be applied to genres and songs in your repertoire.

MELODIC CELL TYPES

LINEAR SCALES AND ARPEGGIOS AS CELLS

- [Key Scale or Chord Scale](#)
- [Arpeggios of The Current Chord](#)
- [Arpeggio Phrases with Non-Chordal Tones](#)
- [See the chapter "Chromaticized Pentatonic Scales"](#)
- [See the chapter "Relating Chord Tones to the Beat"](#)
- [See the chapter "Fragment Patterns"](#)
- [See the chapter "Triads with Neighbor"](#)
- [Two and Three String Cluster Playing](#)
- [Flipping Tertian Cadences](#)
- [Pivot Tone](#)
- [Scalar Encircling](#)

MELODIC RHYTHM CELLS

- [See the chapter "Relating Chord Tones to the Beat"](#)
- [See the chapter "Rhythmic Themes and Layers"/Rhythmic Theme and Variation](#)
- [See the chapter "Rhythmic Words and Comping"/Melodic Rhythms](#)
- [See the chapter "Fragment Patterns"/Beat Obscuring](#)

CHROMATICIZED ARPEGGIO CELLS

Generally, chromaticizing arpeggios involves one or more of these three actions: fill in between chord tones with half steps, fill in chromatically between a neighboring scale tone and a chord tone or precede a chord tone from a lower chromatic tone a half step below.

It is preferable to get chord tones on the beat or to push the beat by playing a chord tone before a beat then sustaining onto the beat or putting a rest on the beat

- [See the chapter "Chromaticized Arpeggios"](#) and these sections of it:
 - [Three-Note Chromaticized Arpeggio Fundamentals](#)
 - [Four-Note Chromaticized Arpeggio Fundamentals](#)
 - [Building Four-Note Chromaticized Arpeggio Cells](#)
 - [Linear Chromatic Sequences](#)
 - ["Every-Other" Chromatic Sequences](#)
 - [Skip Chromatic Sequences](#)
 - [Encircling Chromatic Sequences](#)
 - [Looped Chromatics](#)

Chromaticizing Full-Tertian

Chromatic Drift

Free Form Chromatics

- See the chapter [“Chromaticized Scales on Arpeggios”](#) and these sections of it

HARMONIC TYPE MELODIC CELLS

- Harmonic Cadences
- Superimposed Chord Progression
 - * Secondary Roots
 - * Flat Five (Tritone) Substitute
 - * Chromatic Passing Chords
 - * Changed Chord Quality
- Harmonized Scales
- Chromatic Drift
- See the chapter [“Triads with Neighbor”](#)
- Thirds, Sixths and Octaves with Inner Thirds
- See the chapter [“Quartal and Quintal Harmony”](#)
- See the chapter [“Half-Whole-Half Cells and Diminished Scale”](#)

DECORATION CELLS

- Bebop And Baroque Ornamentation
- Adjacent String Legato Slurring
- Cadence Ornament Rhythms
- Indian Classical Ornamentation

THEME AND VARIATION CELLS

- Rhythmic Theme and Variation
- Core Melody And Elaboration
- Melodic Curve Theme and Variation
- Call and Response

STYLES AS CELLS

- Blues Licks
- Swing Blues Licks
- Rock-a Berry Licks
- Double Stops and Jazz Blues Double Stops
- Pedal Steel Bends
- Charlie Parker Design

LINEAR SCALES AND ARPEGGIOS AS CELLS

Key Scale or Chord Scale

with emphasis of current chord tones (duality tones)

The most basic melodic cell is a linear ascent or descent on a scale. Joy To The World descends a major scale one octave from the tone center. The guitar theme in My Girl ascends a major pentatonic for one octave. The first theme in George Benson's version of Breezin' starts by ascending a major scale from five to five.

Syncopated rhythm is very useful in bringing a scalar passage to life.

Arpeggios of the Current Chord

Melodies sometimes arpeggiate chords. Bach's Well-Tempered Clavier, Prelude 1 in C is all arpeggios. The instrumental opening and recurring theme in Mr. Sandman is quadrad (four-note) arpeggios. In The Mood is triad arpeggios. The first guitar solo to Comfortably Numb has passages of major arpeggios. The Sultans of Swing solos have frequent triad arpeggios. The two-guitar ending in Hotel California has two guitars, each playing arpeggios in harmony with one another.

Bach's Well-Tempered Clavier, Prelude 1 in C

Mr. Sandman

Comfortably Numb

Like with scalar passages, arpeggio passages are much more interesting with syncopated rhythm.

Afternoon In Paris - linear arpeggios

Arpeggio Phrases with Non-Chordal Tones

Two and Three String Cluster Playing

two strings tuned in fourths

three strings tuned in fourths for fragment patterns

three strings tuned in fourths for theme and variation

numbered fingering for two or three strings in fourths

My major scale in-position numbering system uses the major scale-tone number of the lowest-pitched note on the sixth string to number the fingering. If you were to fret a G major scale in the second position, the lowest reachable tone is "F#", scale tone seven. So that would be fingering 7. Here are the seven fingerings in that system:

seven in-position fingerings, numbered by scale tones

Major scale fingerings are numbered in this course according to the number of lowest note fingered with the index finger on the sixth string. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the an alternate string.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

in-position major scale fingerings by finger number

"1" is the index finger, "2" is the middle finger, "3" is the ring finger and "4" is the little finger.

fingering 1 3 index reaches	fingering 2 2 pinky reaches	fingering 3 no reaches	fingering 4 2 index reaches	fingering 5 4 index reaches	fingering 6 1 pinky reach	fingering 7 no reaches

Flipping Tertian Cadences

(using other [full tertian](#) containing non-chordal tones to full tertian containing the current chord)

Flipping tertian melodic cells are an important part of the improvising puzzle. They are very effective in connecting other melodic cells across chord progression.

Imagine you are on the root of a chord and you want to improvise around the seventh and ninth adjacent to the root, as part of a ninth arpeggio. In relation to the seventh and ninth, the root is an “8” (octave). You’ll need to move up or down a scale tone to get on the tertian cycle. So, this is a matter of moving from an even-numbered tone (2, 4, 6, 8, 10 or 12) to an odd-numbered tone (1, 3, 5, 7, 9, 11 or 13).

Large tertian chords are built with odd-numbered tones: 1, 3, 5, 7, 9, 11 or 13. If you are currently on an even-numbered tone (2, 4, 6, 8, 10 or 12), you can use one of the four-note cell types below to transition.

In addition to using these as a solution to an inadvertent problem, you can also “create a drama” by intentionally using an even-numbered chord tone like a sixth on the beat, then resolve it with a flipping tertian melodic cell.

Learn to play these melodic cells in each of the six major scale fingerings [shown in Prime Scales, Chords and Arpeggios/Major Scale Fingerings/versions suited to play scales](#).

four-note versus three-note cells

We are studying four-note flipping tertian cells in this section. Three-note flipping tertian cells don’t require much study since they easily move to the tone up or down a scale tone. “123” leads to “2” stepwise. “321” leads to “7” stepwise.

1-2-3 resolves to 2

1-2-3-2 transitions up a scale tone, as "C" to "B" below

3-2-1 resolves to 7

3-2-1-7 transitions down a scale tone, as "C" to "B" below

mordent as a flipping tertian

Any of the four notes in these flipping tertian melodic can be an upper or lower mordent for bebop ornamentation. Mordents on chromatic tones (#1-#2-#5-#6) should employ lower chromatic embellishments. The [Autumn Leaves flipping tertian](#) examples use mordents in sixteenth triplets.

1-3-2-1 and 1-6-7-1

1-3-2-1 and 1-6-7-1 begin with a third, then return stepwise to the original note. They can end up or down by a scale-tone interval up to a minor third.

1-3-2-1

1-3-2-1-7 transistions down a scale tone, as "C" to "B" below

1-3-2-1-2 transistions up a scale tone, as "C" to "B" below

1-6-7-1

1-6-7-1-7 transistions down a scale tone, as "C" to "B" below

1-6-7-1-2 transistions up a scale tone, as "C" to "D" below

1231 and 1761

1231, 1761 begin with three scalar tones, then skip by a third to the original note. They can end up or down by a scale-tone interval up to a minor third.

1231

1-2-3-1-7 transistions up a scale tone, as "C" to "D" below

1-2-3-1-2 transistions up a scale tone, as "C" to "D" below

1-7-6-1

1-7-6-1-7 transistions down a scale tone, as "C" to "D" below

1-7-6-1-2 transistions up a scale tone, as "C" to "D" below

12167, 12132, 17167, 17132

These begin like a mordent (a neighbor and a returning note), then a third up or down, then a returning note.

1-2-1-6-7, 1-2-1-3-2, 1-7-1-6-7, 1-7-1-3-2

1-2-1-6-7 transistions down a scale tone, as "C" to "B" below

1-2-1-3-2 transistions up a scale tone, as "C" to "D" below

1-7-1-6-7 transistions down a scale tone, as "C" to "B" below

1-7-1-3-2 transistions up a scale tone, as "C" to "D" below

Autumn Leaves beginning improv

Swing Eighthths

Chord progressions for the first system:

- (G7b9nr=B°7)
- C Dorian: Cm7, F7
- G minor blues: Bbmaj7, Ebmaj7

Chord progressions for the second system:

- D Phrygian major (D7 with b2, b6): Am7(b5) (D7b9nr=F#°7), D7
- G minor blues: Gm7

Tablature for the first system:

String	Notes
T	10 9 7 10
A	8 10 11 8 8 10
B	

Tablature for the second system:

String	Notes
T	8 11 10 8 11
A	10 8 11
B	

Autumn Leaves flipping tertian improv

Swing Eighthths

1-3-2-1, resolve down

over Cm7 F7, a IIm V progression, play it all as IIm

(G7b9nr=B°7) Cm7 Cm7 mordent

tones in C
1 3 2 1 (b)7

play Gm7, which is VIIm7 over Bb(I)ma7, Ebma7 and Gm7. VIIm7 is part of Ima7 and IVma7 type chords.

5 (D7b9nr=F#°7) Gm7 Gm7 mordent

tones in G
1 3 2 1 (b)7

play D7, which is V7 of Gm7 over Am7b5 D7 (IIm7b5 V7 of Gm).

9 (A7b9nr=C#°7) D7 D7

tones in D
1 3 2 1 (b)7

13 (Eb9<ma7>) (Ab13#11) Gm7 (Eb9<ma7>) (Ab13#11) Gm7

tones in Ab 1 3 2 1 down tones in Ab 1 3 2 1 tones in G 1 3 2 1 (b)7

These all use the 1-3-2-1 sequence, starting on 1 to "flip" from the even -numbered octave root (8) to "7", which is in the 1-3-5-7-9-11 tertian series or to another chord with a tone adjacent to "1".

We will explore "flipping" in this manner from "6", from "8" ("1" up and octave), and from 10 ("3" up an octave).

1-3-2-1, resolve up

Swing Eighths

over Cm7 F7, a IIm V progression, play it all as IIm

17 (G7b9nr=B°7) Cm7 Cm7 mordent

tones in C
1 3 2 1 2

play Gm7, which is VIm7 over Bb(I)ma7, Ebma7 and Gm7. VIm7 is part of Ima7 and IVma7 type chords.

21 (D7b9nr=F°7) Gm7 Gm7 mordent

tones in G
1 3 2 1 2

play D7, which is V7 of Gm7 over Am7b5 D7 (IIm7b5 V7 of Gm).

25 (A7b9nr=C°7) D7 D7

tones in D
1 3 2 1 b2

29 (Eb9<ma7>) (Ab13#11) Gm9 (Eb9<ma7>) (Ab13#11) Gm7

tones in Ab 1 3 2 1 up tones in Ab 1 3 2 1 tones in G 1 3 2 1 (b)7

These all use the 1-3-2-1 sequence, starting on 1 to "flip" from the even -numbered octave root (8) to "7", which is in the 1-3-5-7-9-11 tertian series or to another chord with a tone adjacent to "1".

We will explore "flipping" in this manner from "6", from "8" ("1" up and octave), and from 10 ("3" up an octave).

Pivot Tone

with scalar, arpeggio or chromatic movement, changing notes on or off the beat

Every other note is one particular tone, called the pivot tone. The alternate set of notes in the every-other is a scalar or chromatic ascent or descent to another chord. These can bridge an octave or more. They can incorporate all the previous melodic cells. Chromatic cells must be played quickly to work when alternated with a pivot tone.

Ascend or descend with changing notes on the beat or changing notes off the beat. If scalar, skip to chord tone on "1" as necessary.

Moto Perpetuo on the B & E Strings - [click to play video](#)

$\text{♩} = 184$

1 2 3 4

4 3 1 4 3 1 1 4 3 1 1 4 3 1 1 0 1 0 3 0 1 0 2 0 1 0 3 0 1 0 3 0

12 11 9 12 11 9 7 11 9 7 5 9 7 5 4 0 2 0 4 0 4 0 5 0 5 0 7 0 7 0 9 0

5 6 7 8

4 3 1 4 3 1 1 4 3 1 1 4 3 1 1 0 1 0 3 0 1 0 2 0 1 0 3 1 1 0 1 0

12 11 9 12 11 9 7 11 9 7 5 9 7 5 4 0 2 0 4 0 4 0 5 0 5 0 7 5 4 0 4 0

9 10 11 12

1 0 1 0 1 0 2 0 1 0 2 0 1 0 1 0 4 0 1 0 1 0 1 0 4 0 1 0 2 0 1 0

4 0 4 0 5 0 6 0 7 0 8 0 9 0 9 0 12 0 9 0 9 0 9 0 10 0 7 0 8 0 7 0

13 14 15 16 17 18

1 0 1 0 1 0 2 0 1 0 2 0 1 0 1 0 4 0 1 0 1 0 1 0 4 0 1 0 2 0 1 0

4 0 4 0 5 0 6 0 7 0 8 0 9 0 9 0 12 0 9 0 9 0 9 0 10 0 7 0 8 0 7 0 9 0 5 0 6 0 5 0 7 0 4 0 4 0 4 0

19 20 21 22

4 0 1 0 4 0 1 0 3 0 1 0 3 0 1 0 1 0 2 0 2 0 2 0 3 0 3 0 3 0 3 0

5 0 1 0 5 0 1 0 4 0 2 0 4 0 2 0 2 0 3 0 2 0 3 0 4 0 4 0 4 0 4 0

23 24 25 26 27

4 0 1 0 4 0 1 0 3 0 1 0 3 0 1 0 1 0 2 0 1 0 2 0 3 0 1 0 3 0 3 0 1

5 0 1 0 5 0 1 0 4 0 2 0 4 0 2 0 2 0 3 0 2 0 3 0 4 0 2 0 4 0 1

28 29 30 31

4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 2 2 0 2 2 2 0 2

11 7 0 7 12 9 0 9 14 11 0 11 12 9 0 9 11 7 0 7 9 6 0 6 7 7 0 7 7 7 0 7

32 33 34 35

4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 2 2 0 1 0

11 7 0 7 12 9 0 9 14 11 0 11 12 9 0 9 11 7 0 7 9 6 0 6 7 7 0 4 0

36 37 38 39

4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 2 2 0 2 2 2 0 2

11 7 0 7 13 9 0 9 14 11 0 11 13 9 0 9 11 7 0 7 9 6 0 6 7 7 0 7 7 7 0 7

40 41 42 43

4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 4 1 0 1 2 2 0 1 0

11 7 0 7 12 9 0 9 14 11 0 11 12 9 0 9 11 7 0 7 9 6 0 6 7 7 0 4 0

44 45 46 47

4 0 4 0 1 0 1 0 4 1 4 1 1 0 1 0 1 0 3 0 2 0 1 0 1 0 3 0 2 0 1 0

12 0 12 0 9 0 9 0 12 0 12 0 9 0 9 0 12 0 14 0 10 0 9 0 12 0 14 0 10 0 9 0

48 49 50 51

1 0 2 0 4 0 1 0 4 0 1 0 4 0 1 0 1 0 2 0 1 0 3 0 1 0 1 0 2 0 4

11 0 12 0 9 0 10 0 12 0 9 0 10 0 7 0 4 0 5 0 5 0 7 0 5 0 9 0 10 0 12

1  2  3  4 

4 3 1 4 3 1 1 4 3 1 1 4 3 1 1 0 1 0 3 0 1 0 2 0 1 0 3 0 1 0 3 0

12 11 9 12 11 9 7 11 9 7 5 9 7 5 4 0 2 0 4 0 4 0 5 0 5 0 7 0 7 0 9 0

T
A
B

5  6  7  8 

4 3 1 4 3 1 1 4 3 1 1 4 3 1 1 0 1 0 3 0 1 0 2 0 1 0 3 1 1 0 1 0

12 11 9 12 11 9 7 11 9 7 5 9 7 5 4 0 2 0 4 0 4 0 5 0 5 0 7 5 4 0 4 0

T
A
B

9  10  11  12 

1 0 1 0 1 0 2 0 1 0 2 0 1 0 1 0 4 0 1 0 1 0 1 0 4 0 1 0 2 0 1 0

4 0 4 0 5 0 6 0 7 0 8 0 9 0 9 0 12 0 9 0 9 0 9 0 10 0 7 0 8 0 7 0

T
A
B

13  14  15  16 

1 0 1 0 1 0 2 0 1 0 2 0 1 0 1 0 4 0 1 0 1 0 1 0 4 0 1 0 2 0 1 0 4 0 1 0 1 0 1 0

4 0 4 0 5 0 6 0 7 0 8 0 9 0 9 0 12 0 9 0 9 0 9 0 10 0 7 0 8 0 7 0 9 0 5 0 6 0 5 0 7 0 4 0 4 0 4 0

T
A
B

19  20  21  22 

4 0 1 0 4 0 1 0 3 0 1 0 3 0 1 0 4 0 1 0 2 0 2 0 0 Harm.-----

5 0 1 0 5 0 1 0 4 0 2 0 4 0 2 0 0 0 1 0 0 2 2 0 12

T
A
B

Scalar Encircling

CHROMATICIZED ARPEGGIO CELLS

Generally, chromaticizing arpeggios involves one or more of these three actions:

- ✦ fill in between chord tones with half steps
- ✦ fill in chromatically between a neighboring scale tone and a chord tone
- ✦ precede a chord tone from a lower chromatic tone a half step below.

It is preferable to get chord tones on the beat or to push the beat by playing a chord tone before a beat then sustaining onto the beat or putting a rest on the beat

See the chapters “[Chromaticized Arpeggios](#)” and “[Chromaticized Scales on Arpeggios](#)”.

HARMONIC TYPE MELODIC CELLS

Harmonic Cadences

See the chapters [“Voice Leading”](#) and [“Modal II-V-I Cadences and Turnarounds”](#).

Superimposed Chord Progression

See the chapters [“Substitution”](#), [“Melodically Superimposed Cadences”](#) and [“Voice Leading”](#)/Most Usable Voice Leading/Four Beat Cadences.

secondary roots

See the chapter [“Substitution”](#)/Secondary Roots. Melodic cells can be used on the third and sixth with various melodic cells.

the tertian cycle

Tertian implies made of thirds. The interval of a third is counted inclusively, so the interval from scale tone one to scale tone three or from scale tone two to scale tone four are called thirds. Chords are typically constructed in thirds, using the tertian cycle 1-3-5-7-2-4-6-1-3, etc. The tertian cycle harmony Three-note chords built in thirds are called tertian triads. Any four-note tertian chord contains two subset triads. Any five-note tertian chord contains two tertian quadrad subsets and three tertian triad subsets.

triad subsets of each original chord

For each original chord, consider all of its potential versions of ninth and sixth chords. In the major scale, usable ninth chords occur on all scale tones except not seven and three. Sixth chords occur on steps I, IV, V and II. IIm6 is not very usable in cadences like II V I, but more as a tonic chord in a minor key.

Most of the original chords in a progression have potential substitutes based on [secondary roots](#). Secondary roots are on the root, third, fifth or sixth (if the chord has a sixth) of each original chord. Secondary roots on the sixth are primarily used with major chords (C6 used for Cma7 or for C7, not so much for Cm7).

These substitute progressions work best with major scale-tone chords, where there are many options. See the chapters [“Chord-Naming Conventions”](#), [“Major Scale-Tone Triads”](#), [“Scale-Tone Seventh Progression”](#), [“Recognizing Scale-Tone Chords”](#) and [“All Scale-Tone Chords”](#).

use in comping or single-note soloing

First, play substitute progressions in chords. Once you can play these in chordal form, use the same thought to get chord names for neighboring chords that you express with melodic cells and phrases. Think the substitute chords, express them in single notes, all the while listening to its effect against the original chords. So, it helps to play with another musician, a recording or software playing the chords.

Triad cells may be used as secondary roots on the third, fifth, sixth and sometimes the seventh. They are based on thirds, subsets and synonyms. See the chapter “[Substitution](#)”/Shared Thirds: Secondary Roots.

secondary root on the third

A [secondary root](#) on the third of a chord can be used when a four-note chord is built in thirds (tertian quadrad), such as Ima7 (1-3-5-7), IIIm7 (2-4-6-1), or IIIIm7 (3-5-7-2). In each case, the chord without a root becomes a triad its third. Cma7 (1-3-5-7) without a root is 3-5-7, which is a III minor triad. Dm7 (2-4-6-1) without a root is 4-6-1, which is a IV major chord.

The same logic works with five-note chords built in thirds (tertian pentads), such as Ima9 (1-3-5-7-2), IIIm9 (2-4-6-1-3), or IVma9 (4-6-1-3-5). Each chord without a root becomes a seventh chord (tertian quadrad). Cma9 (1-3-5-7-2) without a root is 3-5-7-2, which is a IIIIm7 chord. Dm7 (2-4-6-1-3) without a root is 4-6-1-3, which is a IVma7 chord.

Chords built on III and VII of the major scale imply ninth chord types that are not currently accepted: Im7b9 and VIIIm7b5b9.

Secondary roots on the third of chords in the key of C:

seventh name in C	parent tones	seven no root tones	synonym
Cma7	1-3-5-7	3-5-7	Em
Dm7	2-4-6-1	4-6-1	F
Fma7	4-6-1-3	6-1-3	Am
G7	5-7-2-4	7-2-4	B dim.

secondary root on the sixth

To use a secondary root on the sixth of a chord, it must be chord whose chord scale includes a sixth. In the major scale, this is chords built on I, II, IV or V.

A secondary root on the sixth of a chord can be used when a four-note chord is a triad built in thirds (tertian), *with an added sixth*, such as I6 (1356 or 6135), IIIm6 (2467 or 7246), or IIIIm7 (3572). In each case, the sxith chord is a synonym of a seventh chord (tertian quadrad) built on its sixth.

Secondary roots on the sixth of chords in the key of C:

sixth & synonym	sixth name in C	parent tones	synonym	parent tones	triad of synonym
I6 = VIIm7	C6	1-3-5-6	Am7	6-1-3-5	Am
IIIm6 = VIIIm7b5	Dm6	2-4-6-7	Bm7b5	7-2-4-6	Bdim
IV6 = IIm7	F6	4-6-1-2	Dm7	2-4-6-1	Dm
V6 = IIIIm7	G6	5-7-2-3	Em7	3-5-7-2	Em

major scale-tone secondary root triads in fourths

	VIIIm7b5	IIIIm7	VIIm9	IIm9/6	V9/6	Ima9/6	IVma9/6	I9/6	IV9/6
in C	Bm7b5	Em7	Am9	Dm9/6	G9/6	Cma9/6	Fma9/6	C9/6	F9/6
on sixth				VII dim	IIIIm	VIIm	IIm	VIIm	IIm
on root	VII dim	IIIIm	VIIm	IIm	V	I	IV	I	IV
on third	IIm	V	I	IV	VIIIdim	IIIIm	VIIm	III dim	VI dim

Any sequence of chords with roots ascending in perfect fourths can be substituted with a parallel sequence on the third of each chord. For the series IIm-V-I-IV, a parallel sequence can occur on the sixth of each chord.

Notably, IIm V I can be substituted with VIIIdim-IIIIm-VIIm or VIIIdim-III-VIIm. Conversely, VII dim-IIIIm-VIIm (B dim-Em-Am) can be substituted with IIm-V-I (Dm-G-C). This gives tangible meaning to the concept of relative major and relative minor, using entire relative cadences. These cadences could be called *relative major cadence* and *relative minor cadence*.

For any three triads in fourths, upward stepwise [voice leading](#) can occur beginning on the fifth of the first chord of the three. For example, IIm-V-I (Dm-G-C) can voice-lead major scale tones 6-7-1 (A-B-C), since “6” is the fifth of the IIm chord, “7” the third of the V chord and “1” the root of the I chord.

Flat Five (Tritone) Substitute

See the chapter “[Substitution](#)”/Flat Five Substitute.

Chromatic Passing Chords

IIm and IIIIm can be connected with a chromatic chord in-between, ascending IIm-#IIm-IIIIm (Dm-D#m-Em) or descending IIIIm-bIIIIm-IIm (Em-Ebm-Dm). Likewise, IV and V can be connected, ascending IV-#IV-V (F-F#-G) or descending V-bV-IV (G-Gb-F).

Diminished chords can be used to descend roots a whole step. Follow a major or minor triad with a diminished triad on the same root, then the scale-tone chord down a whole step. V-V dim-IV or IIm-IIdim-I, for example. In ascending a whole step, a major seventh, dominant seventh or minor seventh works better

than a triad, such as V7-#Vdim7-VIm (G7-G#dim7-Am). The triad part works, too, but not as strongly: V-#Vdim-VIm (G-G#dim-Am).

Another way to chromatically connect roots descending a whole step is with a dominant seventh in-between. This is categorized as a flat five substitute (see the chapter “[Substitution](#)”/Flat Five Substitute). IIm7-bII7-I7 is a substitute for IIm-V7-I7, where bII7 is on a root a flattened fifth up or down from the V7 it replaces.

A [flat](#) five substitute is a dominant seventh type chord on a note a half step above the root of the chord it precedes. It doesn't have chromatically connect chord roots a whole step apart (like Dm7-Db7-C7). It can be a single chord preceding another with its root a half step above, like Db7 to C7. For the original chords V7-I7 (G7-C7), the flat five substitute would be bII7 (Db7) and would make the progression bII7-I7 (Db7-C7). It replaces a dominant chord like G7 with one whose root is a flat fifth above or below (which is the same note whether above or below).

ways to chromatically fill in-between:

- ✦ scale-tone triads, up or down. In lieu of drifting scale tone sevenths, use chromatic progressions like the four seventh chord parts of IIm13 to bII13#11 to I13. Connect two minors, major between two majors and otherwise usually fill in chromatically with major.
- ✦ one pentatonic fingering to another, up or down.
- ✦ up or or down with stepwise [1-2-3-5](#) and chromatic passing chords 1-2-3-5 is harmonically stronger than 1-3-4-5.

harmonic minor cadence examples

melodic minor cadence examples

four-beat/four chord cadence examples

Changed Chord Quality

Harmonized Scales

See [“Triad Bass Harmonization”](#), [“Jazz Bass Harmonization”](#), [“Building Cadences with Chromaticized Bass”](#) and [“Building Cadences with Linear Harmonized Bass”](#).

Thirds, Sixths and Octaves with Inner Thirds

In major, harmonic minor and melodic minor. See the chapter: [“Thirds and Sixths”](#).

DECORATION CELLS

MICROTONAL BENDS

Bending a “Sad” Note to a “Happy” Note

Microtonal bends are expressive. Flatted odd number tones $b3$, $b5$, $b7$ and $b9$ suggest darker, sadder moods. Bending any of those tones toward the natural version of the same note brightens the mood and is called a *microtonal bend*.

In tablature, a microtonal bend is shown with a curved arrow and with “1/4” at the tip of the arrow. This suggests that the pitch change is a quarter tone, equal to half a fret in pitch change, such as halfway from flat three to three. The degree of bending should be more discreet than that. In standard music notation, the symbol for a microtonal bend looks like a sickle or a Nike logo.

microtonal bends example - [click to play](#)

The image shows a musical example in 4/4 time with a tempo of 90 bpm. The standard notation is on a treble clef staff. The guitar tablature is on a six-string staff with fret numbers 1 through 8. The melody consists of four measures. Above the notes in the first three measures are labels: $b7$ 5 $b3$ 1, $b7$ 5 $b3$ 1, and $b3$ $b5$ $b7$ 1. The fourth measure has $b9$ 1 $b7$ 5. In the tablature, curved arrows labeled '1/4' point from the fretted notes to the target notes, indicating a quarter-tone bend. The notes are: Measure 1: 8th fret (flat 7), 5th fret (5), 5th fret (flat 3), 1st fret (1); Measure 2: 5th fret (flat 7), 5th fret (5), 5th fret (flat 3), 1st fret (1); Measure 3: 5th fret (flat 3), 6th fret (flat 5), 7th fret (flat 7), 1st fret (1); Measure 4: 6th fret (flat 9), 1st fret (1), 5th fret (flat 7), 5th fret (5).

The little curved line that looks like a Nike logo is the microtonal bend symbol.
 Flat three ($b3$) and flat seven ($b7$) microtonal bends are common.
 Flat five ($b5$) microtonal bends are less common.
 Flat nine ($b9$) microtonal bends are very rare.

If a half step were considered 100%, a quarter tone would be 50%. When applying a microtonal bend to a chord that includes the flatted version of the note the microtonal bend is being applied to, such as a flatted third during a minor chord, the degree of pitch change should be less, about 20-40%. If the pitch change was much over 50%, it would suggest the natural three and would sound out of tune.

In applying a microtonal bend to a chord that includes the major version of the note the microtonal bend is being applied to, such as a natural third during a major chord, the flatted third could be bent up to about 80% or so toward the natural third. Bending 90-100% would no longer be a microtonal bend, but would be a lower chromatic flat three bending up to natural three. In blues style, the microtonal bend played against a major interval like a major third can be very little (30-30%), if you want a bluesy effect. Flatted versions of tones are commonly played against natural versions in blues, $b3$ against 3, $b5$

against 5, flat seven against seven or flat nine against nine. Flat nine microtonal notes work, but are very rarely used.

The Bend Curve

Typical Cells with Microtonal Bends Travel a Scale to a Chord Tone

BEBOP AND BAROQUE ORNAMENTATION

with turn and mordent

Upper Mordent

With an upper mordent, you play a note followed by it's upper neighbor, then return to the original note.

Lower Mordent

With a lower mordent, you play a note followed by it's lower neighbor, then return to the original note.

Turn (Upper Turn)

In playing a turn (an upper turn), you play, in order:

- ✦ the initial note
- ✦ the upper neighbor of the initial note
- ✦ return to the initial note
- ✦ the lower neighbor of the initial note
- ✦ end with the initial note

Inverted Turn (Lower Turn)

In playing an inverted turn (a lower turn), you play, in order:

- ✦ the initial note
- ✦ the lower neighbor of the initial note
- ✦ return to the initial note
- ✦ the upper neighbor of the initial note
- ✦ end with the initial note

Turn Examples

slurred turns ascending or descending in thirds

Swing Eighths

G⁹

root third

TAB

Gm⁹

TAB

171217
G⁹

TAB

Gm⁹

TAB

1-7-1-2
G⁹

1-2-1-7

1-7-1-2
Gm⁹

1-2-1-7

slurred turns ascending or descending in thirds

1-2-1-7-1-2 or 1-7-1-2 ascend thirds: slurring the first three notes (bend, hammer, pull-off)

1-7-1-2-1-7 or 1-2-1-7 descend thirds: slurring the first three notes (bend, hammer, pull-off)

Adjacent String Legato Slurring

Cadence Ornament Rhythms

(see also [Charlie Parker Design](#))

Indian Classical Ornamentation

as on the sitar: mind (meend), andolan, kana, murki, khartka, gamma

THEME AND VARIATION CELLS

By definition, these employing these cells requires two or more cells, in some form of statement and response.

Rhythmic Theme and Variation

Core Melody and Elaboration

Melodic Curve Theme and Variation

(examples here)

This can incorporate all the previous melodic cells. See Theme And Variation/Harmonic Theme And Variation/[The Melodic Curve](#). Build each theme with a cluster of chord tones (on a single chord), up to a ninth chord. Particularly use upper and lower neighbors. Pairs of linear chromatic upper neighbors are great. Melodic theme and variation is typically played on three adjacent strings. The best string set is five, four three, since they are not too bassy and don't involve the tuning change between the third and second string.

Play the same melodic curve on another part of the same larger chord, or on the next chord in the progression. For example, build a theme on the G7 part of G9, then use the same melodic curve and play it on the Bm7b5 part of G9. Usually use the same fingering orientation. If the G7 melodic curve started with the index finger on the root, also start the Bm7b5 with the index finger on its root.

Call And Response

STYLES AS CELLS

Styles may employ a number of cells. Once you become familiar with a style, you can play as briefly as a few beats in the style, making the style a cell of sorts.

Blues Licks

(based on minor pentatonic)

Swing Blues Licks

(based on major pentatonic)

Rock-A-Berry Licks

Double Stops and Jazz Blues Double Stops

See the chapter: [Double Stops](#)

Pedal Steel Bends

Charlie Parker Design

Charlie Parker's main designs

- ✦ **Chromatics.** Ascending by preceding a chord tone with one or two chromatic tones immediately below. Descending by following a chord tone with two chromatic tones immediately below it, then playing the next lower chord tone.
- ✦ **Dual melody.** In an imitation of two-voice counterpoint on one instrument, play one or more notes of a melody in the high range of pitch, beginning a second melody with one or more notes in the low range, then alternate between the two ranges.
- ✦ **scalar encircling.** Approaching a chord tone by linear scale movement, but passing it by one scale tone before playing it.
- ✦ **"V" design.** Up/down or down/up with a quick, ornate melodic figure at the peak or valley.
- ✦ **Cadence ornament rhythm.** Short melodic phrases (5-10 notes) involving a mordent or turn that suggest a two-chord cadence. Use more syncopated sixteenths for a more modern sound (Bitches Brew era and later).

Practice getting your melodic performance chord cadences really tight rhythmically. Sometimes you'll want to play phrase loosely placed metrically (not matching the comping chord with the chord you are suggesting), sometimes tight (matching comping and improv chords), exactly on the beat to show the song structure to the listener.

- ✦ **Changed chord quality.** Usually displayed with two consecutive arpeggios, the second one with a flatted tone. Sometimes superimposed where drastically contradicting the original chord.
- ✦ **Staggered core tones and elaboration.** Use a core melody with elaboration such as a core melody of three ascending scale tones with notes between them that lead to each.

Consider this interpretation of the first bar of Charlie's head melody to Anthropology in Bb: he used a core melody with the notes D, Eb and F. Each of those is preceded by a note a third below, making three pairs of notes in thirds. Finally, he inserted a passing scale tone between the first and second pair of thirds (the note "C") and a lower chromatic before the next to last note in the bar.

three scalar encircling fingering categories:

- ✦ the target is fretted with the index finger, so the lower neighbor is on the next larger string with the ring or little finger and the upper neighbor is on the same string with another finger.
- ✦ the target note is fretted with the middle or ring finger where the target, the upper neighbor and the lower neighbor are all on the same string.

- ✦ the target is fretted with the little finger, so the lower neighbor is on the same string with another finger and the upper neighbor is on the next smaller string fretted with another finger.

fingerings for “V” design:

- ✦ In-position major scale fingerings and their three-note-per-string versions for speed. Include their harmonic minor and melodic minor variants. See [Prime Scales, Chords and Arpeggios/Seven Tone Scales in Seven Areas with Tertian Arpeggios in Black and Gray](#).
- ✦ Full-tercian arpeggios, especially minor eleventh and dominant thirteenth

build cadences with cadence ornament rhythms

Using resources like Charlie Parker’s solos in Confirmation, Moose The Mooche, Ornithology, Yardbird Suite, Anthropology and Scrapple From The Apple and apply them to cadences. Put these cadences at the top or bottom of Parker’s “V” design to build a four-bar, “V” design phrase. Learn a cadence. Typical two-chord cadences most commonly start on beat three and end on beat one or sometimes start on beat one and end on beat three. Typical three-chord cadences place the first chord on beat one of the setup bar before the target “I” chord, the second chord on beat three of the setup bar and end on beat one of the target chord.

At the beginning of a four bar phrase, play a scale, arpeggio or combination to ascend or descend to the cadence. The target I chord would typically be on beat one of bar three, on the target chord. Then finish bars three and four with a scale or arpeggio (or combination) to in the opposite direction from the beginning to complete the four-bar “V” design.

The cadence ornament rhythm replaces one of four swing eighth notes with a sixteenth pair or with a sixteenth triplet.

Use the full-tercian concept to locate chord tones of a setup chord. A II chord can be thought of as a setup for a V chord. Then the V chord can in turn be thought of as a setup for the target I chord. bII as a setup to I works similarly to the [full tertian](#) concept but, being a more chromatic chord, it changes scale too much to be thought of in terms of full tertian. However, a bVIm9(ma7)-bII-I cadence can use bVIm9 as an “other full-tercian of bII”. When you are playing an arpeggio in thirds, the notes you are skipping (every-other scale tone) make up the “other full tertian” arpeggio.

Two-Chord Cadences

One setup chord, one target chord. Examples below are for a Bb target I chord. Use the same strategies of practice as in practicing three-chord cadences, but omit the first chord and continue the “lead-in” in place of the first chord.

major V I (F9 to Bbma7 or Bb7)

F9 with its root (F) on the fifth of Bb below the Bb root uses the “other [full tertian](#)” in relation to the target Bb major triad. V9 (F9) to I7 (Bb7) is more harsh than the softer Vm9 (Fm9) to I7 (Bb7).

Mixolydian Vm I (Fm9 to Bb7)

Fm9 with its root on the fifth of Bb (F) below the Bb root uses the “other [full tertian](#)” in relation to the target Bb major (Bb Mixolydian) triad.

bII Lydian dominant to I (B13#11 to Bb)

Any four-note part of B13#11 can resolve to a Bb or Bbm triad part of a larger Bb (or Bbm) chord.

minor V Im (D7 or Dm7 to Gm)

D7b9 with its root (D) on the fifth of Gm below the Gm root uses the “other [full tertian](#)” of G harmonic minor in relation to the target G minor triad. For a softer, cadence, Dm9 with its root (D) on the fifth of Gm below the Gm root uses the “other full tertian” of G Aeolian in relation to the target G minor triad.

Three-Chord Cadences

practicing three-chord cadences

At slower tempos (around 75-130 BPM), use sixteenth notes. Beats three and four of the pickup bar each represent a chord with four-sixteenth notes. Beat one of the next bar is the target chord (the third chord in the three-chord cadence). Replace one or two of those sixteenths with a pair of thirty-second notes or a thirty-second note triplet, making a little flurry.

At faster tempos (130-250 BPM), use eighth notes, beats one and two of the pickup bar has four eighth notes to represent the first chord. Beats three and four of the pickup bar represent the second chord of the cadence. Beat one of the next bar is the target chord (the third chord in the three-chord cadence). Replace one or two of those eighths with a pair of sixteenth notes or a sixteenth note triplet, making a little flurry.

Develop the ability to play continuous fast notes to be prepared when you need it. Practice the whole thing in continuous eighths or sixteenths: the lead-in, the “cap” (cadenced target phrase) and the tail out. Separately, practice the upward or downward lead in to the target on the first beat and the “tail” out immediately after the target tone with continuous sixteenths or eighths (depending on the temp), really tightly in the groove. Many uptempo Pat Martino improvisations use continuous straight sixteenths at

130 BPM. Rude Mood by Stevie Ray Vaughan uses swing eighths at 262 BPM. Crossroads live with Bonamassa and Johnson uses continuous straight sixteenths at 140 BPM.

Placing the phrase against the meter Get your performance of the chord cadence really tight rhythmically. Sometimes you'll want to place the phrase loosely metrically (not matching the comping chord with the chord you are suggesting). Periodically place the phrase with the target chord on "one" to show the song structure to the listener, especially at the end of a section.

Two setup chords, one target chord make a three chord cadence. The examples below are for a Bb target I chord.

"I" can be a temporary key, so "Bb" could be temporarily "I" where it is a target during a piece in a key other than Bb. In the key of F for example, Bb is a IV chord in relation to F, but Bb could be thought of as "I" of a temporary key of Bb.

major II V I

Cm9 F9 Bbma7 or Bb7. Cm9 with its root (C) on the fifth of F, below the F root uses the "other [full tertian](#)" in relation to the F major target triad. In turn, F9 with its root (F) on the fifth of Bb, below the C root uses the "other full tertian" in relation to the Bb major target triad.

II Dorian to bII Lydian dominant to I (Cm9 B13#11 Bbma7, Bb7 or less commonly, Bbm)

Cm9 (IIIm9) with its root (C) on the second of the ultimate target Bb, below the F root uses the "other [full tertian](#)" in relation to the eventual F major target triad. B13#11 can be used in-between the Cm9 and Bb target to make a three chord cadence. Any four-note part of B13#11 can resolve to a Bb or Bbm triad part of a larger Bb (or Bbm) chord.

bVI melodic minor to bII Lydian dominant to I (F#m9(ma7) B13#11 Bbma7 or Bb7)

F#m9(ma7) (bVIIm9<ma7> of Bb) with its root (F#) on the second of the target B13#11, below the B root uses the "other [full tertian](#)" in relation B13#11. B13#11 should in turn resolve to a Bb triad tone.

minor IIIm7b5 V I (Am7b5 to <D7 or Dm7> to Gm)

IIIm7b5 (Am7b5) is nearly the same as V7b9 (D7b9) no root (= F#dim7). Descending the flatted seventh of IIIm7b5 (Am7b5) a half step to six makes it IIm6b5 (Adim7), which is the same notes as IIdim7 (Adim7) and the same notes as V7b9 (D7b9) no root. V7b9 (D7b9) no root has four diminished seventh names in relation to the I minor key (G minor): VIIdim7, IIdim7, IVdim7 and bVIIdim7 (F#dim7, Adim7, Cdim7 and Ebdim7). So, IIIm7b5 to V7b9 is a more passive chord change, since it only changes one note.

D7b9 no root is D7b9 no root (F#dim7), with its third (F#) on the seventh of G harmonic minor below the Gm root uses the "other [full tertian](#)" of G harmonic minor in relation to the target G minor triad.

For a softer, cadence, Dm9 no root with its b3 (F) on the flatted seventh of G Aeolian uses the “other full tertian” of G Aeolian in relation to the target G minor triad.

minor bVI^{13#11} V Im (Eb13#11 to D7 to Gm

bVI^{13#11}(Eb13#11) is a bII of V7 (D7). Any four-note part of bVI13#11 (Eb13#11) can resolve to a V (D) triad part of a V7b9 or chord except the #11 (A) of bVI13#11 which is a common tone of V (D).

The remainder of the cadence, V Im is described above in the Two-Chord Cadences section (MINOR V Im).

BLUES MELODIC CELL EXAMPLES

G Blues Sampler 1

featuring 1235 and chromaticized arpeggios

Swing Eighths

Staff 1: G⁹ 2 upper chrom. Dm 1-2-3-5 B dim 1-2-3-5 Am 5-3-2-1 Db 5-3-2-1 2 upper chrom.

Staff 2: C⁹ 3 E dim 1-3-4-5 C 5-3-2-1 Ab 5-3-2-1 Gm 1-2-3-5 Dm 1-2-3-5 2 lower chromatics below each chord tone

Staff 3: D⁹ 3 C⁹ 3 G⁷ 3 C⁷ 3 G⁷ 3 D⁷ 3 G⁷ 3

Staff 4: Dm13, 3 to 13 with lower chromatic to b3 G minor pentatonic with passing b5 chromatic Dm G triad with #2 chromatic C69 G6 Ebm 5-3-2-1 on fifth of Ab9

G Blues Sampler 2

featuring 1345 and chromaticized arpeggios

System 1: G⁹ chord. Melodic cells: Bdim 1-3-4-5, Dm 1-3-4-5, F 5-4-3-1, G Mixo, 2 upper chrom., 2 upper chrom., chrom. 2 to 5, 2 upper chrom., G Mixo, Gm 5-4-3-1.

System 2: C⁹ and G⁹ chords. Melodic cells: Bb 5-4-3-1, Dm 1-3-4-5, F 5-4-3-1, G Dorian, 2 upper chrom., 2 upper chrom., chrom. 2 to 5, Dm pent. add #4, Ddim 5-4-3-1.

System 3: D⁹, C⁹, and G⁹ chords. Melodic cells: Am 5-4-3-1, 2 lower chrom., F#dim 5-4-3-1, 2 upper chrom., 2 lower chrom., 2 upper chrom., chrom. #2 to 5, 2 upper chrom.

Fragment Patterns

- **Numbered, Repeating Groups of Notes**
- **Beat Obscuring**
 - Rhythmic Displacement
 - Anti-Metric Grouping
- **Consecutive Fragment Pattern Cells**
- **Triads in Fourths**
- **Triad with Neighbor Cells 1-2-3-5 and 1-3-4-5**
- **Don't Overuse Fragment Patterns**

NUMBERED, REPEATING GROUPS OF NOTES

Fragment patterns are expressed in numbers, in a generic manner. The numbers express the order of notes played in scale or arpeggio. The number sequence can begin on any note in the scale or arpeggio. Flats or sharps are not used to prefix the numbers (b3, #5, etc.), since the distances between once scale tone and another are not considered.

Whole steps are two frets, meaning from a particular starting note, the note up a whole step would be on a fret numbered two higher than the original note. “C” is on the fifth string, third fret. “D” is a whole step higher and is on the fifth fret, which adds the number “two” to the third fret. A half step is one fret: if “B” is on the second fret, “C” would add one and be on the third fret.

For the fragment pattern “1-2-3”, for example, it would ascend half step-whole step if applied to a C major scale starting on “E”, making the letter sequence E-F-G (E to F is a half step and F to G is a whole step). If the same fragment pattern were applied to a C major scale starting on “C”, the letter sequence would ascend whole step-whole step.

Fragment patterns can be applied to each note of a scale ascending or descending. Fragment patterns using the notes of a scale can be played on each tone of a scale or on each tone of an arpeggio. Fragment patterns using the notes of an arpeggio can be played on each tone of a scale or on each tone of an arpeggio.

Fragment Pattern Rules

the numbering system

Fragment patterns can be expressed in numbers. They can be applied to pentatonic (five tone) scales, heptatonic (seven tone) scales or to arpeggios. They are most commonly three or four consecutive notes (1-2-3 or 1-2-3-4), but using five or six consecutive notes (1-2-3-4-5, 1-2-3-4-5-6) is particularly useful in beat obscuring. Expressing fragment patterns in numbers as 1-2-3, 1-2-3-4, 1-2-3-4-5 or 1-2-3-4-5-6 represents those choices from a consecutive series of notes on whatever scale or arpeggio you are playing.

For illustration, consider the A Aeolian scale, with the ascending A-B-C-D-E-F-G-A-B, etc. 123 would be A-B-C, B-C-D, C-D-E, etc., depending on which note it starts. A 123 fragment pattern cell applied to each tone in ascending the A Aeolian scale would be A-B-C, B-C-D, C-D-E, D-E-F, E-F-G, F-G-A, G-A-B, A-B-C, etc.

retrograde inversion (reverse order)

A fragment pattern can be played in reverse order, called “retrograde inversion”. “1-2-3” can be played in reverse order as “3-2-1”. Either “1-2-3” or “3-2-1” can be played on each note of the scale or arpeggio, ascending or descending. If you wrote the original melodic line in music notation or tab, playing it in

retrograde inversion would constitute starting with the last note and reading right to left as you read and play.

Whimsical Application

You could also apply a fragment pattern whimsically to any arpeggio tone, *not* ascending order the arpeggio tones in order to which you apply the fragment pattern. Good results are less likely if you whimsically apply fragment patterns to scale tones, since you may deviate too far from the current chord in doing so.

BEAT OBSCURING

The beat is not obscured when the same fragment pattern is played on each beat. The beat is obscured when the fragment pattern pitch group does not reoccur on every beat.

Beat obscuring is intentionally misaligning the melody with the accompaniment chord by not placing the current chord tone on the beat.

When the note on the beginning of a beat following a fragment pattern is a current chord tone, it strongly references the chord sound and make the melody sound “in harmony” with the chord. Too much of this, however, can make the music too predictable and boring. To make the music more interesting and free sounding, improvisers often intentionally do not resolve on the beat, and then they periodically do resolve to a chord tone on the beat. This shows the listener that the music has good form and periodically aligns the chord sound in the improvisation to the accompaniment, but not so often as to weaken the free nature of the improvisation.

Eric Johnson and Joe Bonamassa in blues rock, Pat Martino and George Benson in jazz and others have become expert at using fragment patterns to obscure the beat, making the music more abstract.

Beat obscuring is most effectively done by starting fragment patterns on random parts of the beat and by mixing different fragment patterns. The trick is to keep part of your consciousness focused on when the next beat “one” will be coming up, so you can resolve to a chord tone on it.

Beat obscuring is best applied to scalar and harmonic fragment pattern cells. It gets harder to conceive in applying it to triad with neighbor cells. Though it can work with triad with neighbor cells, it is less fruitful, so apply beat obscuring to scalar and harmonic fragment pattern cells first.

Rhythmic Displacement

Rhythmic displacement is beat-obscuring misalignment of a melodic cell or theme to the beat. Usually, this is intentional. Fragment patterns can be rhythmically displaced so they start on different parts of the bar.

One device for beat obscuring is rhythmic displacement which moves a musical part forward or backward in time. We will be doing this in the context of moving a series of fragment pattern cells played with notes of equal time value (all eighth notes, all eighth triplet notes, all sixteenth notes, etc.) back in time, by a number of notes. Each of these beat divisions could be called a “pulse”. In 4/4 time (or 3/4, or any number in a time signature over 4), eighth notes are two pulses per beat, eighth note triplets are three pulses per beat, sixteenth notes are four pulses per beat and sixteenth note sextuplets are six pulses per beat.

Consider a part where a fragment pattern series starts on the first beat and has all notes of equal time value. By moving the fragment pattern series one pulse (one note) back in time, the second note of the series will start on the first beat. That would have the same effect as starting the series on the last pulse before the first beat, as a pickup. Moving the part two pulses back in time would put the third note of the series on the first beat and would be like playing a two-note pickup.

When we hear such rhythmic displacement, we aurally reevaluate the part in the context of what happens on each beat. In a sense, this makes a new melody.

Anti-Metric Grouping

Another device for beat obscuring is anti-metric grouping puts the notes in groups with a different number of notes in each group compared to the number of notes on each beat. When the number of notes in the fragment pattern is different from the number of notes per beat, a new melodic pattern is born. When the number of notes in a fragment pattern differs from the number of notes per beat, it is called *anti-metric grouping*.

The number of notes in a fragment pattern such as three notes in “1-2-3” fragment don’t necessarily have to be played with the same number of notes per beat. For example, the 1-2-3 fragment pattern cell groups notes in threes. If the 1-2-3 fragment is played in a repeating series in sixteenth notes, there would be three notes in each group by pitch, yet four notes per beat. When we aurally reevaluate the part in the context of what happens on each beat, we conceive a new melodic theme which repeats every twelve notes (three notes per group times four notes per beat).

A 1-2-3-4 fragment pattern cell groups notes in fours. If the 1-2-3-4 fragment is played in a repeating series in eighth note triplets (three notes per beat), there would be four notes in each group by pitch, yet three notes per beat. When we aurally reevaluate the part in the context of what happens on each beat, we conceive a new melodic theme which repeats every twelve notes (four notes per group times three notes per beat). The twelve note series of 1-2-3 played in sixteenths makes a different melodic design than the twelve notes series of 1-2-3-4 played in triplets.

CONSECUTIVE FRAGMENT PATTERN CELLS

[link to video for this section](#)

1-2-3

1-2-3 with rhythmic displacement

♩. = 120

"A" minor pentatonic 1-2-3 ascending

1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
note the new "up and back" pattern on each beat (separated by the dotted vertical lines).

4

8

"A" minor pentatonic 3-2-1 descending

3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
Note the new "down and back" pattern on each beat (separated by the dotted vertical lines).

12

15 "A" minor pentatonic review 1-2-3 ascending

1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "down and back" pattern on each beat (separated by the dotted vertical lines).

19

22 "A" minor pentatonic review 3-2-1 descending

3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "up and back" pattern on each beat (separated by the dotted vertical lines).

26

♩. =120

30 "D" Aeolian mode 1-2-3 ascending

1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
note the new "up and back" pattern on each beat (separated by the dotted vertical lines).

35

"D" Aeolian mode

3-2-1 descending

39

T
A
B

3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

Note the new "down and back" pattern on each beat (separated by the dotted vertical lines).

44

T
A
B

"D" Aeolian mode

review 1-2-3 ascending

48

T
A
B

1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

Note the new "down and back" pattern on each beat (separated by the dotted vertical lines).

53

T
A
B

"D" Aeolian mode

review 3-2-1 descending

57

T
A
B

3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

Note the new "up and back" pattern on each beat (separated by the dotted vertical lines).

62

T
A
B

♩. = 120

66 Bb major triad 1-2-3 ascending

TAB: 6 5 8 5 8 8 8 7 8 7 6 7 6 6 6 6 10

1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
Note the new "up and back" pattern on each beat (separated by the dotted vertical lines).

69

TAB: 6 5 8 5 8 8 8 7 8 7 6 7 6 6 6 6 10

72

TAB: 10 6 6 6 6 7 6 7 8 7 8 8 8 8 5 8 5 6

3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
Note the new "down and back" pattern on each beat (separated by the dotted vertical lines).

75

TAB: 10 6 6 6 6 7 6 7 8 7 8 8 8 8 5 8 5 6

78 Bb major triad review 1-2-3 ascending

TAB: 6 5 8 5 8 8 8 7 8 7 6 7 6 6 6 6 10

1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "down and back" pattern on each beat (separated by the dotted vertical lines).

81

TAB: 6 5 8 5 8 8 8 7 8 7 6 7 6 6 6 6 10

84 **Bb major triad** review 3-2-1 descending

TAB: 10 6 6 6 7 6 7 8 7 8 8 8 8 5 8 5 6

3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "up and back" pattern on each beat (separated by the dotted vertical lines).

87

TAB: 10 6 6 6 7 6 7 8 7 8 8 8 8 5 8 5 6

90 **Bbma13#11 arpeggio** 1-2-3 ascending

TAB: 6 5 8 5 8 7 8 7 5 7 5 5 5 5 8 6

1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
Note the new "up and back" pattern on each beat (separated by the dotted vertical lines).

93

TAB: 6 5 8 5 8 7 8 7 5 7 5 5 5 5 8 6

96 **Bbma13#11 arpeggio** 3-2-1 descending

TAB: 6 8 5 8 5 5 5 5 7 5 7 8 7 8 5 6

3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
Note the new "down and back" pattern on each beat (separated by the dotted vertical lines).

99

TAB: 6 8 5 8 5 5 5 5 7 5 7 8 7 8 5 6

102 Bbma13#11 arpeggio review 1-2-3 ascending

T
A
B

1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "down and back" pattern on each beat (separated by the dotted vertical lines).

105

T
A
B

108 Bbma13#11 arpeggio review 3-2-1 descending

T
A
B

3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "up and back" pattern on each beat (separated by the dotted vertical lines).

111

T
A
B

1-2-3 with anti-metric grouping only

♩ = 120

"A" minor pentatonic

1 1-2-3 ascending in 4/4, making a 12-note pattern

5 8 5 8 5 7 5 7 5 7 5 7 5 7 5 7 5 8

3-2-1 descending in 4/4, making a 12-note pattern

5 8 5 8 5 7 5 7 5 7 5 7 5 7 5 7 5 8

♩ = 120

"D" Aeolian

1 1-2-3 ascending in 4/4, making a 12-note pattern

5 7 8 7 8 5 8 5 7 5 7 8 7 8 5 8 5 6

3-2-1 descending/ in 4/4, making a 12-note pattern

6 5 3 5 3 5 3 5 3 5 3 7 3 7 5 7 5 3 5 3 7 3 7 5

♩ = 120

"G" major triad

1 1-2-3 ascending in 4/4, making a 12-note pattern

3 2 5 2 5 5 5 5 4 5 4 3 4 3 3 7 8 7 12 12 10 16 15 15

3-2-1 descending in 4/4, making a 12-note pattern

15 10 7 10 7 3 7 3 3 3 3 4 3 4 5 4 5 5 5 5 2 5 2 3

$\text{♩} = 120$
8 Gma13#11 arpeggio 1 1-2-3 ascending, making a 12-note pattern

T
A
B

3 7 5 7 5 9 5 9 | 7 9 7 6 | 12 11 9 11 | 9 12 9 12 12 12 10

4 Gma13#11 arpeggio 3-2-1 descending

T
A
B

10 7 3 7 3 5 3 5 | 2 5 2 2 | 2 2 4 2 | 4 5 4 5 2 5 2 3

1-2-3 with anti-metric grouping *and* rhythmic displacement

♩ = 120

"A" minor pentatonic

1-2-3 ascending, making a 12-note pattern

Measures 1-4: 1-2-3 ascending, making a 12-note pattern.

1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

Measures 5-8: 1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

Measures 9-12: 1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

"A" minor pentatonic

3-2-1 descending

Measures 13-16: 3-2-1 descending.

3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

Measures 17-20: 3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

Measures 21-24: 3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

♩ = 120

"D" Aeolian

1-2-3 ascending, making a 12-note pattern

Measures 25-28: 1-2-3 ascending, making a 12-note pattern.

4 1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

TAB

8 1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

TAB

12 "D" Aeolian 3-2-1 descending

TAB

16 3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

TAB

20 3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

TAB

♩ = 120 "G" major triad 1 1-2-3 ascending, making a 12-note pattern

TAB

4 1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

TAB

8 1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

TAB: 3 2 5 2 5 5 5 4 5 4 3 4 3 3 7 8 7 12 12 10 16 15 15 15

12 "G" major triad 3-2-1 descending

TAB: 15 10 7 10 7 3 7 3 3 3 3 4 3 4 5 4 5 5 5 5 2 5 2 3

16 3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

TAB: 15 10 7 10 7 3 7 3 3 3 3 4 3 4 5 4 5 5 5 5 2 5 2 3 2

20 3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

TAB: 15 10 7 10 7 3 7 3 3 3 3 4 3 4 5 4 5 5 5 5 2 5 2 3 2 3

24 ♩ = 120 Gma13#11 arpeggio 1 1-2-3 ascending, making a 12-note pattern

TAB: 3 7 5 7 5 9 5 9 7 9 7 6 12 11 9 11 9 12 9 12 12 12 10

4 1-2-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

TAB: 3 7 5 7 5 9 5 9 7 9 7 6 12 11 9 11 9 12 9 12 12 12 10 12

8 1-2-3 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

TAB: 3 7 5 7 5 9 5 9 7 9 7 6 12 11 9 11 9 12 9 12 12 12 10 12 10

12 Gma13#11 arpeggio 3-2-1 descending

T
A
B

16 3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

T
A
B

20 3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

T
A
B

1-2-3-4

1-2-3-4 with rhythmic displacement

♩ = 120

"A" minor pentatonic

1-2-3-4 ascending

1-2-3-4 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

Note the new "1-2-3-1" pattern every two beats (separated by dotted vertical lines).

"A" minor pentatonic

4-3-2-1 descending

4-3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

Note the new "3-2-1-3" pattern every two beats (separated by dotted vertical lines).

"A" minor pentatonic

review 1-2-3-4 ascending

1-2-3-4 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

Note the new "2-3-1-2" pattern every two beats (separated by dotted vertical lines).

"A" minor pentatonic

review 4-3-2-1 descending

32

T
A
B

4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "2-1-3-2" pattern every two beats (separated by dotted vertical lines).

37

T
A
B

"A" minor pentatonic

review 1-2-3-4 ascending

42

T
A
B

1-2-3-4 ascending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.
Note the new "3-1-2-3" pattern every two beats (separated by dotted vertical lines).

47

T
A
B

"A" minor pentatonic

review 4-3-2-1 descending

52

T
A
B

4-3-2-1 descending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.

Note the new "1-3-2-1" pattern ever two beats (separated by dotted vertical lines).

[illegible]

♩ = 120

"D" Aeolian mode

1-2-3-4 ascending

[illegible]

1-2-3-4 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

Note the new "1-2-3-1" pattern every two beats (separated by dotted vertical lines).

[illegible]

"D" Aeolian mode

4-3-2-1 descending

The first system of the musical score for 'The Rose Tree' is shown. It consists of a vocal line and a guitar line. The vocal line is in 4/4 time and begins with a whole rest, followed by a melody of eighth and quarter notes. The guitar line is in standard tuning and provides a harmonic accompaniment using a sequence of numbers (5, 8, 6, 5, 8, 6, 5, 7, 6, 5, 7, 5, 5, 7, 5, 8, 7, 5, 8, 7, 5, 8, 7, 5, 8, 7, 5, 8, 7, 5, 5, 8, 7, 5).

4-3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

Note the new "3-2-1-3" pattern every two beats (separated by dotted vertical lines).

80

5

8 6 5 8 | 6 5 7 6 | 5 7 5 5 | 7 5 8 7 | 5 8 7 5 | 8 7 5 8 | 7 5 8 7 | 5 8 7 5 | 8 7 5

"D" Aeolian mode

review 1-2-3-4 ascending

86

T
A
B

1-2-3-4 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
 Note the new "2-3-1-2" pattern every two beats (separated by dotted vertical lines).

92

T
A
B

"D" Aeolian mode

review 4-3-2-1 descending

98

T
A
B

4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
 Note the new "2-1-3-2" pattern every two beats (separated by dotted vertical lines).

104

T
A
B

"D" Aeolian mode

review 1-2-3-4 ascending

110

T
A
B

1-2-3-4 ascending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.

Note the new "3-1-2-3" pattern every two beats (separated by dotted vertical lines).

116

T
A
B

"D" Aeolian mode

review 4-3-2-1 descending

122

T
A
B

4-3-2-1 descending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.

Note the new "1-3-2-1" pattern every two beats (separated by dotted vertical lines).

128

T
A
B

♩ = 120

"Bb" major arpeggio

1-2-3-4 ascending

134

T
A
B

1-2-3-4 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

Note the new "1-2-3-1" pattern every two beats (separated by dotted vertical lines).

137

T
A
B

140 "Bb" major arpeggio

4-3-2-1 descending

TAB: 6 6 7 8 6 7 8 8 7 8 8 5 8 8 5 6

4-3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
Note the new "3-2-1-3" pattern every two beats (separated by dotted vertical lines).

143

TAB: 6 6 7 8 6 7 8 8 7 8 8 5 8 8 5 6

146 "Bb" major arpeggio

review 1-2-3-4 ascending

TAB: 6 5 8 8 5 8 8 7 8 8 7 6 8 7 6 6

1-2-3-4 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "2-3-1-2" pattern every two beats (separated by dotted vertical lines).

149

TAB: 6 5 8 8 5 8 8 7 8 8 7 6 8 7 6 6

152 "Bb" major arpeggio

review 4-3-2-1 descending

TAB: 6 6 7 8 6 7 8 8 7 8 8 5 8 8 5 6

4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "2-1-3-2" pattern every two beats (separated by dotted vertical lines).

155

TAB

"Bb" major arpeggio

review 1-2-3-4 ascending

158

TAB

1-2-3-4 ascending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.
Note the new "3-1-2-3" pattern every two beats (separated by dotted vertical lines).

161

TAB

"Bb" major arpeggio

review 4-3-2-1 descending

164

TAB

4-3-2-1 descending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.
Note the new "1-3-2-1" pattern every two beats (separated by dotted vertical lines).

167

TAB

♩ = 120

170 Bbm13#11 arpeggio 1-2-3-4 ascending

T
A
B

1-2-3-4 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
Note the new "1-2-3-1" pattern every two beats (separated by dotted vertical lines).

174

T
A
B

178 Bbm13#11 arpeggio 4-3-2-1 descending

T
A
B

4-3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.
Note the new "3-2-1-3" pattern every two beats (separated by dotted vertical lines).

182

T
A
B

185 Bbm13#11 arpeggio review 1-2-3-4 ascending

T
A
B

1-2-3-4 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "2-3-1-2" pattern every two beats (separated by dotted vertical lines).

189

TAB: 6 5 8 7 5 8 7 5 8 7 5 5 7 5 5 8 6

Bbma13#11 arpeggio

review 4-3-2-1 descending

192

TAB: 6 8 5 5 8 5 5 7 5 5 7 8 5 7 8 5 6

4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.
Note the new "2-1-3-2" pattern every two beats (separated by dotted vertical lines).

196

TAB: 6 8 5 5 8 5 5 7 5 5 7 8 5 7 8 5 6

Bbma13#11 arpeggio

review 1-2-3-4 ascending

199

TAB: 6 5 8 7 5 8 7 5 8 7 5 5 7 5 5 8 6

1-2-3-4 ascending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.
Note the new "3-1-2-3" pattern every two beats (separated by dotted vertical lines).

203

TAB: 6 5 8 7 5 8 7 5 8 7 5 5 7 5 5 8 6

Bbma13#11 arpeggio

206

review 4-3-2-1 descending

T
A
B

4-3-2-1 descending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.
Note the new "1-3-2-1" pattern ever two beats (separated by dotted vertical lines).

210

T
A
B

1-2-3-4 with anti-metric grouping only

♩ = 120

1 "A" minor pentatonic 1-2-3-4 ascending, making a 12-note pattern

4 1-2-3-4 descending, making a 12-note pattern

♩ = 120

1 "D" Aeolian 1-2-3-4 ascending, making a 12-note pattern

4 1-2-3-4 descending, making a 12-note pattern

2 ♩ = 120 Cma13#11 arpeggio 1-2-3-4 ascending, making a 12-note pattern

4 1-2-3-4 descending, making a 12-note pattern

1-2-3-4 with anti-metric grouping *and* rhythmic displacement

♩ = 120

"A" minor pentatonic

1-2-3-4 ascending, making a 12-note pattern

1-2-3-4 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

1-2-3-4 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

1-2-3-4 ascending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.

"A" minor pentatonic

1-2-3-4 descending, making a 12-note pattern

4-3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

$\text{♩} = 120$ "D" Aeolian

1-2-3-4 ascending, making a 12-note pattern

1-2-3-4 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

1-2-3-4 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

1-2-3-4 ascending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.

"D" Aeolian

1-2-3-4 descending, making a 12-note pattern

4-3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

$\text{♩} = 120$ Cma13#11 arpeggio

1-2-3-4 ascending, making a 12-note pattern

4 1-2-3-4 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

7 1-2-3-4 ascending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

10 1-2-3-4 ascending, rhythmically displaced to put the FOURTH NOTE ON THE BEAT.

13 Cma13#11 arpeggio 1-2-3-4 descending, making a 12-note pattern

16 4-3-2-1 descending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

19 4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

22 4-3-2-1 descending, rhythmically displaced to put the THIRD NOTE ON THE BEAT.

1-2-3-4-5 in Duple and Triple Time

♩ = 120

"A" minor pentatonic 1-2-3-4-5 ascending in duple time

Tablature: 5 8 5 7 5 8 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 8 5 7 5 8 5 8

♩. = 80

1-2-3-4-5 ascending in triple time

Tablature: 5 8 5 7 5 8 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 8 5 7 5 8

♩ = 120

"A" minor pentatonic 1-2-3-4-5 descending in duple time

Tablature: 8 5 8 5 7 8 5 7 5 8 5 7 5 7 5 7 5 7 5 7 5 7 5 8 5 7 5 8

♩. = 80

1-2-3-4-5 ascending in triple time

Tablature: 8 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 7 5 8 5 7 5 8

♩ = 120

"D" Aeolian 1-2-3-4-5 ascending in duple time

Tablature: 5 7 8 5 7 7 8 5 7 4 5 7 4 5 5 7 4 5 7 7 4 5 7 5 4 5 7 5 6 5 7 5 6 8 7 5 6 8 5

♩. = 80

1-2-3-4-5 ascending in triple time

Tablature: 5 7 8 5 7 7 8 5 7 4 8 5 7 4 5 5 7 4 5 7 7 4 5 7 5 4 5 7 5 6 5 4 5 7 5 6

♩ = 120

31 "D" Aeolian 1-2-3-4-5 descending in duple time

5 8 6 5 7 8 6 5 7 5 6 5 7 5 4 5 7 5 4 7 7 5 4 7 5 5 4 7 5 8 7 5 8 7 7 5 8 7 5

♩. = 80

37 1-2-3-4-5 ascending in triple time

6 5 7 5 4 5 7 5 4 7 7 5 4 7 5 5 4 7 5 8 4 7 5 8 7 7 5 8 7 5

1-2-3-4-5-6 in Duple and Triple Time

♩ = 120 "A" minor pentatonic 1-2-3-4-5-6 ascending in triple time

5 8 5 7 5 7 8 5 7 5 7 5 7 5 7 5 7 5 8 5 7 5 8 5

1-2-3-4-5 ascending in duple time

5 8 5 7 5 7 8 5 7 5 7 5 7 5 7 5 7 5 8 5 7 5 8 5

1-2-3-4-5 descending in triple time

5 8 5 7 5 7 8 5 7 5 7 5 7 5 7 5 7 5 8 5 7 5 8 5

1-2-3-4-5 descending in duple time

5 8 5 7 5 7 8 5 7 5 7 5 7 5 7 5 7 5 8 5 7 5 8 5

♩ = 120 "D" Aeolian 1-2-3-4-5-6 ascending in triple time

5 7 8 5 7 8 7 8 5 7 8 5 7 8 5 7 8 5 7 8 5 7 8 5

1-2-3-4-5-6 ascending in duple time

5 7 8 5 7 8 7 8 5 7 8 5 7 8 5 7 8 5 7 8 5 7 8 5

1-2-3-4-5-6 descending in triple time

8 6 5 7 5 8 6 5 7 5 8 7 5 8 7 5 8 7 5 8 7 5 8 7

1-2-3-4-5-6 descending in duple time

8 6 5 7 5 8 6 5 7 5 8 7 5 8 7 5 8 7 5 8 7 5 8 7

1-3 (thirds)

“1-3” played stepwise makes pairs of every other note. When ascending a major scale or other seven-tone (heptatonic) scale, “1-3” makes pairs of ascending thirds. With the 1-3 fragment cell in reverse order is “3-1”.

♩ = 120

"A" minor pentatonic

1 1-3 ascending

1-3 ascending in triple time, making a six-note pattern

1-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

1-3 ascending in triple time, and rhythmically displaced to put the SECOND NOTE ON THE BEAT making a new six-note pattern.

♩ = 120

"A" minor pentatonic

1 1-3 descending

1-3 descending in triple time, making a six-note pattern

1-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

1-3 ascending in triple time, and rhythmically displaced to put the SECOND NOTE ON THE BEAT making a new six-note pattern.

♩ = 120

"D" Aeolian

1 1-3 ascending

2
4

1-3 ascending in ttriple time, making a six-note pattern

T
A
B

7

1-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

T
A
B

11

1-3 ascending in triple time, and rhythmically displaced to put the SECOND NOTE ON THE BEAT making a new six-note pattern.

T
A
B

♩ = 120

"D" Aeolian

14

1-3 descending

T
A
B

4

1-3 descending in ttriple time, making a six-note pattern

T
A
B

7

1-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

T
A
B

11

1-3 ascending in ttriple time, and rhythmically displaced to put the SECOND NOTE ON THE BEAT making a new six-note pattern.

T
A
B

1-3-5 (triads)

$\text{♩} = 120$ "D" Aeolian

1-3-5 ascending

1-3-5 ascending in duple time, making a six-note pattern

1-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

1-3 ascending in triple time, and rhythmically displaced to put the SECOND NOTE ON THE BEAT making a new six-note pattern.

"D" Aeolian

1-3 descending

1-3 descending in triple time, making a six-note pattern

1-3 ascending, rhythmically displaced to put the SECOND NOTE ON THE BEAT.

1-3 ascending in triple time, and rhythmically displaced to put the SECOND NOTE ON THE BEAT making a new six-note pattern.

5 8 7 6 5 8 8 7 5 5 8 7 7 5 8 8 7 5

5 8 7 6 5 8 8 7 5 5 8 7 7 5 8 8 7 5

5 8 7 6 5 8 8 7 5 5 8 7 7 5 8 8 7 5

5 8 7 5 5 7 7 5 5 7 7 5 5 7 8 5 5 8

5 7 8 8 5 7 7 8 5 5 7 8 8 5 6 7 8 5

5 7 8 8 5 7 7 8 5 5 7 8 8 5 6 7 8 5

5 8 7 5 5 7 7 5 5 7 7 5 5 7 8 5 5 8

TRIADS IN FOURTHS

Triads in Fourths in each of Seven Major Scale Fingerings

As with most melodic cells, avoid using more than two of these in a row in improvisation. Combine them with other melodic cells.

major scale fingering 1-2

♩. = 110 begin with index finger root

1 4 2 1 4 2 1 4 2 1 3 3 2 1 4 4 1 2 3 3 1 2 4 1 2 4 1 2 4 1

T
A
B

begin with middle finger root

2 1 4 2 1 4 2 1 4 1 1 3 2 1 4 4 1 2 3 1 1 4 1 2 4 1 2 4 1 2 4 1 2

T
A
B

begin with little finger root

4 2 1 4 2 1 3 1 1 3 3 1 2 1 4 4 1 2 3 1 1 3 1 2 4 1 2 4 1 2 4 1 2

T
A
B

major scale fingering 2-3

begin with index finger root

1 4 3 1 4 3 1 3 4 1 1 4 3 1 4 4 1 3 4 1 1 4 3 1 4 3 1 4 3 1

T
A
B
3 6 5 3 7 5 3 7 5 3 6 5 3 6 6 3 5 6 3 3 5 7 3 5 7 3 5 6 3

begin with middle finger root

2 1 4 2 1 4 2 1 4 1 1 4 2 1 4 4 1 2 4 1 1 4 1 2 4 1 2 4 1 2

T
A
B
5 3 7 5 3 7 5 3 7 5 5 8 6 5 8 8 5 6 8 5 5 7 3 5 7 3 5 7 3 5

begin with little finger root

4 1 1 4 2 1 3 1 1 3 2 1 2 1 4 4 1 2 1 2 3 1 1 3 1 2 4 1 2 4

T
A
B
6 5 3 7 5 3 7 5 5 7 6 5 8 6 10 10 6 8 5 6 7 5 5 7 3 5 7 3 5 6

major scale fingering 3-4

begin with index finger root

1 4 3 1 4 3 1 4 3 1 1 4 2 1 4 4 1 2 4 1 1 3 4 1 3 4 1 3 4 1

T
A
B
5 8 7 5 8 7 5 8 7 5 5 8 6 5 8 8 5 6 8 5 5 7 8 5 7 8 5 7 8 5

begin with middle finger root

2 1 4 3 1 4 2 1 4 2 1 4 2 1 4 4 1 2 4 1 2 4 1 2 4 1 3 4 1 2

T
A
B
6 5 8 7 5 8 7 5 9 7 6 10 8 6 10 10 6 8 10 6 7 9 5 7 8 5 7 8 5 6

begin with little finger root

4 3 1 4 3 1 3 2 1 4 3 1 3 1 4 4 1 3 1 3 4 1 2 3 1 3 4 1 3 4

T
A
B
8 7 5 8 7 5 8 7 6 9 8 6 10 8 12 12 8 10 6 8 9 6 7 8 5 7 8 5 7 8

major scale fingering 4-5

begin with index finger root

1 4 2 1 2 4 1 4 3 1 3 3 1 4 3 3 4 1 3 3 1 3 4 1 4 2 1 4 2 1

T
A
B

6 10 8 7 10 8 7 10 9 7 10 10 8 11 10 10 11 8 10 10 7 9 10 7 8 10 7 8 10 6

begin with middle finger root

2 1 4 2 1 4 2 1 4 2 1 4 3 1 4 4 1 3 4 1 2 4 1 2 4 1 2 4 1 2

T
A
B

8 7 10 8 7 10 8 7 10 9 8 11 10 8 12 12 8 10 11 8 9 10 7 8 10 7 8 10 7 8

begin with little finger root

4 2 1 4 2 1 3 2 1 3 3 1 2 1 4 4 1 2 1 3 3 1 2 3 1 2 4 1 2 4

T
A
B

10 8 7 10 8 7 10 9 8 10 10 8 11 10 13 13 10 11 8 10 10 8 9 10 7 8 10 7 8 10

major scale fingering 5-6

begin with index finger root

1 4 2 1 4 2 1 4 2 1 4 3 1 4 3 3 4 1 3 4 1 2 4 1 2 4 1 2 4 1

T
A
B

8 12 10 8 12 10 8 12 10 9 12 11 10 13 12 12 13 10 11 12 9 10 12 8 10 12 8 10 12 8

begin with middle finger root

2 1 4 2 1 4 2 1 4 1 1 4 2 1 4 4 1 2 4 1 1 4 1 2 4 1 2 4 1 2

T
A
B

10 8 12 10 8 12 10 9 12 10 10 13 11 10 13 13 10 11 13 10 10 12 9 10 12 8 10 12 8 10

begin with little finger root

4 2 1 4 2 1 3 1 1 3 2 1 2 1 4 4 1 2 1 2 3 1 1 3 1 2 4 1 2 4

T
A
B

12 10 8 12 10 9 12 10 10 12 11 10 13 12 15 15 12 13 10 11 12 10 10 12 9 10 12 8 10 12

major scale fingering 6-7

begin with index finger root

VIIm IIm V I IV

begin with middle finger root

begin with little finger root

major scale fingering 7-1

begin with index finger root

begin with middle finger root

begin with little finger root

TRIAD WITH NEIGHBOR CELLS 1-2-3-5 AND 1-3-4-5

1-2-3-5 and 1-3-4-5 fragment pattern cells are based on heptatonic (seven-tone) scales, such as major, harmonic minor or melodic minor. They each are a triad of three notes in thirds (1-3-5) with an added tone. The added tone is either “2” or “4”.

Major Scale-Tone 1-2-3-5 in Fourths Library

Swing Sixteenths
♩ = 100

little finger root

fingering 5

1 1 2 1 4 1 2 1 4 1 2 1 4 1 1 1 3 1 2 1 2 4 1 4 4 1 4 2 1 2 1 3 1 1 1 4 1 2 1 4 1 2 1 4 1 2 1 1

1 3 5 3 7 3 5 3 7 3 5 4 7 4 5 7 5 6 5 8 10 7 10 10 7 10 8 5 6 5 7 5 4 7 4 5 3 2 3 5 3 7 3 5 3 1

6

fingering 6

1 1 3 1 4 1 3 1 4 1 3 1 4 1 2 1 3 1 2 1 2 4 1 4 4 1 4 2 1 2 1 3 1 2 1 4 1 3 1 4 1 3 1 4 1 3 1 1

3 5 7 5 8 5 7 5 8 5 7 5 9 5 7 6 9 6 8 7 10 12 8 12 12 8 12 10 7 8 6 9 6 7 5 9 5 7 5 8 5 7 5 8 5 7 5 3

10

fingering 7

1 1 2 1 4 1 2 1 4 1 3 1 4 1 3 2 3 1 3 1 3 4 1 4 4 1 4 3 1 3 1 3 2 3 1 4 1 3 1 4 1 2 1 4 1 2 1 1

5 7 8 7 10 7 8 7 10 7 9 7 10 7 9 8 10 8 10 8 12 13 10 13 13 10 13 12 8 10 8 10 8 9 7 10 7 9 7 10 7 8 7 10 7 8 7 5

14

fingering 1

1 1 3 1 4 1 3 1 4 1 2 1 4 1 2 1 3 1 3 1 2 4 1 4 4 1 4 2 1 3 1 3 1 2 1 4 1 2 1 4 1 3 1 1

7 8 10 8 12 8 10 9 12 9 10 9 12 9 10 10 12 10 12 10 13 15 12 15 15 12 15 13 10 12 10 12 10 9 12 9 10 9 12 9 10 8 12 8 10 8 7

18

fingering 2

1 1 3 1 4 1 3 1 4 1 3 1 4 1 3 1 2 1 2 4 1 4 4 1 4 2 1 2 1 3 1 3 1 4 1 3 1 4 1 3 1 1

8 10 12 10 8 10 12 10 9 10 12 10 9 10 12 12 10 12 8 12 15 17 13 17 17 18 17 10 12 8 12 10 12 12 10 9 10 12 10 9 10 12 10 8 10 12 10 8

22

fingering 3

1 1 2 1 4 1 3 1 4 1 3 1 4 1 3 2 4 1 3 1 3 4 1 4 4 1 4 3 1 3 1 4 2 3 1 4 1 3 1 4 1 3 1 1

10 12 13 12 15 12 14 12 15 12 14 12 15 12 14 13 16 13 15 13 17 18 19 15 19 15 18 17 13 15 13 16 13 14 12 15 12 14 12 15 12 14 12 15 12 13 12 10

26

fingering 4

1 1 2 1 4 1 2 1 4 1 2 1 4 1 3 2 3 1 3 1 2 4 1 4 4 1 4 2 1n 3 1 3 2 3 1 4 1 2 1 4 1 2 1 1

12 13 15 14 17 14 15 14 17 14 15 14 17 14 16 15 17 15 17 15 18 20 17 20 20 17 20 18 15 17 15 17 15 16 14 17 14 15 14 17 14 15 14 17 14 15 13 12

30 *middle finger root*
fingering 4

32 fingering 5

34 fingering 6

36 fingering 7

38 fingering 1

40 fingering 2

42 fingering 3

The page contains six systems of musical exercises, each with a treble staff and a bass staff. The exercises are numbered 30 through 42. Each system includes a melodic line in the treble staff and a harmonic line in the bass staff. Fingerings are indicated by numbers 1-4 for the first system, 1-5 for the second, 1-6 for the third, 1-7 for the fourth, 1 for the fifth, and 1-3 for the sixth. The exercises are in 2/4 time and use a mix of eighth and sixteenth notes. The page is numbered 30 to 42 in increments of 2.

index finger root

fingering 5

fingering 6

fingering 7

fingering 1

fingering 2

fingering 3

fingering 4

Major Scale-Tone 1-3-4-5 in Fourths Library

little finger root

fingering 4

4 2 4 1 4 2 4 1 3 1 3 1 3 3 4 1 2 1 3 4 4 3 1 2 1 4 3 3 1 3 1 3 1 4 2 4 1 4 2 4

TAB: 5 3 5 2 5 3 5 2 4 5 3 5 5 6 3 6 5 7 8 8 7 5 6 3 6 5 5 3 5 4 5 2 5 3 5 2 5 3 5

3 fingering 5

4 2 4 1 4 2 4 1 3 1 3 1 3 2 4 1 2 1 2 4 4 2 1 2 1 4 2 3 1 3 1 3 1 4 2 4 1 4 2 4

TAB: 7 5 7 3 7 5 7 4 7 5 7 5 6 8 5 8 7 8 10 10 8 7 8 5 8 6 7 5 7 5 7 4 7 5 7 3 7 5 7

5 fingering 6

4 3 4 1 4 3 4 1 4 2 4 1 3 2 4 1 2 1 2 4 4 2 1 2 1 4 2 3 1 4 2 4 1 4 3 4 1 4 3 4

TAB: 8 7 8 5 8 7 9 5 9 7 9 9 8 10 7 10 8 10 12 12 10 8 10 7 10 8 9 6 9 7 9 5 9 7 8 5 8 7 8

7 fingering 7

4 2 4 1 4 3 4 1 3 2 3 1 3 3 1 2 3 1 3 4 4 3 1 3 2 1 3 3 1 3 2 3 1 4 3 4 1 4 2 4

TAB: 10 8 10 7 10 9 10 7 10 9 10 8 10 12 8 10 12 13 13 12 10 12 8 12 10 10 8 10 9 10 7 10 9 10 7 10 8 10

9 fingering 1

4 2 4 1 4 2 4 1 3 1 3 1 3 3 4 1 2 1 2 4 4 2 1 2 1 4 3 3 1 3 1 3 1 4 2 4 1 4 2 4

TAB: 12 10 12 9 12 10 12 9 12 10 12 10 12 13 10 12 13 15 15 13 12 13 10 13 12 10 12 10 12 9 12 10 12 9 12 10 12

11 fingering 2

3 1 2 1 4 1 2 1 3 1 3 1 3 2 4 1 3 1 3 4 4 3 1 3 1 4 2 3 1 3 1 3 1 2 1 4 1 2 1 3

TAB: 13 12 14 10 14 12 14 10 14 12 14 12 14 13 15 12 13 15 17 17 15 13 15 12 15 13 14 12 14 12 14 10 14 12 14 10 14 12 13

13 fingering 3

3 2 3 1 3 2 3 1 3 2 4 1 3 2 4 1 3 1 3 4 4 3 1 3 1 4 2 3 1 4 2 3 1 3 2 3 1 3 2 3

T
A
B

15 middle finger root fingering 4

2 1 2 4 2 1 2 4 2 1 2 3 2 1 3 4 3 1 3 4 4 3 1 3 4 3 1 2 3 2 1 2 4 2 1 2 4 2 1 2 4 2 1 2

T
A
B

17 fingering 5

2 1 2 4 2 1 2 4 2 1 2 4 1 1 2 4 2 1 3 4 4 3 1 2 4 2 1 1 4 2 1 2 4 2 1 2 4 2 1 2 4 2 1 2

T
A
B

19 fingering 6

2 1 2 3 2 1 2 4 2 1 2 4 2 1 2 4 2 1 2 4 4 2 1 2 4 2 1 2 4 2 1 2 4 2 1 2 4 2 1 2 3 2 1 2

T
A
B

21 fingering 7

2 1 2 4 2 1 3 4 3 1 3 4 2 1 3 4 3 1 3 4 4 3 1 3 4 3 1 2 4 3 1 3 4 3 1 2 4 2 1 2

T
A
B

23 *fingering 1*

2 1 2 4 2 1 2 4 2 1 2 4 1 1 3 4 2 1 3 4 4 3 1 2 4 3 1 1 4 2 1 2 4 2 1 2 4 2 1 2

T
A
B

10 8 10 12 10 9 10 12 10 10 12 13 12 10 12 13 12 10 12 13 12 10 10 12 10 9 10 12 10 9 10 12 10 8 10

25 *fingering 2*

2 1 2 4 2 1 2 4 2 1 2 4 1 1 2 4 2 1 2 4 4 2 1 2 4 2 1 1 4 2 1 2 4 2 1 2 4 2 1 2

T
A
B

12 10 12 14 12 10 12 14 12 10 12 14 12 12 13 15 13 12 13 15 13 12 13 15 13 12 12 14 12 10 12 14 12 10 12 14 12 10 12

27 *fingering 3*

2 1 3 4 3 1 3 4 2 1 2 4 2 1 2 4 2 1 2 4 4 2 1 2 4 2 1 2 4 2 1 2 4 3 1 3 4 3 1 2

T
A
B

13 12 14 15 14 12 14 15 14 12 14 16 14 13 15 17 15 13 15 17 17 15 13 15 17 15 13 14 16 14 12 14 15 14 12 14 15 14 12 13

29 *fingering 4* *index finger root*

1 4 1 2 1 4 1 2 1 4 1 3 1 3 1 3 1 4 1 3 3 1 4 1 3 1 3 1 3 1 4 1 2 1 4 1 2 1 4 1

T
A
B

1 5 2 3 2 5 2 3 2 5 2 4 2 5 3 5 3 6 3 5 5 3 6 3 5 3 5 2 4 2 5 2 3 2 5 2 3 2 5 1

31 *fingering 5*

1 4 1 2 1 4 1 2 1 4 1 2 1 3 1 2 1 4 1 3 3 1 4 1 2 1 3 1 2 1 4 1 2 1 4 1 2 1 4 1

T
A
B

3 7 3 5 3 7 3 5 3 7 4 5 4 7 5 6 5 8 5 7 7 5 8 5 6 5 7 4 5 4 7 3 5 3 7 3 5 3 7 3

33 *fingering 6*

1 4 1 3 1 4 1 3 1 4 1 2 1 4 1 3 1 4 1 2 2 1 4 1 3 1 4 1 2 1 4 1 3 1 4 1 3 1 4 1

T
A
B

5 8 5 7 5 8 5 7 5 9 5 7 5 9 6 8 6 10 7 8 8 7 10 6 8 6 9 5 7 5 9 5 7 5 8 5 7 5 8 5

35 fingering 7

1 4 1 2 1 4 1 3 1 4 1 3 1 3 1 3 1 4 1 2 2 1 4 1 3 1 3 1 3 1 4 1 3 1 4 1 2 1 4 1

T
A
B

7 10 7 8 7 10 7 9 7 10 7 9 7 10 8 10 8 12 8 10 10 8 12 8 10 8 10 7 9 7 10 7 9 7 10 7 8 7 10 7

37 fingering 1

1 4 1 2 1 4 1 2 1 4 1 2 1 3 1 3 1 4 1 3 3 1 4 1 3 1 3 1 2 1 4 1 2 1 4 1 2 1 4 1

T
A
B

8 12 8 10 8 12 9 10 9 12 9 10 9 12 10 12 10 13 10 12 12 10 13 10 12 10 12 9 10 9 12 9 10 9 12 8 10 8 12 8

39 fingering 2

1 3 1 2 1 4 1 2 1 4 1 2 1 1 2 3 1 4 1 2 2 1 4 1 3 2 1 1 2 1 4 1 2 1 4 1 2 1 3 1

T
A
B

10 13 10 12 10 14 10 12 10 14 10 12 10 14 12 13 12 15 12 13 13 12 15 12 13 12 14 10 12 10 14 10 12 10 14 10 12 10 13 10

41 fingering 3

1 4 1 3 1 4 1 3 1 4 1 3 1 4 1 3 1 4 1 2 2 1 4 1 3 1 4 1 3 1 4 1 3 1 4 1 3 1 4 1

T
A
B

12 15 12 14 12 15 12 14 12 15 12 14 12 16 13 15 13 17 13 15 15 13 17 13 15 13 16 12 14 12 15 12 14 12 15 12 14 12 15 12

1-2-3-5 Examples

1-2-3-5 on G9 triad subsets

G B° Dm

TAB

5 2 4 3 4 2 5 | 4 5 3 6 3 5 4 | 3 5 6 5 6 5 3

1-2-3-5 on Gm9 triad subsets

Gm Bb Dm

TAB

5 2 3 3 3 2 5 | 3 5 3 6 3 5 3 | 3 5 6 5 6 5 3

1-2-3-5 on triads in perfect fourths for G9: roots on b7-3-6-2-5-1-4

F B° Em Am Dm G C G Dm G C F G

TAB

1 3 5 | 3 2 3 5 | 3 2 3 5 | 4 2 4 5 | 3 5 6 8 10 12 15 | 15 12 | 5 2 3 5 2 4 5 3 5 6 8 6 7

1-2-3-5 on triads in perfect fourths for G9: roots on b7-3-6-2-5-1-4

F B° Em Am Dm G C G Dm G C F G

TAB

1 3 5 | 3 2 3 5 | 3 2 3 5 | 4 2 4 5 | 3 5 6 8 10 12 15 | 15 12 | 5 2 3 5 2 4 5 3 5 6 8 6 7

1-2-3-5 on triads in perfect fourths for Gm9: roots on 2-5-1-4-b7-b3

Triads: Dm Gm C F Bb Gm

Fingerings (T, A, B):

5	2	3	2	5	2	3	5	3	5	3	6	8	5	8	11	13	10	13	15	15
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----

1-2-3-5 on triads in perfect fourths for Gm9: roots on b3-b7-4-1-5-2

Triads: Bb F C Gm Dm Gm

Fingerings (T, A, B):

13	10	13	11	8	5	8	6	3	5	3	5	3	3	2	5	2	3	2	5	5
----	----	----	----	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

1-2-3-5 on triads chromatically: exercise version

Triads: Dm D#m Em F G Db G

Fingerings (T, A, B):

5	2	3	2	3	4	3	6	2	4	5	4	5	2	5	3	5	2	4	3	6
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

1-2-3-5 on triads chromatically: abstract version for actual improv

Triads: Dm D#m Em F G Db G

Fingerings (T, A, B):

5	2	3	2	3	4	6	4	5	4	5	2	3	5	4	3	6	6	4	3	5
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

1-3-4-5 examples

1-3-4-5 on G9 triad subsets

G B^o Dm

TAB

1-3-4-5 on Gm9 triad subsets

Gm B^b Dm

TAB

1-3-4-5 on triads in perfect fourths for G9: roots on b7-3-6-2-5-1-4

F B^o Em Am Dm G C G

TAB

1-3-4-5 on triads in perfect fourths for G9: roots on 4-1-5-2-6-3-b7

C G Dm Am Em B^o F G

TAB

1-3-4-5 on triads in perfect fourths for Gm9: roots on 2-5-1-4-7-b3

Musical score for "The Sound of Silence" by Simon & Garfunkel. The score is for guitar, showing the first two measures. The key signature is one sharp (F#), and the time signature is 4/4. The first measure contains a Dm chord and the second measure contains a Gm chord. The melody is written on a single staff, and the guitar tablature is written below it. The tablature shows the fret numbers for each string (T, A, B) and includes a capo symbol at the first fret.

combined 1-2-3-5 & 1-3-4-5 examples

"G" Mixolydian - up 1-2-3-5, down 5-4-3-1 on Em (G6 no 5) and G9 triad subsets

The first system of the musical score is in 4/4 time. It features a treble clef and a key signature of one flat (Bb). The melody is written on a single staff. Above the staff, the chords Em, G, B°, and Dm are indicated. The melody consists of eighth and quarter notes, with some phrases beamed together. The system ends with a double bar line and a repeat sign.

"G" Dorian - up 1-2-3-5, down 5-4-3-1 on Em (G6 no 5) and Gm9 triad subsets

"G" Mixolydian - up 1-3-4-5, down 5-3-2-1 on Em (G6 no 5) and G9 triad subsets

Musical notation for the "G" Mixolydian scale pattern. The notation is in 4/4 time, featuring a treble clef and a key signature of one flat (Bb). The scale is played in four measures, each with a specific chord indicated above it: Em, G, B°, and Dm. The first measure (Em) shows the ascending pattern 1-3-4-5. The second measure (G) shows the descending pattern 5-3-2-1. The third measure (B°) shows the descending pattern 5-3-2-1. The fourth measure (Dm) shows the descending pattern 5-3-2-1. Below the staff, the fretboard positions for the strings T, A, and B are indicated with numbers 1 through 5.

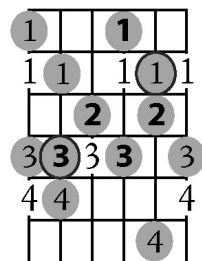
"G" Dorian - up 1-3-4-5, down 5-3-2-1 on Em (G6 no 5) and Gm9 triad subsets

Musical notation for the "G" Dorian scale pattern. The notation is in 4/4 time, featuring a treble clef and a key signature of one flat (Bb). The scale is played in four measures, each with a specific chord indicated above it: Edim., Gm, Bb, and Dm. The first measure (Edim.) shows the ascending pattern 1-3-4-5. The second measure (Gm) shows the descending pattern 5-3-2-1. The third measure (Bb) shows the descending pattern 5-3-2-1. The fourth measure (Dm) shows the descending pattern 5-3-2-1. Below the staff, the fretboard positions for the strings T, A, and B are indicated with numbers 1 through 5.

1-2-3-5 on Harmonic Minor V7b9 Examples

C form V7b9 of C harmonic minor (G7b9 to C)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7

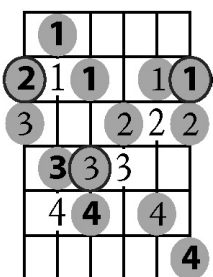


G7(b9)

5

1-2-3-5 on E form V7b9 of F harmonic minor (C7b9 to F)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7

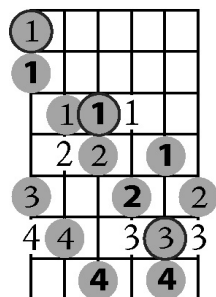


9 C7(b9)

13

D form V7b9 of D harmonic minor (A7b9 to D)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7



17 A7(b9)

3 4 1 4 1 2 4 2 4 1 2 4 1 1 4 2 4 1 2 1 2 3 1 4 1 3 4 2 3 4 2 4

T
A
B

9 10 7 10 7 8 10 8 10 7 8 11 7 8 11 9 11 7 9 8 9 10 8 11 8 10 11 10 11 9 12

21

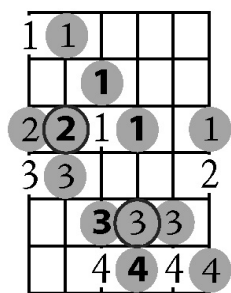
4 2 4 3 2 4 3 1 4 1 3 2 1 2 1 4 2 4 1 1 4 2 1 4 2 4 1 2 4 1 4 3

T
A
B

12 9 11 10 9 11 10 8 11 8 10 9 8 9 7 11 9 11 8 7 11 8 7 10 8 10 8 7 10 7 10 9

A form V7b9 of A harmonic minor (E7b9 to A)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7



25 E7(b9)

2 3 1 3 1 2 3 1 2 3 1 4 1 1 3 1 3 4 1 4 1 3 4 3 3 4 3 1 3 4 1 4

T
A
B

7 8 5 8 5 7 8 6 7 8 6 9 6 7 9 7 9 10 7 10 9 9 10 9 7 9 10 9 10

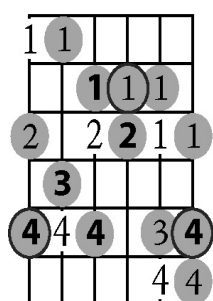
29

4 1 4 3 1 3 4 3 3 4 3 1 4 1 4 3 1 3 1 1 4 1 3 2 1 3 2 1 3 1 3 2

T
A
B

10 7 10 9 7 9 10 9 9 10 9 7 10 7 10 9 7 9 7 6 9 6 8 7 6 8 7 5 8 5 8 7

G form V7b9 of G harmonic minor (D7b9 to G)
1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7



33 D7(b9)

2 4 1 3 4 1 3 1 3 4 1 4 1 2 4 2 4 1 2 1 1 2 1 4 1 1 3 1 3 1 2 4

T 8 10 6 9 6 9 7 9 10 7 10 7 8 10 8 10 7 8 11 7 8 11 10 7 8 10 8 10 11 8 11

A 8 10 6 9 6 9 7 9 10 7 10 7 8 10 8 10 7 8 11 7 8 11 10 7 8 10 8 10 11 8 11

B 8 10 6 9 6 9 7 9 10 7 10 7 8 10 8 10 7 8 11 7 8 11 10 7 8 10 8 10 11 8 11

37

4 2 1 3 1 3 1 1 4 1 2 1 1 2 1 4 2 4 2 1 4 1 4 3 1 3 1 4 3 1 4 2

T 11 8 11 10 8 10 8 7 10 11 8 7 11 8 7 10 8 10 8 7 10 7 10 9 7 9 6 10 9 6 10 8

A 11 8 11 10 8 10 8 7 10 11 8 7 11 8 7 10 8 10 8 7 10 7 10 9 7 9 6 10 9 6 10 8

B 11 8 11 10 8 10 8 7 10 11 8 7 11 8 7 10 8 10 8 7 10 7 10 9 7 9 6 10 9 6 10 8

1-2-3-5 on Harmonic Minor IIm7b5b9 Examples

the "b9" of IIm7b5b9 is not currently accepted as a chord tone, but can function as an arpeggio tone

G form IIm7b5b9 (Dm7b5 to G7) of C harmonic minor

Progresses to V7b9 (G7b5b9). 1-2-3-5 on the root, third, fifth. 1-2-3-4 on the seventh.

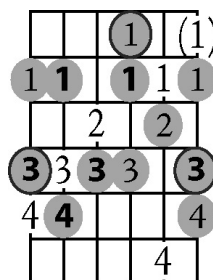


Diagram of a 5x5 grid for the G form IIm7b5b9 pattern. The grid contains numbers 1, 2, 3, 4 in various positions, with some numbers circled in grey.

Musical notation for the G form IIm7b5b9 pattern (Dm7b5 to G7) of C harmonic minor. The notation shows the melodic line and the bass line (T, A, B) with fingerings (1-4) and chord symbols (Dm7(b9), G7(b9)).

Musical notation for the G form IIm7b5b9 pattern (Dm7b5 to G7) of C harmonic minor. The notation shows the melodic line and the bass line (T, A, B) with fingerings (1-4) and chord symbols (Dm7(b9), G7(b9)).

C form IIm7b5b9 (Gm7b5 to C7) of F harmonic minor

Progresses to V7b9 (C7b5b9). 1-2-3-5 on the root, third, fifth. 1-2-3-4 on the seventh

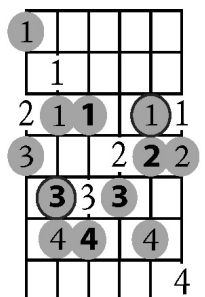


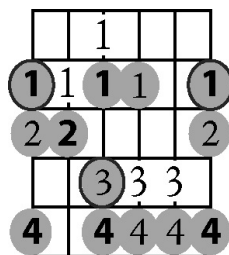
Diagram of a 5x5 grid for the C form IIm7b5b9 pattern. The grid contains numbers 1, 2, 3, 4 in various positions, with some numbers circled in grey.

Musical notation for the C form IIm7b5b9 pattern (Gm7b5 to C7) of F harmonic minor. The notation shows the melodic line and the bass line (T, A, B) with fingerings (1-4) and chord symbols (Gm7(b9), C7(b9)).

Musical notation for the C form IIm7b5b9 pattern (Gm7b5 to C7) of F harmonic minor. The notation shows the melodic line and the bass line (T, A, B) with fingerings (1-4) and chord symbols (Gm7(b9), C7(b9)).

E form IIm7b5b9 (Cm7b5 to F7) of Bb harmonic minor

Progresses to V7b9 (F7b5b9). 1-2-3-5 on the root, third, fifth. 1-2-3-4 on the seventh

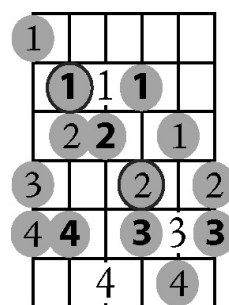


17 Cm7^(b9)

21 Cm7^(b9)

A form IIm7b5b9 (Em7b5 to A7) of D harmonic minor

Progresses to V7b9 (A7b5b9). 1-2-3-5 on the root, third, fifth. 1-2-3-4 on the seventh

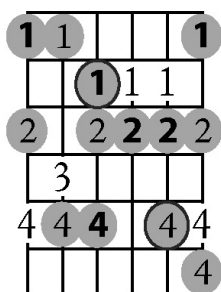


25 Em7^(b9)

29 Em7^(b9)

D form IIIm7b5b9 (Am7b5 to D7) of G harmonic minor

Progresses to V7b9 (D7b5b9). 1-2-3-5 on the root, third, fifth. 1-2-3-4 on the seventh



33 Am7(b9)

2 4 1 4 1 3 4 2 4 1 2 4 1 2 4 2 4 1 2 2 2 1 2 1 2 4 1 2 4

4 2 1 4 2 1 4 2 1 2 1 2 2 2 1 4 2 4 2 1 4 2 1 4 2 4 3 1 4 1 4 2

TAB

8 10 6 10 6 9 10 8 10 7 8 10 7 8 10 8 10 7 8 8 7 8 6 8 10 11 10 6 8 11

37 Am7(b9)

4 2 1 4 2 1 4 2 1 2 1 2 2 2 1 4 2 4 2 1 4 2 1 4 2 4 3 1 4 1 4 2

11 8 11 10 8 6 10 8 6 8 7 8 8 7 10 8 10 8 7 10 8 7 10 8 7 10 8 10 9 6 10 6 10 8

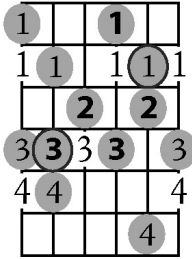
TAB

1-3-4-5 On Harmonic Minor V7b9

C form V7b9 of C harmonic minor (G7b9 to C)

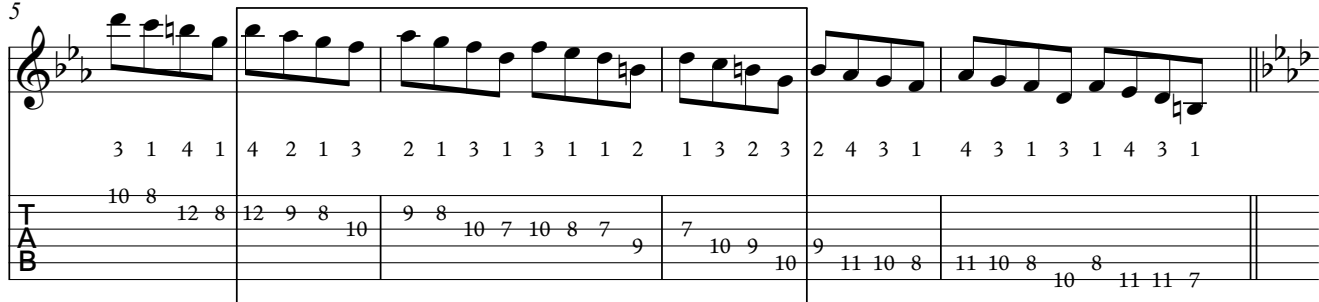
1-3-4-5 on the root, third and fifth; 1-2-3-4 on the b7

G7(b9)



1 3 4 1 3 1 3 4 1 3 4 2 3 2 3 1 2 1 1 3 1 3 1 2 3 1 2 4 1 4 1 3

5



3 1 4 1 4 2 1 3 2 1 3 1 3 1 1 2 1 3 2 3 2 4 3 1 4 3 1 3 1 4 3 1

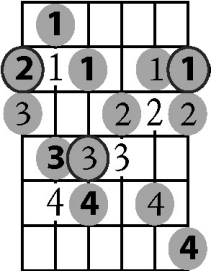
TAB

7 10 11 8 10 11 8 10 11 9 9 10 7 9 8 10 7 10 8 9 10 8 9 12 8 12 8 10

1-3-4-5 on E form V7b9 of F harmonic minor (C7b9 to F)

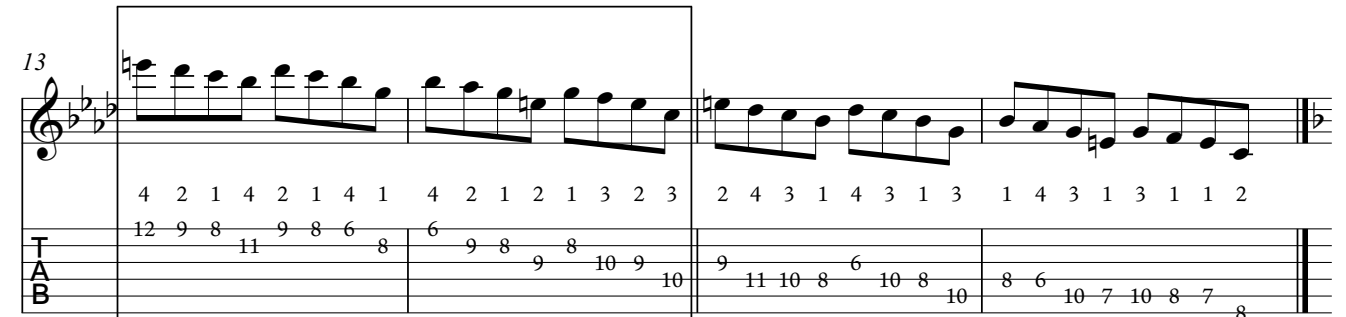
1-3-4-5 on the root, third and fifth; 1-2-3-4 on the b7

C7(b9)



2 1 1 3 1 3 4 1 3 1 3 4 1 3 4 2 3 2 3 1 2 1 2 4 1 4 1 2 4 1 2 4

9



4 2 1 4 2 1 4 1 4 2 1 2 1 3 2 3 2 4 3 1 4 3 1 3 1 4 3 1 3 1 1 2

TAB

7 8 10 7 10 11 8 10 8 10 11 8 10 11 9 10 9 10 8 9 8 9 11 8 11 8 9 11 8 9 12

1-3-4-5 On D form V7b9 for G form target
 1-3-4-5 on the root, third and fifth; 1-2-3-4 on the b7

17 *A7(b9)*

3 1 2 4 1 4 1 2 4 1 2 4 1 4 1 3 4 2 3 1 2 1 3 4 1 3 4 2 3 2 3 4

T
A
B

21

4 3 2 3 2 4 3 1 4 3 1 2 1 3 2 4 3 1 4 1 4 2 1 4 2 1 4 1 4 2 1 3

T
A
B

A form V7b9 of A harmonic minor (E7b9 to A)
 1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7

25 *E7(b9)*

2 1 2 3 1 2 3 1 2 1 1 3 1 3 4 1 3 1 3 4 1 3 4 3 3 3 4 1 3 1 2 4

T
A
B

29

4 2 1 3 1 4 3 3 3 4 3 1 4 3 1 3 1 4 3 1 3 1 1 3 1 3 2 1 3 2 1 2

T
A
B

G form V7b9 of G harmonic minor (D7b9 to G)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7

33 D7(b9)

37

Diagram illustrating the G form V7b9 of G harmonic minor (D7b9 to G) with fingerings and fret numbers.

Diagram illustrating the G form V7b9 of G harmonic minor (D7b9 to G) with fingerings and fret numbers.

1-2-3-5 on Melodic Minor IV Examples

E form bII9 (Db9 to C, using Ab melodic minor)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7

Fretboard diagram for E form bII9 (Db9 to C) using Ab melodic minor. The diagram shows a 6-string fretboard with the following fingerings: 1 (index) on the 1st string, 2 (middle) on the 2nd string, 3 (ring) on the 3rd string, 4 (pinky) on the 4th string, 1 (index) on the 5th string, and 2 (middle) on the 6th string. The fretboard is divided into four boxes, each containing a 1-2-3-5 pattern on the root, third, and fifth, and a 1-2-3-4 pattern on the b7.

Musical staff for E form bII9 (Db9 to C) using Ab melodic minor. The staff shows the melodic line in Ab melodic minor (4 flats) with a key signature of three flats. The notation includes a treble clef, a 4/4 time signature, and a key signature of three flats. The melody is written in a 4/4 time signature. The tablature below the staff shows the fret numbers for each note: 9 11, 8 11, 8 10 11, 9, 11, 8, 9, 8, 9 11, 8 10, 11, 8 10, 9, 10, 9, 7, 9 11, 7 11, 7, 9 11, 13.

Musical staff for E form bII9 (Db9 to C) using Ab melodic minor. The staff shows the melodic line in Ab melodic minor (4 flats) with a key signature of three flats. The notation includes a treble clef, a 4/4 time signature, and a key signature of three flats. The melody is written in a 4/4 time signature. The tablature below the staff shows the fret numbers for each note: 4 4 2 1 4 1 4 2, 1 2 1 3 2 3 1 4, 3 1 4 2 1 2 1 4, 2 4 3 1 4 1 4 2, 13 11 9, 7 11 7, 11 9, 7, 9 8, 10 9, 10 8, 11, 10 8, 11 9, 8, 9 8, 11, 9, 11 10 8 11 8, 11 9.

A form bII9 (Gb9 to F, using Db melodic minor)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7

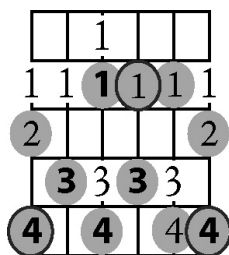
Fretboard diagram for A form bII9 (Gb9 to F) using Db melodic minor. The diagram shows a 6-string fretboard with the following fingerings: 1 (index) on the 1st string, 2 (middle) on the 2nd string, 3 (ring) on the 3rd string, 4 (pinky) on the 4th string, 1 (index) on the 5th string, and 2 (middle) on the 6th string. The fretboard is divided into four boxes, each containing a 1-2-3-5 pattern on the root, third, and fifth, and a 1-2-3-4 pattern on the b7.

Musical staff for A form bII9 (Gb9 to F) using Db melodic minor. The staff shows the melodic line in Db melodic minor (5 flats) with a key signature of four flats. The notation includes a treble clef, a 4/4 time signature, and a key signature of four flats. The melody is written in a 4/4 time signature. The tablature below the staff shows the fret numbers for each note: 9 11, 7 11, 7 9 11, 8, 9 11, 8 11, 8 10 11, 9, 11, 8, 9, 9 11, 9 11, 11, 9 11, 11, 8, 9, 12.

Musical staff for A form bII9 (Gb9 to F) using Db melodic minor. The staff shows the melodic line in Db melodic minor (5 flats) with a key signature of four flats. The notation includes a treble clef, a 4/4 time signature, and a key signature of four flats. The melody is written in a 4/4 time signature. The tablature below the staff shows the fret numbers for each note: 4 2 1 4 2 4 2 4, 4 2 4 2 2 2 1 4, 2 4 3 1 4 1 4 2, 1 4 2 1 4 1 4 2, 12 9 8, 11 9, 11 9, 11, 11 9, 11 9, 9 8, 11, 9, 11 10 8 11 8, 11 9, 8, 11 9, 7 11 7, 11 9.

G form bII9 (Eb9 to D, using Bb melodic minor)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7

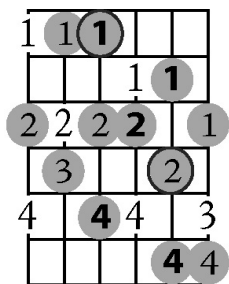


17 Eb9

21

D form bII9 (Bb9 to A, using F melodic minor)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7

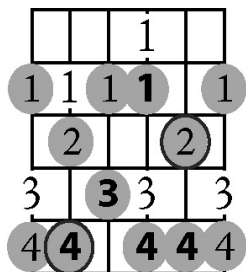


25 Bb9

29

C form bII9 (Ab9 to G, using Eb melodic minor)

1-2-3-5 on the root, third and fifth; 1-2-3-4 on the b7



33 Ab⁹

1 3 4 2 4 1 2 1 2 4 1 3 4 1 3 1 3 1 1 4 1 3 4 4 4 2 4 1 2 4 1 4

T
A
B

8 10 11 9 11 8 9 8 9 11 8 10 11 8 10 11 11 7 8 11 8 10 11 11 9 11 8 9 11 8 11

37

4 1 4 2 1 4 2 4 4 4 3 1 4 1 1 3 1 3 1 4 3 1 4 2 1 2 1 4 2 4 3 1

T
A
B

11 8 11 9 8 11 9 11 11 11 10 8 11 8 7 10 8 10 8 11 10 8 11 9 8 9 8 11 9 11 10 8

DON'T OVERUSE FRAGMENT PATTERNS

Keep aware of the listener's experience. Don't get carried away in playing fragment patterns if there is no melodic purpose. Keep consecutive fragment patterns of the same type down to two or three consecutive instances. More than that may make the music too predictable for the listener.

Sometimes, a longer repetition of fragment patterns is warranted. Jimmy Page used a sequence of nine 3-2-1 fragments in the outro solo to Good Times, Bad Times, but there was a little variation and he didn't commonly use fragments in that repetitive manner in his solos.

Bach used a lot of fragment patterns, such as in Brandenburg Concerto 3, but always kept stimulating the listener with theme and variation.

Thirds and Sixths

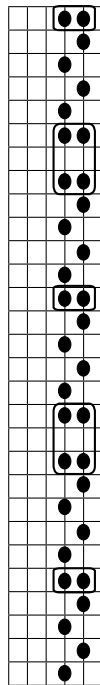
- **Scale-Tone Thirds and Sixths with Tonic Triads**
- **Modal Thirds and Sixths on All String Sets**
major scale, major scale sharp five & harmonic minor,
melodic minor, harmonic major
- **Diads**
- **Thirds on Strings Three & Two: Text Version**
- **Thirds on Strings Three & Two: Video Version**
- **Sixths on Strings One & Three or Two & Four**
- **Subsets of Major Scale Fingerings**
- **Slurring Thirds and Sixths**
- **Chords Implied by Thirds and Sixths**

SCALE-TONE THIRDS AND SIXTHS WITH TONIC TRIADS

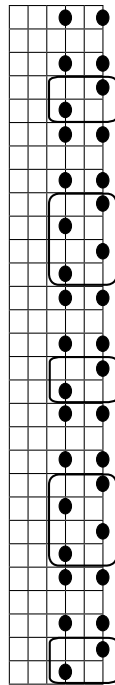
Movable Thirds and Sixths

Thirds are shown in this section (Movable Thirds and Sixths) only on strings three and two, where they are easiest to fret. Likewise, sixths are shown in this section only on strings three and one and on strings four and two, where they are easiest to fret.

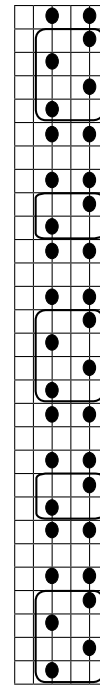
thirds on strings
three and two



sixths on strings
three and one


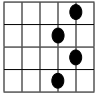
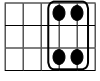
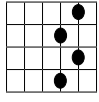


sixths on strings
four and two







Graphic Patterns





Thirds on the third and second strings. Going down the diagram in (toward the guitar body), the

pattern is , followed by , then , followed by . Repeat

Sixths on the third and first strings. Going down the diagram (toward the guitar body), the pattern

is , followed by , then , followed by . Repeat.

Sixths on the fourth and second strings. Going down the diagram (toward the guitar body), the

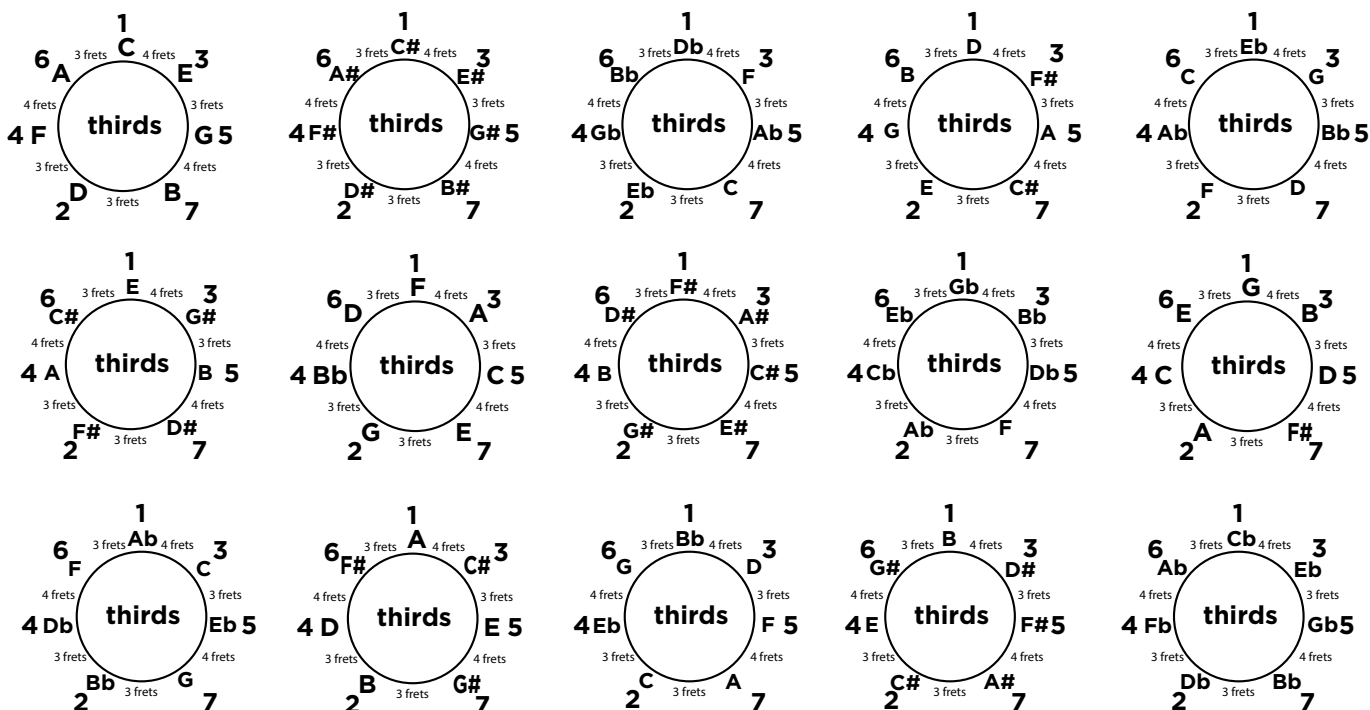
pattern is , followed by , then , followed by . Repeat

“Tracking” the Scale

With thirds, number the scale tones on the larger of the two strings and keep “track” of it on that string. With sixths, number the scale tones on the smaller of the two strings and “track” it on that string.

Thirds and Sixths in All Keys

For thirds, read a circle below in clocwise order. For sixths, read a circle in couter-clockwise order. In each of the three pairs of enharmonic keys C and Db, F# and Gb, B and Cb, the pitches are the same, but given different names.



Major (Ionian) Thirds & Sixths with Tonic Major Triads

Thirds on strings
three and two

sixths on strings
three and one

sixths on strings
four and two

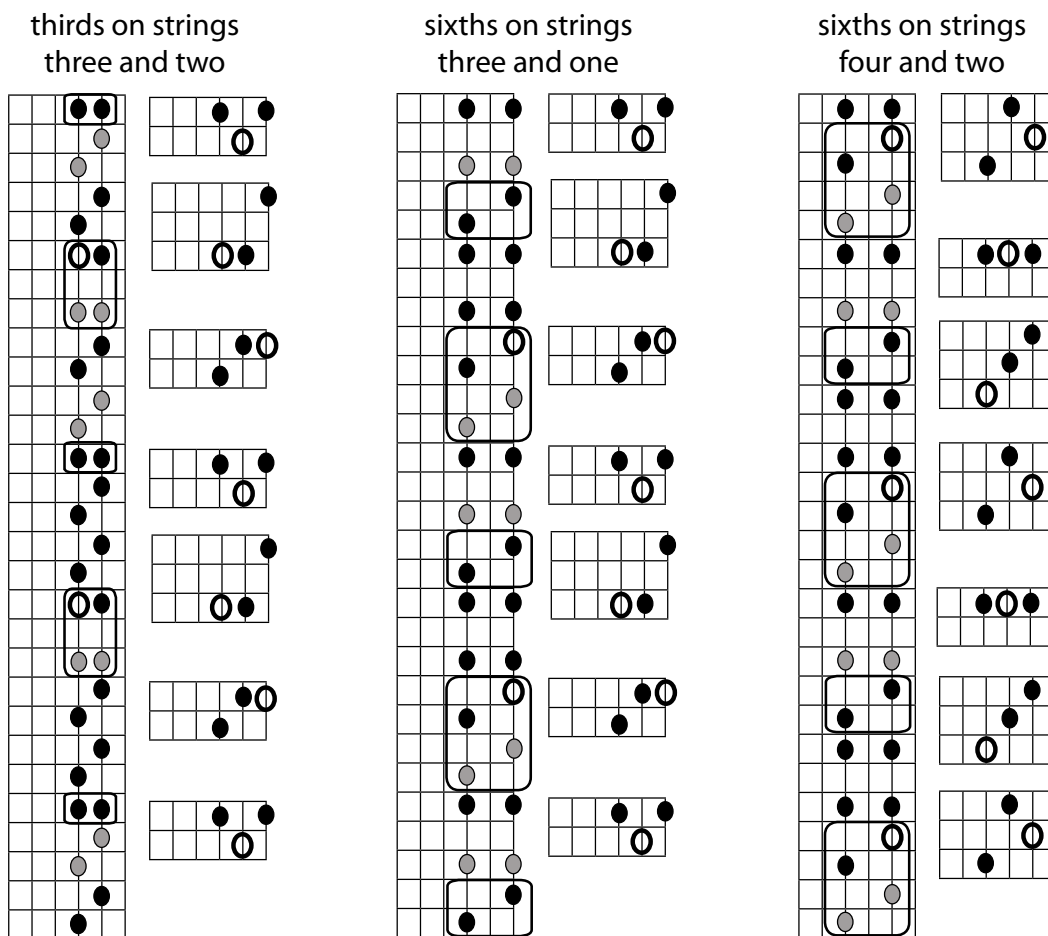
The circled note (O) represents the major (Ionian) tone center. The three-note chords are the tonic chord, which is the major chord named after the key. If the key (O) is "A", the three-note chords are A major.

An interval of a third is not part of this major chord: . In that case, this fourth can be used in place of a third for tonic major chord tones.

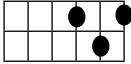
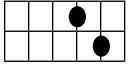
An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

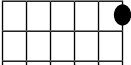
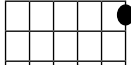
An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

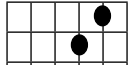

Lydian Thirds & Sixths with Tonic Major Triads



The circled note (O) represents the Lydian tone center. The three-note chords are the tonic chord, which is the major chord named after the key. If the key (O) is "A", the three-note chords are A major.

An interval of a third is not part of this major chord: . In that case, this fourth  can be used in place of a third for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

An interval of a third or sixth made with the circled tone center are part of various Lydian tonic chords (major sixth, major seventh and major ninth). The gray-backed notes are the remaining notes *not* in any usable type of tonic Lydian major chord (except suspended chords).

Lydian Thirds & Sixths with Tonic Major Triads

thirds on strings
three and two

sixths on strings
three and one

sixths on strings
four and two

The circled note (O) represents the Lydian dominant tone center. The three-note chords are the tonic chord, which is the major chord named after the key. If the key (O) is "A", the three-note chords are A major.

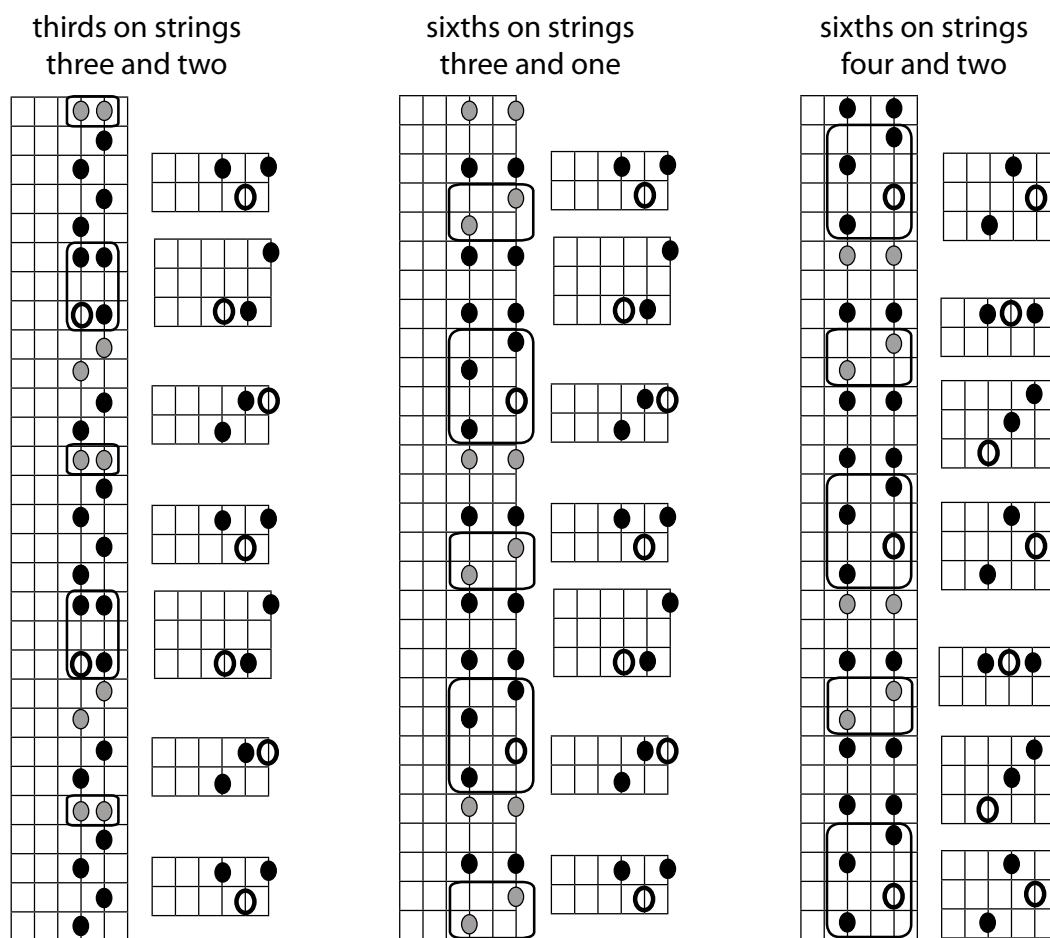
An interval of a third is not part of this major chord: . In that case, this fourth can be used in place of a third for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

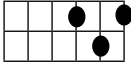
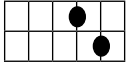
An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

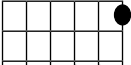
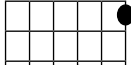
An interval of a third or sixth made with the circled tone center are part of various Lydian dominant tonic chords (major, sixth, seventh and ninth). The gray-backed notes are the remaining notes *not* in any usable type of tonic Lydian dominant major chord (except suspended chords).

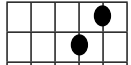

Mixolydian Thirds & Sixths with Tonic Major Triads



The circled note (O) represents the Mixolydian tone center. The three-note chords are the tonic chord, which is the major chord named after the key. If the key (O) is "A", the three-note chords are A major.

An interval of a third is not part of this major chord: . In that case, this fourth  can be used in place of a third for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

An interval of a third or sixth made with the circled tone center are part of various Mixolydian tonic chords (major, sixth, seventh and ninth). The gray-backed notes are the remaining notes *not* in any usable type of tonic Mixolydian major chord (except suspended chords).

Dorian Thirds & Sixths with Tonic Minor Triads

thirds on strings three and two	sixths on strings three and one	sixths on strings four and two

The circled note (○) represents the Dorian tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (○) is "A", the three-note chords are A minor.

An interval of a third is not part of this minor chord: . In that case, this fourth can be used in place of a third for tonic minor chord tones.

An interval of a sixth is not part of this minor chord: . In that case, this fifth can be used in place of a sixth for tonic minor chord tones.

An interval of a sixth is not part of this minor chord: . In that case, this fifth can be used in place of a sixth for tonic minor chord tones.

An interval of a third or sixth made with the circled tone center are part of various Dorian tonic chords (minor, minor sixth, minor seventh and minor ninth). The gray-backed notes are the remaining notes *not* in any usable type of tonic Dorian major chord (except suspended and minor eleventh chords).

Phrygian Thirds & Sixths with Tonic Minor Triads

thirds on strings
three and two

sixths on strings
three and one

sixths on strings
four and two

The circled note (O) represents the Phrygian tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (O) is "A", the three-note chords are Am.

An interval of a third is not part of this minor chord: . In that case, this fourth can be used in place of a third for tonic minor chord tones.

An interval of a sixth is not part of this minor chord: . In that case, this fifth can be used in place of a sixth for tonic minor chord tones.

An interval of a sixth is not part of this minor chord: . In that case, this fifth can be used in place of a sixth for tonic minor chord tones.

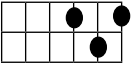
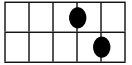
Phrygian Dominant Thirds & Sixths with Tonic Major Triads

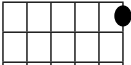
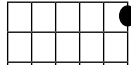
thirds on strings
three and two

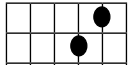

sixths on strings
three and one

sixths on strings
four and two

The circled note (O) represents the harmonic minor tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (O) is "A", the three-note chords are Am.

A third is not part of this major chord: . In that case, this fourth  can be used in place of a third for tonic major chord tones.

A sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

A sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

The gray-backed notes are the diminished seventh part of 7b9 no root.

Aeolian Thirds & Sixths with Tonic Minor Triads

thirds on strings three and two	sixths on strings three and one	sixths on strings four and two

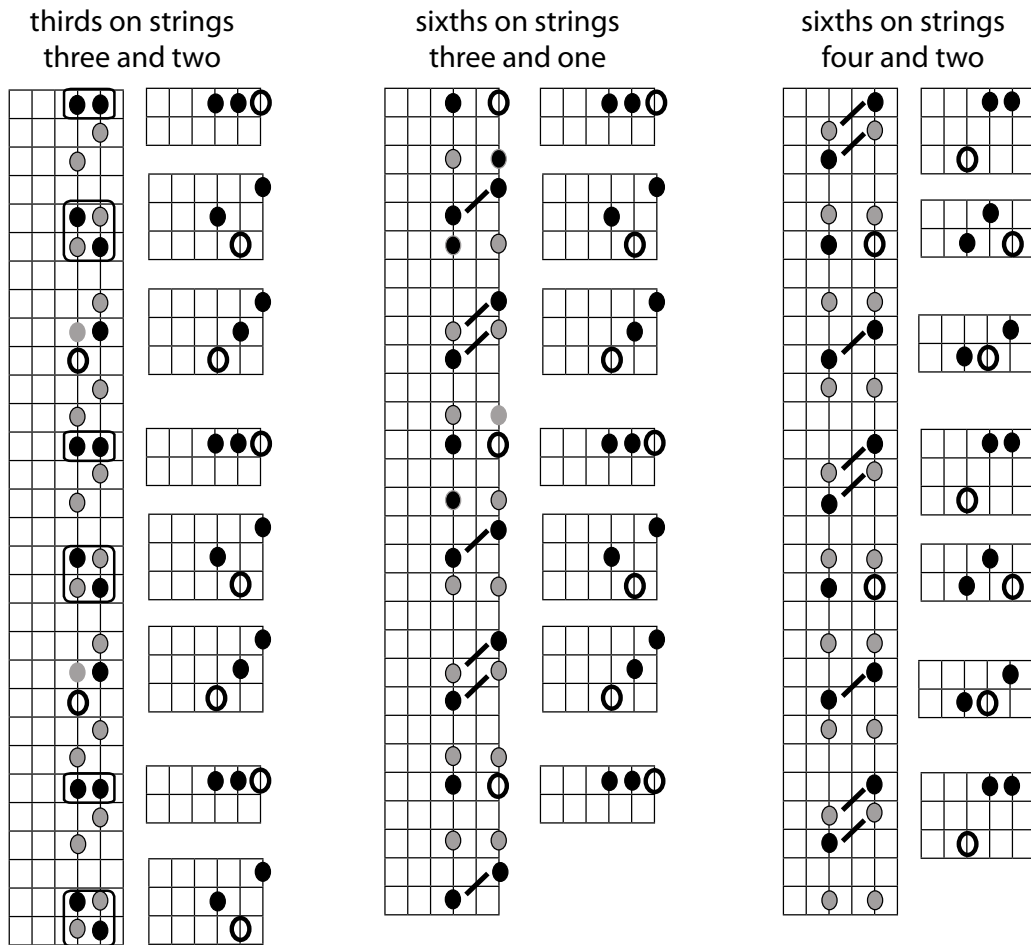
The circled note (O) represents the Aeolian tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (O) is "A", the three-note chords are Am.

An interval of a third is not part of this minor chord: . In that case, this fourth can be used in place of a third for tonic minor chord tones.

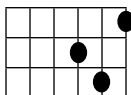
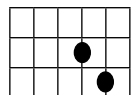
An interval of a sixth is not part of this minor chord: . In that case, this fifth can be used in place of a sixth for tonic minor chord tones.

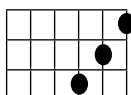
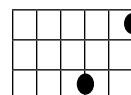
An interval of a sixth is not part of this minor chord: . In that case, this fifth can be used in place of a sixth for tonic minor chord tones.

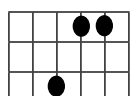
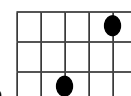
Harmonic Minor Thirds & Sixths with Tonic Minor Triads



The circled note (○) represents the harmonic minor tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (○) is "A", the three-note chords are Am.

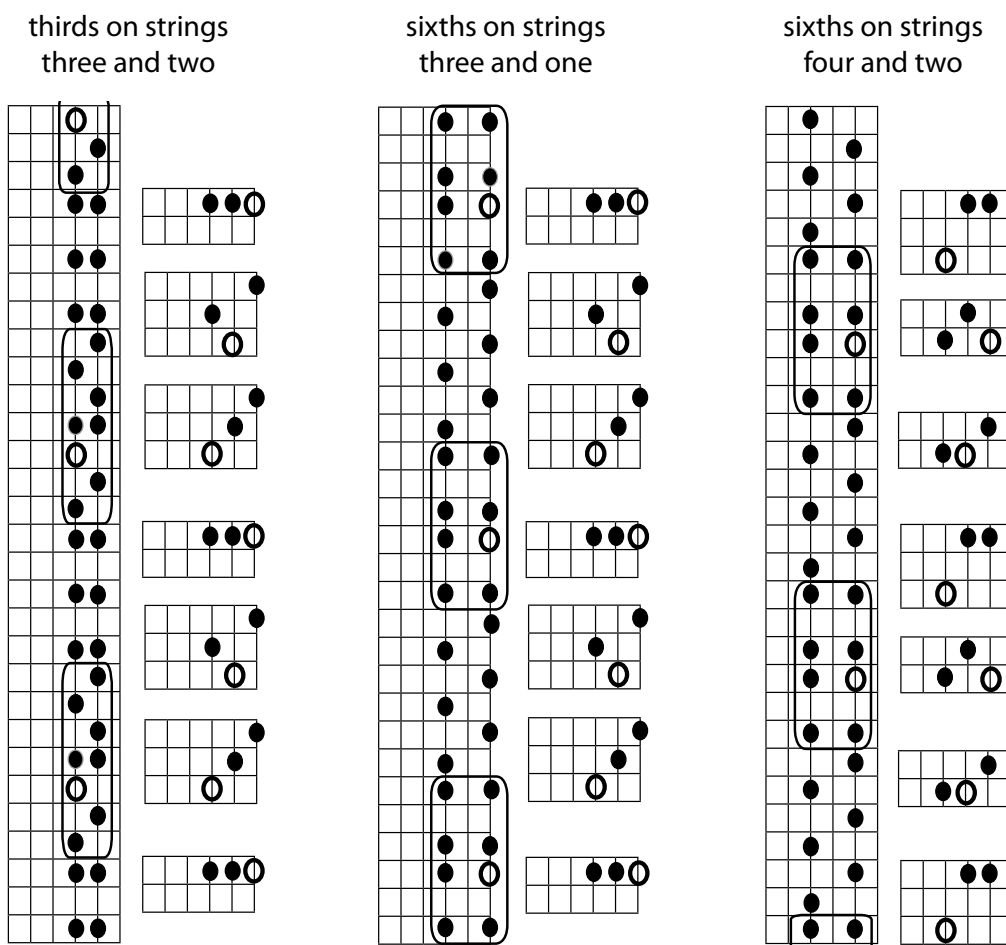
An interval of a third is not part of this minor chord: . In that case, this fourth  can be used in place of a third for tonic minor chord tones.

An interval of a sixth is not part of this minor chord: . In that case, this fifth  can be used in place of a sixth for tonic minor chord tones.

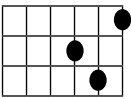
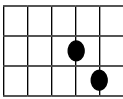
An interval of a sixth is not part of this minor chord: . In that case, this fifth  can be used in place of a sixth for tonic minor chord tones.

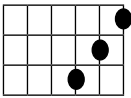
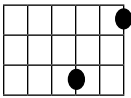
The gray-backed notes are part of VII^{dim}7=II^{dim}7=IV^{dim}7=bVI^{dim}7=V7b9 no root. The gray-backed notes are made from the four notes *not* in the tonic minor chord.

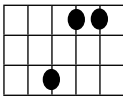
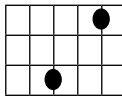
Melodic Minor Thirds & Sixths with Tonic Minor Triads



The circled note (O) represents the melodic minor tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (O) is "A", the three-note chords are Am.

A third is not part of this minor chord: . In that case, this fourth  can be used in place of a third for tonic minor chord tones.

A sixth is not part of this minor chord: . In that case, this fifth  can be used in place of a sixth for tonic minor chord tones.

A sixth is not part of this minor chord: . In that case, this fifth  can be used in place of a sixth for tonic minor chord tones.

Notice the segregation of four three major thirds (not in a rectangle) and four minor thirds (in the rectangles). Also notice the segregation of four major sixths (in the rectangles) and three minor sixths (not in the rectangles),

MODAL THIRD AND SIXTHS ON ALL STRING SETS

Major Scale-Tone Thirds and Sixths On All String Sets

C major scale in thirds

M3 m3 m3 M3 M3 m3 m3 M3 M3 m3 m3 M3 M3 m3 m3 M3

unique fingering for strings two and three
scale tones numbered below according to bottom note

1 2 3 4 5 6 7 1

1 2 3 4 5 6 7 1

T	5	6	8	10	12	13	15	17							
A	5	7	9	10	12	14	16	17							
B									2	3	5	7	8	9	10
									3	5	7	8	10	12	14

C major scale in sixths

m6 M6 M6 m6 m6 M6 M6 m6 m6 M6 M6 m6 m6 M6 M6 m6

same fingering for strings three and one
scale tones numbered below according to top note

1 2 3 4 5 6 7 1

1 2 3 4 5 6 7 1

T	1	3	5	6	8	10	12	13	5	7	9	10	12	14	16	17
A	2	3	5	7	9	10	12	14	7	8	10	12	14	15	17	19
B																

C major scale in thirds - retaining the index finger on the second string

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

1 2 2 1 1 2 2 1 2 2 1 1 2 2 1

T	5	6	8	10	12	13	15	17	15	13	12	10	8	6	5
A	5	7	9	10	12	14	16	17	16	14	12	10	9	7	5
B															

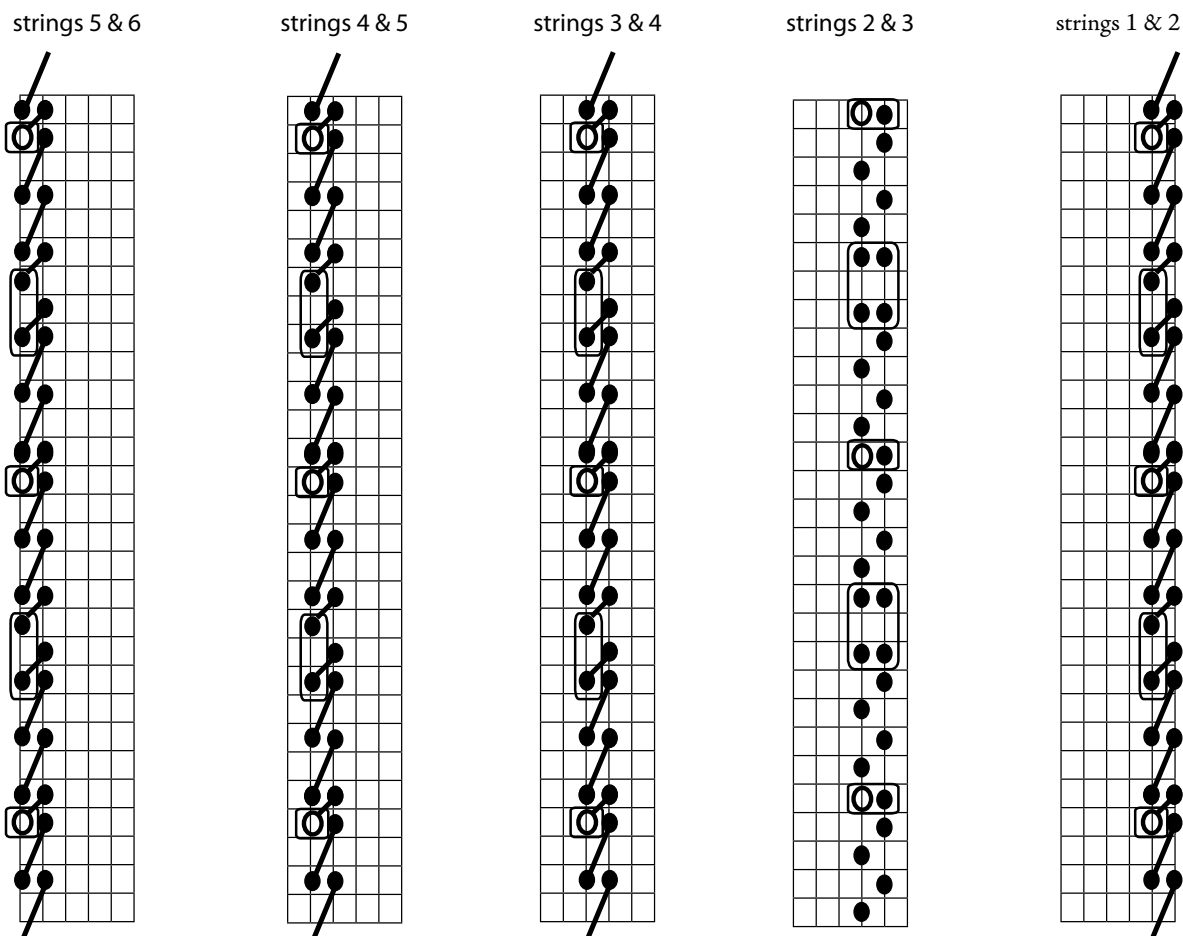
C major scale in thirds - retaining the middle finger on the third string

3 1 1 3 3 1 1 3 1 1 3 3 1 1 3

2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

T	5	6	8	10	12	13	15	17	15	13	12	10	8	6	5
A	5	7	9	10	12	14	16	17	16	14	12	10	9	7	5
B															

major scale-tone thirds on pairs of strings



Each of the five linear sequences shown on movable diagrams above show a major scale on the larger of the two strings moving up and down the fretboard. The circled note on each of the larger strings of each pair is major scale tone one, the note that names the major scale. With strings three and four, for example, locate the circled note on the fourth string at the fourth string, fifth fret “G”. Progressing down the diagram would emulate going up the fretboard toward the body of the guitar.

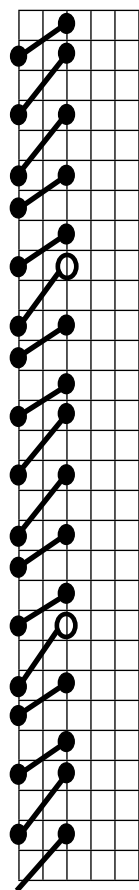
Number the sequence of tones with “G” as “1” and follow the sequence of notes down the string (toward the guitar body). Notice that scale tones 3 to 4 and 7 to 8 are one fret apart (no note between them), and all other consecutive pairs of numbered tones are two frets apart (with a “skipped” note between them).

There are two common interval types for thirds: major thirds and minor thirds. On strings 2 and 3, when two notes are on the same fret, the interval is a major third, connected with a horizontal line. Notes on strings 2 and 3 are on adjacent frets (45 degree line between), then they are minor thirds.

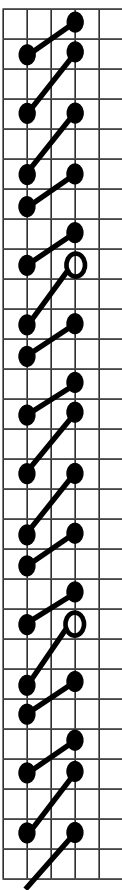
On any of the other consecutive pairs of strings (1 & 2, 3 & 4, 4 & 5 or 5 & 6), the pairs on adjacent frets (with a 45 degree diagonal line) are a major third. When pairs skip a fret (connected with a line like the hour hand at 1:30 on a clock), they are minor thirds.

major scale-tone sixths on pairs of strings

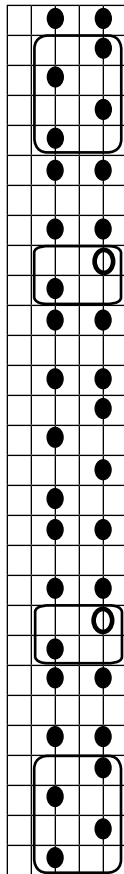
strings 4 and 6



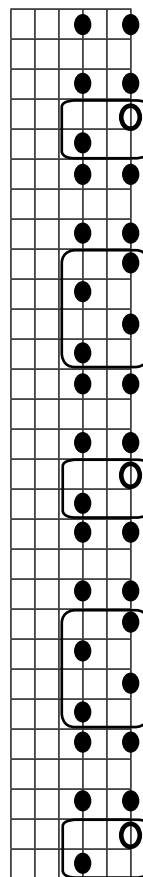
strings 3 & 5



strings 2 & 4



strings 1 & 3



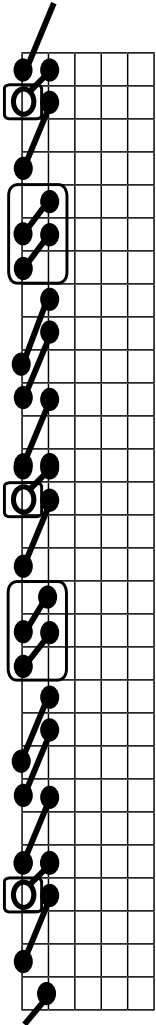
Each of the four linear sequences shown on movable diagrams above show a major scale on the smaller of the two strings moving up and down the fretboard. The circled note on each of the larger strings of each pair is major scale tone one, the note that names the major scale. With strings one and three, for example, locate the circled note on the first string at the fifth fret “A”. Progressing down the diagram would emulate going up the fretboard toward the body of the guitar.

Number the sequence of tones with “A” as “1” and follow the sequence of dots representing notes moving down the string (toward the guitar body). Notice that scale tones 3 to 4 and 7 to 8 are one fret apart (no note between them), and all other consecutive pairs of numbered tones are two frets apart (with a “skipped” note between them).

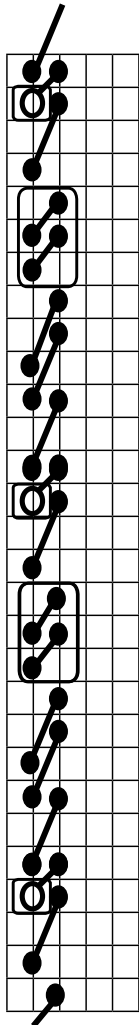
On string sets 1 and 3 or 2 and 4, note pairs on the same fret are major sixths and note pairs on adjacent frets are minor sixths. On string sets 3 and 5 or 4 and 6, note pairs with the greater angle (45 degree, like the hour hand at 1:30 on a clock) are major sixths and note pairs with the lesser angle (like 1 o’clock) are minor sixths.

major sharp five scale-tone thirds on pairs of strings

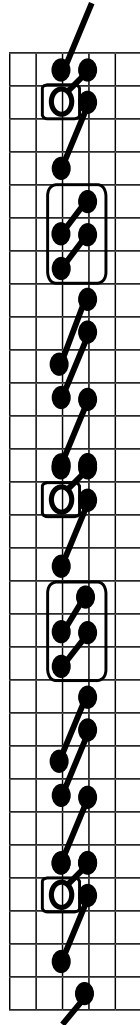
strings 5 & 6



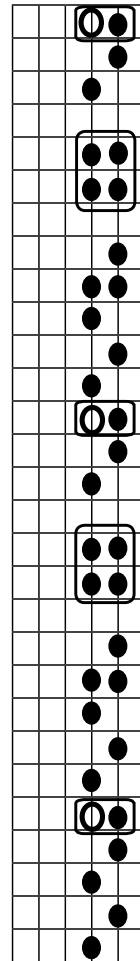
strings 4 & 5



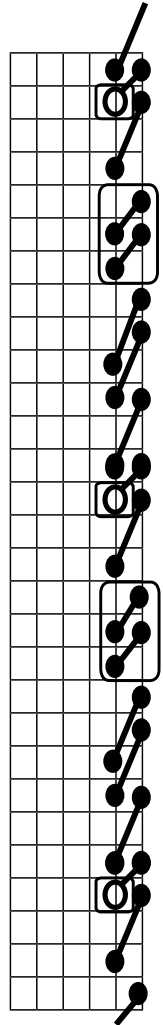
strings 3 & 4



strings 2 & 3

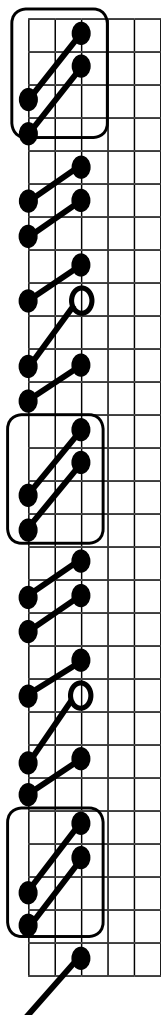


strings 1 & 2

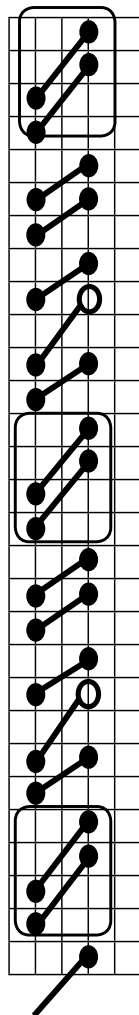


major sharp five scale-tone sixths on pairs of strings

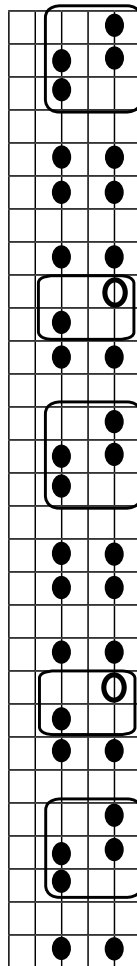
strings 4 and 6



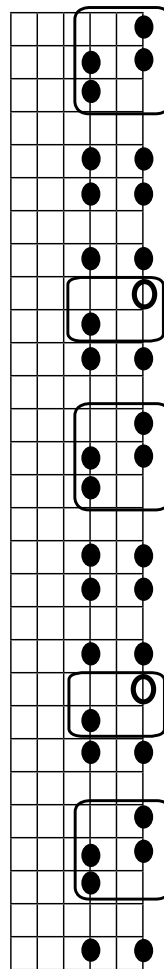
strings 3 & 5



strings 2 & 4



strings 1 & 3



C melodic minor (major b3) scale in thirds

25

m3 m3 M3 M3 M3 m3 m3 m3 m3 m3 M3 M3 M3 m3 m3 m3 m3

unique fingering for strings two and three same fingering for strings six & five, four & three, two and one

scale tones numbered below according to bottom note scale tones numbered below according to bottom note

1 2 b3 4 5 6 7 1 1 2 b3 4 5 6 7 1

T	4	6	8	10	12	13	15	16				
A	5	7	8	10	12	14	16	17				
B									1	3	5	7
									9	10	12	13

C melodic minor (major b3) scale in sixths

29

M6 M6 m6 m6 m6 M6 M6 M6 M6 M6 m6 m6 m6 m6 M6 M6 M6

same fingering for strings three and one same fingering for strings six and four

scale tones numbered below according to top note scale tones numbered below according to top note

1 2 b3 4 5 6 7 1 1 2 b3 4 5 6 7 1

T	1	3	4	6	8	10	12	13	5	7	8	10
A	1	3	5	7	9	10	12	13	12	14	16	17
B					6	8	10	12	14	15	17	18

C harmonic major (major b6) scale in thirds

33

M3 m3 m3 m3 M3 M3 m3 M3 M3 m3 m3 m3 M3 M3 m3 m3

unique fingering for strings two and three same fingering for strings six & five, four & three, two and one

scale tones numbered below according to bottom note scale tones numbered below according to bottom note

1 2 3 4 5 b6 7 1 1 2 3 4 5 b6 7 1

T	5	6	8	9	12	13	15	17				
A	5	7	9	10	12	13	16	17	2	3	5	6
B									9	10	12	14
									11	14	15	15

C harmonic major (major b6) scale in sixths

37

m6 M6 M6 M6 m6 m6 M6 m6 m6 M6 M6 M6 m6 m6 M6 m6

same fingering for strings three and one same fingering for strings six and four

scale tones numbered below according to top note scale tones numbered below according to top note

1 2 3 4 5 b6 7 1 1 2 3 4 5 b6 7 1

T	1	3	4	6	8	9	12	13	5	7	9	10
A	1	3	5	6	9	10	12	14	12	13	16	17
B					7	8	10	11	14	15	17	19

DIADS

Are Two Simultaneous Notes and Intervals or a Chord?

A two-note chord is called a *diad*. A three-note chord is called a *triad*, four-notes a *quadrad*, five notes a *pentad*, six notes a *sextad* and a seven-note chord is called a *heptad*. It is not universally agreed that two notes are a chord, though. I like to think they are a two-note chord, because two notes played at the same time function like a chord by establishing a chord color. We don't have common names for diads (two-note chords), so we have to use interval names.

A minor third is a two-note chord (diad) whose notes are one and a half steps or three frets apart. Minor thirds have a sad quality, like minor chords. A major third is a two-note chord whose notes are two whole steps (four frets) apart. Any interval can make up a diad, but thirds and sixths are most common.

musical notation for diads on a guitar fretboard, showing intervals from minor second to perfect octave. The notation includes a treble clef, a key signature of one flat (Bb), and a series of notes on a single staff. Below the staff, the interval names are listed: minor second, major second, augmented second, minor third, major third, perfect fourth, augmented fourth, diminished fifth, perfect fifth, augmented fifth, minor sixth, major sixth, augmented sixth, minor seventh, major seventh, and perfect octave. Below the interval names, the fret numbers for the notes are provided: 4, 5, 6, 6, 7, 8, 9, 9, 5, 6, 6, 7, 8, 8, 9, 5.

musical notation for diads on a guitar fretboard, showing intervals from minor ninth to perfect fifteenth. The notation includes a treble clef, a key signature of one flat (Bb), and a series of notes on a single staff. Below the staff, the interval names are listed: minor ninth, major ninth, augmented ninth, minor tenth, major tenth, perfect eleventh, augmented eleventh, diminished twelfth, perfect twelfth, augmented twelfth, minor thirteenth, major thirteenth, augmented thirteenth, minor fourteenth, major fourteenth, and perfect fifteenth. Below the interval names, the fret numbers for the notes are provided: 6, 7, 8, 8, 5, 6, 7, 7, 8, 9, 9, 5, 6, 6, 7, 8.

Major and Minor Thirds and Sixths

major and minor thirds

A major third is equivalent to the interval from the first to third steps of a major scale. A minor third is one half step smaller, made by raising the lower-pitched note or lowering the upper-pitched note. So, it is the interval from one to flat three or from sharp one to three of a major scale.

C major scale steps 1 through 3 major third minor thirds

T
A
B

8 5 7 8 5 7 4 5 8 5 7 7 8 6 7

major and minor sixths

A major sixth is the same as the interval from the first to sixth step of a major scale. A minor sixth is a half step smaller, made by raising the lower-pitched note or lowering the upper-pitched note. It is the interval from one to flat six or from sharp one to six of a major scale.

C major scale steps 1 through 6 major sixth minor sixths

T
A
B

8 5 7 8 5 7 4 5 8 5 7 8 5 7 7 8 6 7 8 9

Inverting Thirds and Sixths

the magic number nine

To figure out the inversion of any interval less than an octave, subtract the interval from the number “nine”, then change the quality. With perfect fourths or perfect fifths, they remain “perfect” when inverted, which means (for one thing) that they are in each others major scale.

a second plus a seventh is an octave	a third plus a sixth is an octave	a fourth plus a fifth is an octave	a fifth plus a fourth is a ninth
-----------------------------------------	--------------------------------------	---------------------------------------	-------------------------------------

T	5	5	10	7	7
B	5	5	10	10	10

an octave minus a seventh is a second	an octave minus a sixth is a third	an octave minus a fifth is a fourth	an octave minus a fourth is a fifth
------------------------------------------	---------------------------------------	----------------------------------------	----------------------------------------

T	5	5	5	5	5
B	8	5	8	8	8

inverting thirds and sixths changes the quality

Intervals from one of a major scale to two, three, five, six or seven (all the intervals under an octave except four and five) are all called *major*. Flattening the upper note of any of those intervals changes it to minor.

Thirds can be “inverted” by raising the lower-pitched note an octave or lowering the upper-pitched note an octave. In either case the interval becomes a sixth and is the opposite quality of the third. Inverted major thirds are minor sixths. Inverted minor thirds are major sixths. Major sixths invert to minor thirds and minor sixths to major thirds.

T	5	5	5	5	5	5	5	5	5
B	5	5	7	7	8	8	6	6	9

THIRDS ON STRINGS THREE & TWO: TEXT VERSION

The A Major Scale

the A major scale by letter and number on the third string

Here is the A major scale on the third string for one octave.

	A	B	C#	D	E	F#	G#	A
	1	2	3	4	5	6	7	1
T	2	4	6	7	9	11	13	14
A								
B								

A whole step is an increase or decrease of two frets, like frets two to four. A half step is one fret, like frets three to four. The major scale ascends from step one through eight with this pattern of whole and half steps: whole-whole-half-whole-whole-whole-half.

A “whole-whole-half” sequence is a tetrachord, four consecutive notes on a seven tone scale. You could say the major scale is two whole-whole-half tetrachords separated by a whole step. Tetrachords most commonly have two whole steps and one half step, but steps four through seven of the major scale make the “whole-whole-whole” tetrachord.

Where notes repeat inclusively eight notes higher or lower, the interval is called an octave. On a single string, octaves are an increase or decrease of twelve frets. So A on the second fret is mirrored by A an octave higher at the fourteenth fret, B at the fourth and sixteenth frets, C# at the sixth and eighteenth and so on. The entire set of notes that make up the A major scale from the A at the second fret to the A at the fourteenth fret would repeat from frets 14 to 26, if you had that many frets.

the A major scale by letter and number on the second string

Now, we’ll duplicate the notes from the A major scale on the third string from its third step up an octave. On the third string, this ascends steps three through three (C#-D-E-F#-G#-A-B-C#) on the sixth through eighteenth frets. The same notes on the second string are four frets lower on frets two through fourteen. See below.

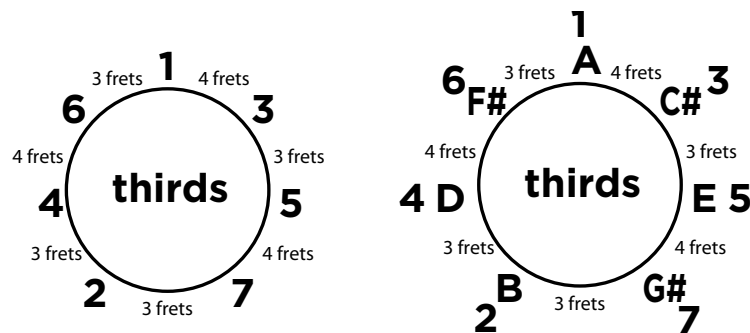
scale tones three through three

	C#	D	E	F#	G#	A	B	C#	C#	D	E	F#	G#	A	B	C#
	3	4	5	6	7	1	2	3	3	4	5	6	7	1	2	3
T	6	7	9	11	13	14	16	18	4	5	6	9	11	12	13	16
A																
B																

Making Thirds

pairing the notes in thirds

The cycle of thirds is a pattern of every other note in a seven tone scale. A cycle of thirds can be called the *tertian cycle* and a seven tone scale like the major scale can be called a *heptatonic scale*. Thirds are pairs of notes in the cycle of thirds. The cycle of thirds in numbers and in letters is shown below. The letters are shown with "F#", "C#" and "G#", since those notes are sharp in the A major scale.



scale tones one through one

scale tones one through one and three through three combined

	A	B	C#	D	E	F#	G#	A	3	4	5	6	7	1	2	3
	1	2	3	4	5	6	7	1	1	2	3	4	5	6	7	1
T	2	4	6	7	9	11	13	14	2	3	5	7	9	10	12	14
A									2	4	6	7	9	11	13	14
B																

major and minor thirds are diads

The intervals between notes on the diagrams above are shown in frets, so they relate to the guitar. The frets between these two scale tones is figured by the difference between the fret numbers for the two notes. So notes on the fifth and ninth frets constitute an interval of four frets. A four-fret interval is a major third. A three fret interval is a minor third.

As you can see on the diagrams, four-fret intervals occur in three places: from one to three, four to six and from five to seven. These three are major thirds. So, major thirds ascend from major scale tones one, four and five. Three-note chords built in thirds are called tertian triads (1 -3-5 makes a I major triad). You may know that major triads occur on major scale tones one, four and five, paralleling the major thirds that occur on major scale tones one, four and five.

The three fret intervals called minor thirds occur on the other four tones: two, three, six and seven. This parallels the triads built the major scale, except step seven is a minor third, but a diminished triad.

So, major thirds occur on steps one, four and five. All the rest are minor thirds (two, three, six and seven).

ease of fingering on the third and second string

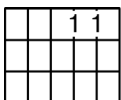
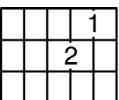
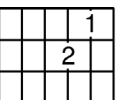
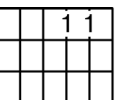
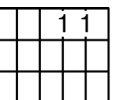
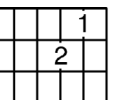
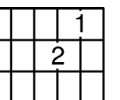
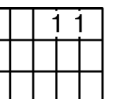
Due to the irregular tuning between the third and second string, thirds are fingered uniquely on those strings. A major third is a two-string barre. A minor third is a diagonal shape with the higher-pitched note one fret lower on the second string.

“track” thirds on the larger string

Thirds are named major and minor in relation to the lower-pitched note on the larger string of the adjacent pair they are played on. Tracking on the third string, means orient to the numbered tones on the third string.

graphic orientation

Thinking in numbers and letters can be challenging. Recognizing graphic patterns can be very useful. Notice that major scale tones four and five are both major thirds, barred on the third and second string. So, you have barres at tones 1, 4 and 5. In-between 1 and 4 (ascending) and in-between 5 and 1 (ascending), there are two minor thirds. Memorize this graphic pattern (major thirds boxed).

letter	A	B	C#	D	E	F#	G#	A
number	1	2	3	4	5	6	7	1
third	major	minor	minor	major	major	minor	minor	major
thirds numbers	1-3	2-4	3-5	4-6	5-7	6-1	7-2	1-3
	II	IV	V	VII	IX	X	XII	II
								

triad-based music

In major key music like Appalachian music (bluegrass, fiddle tunes), country, American folk music, which are harmonically based on western European music British and celtic folk songs major chords are primarily depicted as major triads with an occasional secondary chord tone, the sixth.

The primary scale tones in major triad-based music are those of the major pentatonic with the fourth added as a neighboring tone but not so much as a scale tone. The seventh is rarely used on major chords, unless a blues style is desired. Chromatics and the flatted seventh tend to suggest ragtime, blues and jazz.

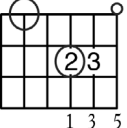
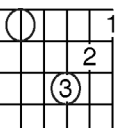
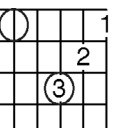
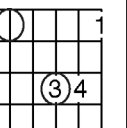
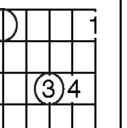
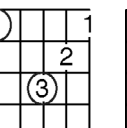
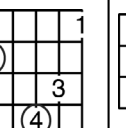
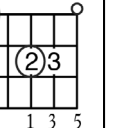
Thinking in the "A" Major Parent Scale

Parent scale numbering allows you to multi-purpose a major scale and use it for a number of different modes, seeing their common basis.

Using the A major scale, can create an E chord for use in the key of E Mixolydian on the fifth step of "A", the minor key of B Dorian on the second step of "A", the minor key of F# Aeolian on the sixth step of "A" or the major key A Ionian (major) on the first step of "A". All of these use the A major scale and all its scale-tone chords, but each one establishes a particular one as the ending chord or key, such as an Bm chord for B Dorian.

A major scale-tone triads on strings 1-3, tracking on the third string

major triads are in boxes

letter	A	B	C#	D	E	F#	G#	A
number	1	2	3	4	5	6	7	1
triad	major	minor	minor	major	major	minor	diminished	major
A major numbers	1-3 -5	2-4-6	3-5-7	4- 6-1	5-7-2	6-1-3	7-2-4	1-3 -5
scale-tone triads	A I 	Bm II 	C#m IV 	D V 	E VII 	F#m IX 	G#dim X 	A I 
E Mixo. numbers	4- 6-1	5-b7-2	6-1-3	b7-2-4	1-3-5	2-4-6	3-5-b7	4- 6-1
B Dor. numbers	b7-2-4	1-b3-5	2-4-6	b3-5-b7	4-6-1	5-b7-2	6-1-b3	b7-2-4
F# Aeol. numbers	b6-1-b3	b7-2-4	1-b3-5	2-4- b6	b3-5-b7	4-6-1	5-b7-2	b6-1-b3

Modal Key Scale Numbering

Modal key numbering may work best for you graphically on the guitar at first, memorizing the patterns of thirds and related chords.

When “1” of the major scale is not the key, re-numbering the mode with “1” on whichever note is assigned as the tone center is better to think while you’re playing or working up parts. I’ll call that “modal key scale numbering”. With modal key numbering, common chords always use the same numbered tones of the key. If the chord progression uses a IV major chord, it is always 461, as in the major scale. If the chord progression uses a I major chord it is still 135. So in E Mixolydian, even though it is using A major scale tones 5 7 2 to build an E major chord, it is numbered 1 3 5 in E Mixolydian, because E is now one.

Think the Sequences Generically

portable triads

The order of triads built on the major scale, ascending step one to one are major-minor-minor-major-major-minor-diminished. There’s a major chord, then two minors, then two majors, then minor and diminished. That’s major mode.

In Mixolydian, use b7. Start on the second of the two major chords in a row, the one that is V major in major mode. Ascend from there: major, minor diminished, major, two minors, then two majors, ending at the octave.

In Dorian, use b3 and b7. Start on the first of the two minor chords in a row, the one that is II minor in major mode. Ascend from there: two minors, two majors, minor diminished, major, back to minor at the octave.

See [Modal Major Scale-Tone Chords](#).

portable thirds

It’s simpler than triads for thirds. There are three major thirds and two adjacent pairs of minor thirds. In major, the major thirds are at 1, 4, 5. In Mixolydian, the major thirds are at b7, 1, 4. In Dorian, the major thirds are at b3, 4, b7. In Aeolian, the major thirds are at b3, b6 and b7.

See [Chords Implied By Heptatonic Thirds And Sixths](#).

Thinking in the Mode E Mixolydian

major triads are in boxes

letter	A	B	C#	D	E	F#	G#	A
number	1	2	3	4	5	6	7	1
triad	major	minor	minor	major	major	minor	diminished	major
A major numbers	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4	1-3-5
scale-tone triads	A I	Bm II	C#m IV	D V	E VII	F#m IX	G#dim X	A XII
	1 3 5	1 b3 5	1 b3 5	1 3 5	1 3 5	1 b3 5	1 b3 b5	1 3 5
E Mixo. numbers	4-6-1	5-b7-2	6-1-3	b7-2-4	1-3-5	2-4-6	3-5-b7	4-6-1

chords suggested by E Mixolydian thirds

This uses the A major parent scale. Major thirds are in boxes. Thirds suggest the following chords:

letter	E	F#	G#	A	B	C#	D
number	1	2	3	4	5	6	b7
third	major	minor	minor	major	minor	minor	major
thirds numbers	1-3	2-4	3-5	4-6	5-b7	6-1	b7-2
	IX	X	XII	II	III	V	VII
I chords	E VII		E XII		E7 II	E6 V	E9 VI
	1 5 1 3		5 1 3 5		1 5 b7 3	1 3 6 1	1 3 b7 2
I chord numbers	1-3-5		1-3-5		1-3-5-b7 blues	1-3-5-6 swing	1-3-5-b7-9 jazz blues
IV chord	Ama7 IX	A6 X	Ama9 XI	A XII			
	1 3 5 7	1 3 6 1	1 3 7 2	1 5 1 3			
IV chords numbered in the key of I	4-6-1-3 jazz ballad	4-6-1-2 swing	4-6-1-3-5 jazz ballad	4-6-1			

Thinking in the Mode E Dorian

the D major parent scale for E Dorian, tracking on the third string

major triads are in boxes

letter	D	E	F#	G	A	B	C#	D
number	1	2	3	4	5	6	7	1
triad	major	minor	minor	major	major	minor	diminished	major
numbers in D	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4	1-3-5
scale-tone triads	D V	Em VII	F#m IX	G X	A XII	Bm II	C#dim III	D V
numbers in D Dorian	b7-2-4	1-b3-5	2-4-6	b3-5-b7	4-6-1	5-b7-2	6-1-b3	b7-2-4

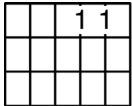
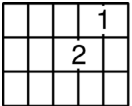
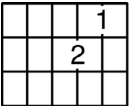
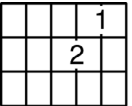
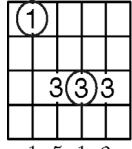
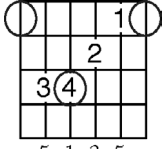
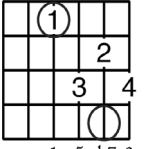
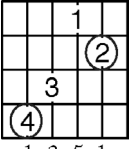
chords suggested by E Dorian thirds

I'm numbering in E Dorian. This uses the D major parent scale. Thirds suggest the following chords:

letter	E	F#	G	A	B	C	D
number	1	2	b3	4	5	6	b7
third	minor	minor	major	major	minor	minor	major
thirds numbers	1-b3	2-4	b3-5	4-6	5-b7	6-1	b7-2
	VIII	XI	XII	II	III	V	VII
I chords	Em VII		Em XII		Em7 II	Em6 V	Em9 V
I chord numbers	1-3-5		1-3-5		1-3-5-b7	1-3-5-6	1-3-5-b7-9
IV chord	A7 VII	A6 X		A XII		A V	
IV chords numbered in the key of I	4-6-1-b3	4-6-1-2		4-6-1		4-6-1	

using a fourth when a third won't work

If you are playing a style that demands staying more strictly on the triads without an added harmony like a sixth or seventh, you'll find there's a gap in the scale from tones three through eight without an available third to use on the chord. This problem can be solved by using tones 5 and 1, instead of five and seven. The third above scale tone five is seven, which would make a major seventh chord sound. If you need to stay with triads, use a fourth with tones 5 and 1 instead.

numbers	1-3	3-5	5-b7	5-1
	IX	XII	III	IV
				
I chords	E VII	E XII	E7 II	E IV
				
	1 5 1 3	5 1 3 5	1 5 b7 3	1 3 5 1

THIRDS ON STRINGS THREE & TWO: VIDEO VERSION

the A major scale by letter and number on the third string

[video link](#)

A major scale ascends seven different tones, then the eighth one has the same name as the first one. In numbers, this is one through one.

Numbering the tones of the A major scale on the third string, each numbered tone to the next is two frets except three to four and seven to eight, which are each one fret.

A whole step is two frets. A half step is one fret.

The major scale ascends from step one through eight with this pattern of whole and half steps: whole-whole-half-whole-whole-whole-half.

The major scale could also be conceived as two whole-whole-half tetrachords separated by a whole step.

In A, the letter names are A-B-C#-D-E-F#-G#-A.

the A major scale by letter and number on the second string

Now, we'll duplicate the notes from the A major scale on the third string from its third step up an octave. On the third string, this ascends steps three through three on the sixth through eighteenth frets. The same notes on the second string are four frets lower on frets two through fourteen.

pairs of notes in thirds

[video link](#)

Now, we'll pair the notes on the third and second string. When the note on the third string is 1, 3 or 5 of the parent scale, the third above it is major.

So barre at 1, 3, and 5 of the major scale on the third string to include a note at the same fret on the second string.

So, there's a single major third at step "1" of the parent major scale. In A, that's here on the third string, second fret, or here at the fourteenth fret. From parent scale step "1" there are two minor thirds above it and two minor thirds below it. After ascending or descending from "1" through the two minor thirds, two major thirds will follow.

Triad-Based Music

major thirds and major triads in four common modes

[video link](#)

If you're using scale-tone thirds or triads in A major (also called A Ionian) the major thirds and major triads are at 1, 4 and 5. The cycle of thirds is 13572461. You'll need to know this, so you'll hear it a lot from me.

In E Mixolydian, the same major thirds and major triads are 4, b7 and 1 of E.

In B Dorian, the same major thirds and major triads are b7, b3 and 4 of B.

In F# Aeolian, the same major thirds and major triads are b3, b6 and b7 of F#.

This may be confusing. If you work extensively in each mode, it's numbering will become familiar.

why do I need to think in the numbering for each mode?

[video link](#)

It may seem much simpler to think in terms of the parent scale with only seven notes and seven numbers, thinking 2 through 2 for one mode and 5 through 5 for another.

When comparing modes, major scale fingerings, scale-tone triad qualities in order by scale step, thinking in the parent scale is very useful.

If I want to play in A major, I use the scale-tone triads of the A major scale and establish the A chord as the key with emphasis by longer duration, ending a progression with it, using a well-known three-chord progression that ends on, or other means of drawing attention to the A major chord as the key.

If I want to play in E Mixolydian, built on the fifth step of A major, I can use the scale-tone triads of the A major scale and establish the E chord as the key with the various means of emphasis to establish the E major chord as the key.

To play in B Dorian, built on the second step of A major, I can use the scale-tone triads of the A major scale and establish the B minor chord as the key with the various types of emphasis to establish the B minor chord as the key.

To play in F# Aeolian, built on the sixth step of A major, I can use the scale-tone triads of the A major scale and establish the F# minor chord as the key with the various types of emphasis to establish the F# minor chord as the key.

That seems to work well, and it does when you are playing modes of the same parent scale. But, music commonly makes use of multiple parent scales, especially blue-based music like rock and jazz. That's where key scales come in.

key scales versus parent scales

[video link](#)

With key scales, you name every scale after the key. So, if you're in the key of "A", you name every scale with the letter "A". You will commonly use A major, A Mixolydian and A Dorian in a blues-based song. Of course, the scale must have the letter "A" in it to do so. This allows you to compare things with a common tone center.

Thinking in key scale lets you use familiar numberings for scale-tone chords. A IV major chord is always 4-6-1. A II minor chord is always 2-4-6.

The major scale has tones 1 through seven with no altered numbers. A Mixolydian has a flat seven. Dorian has a flat three and a flat seven. In all three of those cases, tones 2, 4, 6 and 1 are not altered, so all three scales have a IV major chord with 4-6-1 and a II minor chord with 2-4-6.

I'll number the tones of this A major scale, speaking the tones louder that are in a IV major chord, 4-6-1. Notice that this D major chord is made with many the 4-6-1 tones I just emphasized. Likewise with A Mixolydian and A Dorian.

Here are each of those three scales with spoken emphasis of 2-4-6, followed by the II minor chord, made with many of the 2-4-6 tones.

[video link](#)

In parent scales, when the key is assigned to a numbered tone other than "1", the chord up a scale step is not "2" and the chord up a fourth is not "4". That's non-intuitive.

If you put the key on "5" and still number it as "5" the chord up a scale step is VI^m. If you put the key on "5" and number it as "1" the chord up a scale step is II minor.

From any note on the sixth string, the note up a perfect fourth is on the same fret of the fifth string. If you put the key on "5" and still number it as "5" the chord up a perfect fourth is I major. If you put the key on "5" and number it as "1" the chord up a perfect fourth is IV major.

Parent scale numbering is useful in keeping track of the chords built on that parent scale, but it doesn't allow you to think of chords that are common to many modes with the same number. For example, a IV major chord, a II minor chord or and VI minor chord occurs with the same numbering in three different modes (major, Mixolydian and Dorian).

With key scales, you can think of a IV major chord made with scale tones 4-6-1 or a II minor chord made with scale tones 2- 4- 6 in either of the three key scales major, Mixolydian or Dorian. I showed this earlier.

You can think of a VI minor chord in major, Lydian or Mixolydian. Here are each of those three scales with emphasis of numbered tones 6, 1 and 3, showing that they all have those tones of a VI minor chord.

Possibly the most important thing about using key scales is the uniformity of numbers in relation to emotive and stylistic qualities of notes. You can count on “3” being a happy note “b3” a sad note, “b5” a depressing note and “#5” an anxious note. “6” suggests swing, “b7” suggests blues and “2” suggests jazz (when its combined with “7” or “b7”).

[video link](#)

the major and minor thirds in each mode

The cycle of thirds is 1-3-5-7-2-4-6-1. You’ll need to know this, so you’ll hear it a lot from me. Thirds include two consecutive numbers from that cycle, like 1 and 3 or 2 and 4.

Each major scale mode has three major thirds. Two of them are on adjacent scale steps, having been “4” and “5” in the parent scale. The remaining “lone” one is at step “1” of the parent major scale.

In major, there are two minor thirds above and below the major third at “1”.

In Mixolydian, the major thirds are at 1, 4 and b7. There are two minor thirds above and below the major third at “4”.

In Dorian, the major thirds are at b3, 4 and b7. There are two minor thirds above and below the major third at “b7”.

In Aeolian, the major thirds are at b3, b6 and b7. There are two minor thirds above and below the major third at “b3”.

[video link](#)

I type chords suggested by major scale-tone thirds for triad-based music

These examples use the A major scale and A chords.

The I major triad is A major and includes 1-3-5. Tracking on the third string, the major third (barreing the third and second strings) at “1” includes 1-3. The third at “3” includes 3-5. 1-3 and 3-5 are both part of the A triad, 1-3-5.

The third at 5 doesn't work for the I major triad, since it would have 5-7, where the "7" is not part of 1-3-5, the I major chord. By changing it to a fourth with 5-1, both tones are in the I major triad 1-3-5. Here is an A major chord of while this fourth (made of tones 5-1) is a part.

So, the I major triad uses the thirds at 1 and 3 and a fourth at 5. Here are those three intervals again, each followed by a chord that includes them.

The I major chord will still be 1-3-5 in any mode that includes a I major chord. Notice that 1-3-5, the notes of this A major I chord are in each of these scales, A major (number and play) and A Mixolydian.

[video link](#)

IV type chords suggested by major scale-tone thirds for triad-based music

These examples use the A major scale and D chords.

The cycle of thirds is 1-3-5-7-2-4-6-1. The IV major triad is D major and includes 4-6-1.

Tracking on the third string, the the interval of a third (fretted on the third and second strings) at scale tone "4" includes 4 -6 and the third at "6" includes 6-1. Both thirds are part of the D triad, 4-6-1.

The third at 1 doesn't work for the IV major triad, since it would have 1-3, where the "3" is not part of 4-6-1, the IV major chord. By changing it to a fourth with key scale 1-4, both tones are in the IV major triad 4-6-1.

So, the IV major triad uses the thirds at 4 and 6 and a fourth at 1.

The IV major chord will still be 4-6-1 in any key scale that includes a IV major chord. Notice that 4-6-1, the notes of a D major IV chord are in each of these scales, A major, A Mixolydian and A Dorian.

In American pop styles, the key Mixolydian or Dorian are used during the IV chord. In blues-based styles, key Dorian is used during the IV chord, so it elaborates to IV7 or IV9.

[video link](#)

V type chords suggested by major scale-tone thirds for triad-based music

These examples use the A major scale and E chords.

The cycle of thirds is 1-3-5-7-2-4-6-1. The V major triad is E major and includes 5-7-2.

Tracking on the third string, the the interval of a third (fretted on the third and second strings) at scale tone "5" includes 5-7 and the third at "7" includes 7-2. Both thirds are part of the E triad, 5-7-2.

The third at 2 doesn't work for the V major triad, it would have 2-4, where the "4" is not part of 5-7-2, the V major chord. By changing it to a fourth with key scale 2-5, both tones are in the V major triad 5-7-2, with chord

So, the V major triad uses the thirds at 5 and 7 and a fourth at 2.

Putting the key on this V chord of the A major scale is called E Mixolydian, which is very common.

The V major chord will still be 5-7-2 in any mode that includes a V major chord. For example, E major is a V major chord in: A major, A Lydian (E major parent scale), A harmonic minor, A Melodic minor or A harmonic major.

[video link](#)

IIIm type chords suggested by major scale-tone thirds for triad-based music

These examples use the A major scale and Bm chords.

The cycle of thirds is 1-3-5-7-2-4-6-1. The II minor triad is B minor and includes 2-4-6.

Tracking on the third string, the the interval of a third (fretted on the third and second strings) at "2" includes 2 -4 and the third at scale tone "4" includes 4-6. Both thirds are part of the Bm triad, 2-4-6.

The third at 6 doesn't work for the II minor triad, it would have 6-1, where the "1" is not part of 2-4-6, the II minor chord. By changing it to a fourth with key scale 6-2, both tones are in the II minor triad 2-4-6.

So, the II minor triad uses the thirds at 2 and 4 and a fourth at 6.

The II minor chord will still be 2 -4-6 in any mode that includes a II minor chord. Notice that 2-4-6 are the notes of an B minor, II minor chord in each of these scales in the key of "A", A major and A Mixolydian.

[video link](#)

VIIm type chords suggested by major scale-tone thirds for triad-based music

These examples use the A major scale and F#m chords.

The cycle of thirds is 1-3-5-7-2-4-6-1. The VI minor triad is F# minor and includes 6-1-3.

Tracking on the third string, the the interval of a third (fretted on the third and second strings) at "6" includes 6-1 and the third at scale tone "1" includes 1-3. Both thirds are part of the F#m triad, 6-1-3.

The third at 3 doesn't work for the VI minor triad, it would have 3-5, where the "5" is not part of 6-1-3, the VI minor chord. By changing it to a fourth with key scale 3-6, both tones are in the VI minor triad 6-1-3.

So, the VI minor triad uses the thirds at 6 and 1 and a fourth at 3.

The VI minor chord will still be 6 -1-3 in any mode that includes a VI minor chord. Notice that 6-1-3 are the notes of an F# minor, VI minor chord in each of these scales in the key of "A", A major, A Mixolydian and A Lydian.

Blues

[video link](#)

V type chords suggested by Mixolydian thirds for blues, swing, and jazz

These examples use E Mixolydian.

In whatever key you need Mixolydian, its tone center has to be on the fifth step of some major scale, then re-numbered with "5" of the major scale as "1" and has to use b7. Flattening seven of an E major scale make it E Mixolydian, the same notes as a "A" major scale from "5" to "5".

An E major chord built on the fifth step of an A major scale can be numbered 5-7-2 in its parent scale "A" major. It would be numbered 1-3-5 in the key of E.

The pattern of thirds built on the A major scale from its fifth step "E" to "E" is the same for E Mixolydian from "1" to "1". They are just numbered differently.

Tracking on the third string, the major thirds (which barre the third and second string happen at Mixolydian scale tones 4, b7 and 1. Two minor thirds occur below "4" and two minor thirds above "4".

The E major chord uses the thirds at "1" and "3" and can use a fourth at "5" (using tones 5 and 1 of E Mixolydian). The V7 type chord, E7, originated on the fifth step of its parent scale, A major scale. E7 is 1-3-5-b7 of E Mixolydian. We can use the third at "5", with E Mixolydian tones 5-b7 (on the third and second string) to represent the significant part of a dominant seventh chord like E7. Dominant seventh chords are common to blues.

At scale tone 6 of E Mixolydian, the third 6-1 suggests the E6 chord (1-3-5-6) common to swing. This includes swing jazz, country swing and rockabilly.

At scale tone b7 of E Mixolydian, the third b7-2 suggests the E9 chord (1-3-5-b7 -2) common to jazz blues.

IV7 type chords type chords suggested by Dorian scale-tone thirds for blues, swing, and jazz

[video link](#)

These examples use E Dorian.

In whatever key you need Dorian, its tone center has to be on the second step of some major scale. A D major scale from “2” to “2” makes an E Dorian scale. Flattening three and seven of an E major scale also makes E Dorian.

A major is 4-6-1 of E Dorian. The thirds built on E Dorian at 4 and 6 and a fourth at 1 are part of the IV major chord, A major.

A7 is 4-6-1-b3 of E Dorian. The third at 1 with 1-b3 is part of the A7. Dominant seventh chords like A7 are common to blues.

A6 is 4-6-1-2 of E Dorian. At E Dorian scale tone 2, the third 2-4 suggests the A6 chord. Sixth chords are common to swing jazz, country swing and rockabilly.

A9 is 4-6-1-b3-5 of E Dorian. At E Dorian scale tone b3, the third b3-5 suggests the A9 chord. Ninth chords are common to jazz blues.

Fingering Thirds

[video link](#)

fingering on strings three and two

Finger 1 is the index finger, 2 the middle finger, 3 the ring finger and 4 is the little finger. With each pair of numbers, the number for the third string is indicated first, then the number for the second string.

2-1 for minor thirds and for sliding major and minor thirds

1-2 for major thirds when sliding the upper note to make a fourth, like 1-3 to 1-4

1-1 or 3-3 for barred major thirds

2-3 for major thirds with neighbors

3-2 for minor thirds with neighbors

3-4 for major thirds, especially double hammer and pull-off. These can be used for double hammer or pull-off from a lower barred major third or from a lower minor third (fingering the lower minor third with 2 on the third string and finger 1 on the second string).

thirds for I, IV and V chords by region on strings three and two

Here are the thirds on the root and third of A major, the I major chord in the key of A, and the interval of a fourth on the fifth of the A chord.

Here are the thirds on the root and third of D major, the IV major chord in the key of A, and the interval of a fourth on the fifth of the D chord.

Here are the thirds on the root and third of E major, the V major chord in the key of A, and the interval of a fourth on the fifth of the E chord.

In the region near the root of the I major chord on the third string, here are the thirds or fourths for I, IV and V chords.

In the region near the third of the I major chord on the third string, here are the thirds or fourths for I, IV and V chords.

In the region near the fifth of the I major chord on the third string, here are the thirds or fourths for I, IV and V chords.

Uses of Thirds

European style

European, Mediterranean, or Mexican melodies harmonized in thirds.

Chuck Berry style

Thirds in Chuck Berry style, usually descending with some slides.

[See Thirds Blues Example 1.](#)

thirds as pickups

In leading into the first beat with a pickup, use thirds. The rhythm can be regular (ie. all eighths or all sixteenths) or irregular (i.e. syncopated).

thirds and fourths with neighboring tones

Be aware of the major scale fingering in the area and finger the thirds with the two middle fingers. Fourths are included because they are substituted for thirds when adding a harmony above the fifth of a chord where you don't want it to be part of a seventh chord. By using a fourth, you are playing the root above the fifth.

[video link](#)

minor third fingering perfect fourth fingering

1 3 2 3 1 2 3 4 2 4 3 2 3 1 2 3 2 1 3 2 4 3 4 2 3 2

TAB

4 6 5 6 3 5 6 7 5 7 6 5 6 4 6 7 6 5 7 6 9 7 7 6 7 6

major third fingering augmented fourth fingering

1 2 3 2 1 3 2 4 3 4 3 3 2 1 1 3 1 1 3 1 4 3 2 1 3 1

TAB

6 7 7 7 5 7 7 9 7 9 7 7 7 6 7 9 7 7 9 7 10 9 9 7 9 7

major third fingering perfect fourth fingering

1 2 3 2 1 3 2 4 3 4 3 3 2 1 2 3 2 1 3 2 4 3 4 2 3 2

TAB

7 9 9 9 7 9 9 10 9 11 9 9 9 7 9 10 9 9 10 9 12 10 11 9 10 9

minor third fingering perfect fourth fingering

1 3 2 3 1 2 3 4 2 4 3 2 3 1 2 3 2 1 3 2 4 3 4 2 3 2

TAB

9 11 10 11 9 10 11 12 10 13 11 10 11 9 11 12 11 10 12 11 14 12 13 11 12 11

minor third fingering perfect fourth fingering

1 3 2 3 1 2 3 4 2 4 3 2 3 1 2 3 2 1 3 2 4 3 4 2 3 2

TAB

11 13 12 13 10 12 13 14 12 14 13 12 13 11 13 14 13 12 14 13 15 14 14 13 14 13

The image displays two musical exercises on a treble clef staff with a key signature of two sharps (F# and C#). The first exercise is for a major third, showing two fingerings: 'major third fingering' and 'perfect fourth fingering'. The second exercise is for a minor third, also showing two fingerings: 'minor third fingering' and 'perfect fourth fingering'. Each exercise consists of two measures of music, with fingerings indicated by numbers 1-4 below the notes. Below the staff is a TAB section with four lines, showing fret numbers for each string (1-6) corresponding to the notes in the music.

thirds with bends

[Thirds with single bends](#), [thirds with double bends](#) and double stop bends.

Thirds with chromatics, which is based in ragtime blues and has made its way into blues, country swing and jazz.

Memory Devices for Major Triads and Thirds

Tones with flatted numbers in Mixolydian, Dorian and Aeolian are all roots of major thirds and major triads. The major key blues modes, major, Mixolydian and Dorian all have a IV major.

comparing blues modes

Play I-IV-V of the appropriate qualities in major, Mixolydian and Dorian.

Major is I-IV-V. Mixolydian is I-IV-Vm. Dorian is Im-IV-Vm.

SIXTHS ON STRINGS ONE & THREE OR TWO & FOUR

Sixth Subsets of Close-Voiced Chords

fingering 7 fingering 1 fingering 2 fingering 3 fingering 4 fingering 5 fingering 6

sixths on strings one and three: alone and as subsets of close-voiced triads

sixths on strings two and four: alone and as subsets of close-voiced triads

Sixth Subsets of Open-Voiced Chords

fingerings 1 through 7 for sixth subsets of open-voiced chords, showing fingerings and string numbers (1-6) for each subset.

fingerings 1 through 7

fingerings 1 through 7

fingerings 1 through 7

fingerings 1 through 7

fingerings 1 through 7

fingerings 1 through 7

fingerings 1 through 7

sixths on strings one and three: alone and as subsets of open-voiced triads

Diagrams showing sixths on strings one and three, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings one and three, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings one and three, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings one and three, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings one and three, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings one and three, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings one and three, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

sixths on strings two and four: alone and as subsets of open-voiced triads

Diagrams showing sixths on strings two and four, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings two and four, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings two and four, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings two and four, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings two and four, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings two and four, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

Diagrams showing sixths on strings two and four, alone and as subsets of open-voiced triads. Fingerings 1 through 7 are indicated.

SUBSETS OF MAJOR SCALE FINGERINGS

Subsets Of Major Scale Fingerings On Strings 4-3-2

major scale fingering 4

major scale fingering 5

fingers 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 2 2 2 1 1 1 1

fingers 2 2 3 2 1 3 1 2 3 2 2 2 3 3 1 3 3 3 1 3 3 2

scale tones numbered below according to bottom note scale tones numbered below according to bottom note

4 5 6 7 1 2 1 7 6 5 4 5 6 7 1 2 3 2 1 7 6 5

T 2 4 5 3 5 6 5 3 5 4 2 4 5 7 5 6 8 6 5 7 5 4

A 3 5 7 4 7 9 5 4 7 5 3 5 7 9 5 7 9 7 5 9 7 5

B

major scale fingering 6

major scale fingering 7

1 1 2 1 1 4 1 1 2 1 1 1 1 1 1 4 4 4 1 1 1 1

3 3 3 2 2 3 2 2 3 3 3 3 2 3 2 3 3 3 2 3 2 3

scale tones numbered below according to bottom note scale tones numbered below according to bottom note

6 7 1 2 3 4 3 2 1 7 6 7 1 2 3 4 5 4 3 2 1 7

T 5 7 9 6 8 10 8 6 9 7 5 7 9 10 8 10 12 10 8 10 9 7

A 7 9 10 7 9 10 9 7 10 9 7 9 10 12 9 10 12 10 9 12 10 9

B

major scale fingering 1

major scale fingering 2

1 1 1 1 1 2 1 1 1 1 1 1 1 2 1 2 2 2 1 2 1 1

2 3 3 1 1 3 1 1 3 3 2 3 3 3 1 3 3 3 1 3 3 3

scale tones numbered below according to bottom note scale tones numbered below according to bottom note

1 2 3 4 5 6 5 4 3 2 1 2 3 4 5 6 7 6 5 4 3 2

T 9 10 12 10 12 13 12 10 12 10 9 10 12 14 12 13 15 13 12 14 12 10

A 10 12 14 10 12 14 12 10 14 12 10 12 14 15 12 14 16 14 12 15 14 12

B

major scale fingering 3

1 2 2 1 1 4 1 1 2 2 1

3 3 3 2 2 3 2 2 3 3 3

scale tones numbered below according to bottom note

3 4 5 6 7 1 7 6 5 4 3

T 12 14 16 13 15 17 15 13 16 14 12

A 14 15 17 14 16 17 16 14 17 15 14

B

Subsets Of Major Scale Fingerings On Strings 3-2-1

major scale fingering 4

fingers 1 1 4 1 1 1 1 1 4 1 1 1 4 2 1 1 1 1 3 4 1

fingers 2 2 3 3 3 2 3 3 3 2 2 2 3 3 3 2 2 2 3 3 3 2

scale tones numbered below according to bottom note

6 7 1 2 3 4 3 2 1 7 6 7 1 2 3 4 5 4 3 2 1 7

TAB

1 3 5 3 5 6 5 3 5 3 1 3 5 6 5 6 8 6 5 6 5 3

2 4 5 5 6 5 3 5 4 2 4 5 7 6 8 6 5 7 5 4

major scale fingering 5

major scale fingering 6

1 2 2 1 1 1 1 1 2 2 1 1 1 4 1 1 1 1 4 1 1

1 3 3 2 2 3 2 2 3 3 1 2 2 3 2 3 3 3 2 3 2 2

scale tones numbered below according to bottom note

1 2 3 4 5 6 5 4 3 2 1 2 3 4 5 6 7 6 5 4 3 2

TAB

5 6 8 6 8 10 8 6 8 6 5 6 8 10 8 10 12 10 8 10 8 6

5 7 9 6 8 10 8 6 9 7 5 7 9 10 8 10 12 10 8 10 9 7

major scale fingering 7

major scale fingering 1

1 3 3 1 1 2 1 1 3 3 1 1 1 2 1 1 1 1 2 1 1

2 3 3 3 3 3 3 3 3 3 2 1 1 3 3 2 3 3 3 1 1

scale tones numbered below according to bottom note

3 4 5 6 7 1 7 6 5 4 3 4 5 6 7 1 2 1 7 6 5 4

TAB

8 10 12 10 12 13 12 10 12 10 8 10 12 13 12 13 15 13 12 13 12 10

9 10 12 8 12 13 12 10 12 10 9 10 12 14 12 13 15 13 12 14 12 10

major scale fingering 2

major scale fingering 3

1 2 2 1 1 1 1 1 2 2 1 1 2 2 1 1 2 2 1

1 3 3 2 3 3 3 2 3 3 1 1 2 2 1 1 2 2 1

scale tones numbered below according to bottom note

5 6 7 1 2 3 2 1 7 6 5 5 6 7 1 2 3 2 1 7 6 5

TAB

12 13 15 13 13 15 13 12 15 13 12 15 13 12 15 13 12 15 13 12

12 14 16 13 15 17 15 13 16 14 12 16 14 12 16 14 12 16 14 12

SLURRING THIRDS AND SIXTHS

Hammer And Pull-Off Thirds And Sixths

C major scale in thirds - hammer and pull-off slurring on the second and third strings

1 2 1 3 1 4 1 4 1 2 1 3 1 4
1 3 2 4 2 3 1 3 1 3 2 4 2 3

T 5 6 6 8 8 10 10 12 12 13 13 15 15 17
A 5 7 7 9 9 10 10 12 12 14 14 16 16 17
B

3

4 1 3 1 2 1 4 1 4 1 3 1 2 1
3 2 4 2 3 1 3 1 3 2 4 2 3 1

T 17 15 15 13 13 12 12 10 10 8 8 8 6 5
A 17 16 16 14 14 12 12 10 10 9 9 9 7 5
B

C major scale in sixths - hammer and pull-off slurring on the second and fourth strings

to play these cleanly, you must mute the "in-between" (third) string with a plucking hand finger otherwise, you will probably sound unwanted notes on the in-between string with your pull-off

2 1 4 1 4 1 4 1 2 1 4 1 4 1
3 2 3 1 3 2 3 2 3 1 3 1 3 2

T 13 12 12 10 10 8 8 6 6 5 5 3 3 1
A 14 12 12 10 10 4 4 7 7 5 5 3 3 2
B

7

1 4 1 4 1 2 1 3 1 4 1 4 1 2
2 3 1 3 1 3 2 4 2 3 1 3 1 3

T 1 3 3 5 5 6 6 8 8 10 10 12 12 13
A 2 3 3 5 5 7 7 9 9 10 10 12 12 14
B

Sliding Thirds And Sixths

C major scale in thirds - sliding on the second and third strings

T	5	6	6	8	8	10	10	12	12	13	13	15	15	17
A	5	7	7	9	9	10	10	12	12	14	14	16	16	17
B														

T	17	15	15	13	13	12	12	10	10	8	8	8	6	5
A	17	16	16	14	14	12	12	10	10	9	9	9	7	5
B														

C major scale in sixths - sliding on the second and fourth strings

T	13	12	12	10	10	8	8	6	6	5	5	3	3	1
A	14	12	12	10	10	9	9	7	7	5	5	3	3	2
B														

T	1	3	3	5	5	6	6	8	8	10	10	12	12	13
A	2	3	3	5	5	7	7	9	9	10	10	12	12	14
B														

Thirds Blues Example 1

[video link](#)

System 1: D7

Treble clef staff: D4 (quarter), E4-F#4 (beamed eighth notes), G4 (quarter), A4-B4 (beamed eighth notes), C#5 (quarter), B4-A4 (beamed eighth notes), G4 (quarter), F#4-E4 (beamed eighth notes), D4 (quarter), C#4-B3 (beamed eighth notes), A3 (quarter), G3-F#3 (beamed eighth notes), E3 (quarter), D3 (half).

TAB staff: 17 17 | 17 15 15 13 13 12 13 14 | 12 12 10 10 9 8 7 | 6 7 7 6 5 | 12 12

System 2: G7 D7

Treble clef staff: G4 (quarter), A4-B4 (beamed eighth notes), C#5 (quarter), B4-A4 (beamed eighth notes), G4 (quarter), F#4-E4 (beamed eighth notes), D4 (quarter), C#4-B3 (beamed eighth notes), A3 (quarter), G3-F#3 (beamed eighth notes), E3 (quarter), D3 (half).

TAB staff: 12 10 10 8 8 6 5 | 3 4 5 3 3 5 | 7 8 9 10 11 12 13 | 15 16 17 14 | 12 10 10 9 9 7 6 | 3 4 5 5 3 3 5 | 7 9 10 11 13 13 14 | 15 16 17 14

System 3: A7 G7 D7

Treble clef staff: A4 (quarter), B4-C#5 (beamed eighth notes), D5 (quarter), C#5-B4 (beamed eighth notes), A4 (quarter), G4-F#4 (beamed eighth notes), E4 (quarter), D4-C#4 (beamed eighth notes), B3 (quarter), A3-G3 (beamed eighth notes), F#3 (quarter), E3 (half).

TAB staff: 14 12 12 10 10 12 | 12 10 8 6 13 13 | 13 13 12 10 12 12 | 9 10 9 12 10 11 | 14 12 11 12 11 12 | 12 10 9 7 13 15 | 13 14 12 10 11 12 | 9 10 9 12 10 11

Thirds With Single Bends

[video link](#)

A major scale-tone thirds, bending and releasing the lower tone

The exercise is presented in four systems, each with a treble clef staff and a tablature staff. The key signature is three sharps (F#, C#, G#) and the time signature is 3/4. The tablature staff is labeled 'T A B'.

System 1: Treble staff shows a sequence of eighth notes. Tablature shows fret numbers 15, 16, 15, (15), 14, 14, 14, (14), 12, 14, 14, 14, (14), 12, 14, 14, 14, (14), 12. Bends are indicated by arrows: 'full' from 15 to 16, 'full' from 15 to (15), '1/2' from 14 to 14, '1/2' from 14 to (14), '1/2' from 14 to 14, '1/2' from 14 to (14), '1/2' from 14 to 14, '1/2' from 14 to (14).

System 2: Treble staff continues the sequence. Tablature shows fret numbers 9, 9, 9, (9), 7, 7, 7, (7), 5, 5, 5, (5), 4, 3, 4, 3, (3), 2. Bends are indicated by arrows: '1/2' from 9 to 9, '1/2' from 9 to (9), 'full' from 7 to 7, 'full' from 7 to (7), 'full' from 5 to 5, 'full' from 5 to (5), 'full' from 3 to 4, 'full' from 3 to (3).

System 3: Treble staff continues the sequence. Tablature shows fret numbers 18, 19, 18, (18), 17, 18, 19, 18, (18), 17, 13, 14, 13, (13), 12, 11, 12, 11, (11), 10. Bends are indicated by arrows: '1/2' from 18 to 19, '1/2' from 18 to (18), '1/2' from 18 to 19, '1/2' from 18 to (18), '1/2' from 13 to 14, '1/2' from 13 to (13), '1/2' from 13 to 14, '1/2' from 13 to (13), 'full' from 11 to 12, 'full' from 11 to (11).

System 4: Treble staff continues the sequence. Tablature shows fret numbers 9, 10, 9, (9), 9, 7, 9, 7, (7), 7, 6, 7, 6, (6), 5, 6, 7, 6, (6), 5. Bends are indicated by arrows: 'full' from 9 to 10, 'full' from 9 to (9), 'full' from 7 to 9, 'full' from 7 to (7), '1/2' from 6 to 7, '1/2' from 6 to (6), '1/2' from 6 to 7, '1/2' from 6 to (6).

Thirds with Double Bends

In these examples, “B1” indicates bending a half step (one fret) and “B2” indicates bending a whole step.

upper scale tone	→ 2	3	4	5	6	7	1	2
lower scale tone	→ 7	1	2	3	4	5	6	7
interval	→ m3	M3	m3	m3	M3	M3	m3	m3

T	3	5	6	8	10	12	13	15
A	4	5	7	9	10	12	14	16
B								

When bending both notes the same interval, you should try to lessen the distance between the strings as you bend by 10% or so.
When bending a two fret interval on the third string and a one fret on the second string, usually no compensation is necessary.

second string slur	→		B1		B1		B1	
third string slur	→		B1		B2		B1	
second string finger	→ 1	3		3	3		1	1
third string finger	→ 2	2		2	2		2	2

T	3	4		5	5		6	7
A	4	4		5	5		7	8
B								

second string slur	→		B1		B1		B1	
third string slur	→		B1		B1		B2	
second string finger	→ 1	3		3	3		3	3
third string finger	→ 2	2		2	2		2	2

T	8	9		10	11		12	12
A	9	9		10	11		12	12
B								

second string slur	→		B1		B1		B1	
third string slur	→		B1		B1		B1	
second string finger	→ 1	1		1	3			
third string finger	→ 2	2		2	2			

T		13	14		15		15	16
A		14	15		16		16	
B								

When pre-bending [(B1)] both notes the same interval, you should try to lessen the distance between the strings as you bend by 10% or so. Pre-bending [(B1) or (B2)] a two fret interval on the third string and a one fret on the second string, usually requires no compensation.

second string slur → (B1) R (B1) R (B1) R B1
 third string slur → (B1) R (B1) R (B2) R B1
 second string finger → 3 1 1 1 3 3
 third string finger → 2 2 2 2 2 2

T 16 15 14 13 12 12
 A 16 16 15 14 12 12
 B

second string slur → (B1) R (B1) R R B1
 third string slur → (B1) R (B1) R R B1
 second string finger → 3 1 1 1 1 1
 third string finger → 2 1 2 2 2 2

T 11 10 9 8 7 6
 A 11 10 9 9 8 7
 B

second string slur → (B1) R
 third string slur → (B2) R
 second string finger → 3 1
 third string finger → 2 1

T 5 5
 A 5 5
 B

Sixths with Single Bends

Sixths with Double Bends

Bending sixths is much more limited than bending thirds. When bending simultaneously in sixths, it is not practical to bend the smaller string an interval of a whole step, only a half step. If you can't resist the temptation and just have to bend the smaller string a whole step, finger the smaller string with the index and ring fingers and the larger string with the middle finger. The second and fourth strings are best for bending in sixths, though they can also be performed (with the same fretboard shapes) on the first and third strings.

The image displays musical notation and fretboard diagrams for sixths with double bends. It is organized into three measures, each showing a guitar staff with a treble clef and a corresponding fretboard diagram below it.

- Measure 1:** Shows a second string slur and a fourth string slur. The second string is bent a half step (indicated by 1/2) and the fourth string is bent a whole step (indicated by full). Fingering: second string finger 3, fourth string finger 2. Fretboard diagram shows the second string at fret 12 and the fourth string at fret 12.
- Measure 2:** Shows a second string slur and a fourth string slur. The second string is bent a half step (indicated by 1/2) and the fourth string is bent a half step (indicated by 1/2). Fingering: second string finger 3, fourth string finger 2. Fretboard diagram shows the second string at fret 12 and the fourth string at fret 12.
- Measure 3:** Shows a second string slur and a fourth string slur. The second string is bent a whole step (indicated by full) and the fourth string is bent a whole step (indicated by full). Fingering: second string finger 1&3, fourth string finger 2. Fretboard diagram shows the second string at fret 12 and the fourth string at fret 12.

The fretboard diagrams are labeled T, A, and B on the left side, indicating the strings involved in the bends.

CHORDS IMPLIED BY THIRDS AND SIXTHS

Determine the Chord Type to Figure Out the Key Scale

The key scale is often changed. Especially with thirds and sixths, you need to be aware of which seven-tone scale (commonly a major scale) you are building thirds and sixths on.

See [Modes/Chords and Modes by Numbered Type/Modes by Numbered Type](#).

Every chord that does not use a numbered type matching its scale-tone number in the key changes the key scale. Playing a Dm chord in the key of C doesn't change the key scale, it's still C major because it's still a II type. Playing a Dm chord in the key of C as a VIIm type changes the key scale because it is using Dm on the sixth step of F major. In F major, C is on the fifth step, so the key scale would be C major. The key scale at that point would be C Mixolydian, a "V type" C scale.

Listen for Tonic Chords Intuitively

We can improvise with thirds, sixths or triads without knowing the name of each interval or chord. You don't have to know the name of each chord implied by the interval or chord yaaaou are currently playing. You need to determine aurally ("by ear") if it harmonizes with the current chord and emphasize it if it does by repeating it, sustaining it or otherwise featuring it. If it is not harmonious with the current chord, chances are that a third on the next scale tone up or down *will* harmonize with the current chord. This is due to the fact that the primary construction of chords is every other scale tone.

Determine the Parent Scale

Of all the modes of the major scale, we are most familiar with the Ionian or major scale mode. We know the scale fingerings, chord qualities, chord fingerings, and other harmonies best in terms of the major scale. Similarly, with the other three usable heptatonic scales, we are most familiar with the mode that is closest to the major scale.

Melodic minor is traditionally played differently when ascending and descending. The ascending form is the same as a major scale with a flat three. It is usually used in its ascending form in jazz. The traditional descending version (or form) of the melodic minor scale is the same as Aeolian mode, a major scale with flat three, flat six and flat seven.

We can most easily recall the fingerings and harmonies of the harmonic minor by thinking of it as major sharp five with harmonic minor constructed on its sixth step. Compare the major scale modes below with those of major sharp five, with its descending number series in the ascending order of modes.

modes of the major scale

major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
1-2-3,-4-5-6-7	1-2-b3-4-5-6-b7	1-b2-3-4-5-b6-b7	1-2-3-#4-5-6-7	1-2-3-4-5-6-b7	1-2-b3-4-5-b6-b7	1-b2-b3-4-b5-b6-b7

modes of major sharp five scale

major sharp five	Dorian sharp four	Phrygian major (natural third)	Lydian sharp two	Mixolydian sharp one	Aeolian natural seven (harmonic minor)	Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	#6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-4-5-6-7	#1-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

modes of melodic minor ascending (major flat three)

major flat three (melodic minor)	Dorian flat two	Phrygian flat one Lydian #5	Lydian flat seven (Lydian dominant)	Mixolydian flat six	Aeolian flat five	Locrian flat four (super Locrian, "flat all")
b3	b2	b1	b7	b6	b5	b4
1-2-b3-4-5-6-7	1-b2-b3-4-5-6-b7	b1-b2-b3-4-5-b6-b7 or 1-2-3-4-#5-6-7	1-2-3-#4-5-6-b7	1-2-3-4-5-b6-b7	1-2-b3-4-b5-b6-b7	1-b2-b3-b4-b5-b6-b7

modes of major flat six (harmonic major)

major flat six	Dorian flat five	Phrygian flat four (super Phrygian)	Lydian flat three (Lydian diminished)	Mixolydian flat two	Aeolian flat one	Locrian double flat seven
b6	b5	b4	b3	b2	b1	bb7
1-2-3-4-5-b6-7	1-2-b3-4-b5-6-b7	1-b2-b3-b4-5-b6-b7	1-2-b3-#4-5-6-7	1-b2-3-4-5-6-b7	b1-2-b3-4-5-b6-b7	1-b2-b3-4-b5-b6-bb7 (6)

"track" the linear parent major scale

Keep your focus on the parent scale by following it up and down a string while playing its harmonies on another string. If you are playing thirds, track the seven tone scale on the larger of two adjacent strings. If you are playing sixths, think of them as inverted thirds and follow the parent scale by "tracking" it on the larger of the two strings. Sixths are usually played on string sets 1-3, 2-4, 3-5 or 4-6.

C Major Scale-Tone Thirds on Strings One and Two

upper scale tone → 3 4 5 6 7 1 2 3
 lower scale tone → 1 2 3 4 5 6 7 1
 interval → M3 m3 m3 M3 M3 m3 m3 M3

T 0 1 3 5 7 8 10 12
 B 1 3 5 6 7 8 10 12

ascend third

	1-3	2-4	3-5	4-6	5-7	6-1	7-2
I	I 	I 	I 	I 	I 	I 	I
II	IIm9 	IIm 	IIm11 	IIm 	IIm7 		
III			IIIIm 	IIIIm 	IIIIm7 		
IV	IVma7 	IV6 	IVma9 	IV 	IVma9#11 	IV 	
V		V7 	V6 	V9 	V 	V 	
VI	VIIm 	VIIm7 	VIIm9 	VIIm 	VIIm11 		
VII		VIIIdim 	VIIIm7b5 	VIIIdim 			

C Major Scale-Tone Thirds on Strings Two and Three

upper scale tone → 3 4 5 6 7 1 2 3
lower scale tone → 1 2 3 4 5 6 7 1
interval M3 m3 m3 M3 M3 m3 m3 M3

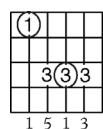
T 5 6 8 10 12 13 15 17
A 5 7 9 10 12 14 16 17
B

ascend
third

I

1-3

I



2-4

3-5

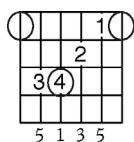
4-6

5-7

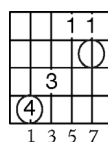
6-1

7-2

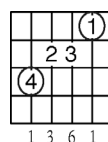
I



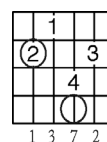
Ima7



I6

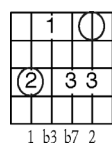


Ima9

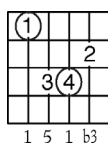


II

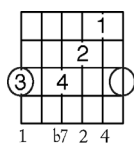
IIIm9



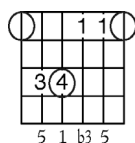
IIIm



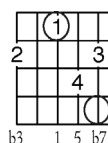
IIIm11



IIIm

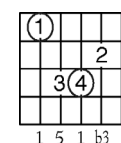


IIIm7

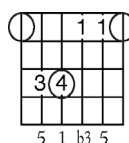


III

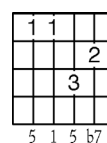
IIIIm



IIIIm

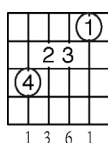


IIIIm7

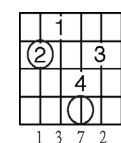


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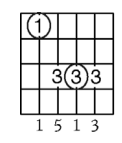
IV6



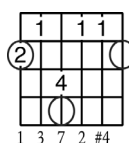
IVma9



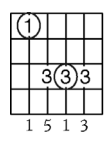
IV



IVma9#11

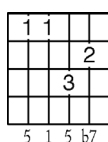


IV

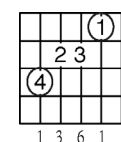


V

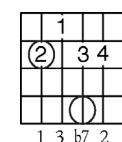
V7



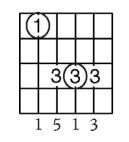
V6



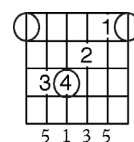
V9



V

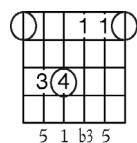


V

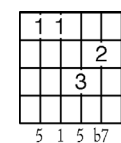


VI

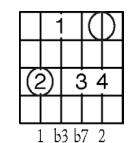
VIIm



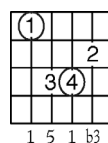
VIIm7



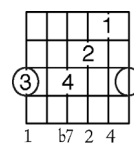
VIIm9



VIIm

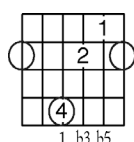


VIIm11

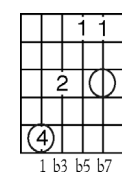


VII

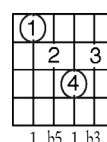
VIIIdim



VIIIm7b5



VIIIdim



C Major Scale-Tone Thirds on Strings Three and Four

upper scale tone	lower scale tone	interval
6	4	M3
7	5	M3
1	6	m3
2	7	m3
3	1	M3
4	2	m3
5	3	m3
6	4	M3

T	2	4	5	7	9	10	12	14
A	3	5	7	9	10	12	14	15

V(6, 7, 9)

G9 **G** **G** **G7** **G6** **G9**

1 3 b7 2 1 5 1 3 5 1 3 5 5 1 5 b7 1 3 6 1 1 3 b7 2

I (6, ma9)

Cma7 **C6** **Cma9** **C** **C**

1 5 7 3 1 6 1 3 1 3 7 2 1 5 1 3 5 1 3 5

II (m9)

Dm **Dm7** **Dm9** **Dm** **Dm**

5 1 3 5 5 1 5 b7 1 b3 b7 2 1 5 1 b3 5 1 b3 5

III (m7)

Em **Em7** **Em**

5 1 b3 5 5 1 5 b7 1 5 1 b3

IV (6, ma9)

F **F** **Fma7** **F6** **Fma9** **F**

a 1 5 1 3 5 1 3 5 1 5 7 3 1 6 1 3 1 3 7 2 1 5 1 3

VI(m9)

Am9 **Am** **Am** **Am7**

1 b3 b7 2 1 5 1 b3 5 1 b3 5 5 1 5 b7

C Major Scale-Tone Thirds on Strings Four and Five

upper scale tone → 3 4 5 6 7 1 2 3
 lower scale tone → 1 2 3 4 5 6 7 1
 interval → M3 m3 m3 M3 M3 m3 m3 M3

T							
A	2	3	5	7	9	10	12
B	3	5	7	8	10	12	14

V(6, 7, 9)

G7 G6 G9 G G

5 b7 3 5 6 1 5 1 b7 2 5 1 1 3 5 1 1 3 5 1

I (6, ma7)

C C Cma7 C6 C

5 1 3 1 1 3 5 1 1 5 7 3 3 6 1 3 5 1 3 1

II (m7)

Dm Dm Dm7 C

5 1 b3 5 1 b3 5 1 1 5 b7 b3 5 1 3 1

III (m7)

Em Em Em7

5 1 b3 5 1 b3 5 1 5 b7 b3

IV (6, ma7)

Fma7 F6 F F Fma7

1 5 7 3 3 6 1 3 1 3 5 1 1 3 5 1 1 5 7 3

VIIm (m7)

Am Am7 Am Am

1 b3 5 1 1 5 b7 b3 5 1 b3 5 1

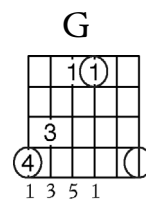
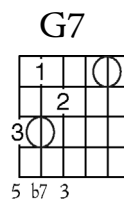
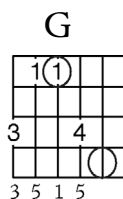
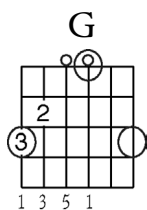
C Major Scale-Tone Thirds on Strings Five and Six

upper scale tone	lower scale tone	interval
7	5	M3
1	6	m3
2	7	m3
3	1	M3
4	2	m3
5	3	m3
6	4	M3
7	5	M3

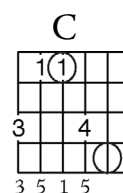
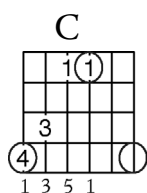
T
A
B

2 3 5 7 8 10 12 13 14 15

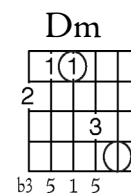
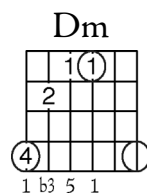
V(7)



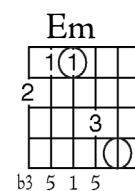
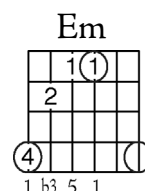
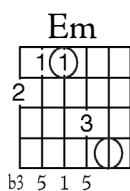
I



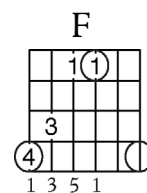
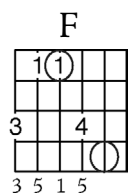
IIIm



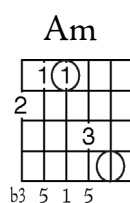
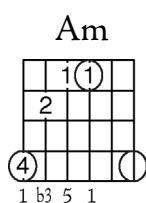
IIIIm



IV



VIIm



F Major Scale-Tone Sixths on Strings One and Three

Minor sixths occur where the upper tone is 1, 4 or 5 of the major scale.

	1	2	3	4	5	6	7	1
upper scale tone	1	2	3	4	5	6	7	1
lower scale tone	3	4	5	6	7	1	2	3
interval	m6	M6	M6	m6	m6	M6	M6	m6
T	1	3	5	6	8	10	12	13
A	2	3	5	7	9	10	12	14
B								

V(6, 7, 9)

I (ma7, 6)

II (m7)

III (m7)

IV (6, ma7)

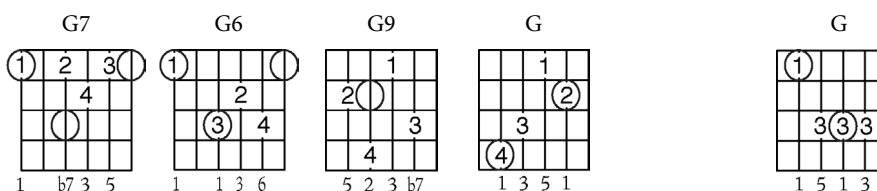
VI (m7)

C Major Scale-Tone Sixths on Strings Two and Four

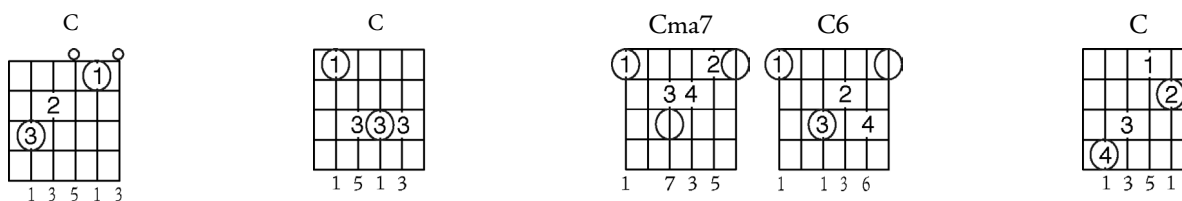
Minor sixths occur where the upper tone is 1, 4 or 5 of the major scale.

upper scale tone →	1	2	3	4	5	6	7	1
lower scale tone →	3	4	5	6	7	1	2	3
interval →	m6	M6	M6	m6	m6	M6	M6	m6
T	1	3	5	6	8	10	12	13
A	2	3	5	7	9	10	12	14
B								

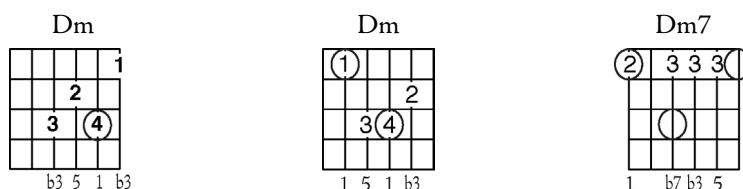
V(6, 7, 9)



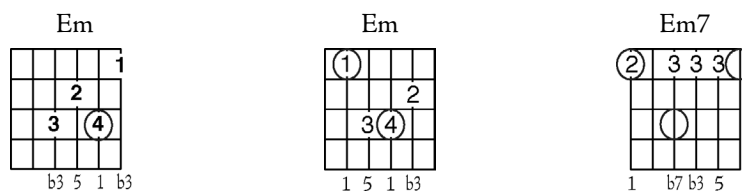
I (ma7, 6)



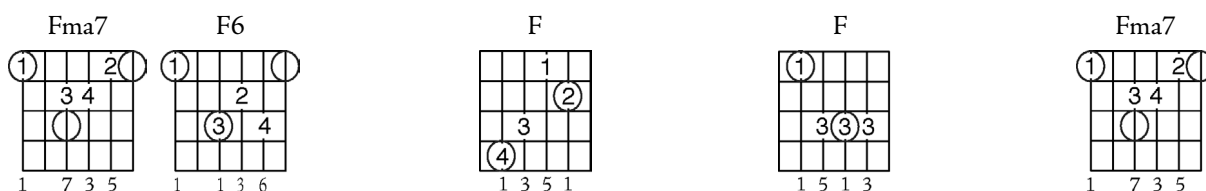
II (m7)



III (m7)



IV (6, ma7)



VIIm (m7)



Double Stops

- **Double Stops Defined**
- **Basic Double Stops**
- **Modal Double Stops**
- **Parallel Thirds and Sixths**
- **Jazz Blues Double Stops**
- **Harmonic Clusters And Tonal Layers**

DOUBLE STOPS DEFINED

double stops are two-note figures that combine either:

[click to play the examples below on video](#)

one note that doesn't change with another that moves up or down one, two or three scale tones

♩ = 100

The example shows a double stop in 4/4 time. The treble clef staff has a half note G4, a quarter note A4, a half note B4, and a quarter note C5. The bass line has fingerings: 8, 10, 8, 8, 10, 8, 9, 10, 9, 8, 10, 9, 7, 9, 8, 9. The first two measures show a stationary G4 with a moving A4, and the next two measures show a stationary B4 with a moving C5.

two notes moving in parallel harmony, usually thirds or fourths

The example shows two notes moving in parallel harmony. The treble clef staff has a half note G4, a quarter note A4, a half note B4, and a quarter note C5. The bass line has fingerings: 5, 6, 5, 6, 7, 8, 8, 10, 8, 7, 10, 9, 7, 5. The first two measures show a stationary G4 with a moving A4, and the next two measures show a stationary B4 with a moving C5. The first two measures are labeled 'thirds' and the next two measures are labeled 'fourths'.

BASIC DOUBLE STOPS

Basic G Major Double Stops - [click to play video](#)

♩ = 100

E form G chord

1 3 1 1 3 1 2 3 2 3 2 3 2 3 2 4

1 1 2 2 1 2 3 4 3 1 4

3 5 3 3 4 3 4 5 4 3 5 4 2 5

C form G chord

1 2 1 2 4 2 2 2 1 1 1 3 1 3 1 4 3 1 3 1 4 1 4

7 8 7 8 10 8 7 8 9 8 7 7 9 10 9 7 9 10 9 7 10

A form G chord

1 4 1 1 4 4 4 1 3 1 4 3 1 3

3 3 3 3 1 3 4 3 1 3

10 12 10 10 12 13 12 10 12 13 12 10 12

G form G chord

3 4 3 1 3 1 1 1 1 3 1 3 1 4 3 1 3 1 4 1 4

1 1 1 1 3 1 1 3 4 3 1 3 4 3 1 4

12 13 12 12 14 12 12 14 12 12 14 15 14 12 15

Basic E Minor Double Stops - [click to play video](#)

♩ = 100

D form Em chord

Em

1 4 1 1 4 2 4 2 4

3 3 1 3 1 3 1 3 1

5 5 3 3 0 2 4 3 5 3 0 2 5 2

A form Em chord

1 Em

1 4 1 1 4 2 4 2 4

2 2 2 2 3 2 1 3 3 1 3 3 1 4 1

7 10 7 7 10 8 8 10 8 7 9 9 7 9 10 7

G form Em chord

Em

1 4 1 4 1 3 1 3 2 4

3 3 3 3 1 3 1 3 1

10 12 10 12 10 12 10 12 10 12 10 12 10 12 9 12

G form Em chord

Em

1 4 1 4 1 1 1 3 4 1 4 1 3 1 3 1 3 1 4 1

1 1 3 3 1 3 1 3 1 3 1 3 1 3 1 4 1

12 15 12 15 14 14 12 12 12 14 12 14 12 12 14 12 12 14 12 15 12

Parallel Fourths and the Harmonized Pentatonic Scale

E form major / D Form minor

6

T 10 8 10 8 9 7 10 7 10 7 10 8

A 10 9 10 7 10 7 10 7 10 7 10 8

B 8 7 7 7 7 7 7 7 7 7 7 8

D form major / C form minor

6

T 12 10 13 10 12 9 12 10 12 10 12 10

A 13 10 12 9 12 10 12 10 12 10 12 10

B 10 9 10 9 10 10 10 10 10 10 10 10

C form major / A form minor

11

T 15 12 15 13 14 12 14 12 14 12 15 12

A 15 13 14 12 14 12 14 12 14 12 15 12

B 12 12 12 12 12 12 12 12 12 12 12 12

A form major / G form minor

16

T 5 3 5 3 5 2 5 2 5 2 5 3

A 5 3 5 3 5 2 5 2 5 2 5 3

B 3 3 3 3 3 2 3 2 3 2 3 3

G form major / E form minor

21

T 8 5 8 5 7 5 7 5 7 5 7 5

A 8 5 7 5 7 5 7 5 7 5 7 5

B 5 5 5 5 5 5 5 5 5 5 5 5

Country/Folk Double Stops

Double stops are common to country piano stylists such as Floyd Cramer and Moon Mullican. Floyd Cramer's double stop style has been called "slip note" style.

Country/folk double stops are extensive in Doc Watson, Chet Atkins, Mark Knopfler, Albert Lee and Brent Mason.

R&B and Soul Double Stops

Double stops are used in R&B. R&B and soul music was one of Hendrix's main resources. They primarily used single upper neighbors and lower neighbors in their double stops. Not much baroque style ornamentation nor country.

Notable R&B and soul artists that used double stops include Cornell Dupree (with King Curtis, Aretha Franklin and The Gadd Gang), Curtis Mayfield, The Impressions, Tower Of Power, Dobie Gray (Drift Away), James Burton (Otis Redding, Aretha Franklin), John Fruciante (Red Hot Chili Peppers), Jack Johnson, Dave Matthews (Jimi Thing).

Hendrix Double Stops

Shuggie Otis and Jimmy James (aka Jimi Hendrix) played the Chitlin Circuit in 1964 and 1965, with the Isley Brothers and Curtis Knight in 1965 before Charles Chandler of the Animals "discovered" Jimmy James in New York and suggested he change his name to Jimi Hendrix (Hendrix was his birth name).

stay in key scale for single note melody

In single note melody, prefer the key minor pentatonic scale throughout whenever you can, like Hendrix's Hey Joe solo. In double stops, play in the key of each chord, with the preferred modes below that play all chords with a flatted seventh (in the key of each root).

folk rock, not country

Hendrix style should distinctly not sound country. There is a subtle distinction between folk rock and country, Folk rock doesn't use pedal steel guitar so much as country. Pedal steel bends sustain a note or two while bending another and tend to

Hendrix's developmental guitar years occurred exactly when folk rock was starting. So, to please his listeners, he incorporated ornamented open position chords and barred versions of them. Use double stops with suspended 2 and suspended 4 to reinforce Hendrix's style (though suspended fourths are used in country). In Hendrix's double stop style, suspended 2 and suspended 4 should be used in folk

rock style. Syncopated rhythm is associated more to Hendrix (and R&B/Blues) than country. Incorporate key minor pentatonic double stops and the key minor with flat five during any of the chords it will work on, to make it more bluesy (Hendrixish) and less country.

folk rock in the low range

Hendrix tended to play more single note hammers and slides on the bass strings. Though Hendrix did not use folk rock double stops in the low range, they seem like a likely extension of his style.

blues with minor chords and minor intervals

Save the first three strings for more bluesy bends and tend to use double stops in the mid and low range. Use minor and diminished chord sounds frequently. They can be [secondary roots](#), such as a minor triad with its root on the third of a major seventh chord. Minor chord sounds can also be darkened versions of existing chords. Usually, avoid emphasizing “6”, because of its association with country swing.

parallel fourths

Use parallel fourths, as Hendrix did in expressing his Cherokee heritage. They sound Asian/American Indian. Have anything to do with the Mongol origin of American Indians?

See the Harmonized Pentatonic Scale.

use dissonance in parts of chords unlike country

Dissonances can appropriately darken the style and keep it from being too sweet. They include these intervals: half steps, whole steps, diminished fifths, and to a lesser extent, minor thirds. Country uses five and six together, so stay away from that whole step.

Descend a scale below a held note, beginning with a scale tone below it (especially where that is a half step), replaying each held note with the corresponding descending scale tone.

baroque ornamentation

Use mordents (grace note movement to a neighbor and back) and trills (like quick “looped” mordents) or sixteenths (or faster rhythms) with regular pulse rhythm (like four sixteenths).

Little Wing style double stops in open position

E Aeolian

1 Em

3 3 0 0 0 0 0 3 3 1 3 3 0 2 0 0 3 3 0 3 1 0 2 0 2 0 2

2 2 2 2 2 0 0 0 0 0

S S S P P P

T 2 3 4 2 5 3 4 2 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0

A 2 3 4 2 5 3 4 2 0 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0

B 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

5 Am I

0 2 3 0 1 1 3 1 3 1 1 0 3 3 0 3 3 0 2 1 0 1 0 3 0

1 1 3 1 2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

H S S S H P

T 0 2 2 0 3 5 3 5 4 2 0 0 2 4 0 4 2 0 2 1 0 1 0 3 0

A 0 2 2 0 3 5 3 5 4 2 0 0 2 4 0 4 2 0 2 1 0 1 0 3 0

B 0 2 2 0 3 5 3 5 4 2 0 0 2 4 0 4 2 0 2 1 0 1 0 3 0

9 Bm7 II

1 3 2 2 2 2 2 2 3 3 1 3 0 2 3 1 4 1 3 3 4 1 3 4

1 1 1 1 1 1 1 1 1 1 1 1 0 2 3 3 4 1 3 3 4 1 3 4

H S H S

T 2 4 2 2 2 2 2 2 3 3 1 3 0 2 2 2 3 2 3 5 5 3 5

A 2 4 2 2 2 2 2 2 3 3 1 3 0 2 2 2 3 2 3 5 5 3 5

B 2 4 2 2 2 2 2 2 3 3 1 3 0 2 2 2 3 2 3 5 5 3 5

Am I

0 2 3 1 4 1 3 3 4 1 3 4

0 2 3 3 4 1 3 4

H S

T 0 2 2 2 3 2 3 5 5

A 0 2 2 2 3 2 3 5 5

B 0 2 2 2 3 2 3 5 5

C III

3 3 4 1 3 4

3 3 4 1 3 4

H S

T 3 5 5 3 5

A 3 5 5 3 5

B 3 5 5 3 5

13

G I F sus. 2 I C I D I

1 1 1 0 2 3 3 3 3 0 2 1 1 1 1 0 0 0 0 0 0

2 2 2 0 0 3 3 3 3 0 0 4 2 0 0 2

S S H

T 1 3 1 0 3 3 3 3 3 0 1 1 1 1 1 2 3 3

A 2 4 2 0 0 3 3 3 3 0 0 3 2 0 0 0 0 0

B 3 0 3 3 3 3 3 0 0 0 0 0 0 0 0 0 0 0

17

C add 9 I C add 9 I D I

0 0 0

T 3 3 0 3 0 3 3 3 3 0 3 3 3 3 3 3 3 3

A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0

B 0 0 0 0 3 3 0 0 0 0 0 0 0 0 0 0 0 0

20

Em7 I G III II

0 0 0 0 1 3 1 1 3 1 3 1 3 3 3 2 1 3 1 4 2 1 4

1 3 1 1 3 1 3 1 3 3 3 2 1 3 1 4 2 1 4

H H H

T 3 5 3 3 5 3 5 3 5 5 5 5 5 5 5 5 5 5

A 3 5 3 3 5 3 5 3 5 5 5 5 5 5 5 5 5 5

B 0 0 0 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5

24 Am I




3 0 1 3 0 1 0 2 4 2 0 0 0 0 3 0 1 2 0 0

H H H

28 Bm7 II





1 3 1 3 3 2 4 2 2 3 1 1 0 2 3 2 1 3 0 2 3 0 2 0 0 0 0 3

H H H

32 G I






3 0 0 4 1 4 3 0 1 0 4 4 3 0 2 1 1 1 0 2 0 1 3 4 2 3

H H

36 D/F# I




T

T A B

Little Wing style double stops in movable forms

D form

Em G Am

4 4 4 4 4 4 4 4 4 4

3 3 3 3 3 3 2 1 2 1 2 1 4

2 2 1 2 1

TAB

4 Em Bm Bb Am C

7 G F C D

11 Em G Am

14 Em Bm Bb Am C

17 G F C D

A form

21

Em G Am

24

Em Bm Bb Am C

27

G F C D

Hey Joe style double stops, version 1

C major pent. fing. 4
open position

G major pent. fing. 2
II position

D major pent. fing. 4
II position

A major pent. fing. 1
II position

5 E

9 C G D A

13 E

Hey Joe style double stops, version 2 - [link to video](#)

The musical score is written for guitar (T) and bass (B) in 4/4 time. It consists of two systems of four measures each.

System 1:

- Measure 1 (Chord C):** Guitar has a melodic line with a triplet of eighth notes. Bass has a double stop of 5 and 7.
- Measure 2 (Chord G):** Guitar has a melodic line with a triplet of eighth notes. Bass has a double stop of 5 and 7.
- Measure 3 (Chord D):** Guitar has a melodic line with a triplet of eighth notes. Bass has a double stop of 5 and 7.
- Measure 4 (Chord A):** Guitar has a melodic line with a triplet of eighth notes. Bass has a double stop of 5 and 7.

System 2:

- Measure 5 (Chord E):** Guitar has a melodic line with a triplet of eighth notes. Bass has a double stop of 5 and 7.
- Measure 6:** Guitar has a melodic line with a triplet of eighth notes. Bass has a double stop of 5 and 7.
- Measure 7:** Guitar has a melodic line with a triplet of eighth notes. Bass has a double stop of 5 and 7.
- Measure 8:** Guitar has a melodic line with a triplet of eighth notes. Bass has a double stop of 5 and 7.

Hey Joe double stops in all five octave shapes- live video

♩ = 70 [D form key of E] C G D A E

6 [C form key of E] C G D A E

10 [A form key of E] C G D A E

14 [G form key of E] C G D A E

18 [G form key of E] C G D A E

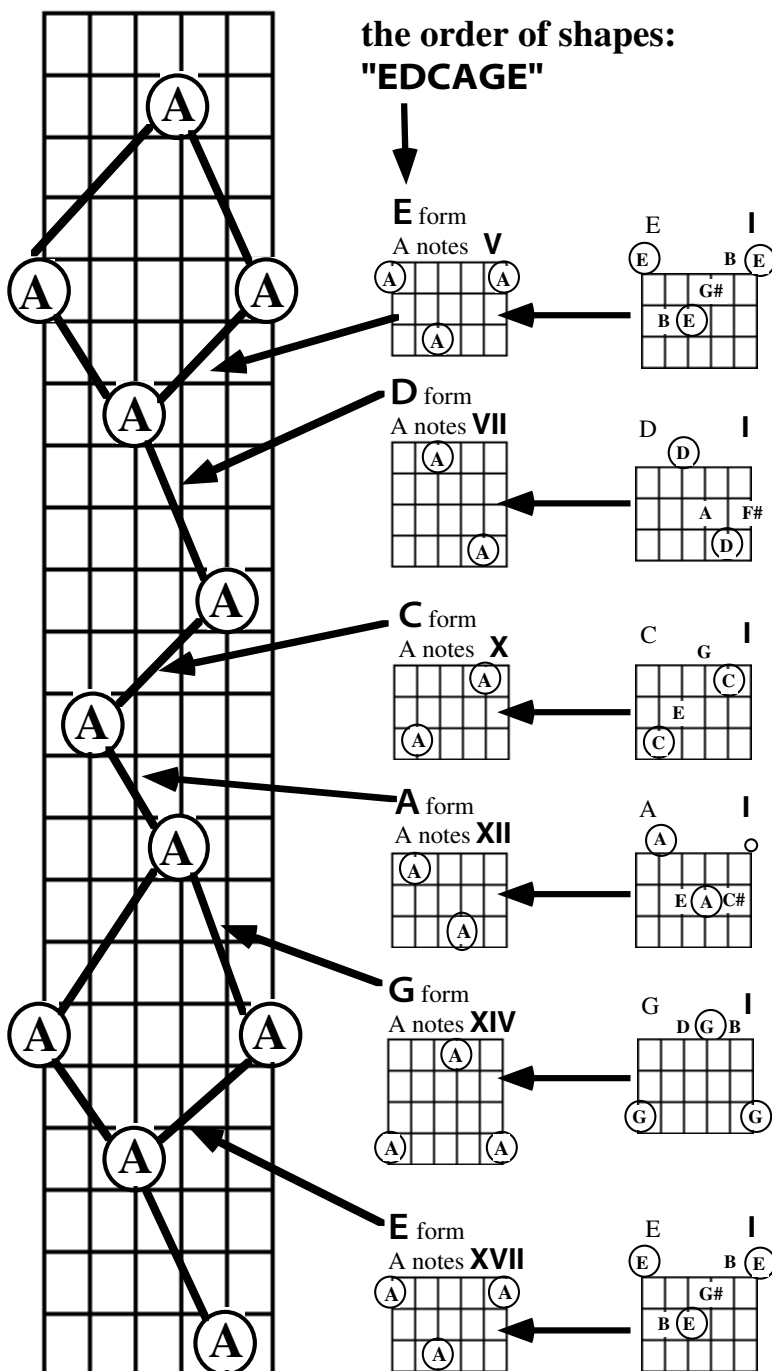
Rock Double and Triple Stops

Keith Richards (Brown Sugar, Gimme Shelter, Sympathy for the Devil, Start Me Up) Doobie Brothers (China Grove, Long Train Running), Brian May (We Will Rock You), Davey Johnstone (with Elton John, especially on Saturday Night's Alright for Fighting), Van Halen (Panama, Unchained).

MODAL DOUBLE STOPS

Octave Shapes

Each note by letter name and each note by number re-occurs on the fretboard in a pattern. This pattern can be related to open position chords. Note how the "A" notes on the fretboard occur in shapes related to (and named after) open position chords. For more information see [Octave Shapes](#).

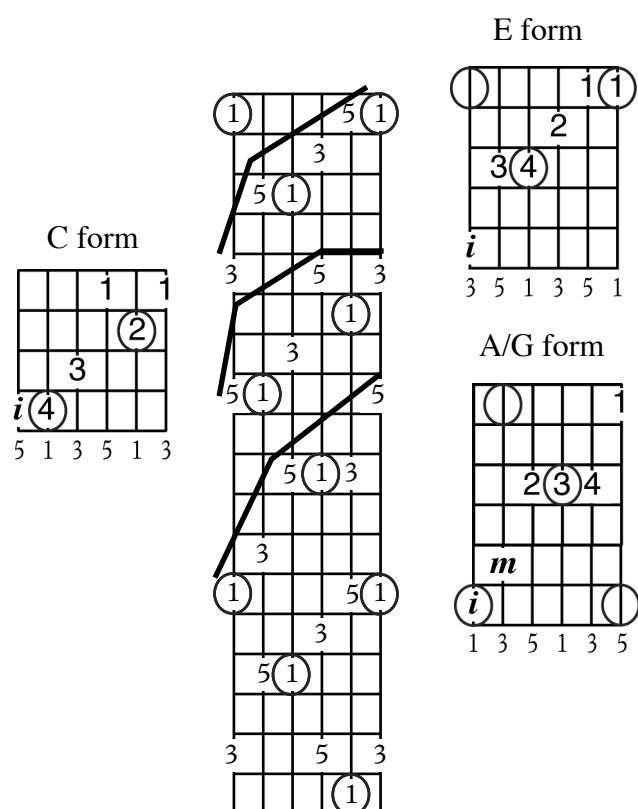


Triad Arcs

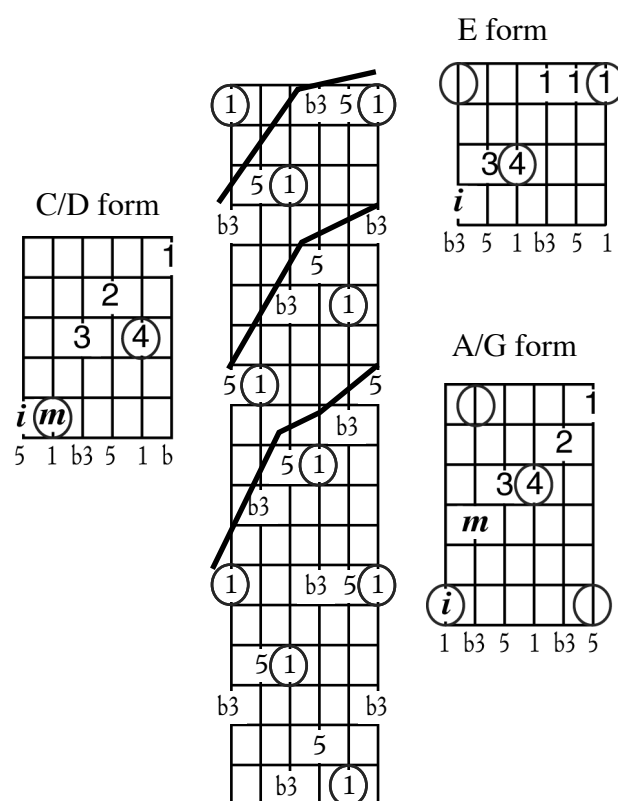
Triads are chords made up of three different notes. The notes may be repeated in octaves. Major triads combine the first, third and fifth steps of a major scale. Minor triads combine the first, flatted third (one fret toward the head of the guitar from the third) and fifth of a major scale.

I refer to the three groups of notes that represent all major chord tones or all minor chord tones on the fretboard as *arcs*, since they are the notes conceptually embraced by an arc, as shown below.

major chord tone arcs



minor chord tone arcs



Modes

Each seven tone scale such as the major scale can create, in effect, seven scales. This is done by establishing one or another of the notes as the main note or tone center by reference to that note in the chord progression and melody. See [Modes](#).

Modal Double Stops by Octave Shape

Major and Mixolydian only differ in that Mixolydian has flat seven. Since these major examples do not use scale tone seven (nor b7), they can be used also for Mixolydian.

♩ = 100

E form C chord, C major scale with no 7

3 4 1 3 1 3 4 3 1 1 3 1 4 1 1 1 1 2 2

10 12 8 10 8 10 12 10 8 8 10 8 9 8 8 10 9 8 10

C form C chord, C major scale with no 7

1 2 4 3 3 4 4 2 1 3 1 1 3 1 1 2 2 1 4

3 3 3 3 3 1 1 1 1 4 1 1 1 1 3

TAB 10 12 13 12 13 15 13 12 13 13 12 13 15 13 12 13 12 14 12 15 12 13 13 12 12 14 12 15

The image shows a musical score for a guitar exercise titled 'C Major Scale'. It consists of two staves. The top staff is a treble clef staff with a 'C' time signature, indicating common time. The bottom staff is a bass clef staff with a 'T' time signature, indicating treble. The music is written in C major, with notes on the treble staff and fingerings indicated by numbers 1-3. The bass staff contains a sequence of numbers (12, 14, 15, 14, 15, 13, 12, 15, 13, 15, 12, 13, 15, 12, 14, 15, 14, 15) which likely represent fret numbers or a specific fingering system for the left hand. The exercise is divided into four measures, each containing a sequence of notes and fingerings.

A form C chord, C major scale with no 7

1 4 1 1 4 1 1 1 1 4 1 4 3 1 1 2
3 3 3 1 3 4 3 3 3 3 3 3 1 1 2

5 5 5 5 3 5 5 5 5 5 5 5 5 5 5 3

4 1 4 3 1 3 4 1 4 3 1 2
1 1 1 3 2 2 1 1 3 1 3 1 1 2

5 2 5 5 2 3 2 3 5 5 3 5 2 5 2 3

G form C chord, C major scale with no 7

4 4 4 1 1 3 1 1 4 4 1 2 1 1 1 1 1 1
1 1 3 1 1 1 1 1 1 3 1 1 3 1 1 3 1 4

8 6 8 6 5 5 6 8 6 5 5 7 5 5 7 5 5 8

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1 3 1 3 4 3 1 3 4 3 1 3 1 4 3 1 4

5 7 5 7 8 5 7 5 7 5 8 5 7 5 8 5 8

36 E form Dorian

Diagram 36: E form Dorian

Fretboard diagram (strings 1-6):

11	10	8	6	8	8
8	8	8	8	11	10
8	8	8	8	8	8
8	8	8	8	8	8
8	8	8	8	8	8
8	8	8	8	8	8

43 C_m D form Dorian

T $\begin{matrix} 15 \\ 13 \end{matrix}$ $\begin{matrix} 13 \\ 13 \end{matrix}$ $\begin{matrix} 11 \\ 13 \end{matrix}$ $\begin{matrix} 10 \\ 13 \end{matrix}$ $\begin{matrix} 13 \\ 14 \end{matrix}$ $\begin{matrix} 13 \\ 12 \end{matrix}$ $\begin{matrix} 13 \\ 10 \end{matrix}$ $\begin{matrix} 14 \\ 10 \end{matrix}$ $\begin{matrix} 12 \\ 10 \end{matrix}$ $\begin{matrix} 10 \\ 10 \end{matrix}$ $\begin{matrix} 12 \\ 13 \end{matrix}$ $\begin{matrix} 12 \\ 12 \end{matrix}$ $\begin{matrix} 12 \\ 10 \end{matrix}$ $\begin{matrix} 13 \\ 10 \end{matrix}$ $\begin{matrix} 12 \\ 10 \end{matrix}$ $\begin{matrix} 10 \\ 10 \end{matrix}$ $\begin{matrix} 10 \\ 13 \end{matrix}$ $\begin{matrix} 10 \\ 12 \end{matrix}$ $\begin{matrix} 10 \\ 10 \end{matrix}$ $\begin{matrix} 10 \\ 10 \end{matrix}$ $\begin{matrix} 10 \\ 10 \end{matrix}$ $\begin{matrix} 10 \\ 13 \end{matrix}$ $\begin{matrix} 10 \\ 11 \end{matrix}$

[illegible]

A form Dorian

57 Cm

T
A
B

G form Dorian

63

Cm

T
A
B

E form Aeolian

[illegible]

D form Aeolian

[illegible]

C form Aeolian

[illegible]

A form Aeolian

91 Cm

TAB

6 4 3 3 3 3 6 4 3 5 5 5 5 3 3 3 4 3

G form Aeolian

[illegible]

PARALLEL THIRDS AND SIXTHS

Fingering Heptatonic Thirds and Sixths

Thirds as Subsets of Major Scale-Tone Chords

Bending Thirds

JAZZ BLUES DOUBLE STOPS

Jazz piano is a great resource for jazz blues double stops. Great artists to “borrow” from include Cedar Walton, Gene Harris, Keith Jarrett, Oscar Peterson and Vince Guaraldi. Especially Oscar Peterson! George Benson and Pat Metheny are two of many guitarists who have borrowed from these jazz pianists.

E form

1 1 1 1 1 1 1 4 2 1 2 2 2 2 4 4 1 1 1 4 4 4

4 3 1 4 3 1 2 3 3 3 3 1 4 1 3 3 3 3 2 3 1 1 3 1

3 3 3 3 3 3 3 6 5 3 6 6 6 6 6 6 5 5 5 5 5 5 5 5

6 5 3 6 5 3 4 6 6 6 6 6 6 6 5 5 5 5 5 5 5 5 5 2

TAB

4

4 3 2 1 2 1 2 1 1 2 2 1 4 3 1 1 4 3 1 1 1 1 4 4 1 4 3 1 2

1 1 1 1 3 3 3 3 1 1 4 2 2 2 2 1 1 1 1 2 3 3 3 3 3 3 3 3

6 5 4 3 6 5 6 3 3 3 3 3 6 5 3 3 6 5 3 2 1 3 6 5 3 6 5 3 4

3 3 3 3 7 7 7 5 3 2 5 4 4 4 4 3 3 3 3 3 3 3 5 5 5 5 5 5

TAB

D form

2 2 2 2 4 4 4 1 2 3 3 3 3 3 2 2 2 2 2 2 2 2 1 1 1 1 1 1

4 3 1 3 3 3 3 3 3 2 1 1 2 4 3 2 1 4 1 1 1 4 3 2 1 4 3 1 3

3 6 5 3 10 9 8 6 7 8 8 8 8 8 6 6 6 6 6 6 5 5 8 5 5 5 5 5

3 3 3 3 8 8 8 8 8 7 6 5 8 9 7 6 5 8 4 5 5 8 7 6 5 5 5 5 7

TAB

13

2 1 4 4 2 1 3 3 3 4 1 1 2 1 1 3 2 1 3 1 1 1 1 1

3 3 3 3 3 3 3 4 2 1 3 3 3 3 3 3 3 1 3 2 1 1 1 3 1

6 5 7 9 8 6 5 7 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

7 7 7 7 7 7 7 8 7 5 8 8 8 8 8 8 5 5 5 5 5 5 5 5 5 5

TAB

C form

3 2 1 1 2 2 2 2 2 2 2 4 2 1 4 3 1 4 3 1 1 1 1 2 2 2

1 1 1 3 3 4 3 1 1 4 1 3 3 3 3 3 3 2 2 2 4 3 2 1 1 3 1

10 9 8 6 7 8 8 8 8 8 8 8 10 9 8 10 9 8 11 10 8 11 10 8 9 9 9 9 9

8 8 8 8 8 8 8 10 10 10 10 10 10 10 9 9 9 12 11 10 8 7 10 7

TAB

19 *fifth* *third* *flat third*

4 4 3 2 2 1 2 1 1 1 1 1 1 3 3 1 3 4 3 1 1 1 1 4 2 1 4 4 1 2
1 1 1 1 3 3 3 4 2 1 4 3 2 2 2 2 2 2 2 2 2 4 3 3 3 3 3 3 3

T 11 10 9 8 6 5 6 7 7 7 7 8 10 9 7 8 10 9 7 6 5 10 9 7
A 7 7 7 7 7 7 7 10 8 7 5 9 9 9 9 8 8 8 8 8 8 10 10 10 10 10 10 10
B

A form

24 *fifth* *third* *flat third*

1 1 1 1 2 1 4 3 1 4 4 4 1 4 4 3 1 1 2 2 2 2
4 2 1 3 3 3 3 3 3 1 3 3 3 1 2 2 2 2 3 1 1 3

T 10 10 10 10 11 10 13 12 10 15 13 12 10 15 13 12 10 11 8 11 11 11 11
A 13 11 10 12 12 12 12 12 12 12 12 12 12 11 11 11 11 11 12 10 9 12
B

27 *root* *flat seventh* *sixth*

1 4 3 1 3 1 4 4 2 3 1 1 1 1 1 3 2 1 1 1 1
2 2 2 2 2 1 1 1 1 1 3 2 1 4 4 1 1 3 4 3 2 4

T 10 14 13 11 12 10 14 13 11 12 10 10 10 10 10 15 14 12 9 9 9
A 12 12 12 12 12 10 10 10 10 10 12 11 10 10 10 14 14 14 12 11 10
B 13 14

G form

31 *root* *flat seventh* *sixth*

4 4 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3
3 2 1 3 2 4 3 1 4s 4 2 3 3 2 1 3 4 4 3 2 2

T 15 15 15 15 15 12 12 12 12 12 12 12 13 13 13 13 13 12 12 12 12
A 15 14 13 15 12 15 14 12 16 15 13 14 15 14 13 11 16 15 14 13 11
B

35 *sixth* *fifth* *flat third*

4 3 1 1 1 1 2 4 1 1 4 4 3 2 4 1 1 4
3 3 3 4 3 2 1 3 3 3 3 1 1 1 1 3 3 3 3

T 15 14 12 14 14 14 14 15 13 12 15 15 15 15 15 15 13 12 15 12
A 14 14 14 14 14 14 14 17 16 15 13 15 14 13 12 15 14 13 12 11
B

Jazz Double Stops on 12 Bar Blues

[illegible]

HARMONIC CLUSTERS AND TONAL LAYERS

Traditionally, double stops are played with single upper and lower neighbors, primarily using common pentatonic scales. By conceiving an area of the fretboard with chord tone subsets of any of four seven-tone scales, many structures can be devised.

In taking this wider view, we will include the following:

- ✦ the major and minor arcs
- ✦ modes of major, harmonic minor and melodic minor scales
- ✦ a pedal point on one string with movement neighboring tones ascending on an adjacent string to the next chord tone (optionally farther on to the fourth if the chord tone is a major third)
- ✦ parallel thirds, fourths and sixths

See [Tonal Layers/Harmonic Clusters](#).

Triads with Neighbor

- **Fingering Triads for Triads with Neighbor**
- **Scale-Tone Triads and Secondary Roots**
- **Modal Triads with Neighbor**
- **Free-Form Triads with Neighbor**
- **Exercises and Sketching**
- **Triad with Neighbor as a Chord Color**
- **Improvising with a Single Triad with Neighbor**
- **Improvising with Multiple Triads with Neighbor**
- **Using Triads with Neighbor to Imply Cadences**
- **Triads with Neighbor with Thirds and Sixths**
- **Triads with Neighbor with Double Stops**

FINGERING TRIADS FOR TRIADS WITH NEIGHBOR

First: Four Triad Types Built in Thirds, Root Position

All of these fingerings should be learned in close voicing, for now. This means the notes involved are as close together in pitch as possible, ascending 1-3-5, 3-5-1 or 5-1-3 and descending 5-3-1, 1-5-3 or 3-1-5, where the 3 may be natural or flatted according to the chord type and “5” maybe flatted, natural or sharp according to the chord type.

First learn to finger the four types of triads built in thirds: major, minor, diminished and augmented. Learn each of them with the root on each of the four string sets, strings 6-5-4, 5-4-3, 4-3-2 and 3-2-1. That makes sixteen triads, all in root position: four types on four string sets.

For each triad, learn three versions: (1) bass note with the little finger, (2) bass note with one of the middle fingers (second finger or ring finger) and (3) with the index finger. That makes forty eight fingerings: four types on four string sets with three categories of fingering. That’s a lot of information, but its in categories and you’ll start to “batch process” it.

Second: Four Triad Types Built in Thirds, All Three Inversions

Next, review fingering for each of the four types of triads built in thirds, close-voiced on strings 6-5-4, 5-4-3, 4-3-2 and 3-2-1 *adding both first and second inversion*. Root position has the root in the bass, first inversion has the third in the bass, second inversion has the fifth in the bass.

Now you have 144 fingerings, but in categories that you batch process. There’s a simple basis with a few categories of variation.

Third: Four Triad Types in Thirds, Three Inversions, 28 Modes

In the next section, you’ll learn the application of all these fingerings to the seven modes of each of four heptatonic (seven tone) scales. It’s a lot of information, so be systematic and learn the most used modes first, Ionian, Dorian, Mixolydian, Aeolian, harmonic minor, Phrygian dominant and Lydian dominant.

SCALE-TONE TRIADS AND SECONDARY ROOTS

Scale-Tone Triads of Four Heptatonic Scales use these in all three inversions

For each of the seven modes of the major scale, the seven modes of melodic minor, the seven modes of harmonic minor and the seven modes of harmonic major (28 modes in all), all 28 triads can be used in each of their three inversions.

Secondary Root Triads

Secondary root chords are alternate versions of chords involving synonyms. Three important categories of secondary chords are built on natural six, three or five in the key of the chord root.

See the chapter "[Substitution](#)"/Shared Thirds: Secondary Roots.

Chord Synonyms

Chord synonyms provide many alternate chord types you can use to build triad with neighbor phrases. Use the tables on the next four pages for synonyms of major scale, harmonic minor, melodic minor and harmonic major.

Major Scale Tone Chord Synonyms

BASS	Triad (lettered examples are shown in the key of C). nr=no root, n3=no third.						
	I major I _{ma} 7, I _{ma} 9, I ₆	II minor II _m 7, II _m 9, II _m 6	III minor III _m 7	IV major IV _{ma} 7, IV _{ma} 9, IV ₆	V major V ₇ , V ₉ , V ₆	VI minor VI _m 7, VI _m 9	VII dimin. VII _m 7b5
I _{ma} 7 or I ₆	root		third		fifth	sixth	
	I _{ma} 7, I _{ma} 9		III _m =I _{ma} 7nr		V=I _{ma} 9nrn3	VI _m =I ₆ n5	
	C _{ma} 7, C _{ma} 9		Em = C _{ma} 7nr		G=C _{ma} 9nrn3	Am=C ₆ n5	
	I ₆		III _m 7=I _{ma} 9nr		V ₆ =I _{ma} 9nr	VI _m 7=C ₆	
	C ₆		Em7 = C _{ma} 9nr		G ₆ =C _{ma} 9nr	Am7=C ₆	
II _m 7 or II _m 6		root	third			fifth	sixth
		II _m , II _m 7, II _m 9	IV=II _m 7nr			VI _m =II _m 9nrn3	VII _{dim} =II _m 6n5
		D _m , D _m 7, D _m 9	F = D _m 7nr			Am=D ₉ nrn3	B _{dim} =D _m 6n5
		II _m 6	IV ₆ =II _m 7			VI _m 7=II _m 11nrn3	B _m 7b5=D _m 6
		D _m 6	F ₆ = D _m 7			Am7=D _m 11nrn3	VII _m 7b5=II _m 6
III _m 7			root		third		fifth
			III _m , III _m 7		V=III _m 7nr		VII _{dim}
			Em, Em7		G=Em7nr		B _{dim} /E
					III _m 7, V ₆		III ₇ b9no3
					Em7 = G ₆		E ₇ b9no3
IV, IV _{ma} 7, IV _{ma} 9, IV ₆	fifth	sixth		root		third	
	I=IV _{ma} 9nrn3	II _m =IV ₆ n5		IV major		VI _m =IV _{ma} 7nr	
	C=F _{ma} 9nrn3	D _m =F ₆ n5		IV _{ma} 7, IV _{ma} 9, IV ₆		Am=F _{ma} 7nr	
		II _m 7=IV ₆		F major		VI _m 7=IV _{ma} 9nr	
		D _m 7=F ₆		F _{ma} 7, F _{ma} 9, F ₆		Am7=F _{ma} 9nr	
V ₇ or V ₆		fifth	sixth		root		third
		II _m =V ₉ nr3	III _m =V ₆ n5		V ₇ , V ₉		VII _{dim} =V ₇ nr
		D _m =G ₉ nrn3	Em=G ₆ n5		G ₇ , G ₉		B _{dim} = G ₇ nr
		II _m 6=V ₉ nr	III _m 7=V ₆		V ₆		
		D _m 6=G ₉ nr	Em7=G ₆		G ₆		
6	third		fifth			root	
	VI _m =I ₆ n5		III _m =VI _m 9nrn3			VI _m	
	Am=I ₆ n5		Em=Am ₉ nrn3			VI _m 7, VI _m 9	
	VI _m 7=I ₆		III _m 7=VI _m 11nrn3				
	Am7=C ₆		Em7=Am ₁₁ nrn3				
7		third					root
		II _m =VII _m 7b5nr					VII _{dim} , VII _m 7b5
		D _m =B _m 7b5nr					B _{dim} , B _m 7b5.

Harmonic Minor Scale Tone Chord Synonyms

Triad (lettered examples are shown in the key of A harmonic minor). °=dim, °7=dim7, nr=no root, n3=no third.							
BASS	Im, Im(ma7), Im9(ma7)	II minor II m7b5, IIdim7	bIII aug. bIII ma7#5	IV minor IV m7, IVdim7	V major V7, V7b9	bVI major bVI ma7	VII dimin. VII dim7
Im, Im(ma7)	root		third		fifth		
	Im, Im(ma7)		bIII aug=Im		V=Im(ma7)nrn3		
	Am, Am(ma7)		= Im(ma7)nr		E=Am(ma7)nrn3		
	Im9(ma7)		C aug=Im				
	Am9(ma7)		=Am(ma7)nr				
II m, II m7b5, IIdim7		root		third		fifth	sixth
		IIdim, II m7b5		IV m=II m7b5nr		bVI dim7=IIdim7	VII °7=II °7
		Bdim., B m7b5		IV m6=II m7b5		Fdim7=Bdim7	G# °7=B °7
		IIdim7		IV dim7=IIdim7			
		Bdim7		Ddim7=Bdim7			
bIII aug. bIII ma7#5			root		third		fifth
			bIII aug		V aug=bIII aug		VII aug=bIII aug
			C aug		E aug=C aug		G# aug=C aug
			bIII ma7#5		V=bIII ma7#5nr		
			C ma7#5		E=C ma7#5nr		
IV m, IV m7, IVdim7	fifth	sixth		root		third	
	Im/4	II m/b3		IV m, IV m7		bVI=IV m7nr	
	Am/D	Dm/F		Dm, Dm7		F=Dm7nr	
	IV m9nrn3	IV 6n5		IV m9		bVI ma7=IV m9nr	
	Dm9nrn3	F6n5		Dm9		F ma7=Dm9nr	
V, V7, V7b9		fifth			root		third
		IIdim=V7b9nrn3			V, V7, V7b9		VII °=V7nr
		Bdim=E7b9nrn3			E, E7, E7b9		VII °=E7nr
		IIdim7=V7b9nr					VII °7=V7b9nr
		Bdim7=V7b9nr					G# °7=E7b9nr
bVI, bVI ma7, bVI6, bVI °7	third	dim. fourth		sixth		root	aug. second
	Im=bVI ma7nr	IIdim7=VII dim7		IV m=bVI 6n5		bVI, bVI ma7, bVI6	VII °7=bVI °7
	Am=F ma7nr	Bdim7=G#dim7		IV m7-bVI6		F, F ma7, F6	G# °7=FI °7
				IV dim7=bVI dim7		bVI dim7	
				Ddim7=Fdim7			
VII °, VII °7		third	dim. fourth	fifth	sixth	seventh	root
		IIdim7=VII dim7	bIII aug=VII aug	IV dim7=VII dim7	V aug=VII aug	bVI dim7=VII dim7	VII dim, aug.
		Bdim7=G#dim7	C aug=G#aug	Ddim7=G#dim7	E aug=VII aug	Fdim7=G#dim7	G# °, G#aug G#dim7

Melodic Minor Scale Tone Chord Synonyms

BASS	Triad (lettered examples are shown in the key of C melodic minor). nr=no root, n3=no third.						
	I minor Im(ma7)	II minor IIm7, IIm6	bIII aug bIIIma7#5	IV major IV7, IV ₉	V major V7, V9	VI dimin. VIIm7b5	VI dimin. VIIIm7b5
Im, Im(ma7), Im6	root		third		fifth	sixth	
	Im, Im(ma7)		bIIlaug=Im(ma7)nr		V=Im9(ma7)nrn3	VIIm=Im6n5	
	Cm, Cm(ma7)		Ebaug=Cm(ma7)nr		G=Cm9(ma7)nrn3	AdIm=Cm6n5	
IIm, IIm7, IIm6		root		third			sixth
		IIm, IIm7		IV=IIm7nr			VIIdim=IIm6b5
		Dm, Dm7		F=Dm7nr			Bdim=Dm6b5
				IV6 = IIm7			VIIIm7b5=IIm6
				F6 = Dm7			Bm7b5=Dm6
bIII aug bIIIma7#5			root		third		
			bIIlaug, bIIIma7#5		V=bIIIma7#5nr		
			Ebaug, Ebma7#5		G=Ebma7#5nr		
IV, IV7, IV9	fifth	sixth		root		third	
	Im=IV9nrn3	IIm=IV6nr		IV, IV7, IV9		VIIdim=IV7nr	
	Cm=F9nrn3	Dm=F6nr		F, F7, F9		Adim=F7nr	
	Im6=IV9nr	IIIIm7-IV6				VIIm7b5=IV9nr	
	Cm6=F9nr	Dm7=F6				Am7b5=F9nr	
V, V7, V9		fifth	sixth		root		third
		IIm=V9nrn3	bIIlaug-Vaug		V, V7, V9		VIIdim=V7nr
		Dm=G9nrn3	Ebaug=Gaug		G, G7, G9		VIIIm7b5=V9nr
		IIm6=V9nr			Vaug, V7#5,		VIIaug=Vaug
		Dm6=G9nr			V9#5		
VI°, VIIm7b5	third		fifth			root	
	Im=VIIm6nr		bIIlaug=VIIm9b5nrn3			VIIdim, VIIm7b5	
	Cm=Am6nr		Ebaug=Am9b5nrn3			Adim, Am7b5	
	Im6 = VIIm7b5						
	Cm6 = Am7b5						
VIIdim, VIIIm7b5		third					root
		IIm=VIIIm7b5nr					VIIdim, VIIIm7b5
		Dm=Bm7b5nr					Bdim, Bm7b5
		IIm6=VIIIm7b5					
		Dm6-Bm7b5					

Harmonic Major Scale Tone Chord Synonyms

BASS	triad (lettered examples are shown in the key of C). °=dim, °7=dim7, nr=no root, n3=no third.						
	I major, I aug. I _{ma} 7, I _{ma} 9, I _{ma} 7#5	II diminished II _m 7b5, II _m 9b5	III minor III _m 7	IV minor IV _m (ma7), IV _{dim} .7	V major V7, V7b9, V6	bVI augmented bVI _{ma} 7#5, bVI°7	VII dimin. VII _{dim} .7
I, I _{ma} 7, I6, I _{aug} , I _{ma} 7#5	root		third		fifth	sixth	
	I _{ma} 7, I _{ma} 9, I6		III _m =I _{ma} 7nr		V=I _{ma} 9nrn3	bVI _{aug} =I _{aug}	
	C _{ma} 7, C _{ma} 9. C6		Em = C _{ma} 7nr		G=C _{ma} 9nrn3	A _{aug} =C _{aug}	
	I _{aug}		III _m 7=I _{ma} 9nr		V6-I _{ma} 9nr	bVI _{ma} 7#5nr=I _{maj}	
	C _{aug}		Em7 = C _{ma} 9nr		G6-C _{ma} 9nr	Ab _{ma} 7#5nr=C	
II°, II _m 7b5 II _{dim} 7		root		third		fifth	sixth
		II _{dim} , II _m 7b5		IV _m =II _m 7b5nr		bVI°7=II°7	VII _{dim} 7=II _{dim} 7
		D _{dim} , D _m 7b5		F _m = D _m 7b5nr		Ab°7=D°7	B _{dim} 7=D _{dim} 7
		II _{dim} 7		IV _m (ma7)nr=bVI _{aug}			
		D _{dim} 7		IV _{dim} 7=II _{dim} 7			
III _m , III _m 7			root		third		
			III _m , III _m 7		V=III _m 7nr		
			Em, Em7		G=Em7nr		
					V6=III _m 7		
					G6=Em7		
IV _m , IV _m (ma7), IV _{dim} .7	fifth	sixth		root		third	
	I=IV _{ma} 9nrn3	II _{dim} 7=IV _{dim} 7		IV _m , IV _m (ma7)		bVI _{aug} =IV _m (ma7)nr	
	C=F _{ma} 9nrn3	D _{dim} 7=F _{dim} 7		F _m , F _m (ma7)		Ab _{aug} =F _m (ma7)nr	
	I6-IV _{ma} 9nr	II _m 7b5=IV _m 6		IV _{dim} 7		bVI°7=IV°7	
	C6-F _{ma} 9nr	D _m 7b5=F _m 6		F _{dim} 7		Ab°7=F°7	
V, V7, V6		fifth	sixth		root		third
		II _{dim} =V7b9nrn3	III _m =V6n5		V7, V7b9		VII _{dim} =V7nr
		D _{dim} =G7b9nrn3	Em/G6n5		G7, G7b99		B _{dim} = G7nr
			III _m 7=V6		V6		VII°7=V7b9nr
			Em7=G6		G6		B°7=G7b9nr
bVI _{aug} , bVI°, bVI _{ma} 7#5, bVI°7	third		fifth			root	aug. second
	I=bVI _{ma} 7#5nr		III _m =bVI _{ma} 9#5nrn3			bVI _{aug} , bVI _{ma} 7#5	VII°7=bVI°7
	C=Ab _{ma} 7#5nr		Em=Ab _{ma} 9#5nrn3			Ab _{aug} , Ab _{ma} 7#5	B°7=Ab°7
	I _{aug} =bVI _{aug} .		III _{aug} =bVI _{aug}			bVI°, bVI°7	
	C _{aug} =Ab _{aug} .		E _{aug} =Ab _{aug}			Ab°, Ab°7	
7		third		fifth		dim. seventh	root
		II _{dim} =VII°7nr		IV _{dim} 7=VII _{dim} 7		bVI _{dim} 7=VII _{dim} 7	VII _{dim} , VII°7
		D _{dim} =B°7nr		F _{dim} 7=B _{dim} 7		Ab _{dim} 7=B _{dim} 7	B _{dim} , B°7
		II _{dim} 7=VII _{dim} 7					
		D _{dim} 7=B _{dim} 7					

Secondary Root Triads on the Sixth use these in all three inversions

root on six of a major sixth (natural six only)

Root on the sixth of major sixth chords where the mode includes a natural six produce these modal synonyms:

$$I6 = VI\text{Im}7 \text{ (C6 = Am7)}, IV6 = II\text{Im}7 \text{ (F6 = Dm7)}, V6 = III\text{Im}7 \text{ G6 = Em7)}$$

For I6 (C6), its synonym (Am7) may be abbreviated to VIIm (Am). This makes the synonym I6 no fifth (1-3-6) = VIIm (Am = 6-1-3 of C).

root on six of a minor sixth (natural six only)

Root on the sixth of minor sixth chords where the mode includes a natural six produce these modal synonyms:

$$\text{Im}6 = VI\text{Im}7\text{b}5 \text{ (Cm6 = Am7b5)}, II\text{Im}6 = VII\text{Im}7\text{b}5 \text{ (Dm7 = Bm7b5)}$$

For Im6 (Cm6), its synonym (Am7b5) may be abbreviated to VIIm (Am). This makes the synonym Im6 no fifth (1-b3-6) = VIIm (Adim = 6-1-b3 of C).

root on six of a diminished seventh (minor sixth flat five)

Root on the sixth of minor sixth flat five (diminished seventh) chords where the mode includes a natural six produce the modal synonyms:

$$\text{Im}6\text{b}5 \text{ (Cm6b5)} = I \text{ dim}7 \text{ (Cdim7)} = VI\text{Im}7\text{b}5 \text{ (Am7b5)}, II\text{Im}6 = VII\text{Im}7\text{b}5 \text{ (Dm7 = Bm7b5)}$$

For Im6b5 = Idim7 (Cm7b5=Cdim7), its synonym (Am7b5) may be abbreviated to VI diminished (A diminished). This makes the synonym Im6b5 no fifth (1-b3-6) = A dim (6-1-b3 of C).

in conclusion, the triad synonyms on six are VIIm or VI diminished

$$I6 \text{ no fifth (1-3-6)} = VI\text{Im} \text{ (Am = 6-1-3 of C)},$$

$$\text{Im}6 \text{ no fifth or Im6b5 no fifth (1-b3-6)} = VI\text{dim} \text{ (A diminished = 6-1-b3 of C)}.$$

Secondary Root Triads on the Third

use these in all three inversions

root on three of any type seventh chord

In every case, a scale tone seventh chord without a root is the same as a triad on a root up a third.

Ionian mode triads on the third of a scale-tone seventh chord

Ima7 no root (Cma7 no root) = IIIIm (Em)
 IIm7 no root (Dm7 no root) = IV (F major)
 IIIm7 no root (Em7 no root) = V (G major)
 IVma7 no root (Fma7 no root) = VIIm (Am)
 V7 no root (G7 no root) = VII diminished (B diminished)
 VIIm7 no root (Am7 no root) - I major (C major)
 VIIIm7b5 no root (Bm7b5 no root) - IIm (Dm)

harmonic minor triads on the third of a scale-tone seventh chord

Im(ma7) no root (Cm<ma7> no root) = bIII augmented (Eb augmented)
 IIm7b5 no root (Dm7b5 no root) = IVm (F minor)
 bIIIIma7#5 no root (Ebma7#5 no root) = V major (G major)
 IVm7 no root (Fm7 no root) = bVI major (Ab major)
 V7 no root (G7 no root) = VII diminished (B diminished)
 bVIIma7 no root (Abma7 no root) = I minor (C minor)
 VIIIm7b5 no root (Bm7b5 no root) = II diminished (D diminished)

melodic minor triads on the third of a scale-tone seventh chord

Im(ma7) no root (Cm<ma7> no root) = bIII augmented (Eb augmented)
 IIm7 no root (Dm7 no root) = IV (F major)
 bIIIIma7#5 no root (Ebma7#5 no root) = V (G major)
 IV7 no root (F7 no root) = VI dim (A diminished)
 V7 no root (G7 no root) = VII diminished (B diminished)
 VIIm7b5 no root (Am7b5 no root) = I minor (C minor)
 VIIIm7b5 no root (Bm7b5 no root) = IIm (Dm)

harmonic major triads on the third of a scale-tone seventh chord

Ima7 no root (Cma7 no root) = IIIIm (Em)
 IIm7b5 no root (Dm7b5 no root) = IVm (F minor)
 IIIIm7 no root (Em7 no root) = V (G major)
 IVm(ma7) no root (Fm<ma7> no root) = bVI augmented (Ab augmented)
 V7 no root (G7 no root) = VII diminished (B diminished)
 bVIIma7#5 no root (Abma7#5 no root) - I major (C major)
 VIIIm6b5 no root (Bm6b5 no root) - II diminished (D diminished)

Secondary Root Triads on the Fifth

root on fifth of any type ninth chord

Some ninths have not yet been accepted, such as IIm7b9 and VIIIm7b5b9. So far, ninth chords with a flat nine are only considered acceptable on chords with a natural three. Also, sharp nine is not yet acceptable on a major seventh chord. In every case, an acceptable scale tone ninth chord without a root and without a third is the same as a triad with its a root on the fifth of the ninth chord.

Ionian mode triads on the fifth of a scale-tone ninth chord

Ima9 no root, no third (Cma9 no root, no third) = V (G)
 IIm9 no root, no third (Dm9 no root, no third) = VIm (Am)
 IIIIm7b9 - not yet acceptable
 IVma9 no root, no third (Fma9 no root, no third) = I (C)
 V9 no root, no third (G7 no root, no third) = IIm (Dm)
 VIm9 no root, no third (Am7 no root, no third) - IIIIm (Em)
 VIIIm7b5b9 - not yet acceptable

harmonic minor triads on the fifth of a scale-tone ninth chord

Im(ma9) no root, no third (Cm9<ma7> no root, no third) = V (G)
 IIm7b5b9-not yet acceptable
 bIIIIma9#5 no root, no third (Ebma9#5 no root, no third) = VII dim (B dim)
 IVm9 no root, no third (Fm9 no root, no third) = Im (Cm)
 V7b9 no root, no third (G7b9 no root, no third) = IIdim (Ddim)
 bVIIma7#9 -not yet acceptable
 VIIIm7b5b9-not yet acceptable

melodic minor triads on the fifth of a scale-tone ninth chord

Im(ma9) no root, no third (Cm9<ma7> no root, no third) = V (G)

IIm7b9-not yet acceptable

bIIIma9#5 no root, no third (Ebma9#5 no root, no third) = V (G major)

IV9 no root, no third (F9 no root, no third) = Im (Cm)

V9 no root, no third (G9 no root, no third) = IIm (Dm)

VIm9b5 no root, no third (Am9b5 no root) = bIII augmented (Eb augmented)

VIIIm7b5b9-not yet acceptable

harmonic major triads on the fifth of a scale-tone ninth chord

Ima9 no root, no third (Cma9 no root, no third) = V (G)

IIm9b5 no root, no third (Dm9b5 no root, no third) = bVI augmented (Ab augmented)

IIIIm7b9-not yet acceptable

IVm9(ma7) no root, no third (Fm9<ma7> no root, no third) = I (C)

V7b9 no root, no third (G7b9 no root, no third) = II dim (D dim)

bVIma7#5#9-not yet acceptable

VIIIm7b5b9-not yet acceptable

HIDDEN ROOT TRIADS WITH NEIGHBOR

MODAL TRIADS WITH NEIGHBOR

[click to play a video of all the examples below](#)

Swing Eighth

♩ = 120

Major

1 C Cmaj7 C7 C6 ascending root position with 7-2-4-6

T 8 8 8 8 10 9 8 7 9 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

A 10 9 8 7 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

B 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

5 C Cmaj7 C7 C6 ascending first inversion with 2-4-6-7

T 8 8 8 8 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

A 10 9 8 7 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

B 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

9 C Cmaj7 C7 C6 ascending second inversion with 4-6-7-2

T 8 8 8 8 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

A 10 9 8 7 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

B 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

13 C Cmaj7 C7 C6 descending second inversion with 4-2-7-6

T 8 8 8 8 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

A 10 9 8 7 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

B 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

17 C Cmaj7 C7 C6 descending first inversion with 2-7-6-4

T 8 8 8 8 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

A 10 9 8 7 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

B 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

21 C Cmaj7 C7 C6 descending root position with 6-4-2-7

T 8 8 8 8 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

A 10 9 8 7 10 9 8 7 10 9 8 10 7 9 8 10 9 10 8 10 9 8 10

B 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8

melodic minor

25 Cm Cm(maj7) Cm⁶ Cm(maj7) ascending root position with 7-2-4-6

30 Cm Cm(maj7) Cm⁶ Cm(maj7) ascending first inversion with 2-4-6-7

34 Cm Cm(maj7) Cm⁶ Cm(maj7) ascending second inversion with 4-6-7-2

38 Cm Cm(maj7) Cm⁶ Cm(maj7) descending second inversion with 4-2-7-6

42 Cm Cm(maj7) Cm⁶ Cm(maj7) descending first inversion with 2-7-6-4

46 Cm Cm(maj7) Cm⁶ Cm(maj7) descending root position with 6-4-2-7

Dorian

50 Dm Dm(maj7) Dm7 Dm⁶ ascending root position with b7-2-4-6

T	10	10	10	10	7	10	10	10	7	10	10	7	9	10	10	7	10	8	10	7	10	10	7	
A	7	9	7	11	7	9	11	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
B	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

55 Dm Dm(maj7) Dm7 Dm⁶ ascending first inversion with 2-4-6-b7

T	10	10	10	10	7	10	10	10	7	10	10	7	9	10	10	7	10	8	10	7	10	10	7	
A	7	9	7	11	7	9	11	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
B	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

59 Dm Dm(maj7) Dm7 Dm⁶ ascending second inversion with 4-6-b7-2

T	10	10	10	10	7	10	10	10	7	10	10	7	9	10	10	7	10	8	10	7	10	10	7	
A	7	9	7	11	7	9	11	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
B	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

63 Dm Dm(maj7) Dm7 Dm⁶ descending second inversion with 4-2-b7-6

T	10	10	10	10	7	10	10	10	7	10	10	7	9	10	10	7	10	8	10	7	10	10	7	
A	7	9	7	11	7	9	11	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
B	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

67 Dm Dm(maj7) Dm7 Dm⁶ descending first inversion with 2-b7-6-4

T	10	10	10	10	7	10	10	10	7	10	10	7	9	10	10	7	10	8	10	7	10	10	7	
A	7	9	7	11	7	9	11	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
B	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

71 Dm Dm(maj7) Dm7 Dm⁶ descending root position with 6-4-2-b7

T	10	10	10	10	7	10	10	10	7	10	10	7	9	10	10	7	10	8	10	7	10	10	7	
A	7	9	7	11	7	9	11	9	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
B	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Dorian flat five

75 $Dm7(b5)$ $G7(b9)$ $Dm7(b5)$ $G7$ ascending root position with $b7-2-4-6$

T 4 4 8 7 7 10 7 10 9 7 9 10 9 7 10 8 9 7 10 9 7
A 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7
B 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7

80 $Dm7(b5)$ $G7(b9)$ $Dm7(b5)$ $G7$ ascending first inversion with $2-4-6-b7$

T 4 4 8 7 7 10 7 10 9 7 9 10 9 7 10 8 9 7 10 9 7
A 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7
B 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7

84 $Dm7(b5)$ $G7(b9)$ $Dm7(b5)$ $G7$ ascending second inversion with $4-6-b7-2$

T 4 4 8 7 7 10 7 10 9 7 9 10 9 7 10 8 9 7 10 9 7
A 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7
B 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7

88 $Dm7(b5)$ $G7(b9)$ $Dm7(b5)$ $G7$ descending second inversion with $4-2-b7-6$

T 4 4 8 7 7 10 7 10 9 7 9 10 9 7 10 8 9 7 10 9 7
A 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7
B 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7

92 $Dm7(b5)$ $G7(b9)$ $Dm7(b5)$ $G7$ descending first inversion with $2-b7-6-4$

T 4 4 8 7 7 10 7 10 9 7 9 10 9 7 10 8 9 7 10 9 7
A 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7
B 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7

96 $Dm7(b5)$ $G7(b9)$ $Dm7(b5)$ $G7$ descending root position with $6-4-2-b7$

T 4 4 8 7 7 10 7 10 9 7 9 10 9 7 10 8 9 7 10 9 7
A 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7
B 3 3 6 5 5 10 10 10 9 10 10 9 10 9 10 8 9 7 10 9 7

Phrygian

100 Em⁷ Bm⁷(b5) Fmaj⁷ Em⁷ ascending root position with b7-b2-4-b6

T 8 6 10 8 7 9 8 7 9 8 7 9 8 10 7 9 8 7 8

A 2 7 9 2 7 10 9 10 7 9 10 9 10 9 10 9 10 9 7 9

B 7 7 8 7 8 7 7 8 7 7 8 7 7 8 7 7 8 7 7

105 Em⁷ Bm⁷(b5) Fmaj⁷ Em⁷ ascending first inversion with b2-4-b6-b7

T 8 6 10 8 10 9 9 8 10 9 9 10 7 9 10 9 10 9 10 9 7 9

A 2 7 9 2 8 10 9 9 8 10 9 9 10 7 9 10 9 10 9 10 9 7 9

B 7 7 8 7 8 7 8 7 9 9 8 7 9 9 8 7 9 9 8 7 9 9 8 7

109 Em⁷ Bm⁷(b5) Fmaj⁷ Em⁷ ascending second inversion with 4-b6-b7-b2

T 8 6 10 8 9 9 8 7 9 9 8 9 10 9 9 7 9 8 9 9 10 8

A 2 7 9 2 7 9 9 8 7 9 9 8 9 10 9 9 7 9 8 9 9 10 8

B 7 7 8 7 8 7 8 7 9 9 8 7 9 9 8 7 9 9 8 7 9 9 8 7

113 Em⁷ Bm⁷(b5) Fmaj⁷ Em⁷ descending second inversion with 4-b2-b7-b6

T 8 6 10 8 10 8 9 9 10 8 9 9 8 10 9 9 8 9 7 9 8 9 10 9

A 2 7 9 2 10 8 9 9 10 8 9 9 8 10 9 9 8 9 7 9 8 9 10 9

B 7 7 8 7 8 7 8 7 9 9 8 7 9 9 8 7 9 9 8 7 9 9 8 7

117 Em⁷ Bm⁷(b5) Fmaj⁷ Em⁷ descending first inversion with b2-b7-b6-4

T 8 6 10 8 10 9 9 10 9 9 9 7 9 9 10 9 10 9 10 9 7 10

A 2 7 9 2 10 9 9 10 9 9 9 7 9 9 10 9 10 9 10 9 7 10

B 7 7 8 7 8 7 8 7 9 9 8 7 9 9 8 7 9 9 8 7 9 9 8 7

121 Em⁷ Bm⁷(b5) Fmaj⁷ Em⁷ descending root position with b6-4-b2-b7

T 8 6 10 8 8 7 8 8 7 8 9 7 10 8 7 8 10 9 7 8 9 7

A 2 7 9 2 8 7 8 8 7 8 9 7 10 8 7 8 10 9 7 8 9 7

B 7 7 8 7 8 7 8 7 9 9 8 7 9 9 8 7 9 9 8 7 9 9 8 7

Phrygian Dominant

125 E7 Am Fmaj7 E7 ascending root position with b7-b2-4-b6

T 2 10 10 2 7 9 9 7 9 9 7 9 9 7 8

A 2 10 10 2 7 9 9 7 9 9 7 9 9 7 8

B 2 10 10 2 7 9 9 7 9 9 7 9 9 7 8

130 E7 Am Fmaj7 E7 ascending first inversion with b2-4-b6-b7

T 2 10 10 2 6 9 9 6 9 9 6 7 9 9 6 9 10 9

A 2 10 10 2 6 9 9 6 9 9 6 7 9 9 6 9 10 9

B 2 10 10 2 6 9 9 6 9 9 6 7 9 9 6 9 10 9

134 E7 Am Fmaj7 E7 ascending second inversion with 4-b6-b7-b2

T 2 10 10 2 9 9 9 7 9 9 9 9 10 9 9 9 10 9

A 2 10 10 2 9 9 9 7 9 9 9 9 10 9 9 9 10 9

B 2 10 10 2 9 9 9 7 9 9 9 9 10 9 9 9 10 9

138 E7 Am Fmaj7 E7 descending second inversion with 4-b2-b7-b6

T 2 10 10 2 9 9 9 10 9 9 9 10 9 9 9 10 9

A 2 10 10 2 9 9 9 10 9 9 9 10 9 9 9 10 9

B 2 10 10 2 9 9 9 10 9 9 9 10 9 9 9 10 9

142 E7 Am Fmaj7 E7 descending first inversion with b2-b7-b6-4

T 2 10 10 2 9 9 6 10 9 9 6 9 7 9 6 10 9 6

A 2 10 10 2 9 9 6 10 9 9 6 9 7 9 6 10 9 6

B 2 10 10 2 9 9 6 10 9 9 6 9 7 9 6 10 9 6

146 E7 Am Fmaj7 E7 descending root position with b6-4-b2-b7

T 2 10 10 2 8 7 9 9 8 7 9 9 7 10 9 9 7 9 10 9

A 2 10 10 2 8 7 9 9 8 7 9 9 7 10 9 9 7 9 10 9

B 2 10 10 2 8 7 9 9 8 7 9 9 7 10 9 9 7 9 10 9

Lydian

150 Fmaj7 G⁹ Cmaj7 Fmaj7 ascending root position with 7-2-#4-6

T	10	10	8	10	9	10	8	10	7	8	10	8	10
A	9	9	9	9	9	9	9	9	9	9	9	9	9
B	8	10	8	8	8	8	8	8	8	8	8	8	8

155 Fmaj7 G⁹ Cmaj7 Fmaj7 ascending first inversion with 2-#4-6-7

T	10	10	8	10	7	10	10	7	10	10	7	10	7
A	9	9	9	9	9	9	9	9	9	9	9	9	9
B	8	10	8	8	10	10	10	10	10	10	10	10	10

159 Fmaj7 G⁹ Cmaj7 Fmaj7 ascending second inversion with #4-6-7-2

T	10	10	8	10	10	10	10	10	10	10	10	10	10
A	9	9	9	9	9	9	9	9	9	9	9	9	9
B	8	10	8	8	8	8	8	8	8	8	8	8	8

163 Fmaj7 G⁹ Cmaj7 Fmaj7 descending second inversion with #4-2-7-6

T	10	10	8	10	7	10	10	10	10	10	10	10	10
A	9	9	9	9	9	9	9	9	9	9	9	9	9
B	8	10	8	8	8	8	8	8	8	8	8	8	8

167 Fmaj7 G⁹ Cmaj7 Fmaj7 descending first inversion with 2-7-6-#4

T	10	10	8	10	8	10	10	7	10	10	7	10	7
A	9	9	9	9	9	9	9	9	9	9	9	9	9
B	8	10	8	8	8	8	8	8	8	8	8	8	8

171 Fmaj7 G⁹ Cmaj7 Fmaj7 descending root position with 6-#4-2-7

T	10	10	8	10	7	10	10	7	10	10	7	10	7
A	9	9	9	9	9	9	9	9	9	9	9	9	9
B	8	10	8	8	8	8	8	8	8	8	8	8	8

Lydian dominant

175 F⁷ G⁷ B⁷(b5) F⁷ ascending root position with 7-2-#4-6

T 10 12 8 10 8 10 8 10
A 8 10 7 8 10 10 7 8
B 8 10 7 8 10 10 7 8

180 F⁷ G⁷ B⁷(b5) F⁷ ascending first inversion with 2-#4-6-7

T 10 12 8 10 7 10 10 10
A 8 10 7 8 10 7 10 10
B 8 10 7 8 10 7 10 10

184 F⁷ G⁷ B⁷(b5) F⁷ ascending second inversion with #4-6-7-2

T 10 12 8 10 9 10 10 10
A 8 10 7 8 9 10 10 10
B 8 10 7 8 9 10 10 10

188 F⁷ G⁷ B⁷(b5) F⁷ descending second inversion with #4-2-7-6

T 10 12 8 10 7 10 10 10
A 8 10 7 8 10 10 10 10
B 8 10 7 8 10 10 10 10

192 F⁷ G⁷ B⁷(b5) F⁷ descending first inversion with 2-7-6-#4

T 10 12 8 10 8 10 10 7
A 8 10 7 8 10 10 7 7
B 8 10 7 8 10 10 7 7

196 F⁷ G⁷ B⁷(b5) F⁷ descending root position with 6-#4-2-7

T 10 12 8 10 7 10 7 8
A 8 10 7 8 10 7 10 8
B 8 10 7 8 10 7 10 8

Mixolydian

200 G^7 G^6 Dm^7 G^7 ascending root position with $b7-2-4-6$

T															
A	12	12	13	12											
B	10	10	12	10	8	10	9	7	8	10	9	7	10	9	10

205 G^7 G^6 Dm^7 G^7 ascending first inversion with $2-4-6-b7$

T	12	12	13	12											
A	12	12	10	12	7										
B	10	10	12	10		9	7	8	7	9	7	8	9	10	8

209 G^7 G^6 Dm^7 G^7 ascending second inversion with $4-6-b7-2$

T	12	12	13	12											
A	12	12	10	12	10										
B	10	10	12	10		7	8	7	10	7	8	7	7	9	8

213 G^7 G^6 Dm^7 G^7 descending second inversion with $4-2-b7-6$

T	12	12	13	12											
A	12	12	10	12	10										
B	10	10	12	10		9	10	10	9	10	10	9	9	10	8

217 G^7 G^6 Dm^7 G^7 descending first inversion with $2-b7-6-4$

T	12	12	13	12	10										
A	12	12	10	12		8	7	9	10	8	7	9	8	10	7
B	10	10	12	10											

221 G^7 G^6 Dm^7 G^7 descending root position with $6-4-2-b7$

T	12	12	13	12	9										
A	12	12	10	12		7	9	10	9	7	9	10	7	10	9
B	10	10	12	10											

Mixolydian sharp one (1-b2-b3-b4-b5-b6-bb7)

225 G#^{o7} Am B^{o7} Am ascending root position with b7-2-4-6

T 7 5 10 8
A 9 7 9 10
B 6 7 9 8

230 G#^{o7} Am B^{o7} Am ascending first inversion with 2-4-6-b7

T 7 5 10 8
A 9 7 9 10
B 6 7 9 8

234 G#^{o7} Am B^{o7} Am ascending second inversion with 4-6-b7-2

T 7 5 10 8
A 9 7 9 10
B 6 7 9 8

238 G#^{o7} Am B^{o7} Am descending second inversion with 4-2-b7-6

T 7 5 10 8
A 9 7 9 10
B 6 7 9 8

242 G#^{o7} Am B^{o7} Am descending first inversion with 2-b7-6-4

T 7 5 10 8
A 9 7 9 10
B 6 7 9 8

246 G#^{o7} Am B^{o7} Am descending root position with 6-4-2-b7

T 7 5 10 8
A 9 7 9 10
B 6 7 9 8

Aeolian

250 Am⁷ Bm^{7(b5)} Em⁷ Am ascending root position with b7-2-4-b6

T 8 7 7 5 10 7 10 9 7 9 10 7 9 7 10 9 10

A 7 7 7 5 10 7 10 9 7 9 10 7 9 7 10 9 10

B 7 7 7 5 10 7 10 9 7 9 10 7 9 7 10 9 10

255 Am⁷ Bm^{7(b5)} Em⁷ Am ascending first inversion with 2-4-b6-7

T 8 7 7 5 10 9 10 9 10 10 7 9 10 10 9 10 10

A 7 7 7 5 9 10 9 10 9 10 7 9 10 10 9 10 10

B 7 7 7 5 9 10 9 10 9 10 7 9 10 10 9 10 10

259 Am⁷ Bm^{7(b5)} Em⁷ Am ascending second inversion with 4-b6-b7-2

T 8 7 7 5 7 9 10 8 7 9 10 8 9 10 8 9 10 8

A 7 7 7 5 7 9 10 8 7 9 10 8 9 10 8 9 10 8

B 7 7 7 5 7 9 10 8 7 9 10 8 9 10 8 9 10 8

263 Am⁷ Bm^{7(b5)} Em⁷ Am descending second inversion with 4-2-b7-b6

T 8 7 7 5 7 10 7 7 10 7 7 10 9 7 7 10 7 7

A 7 7 7 5 7 10 7 7 10 7 7 10 9 7 7 10 7 7

B 7 7 7 5 7 10 7 7 10 7 7 10 9 7 7 10 7 7

267 Am⁷ Bm^{7(b5)} Em⁷ Am descending first inversion with 2-b7-b6-4

T 8 7 7 5 7 10 9 10 7 10 9 10 10 8 9 10 10 9 10

A 7 7 7 5 7 10 9 10 7 10 9 10 10 8 9 10 10 9 10

B 7 7 7 5 7 10 9 10 7 10 9 10 10 8 9 10 10 9 10

271 Am⁷ Bm^{7(b5)} Em⁷ Am descending root position with b6-4-2-b7

T 8 7 7 5 10 9 10 7 10 9 10 7 9 10 7 9 10 9 7

A 7 7 7 5 10 9 10 7 10 9 10 7 9 10 7 9 10 9 7

B 7 7 7 5 10 9 10 7 10 9 10 7 9 10 7 9 10 9 7

harmonic minor

275

Am(maj7) Bm^(b5) E7 Am ascending root position with 7-2-4-b6

T
A
B

8 9 7 6 4 6 7 10 9 6 7 10 9 7 9 10 9 10

280 Am(maj7) Bm7(b5) E7 Am ascending first inversion with 2-4-b6-7

T 8 7 9 5
A 7 7 6 9
B 7 7 6 9

10 9 10 9 10 10 10 9 10

284 Am(maj7) Bm7(b5) E7 Am ascending second inversion with 4-b6-7-2

TAB

8 7 7 5 7 9 10 8 9 10 8 9 9 10 8 9 10 7 8

288 Am(maj7) Bm7(b5) E7 Am descending second inversion with 4-2-7-b6

TAB

10 7 7 10 7 7 10 9 7 7 10 7 6 7 10 7 8 7

292

Am(maj7) Bm7(b5) E7 Am descending first inversion with 2-7-b6-4

TAB

8 7 7 5 7 | 10 9 7 10 9 | 10 9 9 10 10 9 | 10 9 7 10

296 Am(maj7) Bm7(b5) E7 Am descending root position with b6-4-2-7

T 8 7 7 5 10 | 9 10 7 10 9 10 7 | 9 7 10 7 9 10 9 7 | 9 10 7 6

A 8 7 7 5 10 | 9 10 7 10 9 10 7 | 9 7 10 7 9 10 9 7 | 9 10 7 6

B 8 7 7 5 10 | 9 10 7 10 9 10 7 | 9 7 10 7 9 10 9 7 | 9 10 7 6

Aeolian flat five

300 Am^{7(b5)} Bm^{7(b5)} Bm^{7(b5)} Am^{7(b5)} ascending root position with b7-2-4-b6

TAB: 3 5 7 8 | 7 10 8 | 7 9 10 8 7 10 7 8 | 7 10 8 10

305 Am^{7(b5)} Bm^{7(b5)} Bm^{7(b5)} Am^{7(b5)} ascending first inversion with 2-4-b6-b7

TAB: 3 5 7 8 | 9 10 8 10 | 10 7 8 10 8 10 10 | 10 8 8 10

309 Am^{7(b5)} Bm^{7(b5)} Bm^{7(b5)} Am^{7(b5)} ascending second inversion with 4-b6-b7-2

TAB: 3 5 7 8 | 7 8 10 8 7 8 10 8 | 8 10 10 8 8 10 8 | 8 10 7 8

313 Am^{7(b5)} Bm^{7(b5)} Bm^{7(b5)} Am^{7(b5)} descending second inversion with 4-2-b7-b6

TAB: 3 5 7 8 | 10 7 6 7 10 7 6 | 10 9 7 6 10 7 10 6 | 10 7 8 6

317 Am^{7(b5)} Bm^{7(b5)} Bm^{7(b5)} Am^{7(b5)} descending first inversion with 2-b7-b6-4

TAB: 3 5 7 8 | 10 8 10 10 8 10 | 10 8 8 10 10 8 10 | 10 8 7 10

321 Am^{7(b5)} Bm^{7(b5)} Bm^{7(b5)} Am^{7(b5)} descending root position with b6-4-2-b7

TAB: 3 5 7 8 | 8 10 7 10 8 10 7 | 8 7 10 7 8 10 9 7 | 8 10 7 10

Aeolian dominant

325 A⁷ Dm⁷ C[#]m⁷(b⁵) Dm⁷ ascending root position with b7-2-4-b6

T 8 6 5 6 7 11 9 10 7 6 9 7 9 11 9 7 11 7 9 7 11 9 10
A 6 6 4 6 7 11 9 10 7 6 9 7 9 11 9 7 11 7 9 7 11 9 10
B 7 5 4 5 5 10 10 7 6 9 7 9 11 9 7 11 7 9 7 11 9 10

330 A⁷ Dm⁷ C[#]m⁷(b⁵) Dm⁷ ascending first inversion with 2-4-b6-b7

T 8 6 5 6 7 11 9 10 9 11 9 10 6 7 9 10 11 9 10 10 11 9 8 10
A 6 6 4 6 7 11 9 10 9 11 9 10 6 7 9 10 11 9 10 10 11 9 8 10
B 7 5 4 5 5 9 11 9 10 9 11 9 10 6 7 9 10 11 9 10 10 11 9 8 10

334 A⁷ Dm⁷ C[#]m⁷(b⁵) Dm⁷ ascending second inversion with 4-b6-b7-2

T 8 6 5 6 7 9 10 9 7 9 10 9 9 10 10 9 9 8 10 9 9 10 7 9
A 6 6 4 6 7 9 10 9 7 9 10 9 9 10 10 9 9 8 10 9 9 10 7 9
B 7 5 4 5 5 9 10 9 7 9 10 9 9 10 10 9 9 8 10 9 9 10 7 9

338 A⁷ Dm⁷ C[#]m⁷(b⁵) Dm⁷ descending second inversion with 4-2-b7-b6

T 8 6 5 6 7 11 7 7 11 7 7 11 9 7 7 11 7 10 7 11 7 8 7
A 6 6 4 6 7 11 7 7 11 7 7 11 9 7 7 11 7 10 7 11 7 8 7
B 7 5 4 5 5 7 7 11 7 7 11 9 7 7 11 7 10 7 11 7 8 7

342 A⁷ Dm⁷ C[#]m⁷(b⁵) Dm⁷ descending first inversion with 2-b7-b6-4

T 8 6 5 6 7 10 9 11 7 10 9 11 10 8 9 11 10 10 9 11 10 9 7 11
A 6 6 4 6 7 10 9 11 7 10 9 11 10 8 9 11 10 10 9 11 10 9 7 11
B 7 5 4 5 5 11 11 7 10 9 11 11 10 8 9 11 10 10 9 11 10 9 7 11

346 A⁷ Dm⁷ C[#]m⁷(b⁵) Dm⁷ descending root position with b6-4-2-b7

T 8 6 5 6 10 9 11 7 10 9 11 7 9 7 11 7 9 11 9 7 9 11 7 10
A 6 6 4 6 10 9 11 7 10 9 11 7 9 7 11 7 9 11 9 7 9 11 7 10
B 7 5 4 5 10 11 11 7 10 9 11 7 9 7 11 7 9 11 9 7 9 11 7 10

Locrian

350

Bm^{7(b5)} Em⁷ Am⁷ Bm^{7(b5)} ascending root position with b7-b2-4-b6

355

Bm^{7(b5)} Em⁷ Am⁷ Bm^{7(b5)} ascending first inversion with b2-4-b6-b7

359

Bm^{7(b5)} Em⁷ Am⁷ Bm^{7(b5)} ascending second inversion with 4-b6-b7-b2

363

Bm^{7(b5)} Em⁷ Am⁷ Bm^{7(b5)} descending second inversion with 4-b2-b7-b6

367

Bm^{7(b5)} Em⁷ Am⁷ Bm^{7(b5)} descending first inversion with b2-b7-b6-4

371

Bm^{7(b5)} Em⁷ Am⁷ Bm^{7(b5)} descending root position with b6-4-b2-b7

super Locrian

375 $B7(\sharp_5)$ $B7(\flat_5)$ $B7(\sharp_5)$ $B7(\flat_5)$ ascending root position with b7-b2-b4-b6

10 8 7 7 9 7 10 9 10 7 9 7 10 9 10 7 8 10 9 7 10 8

380 $B7(\sharp_5)$ $B7(\flat_5)$ $B7(\sharp_5)$ $B7(\flat_5)$ ascending first inversion with b2-b4-b6-b7

10 8 7 7 7 10 7 10 7 7 7 8 10 7 10 8 7 7 10 10 7

384 $B7(\sharp_5)$ $B7(\flat_5)$ $B7(\sharp_5)$ $B7(\flat_5)$ ascending second inversion with b4-b6-b7-b2

10 8 7 7 8 10 7 10 8 7 10 10 7 10 10 7 10 10 7 8 10

388 $B7(\sharp_5)$ $B7(\flat_5)$ $B7(\sharp_5)$ $B7(\flat_5)$ descending second inversion with b4-b2-b7-b6

10 8 7 7 8 7 9 8 7 10 9 8 7 9 7 8 7 9 10 8

392 $B7(\sharp_5)$ $B7(\flat_5)$ $B7(\sharp_5)$ $B7(\flat_5)$ descending first inversion with b2-b7-b6-b4

10 8 7 7 8 10 7 10 7 10 7 10 7 10 7 10 7 10 8 7

396 $B7(\sharp_5)$ $B7(\flat_5)$ $B7(\sharp_5)$ $B7(\flat_5)$ descending root position with b6-b4-b2-b7

10 8 7 7 8 10 7 9 8 10 7 9 10 8 7 9 10 7 10 9 10 7 9 7

FREE-FORM TRIADS WITH NEIGHBOR

Three Triad Arpeggio Tones and a Neighbor

Four-note cells, like 1-2-3-5 and 1-3-4-5 are triads with a neighboring scale tone. 1-2-3-5 is a 1-3-5 triad with an upper neighbor “2” as the second note. 1-3-4-5 is 1-3-5 a triad with a neighboring tone “4” as the third note. 1-3-5-6, 1-3-5-4 or 1-3-5-7 would be a triad with a neighboring tone as the fourth note. This opens more possibilities.

Let’s think more broadly. There are four types of triads built in thirds: major, minor, diminished and augmented. The best added tones to create melody make universally familiar chord sounds, are neighbors to chord tones within a minor third or less. Versions of major, minor and diminished chords with one added tone are commonly known and used. Augmented with an added tone is more rare.

Quadrads to Serve As Free-form Triads With Neighbor

free-form versus sequenced triads with neighbor

In Fragment Patterns/[Triad with Neighbor Cells 1-2-3-5 and 1-3-4-5](#), the 1-2-3-5 and 1-3-4-5 triads with neighbor were used in a repeating sequence, which is the nature of fragment patterns. Here, they are used “free-form” where the notes can occur in any order, ascend or descend.

isolated harmonic sounds

The quadrads listed below can be used to present simple, pure chord colors. Sometimes use isolated, defined, pure chord sounds like you might find with simple yet elegant use of ingredients in fine cuisine. At other times, you might want to make dense combination of chord colors analogous to the dense combination of spices you might find in barbecue sauce.

Here, we’re looking at simple, pure chord colors. A triad with a single “spice”. Present each quadrad sound long enough that it defines it for the listener, then follow with other quadrad sounds.

major triads: add 2, 4, #4, 6, b7 or 7

These added tones make major add 9, major add 4, major add #4, major sixth (also called “sixth”), seventh (dominant seventh) and major seventh. In summary, you can choose an added from: 2, two versions of 4, 6 or two versions of 7.

minor triads: add 2, 4, 6, or b7

These added tones make minor add 9, minor add 4, minor sixth and minor seventh.

diminished triads: add 6 or b7

These added tones make diminished seventh and minor seventh flat five (half diminished).

augmented triads: b7

This makes a 7#5 quadrad.

Preferences of 6 or 7 Between Five and One

In [harmonic scalar pulse](#) melody, musical styles have already defined the preferences in choosing to linearly place specific versions of six or seven as a passing tone between scale tones five and one.

In western European folk, bluegrass, country music and other American triad-based music, “6” is preferred between 5 and 1 for major chords.

In western European folk, bluegrass, country music, blues (not swing) and other American triad-based music, “b7” is preferred between 5 and 1 for minor chords.

In swing music, “6” is an option to “b7” between 5 and 1 for minor chords. C major triad with neighbor - major no seven examples

neighbor above lowest

neighbor above middle note

neighbor above top note

mixing during each triad

descending inversions with theme and variation by choice of neighbor

8 10 8 9 8 10 9 10 9 10 7 10 7 9 8 8 8 10 9 8 9 7 10 9 7 10 9 8 10 8

12 10 8 8 8 10 8 9 8 9 7 10 9 10 8 8 12 8 10 8 8 8 10 9 8 10 9 10 9 8 10 8

ascending inversions with theme and variation by choice of neighbor

7 9 8 9 8 10 8 8 8 10 12 8 8 10 9 9 10 8 9 10 8 8 8 10 8 12 8 10 8 9

10 7 9 10 9 10 8 9 8 10 8 8 10 9 10 7 10 9 8 9 10 8 8 8 9 7 10

mixing with neighbor after last tone

9 8 10 8 9 7 10 9 8 8 10 8 8 10 9 12 13 12 13 14 12 8 8 9 7 8 9 10 7 9 10 10 8 7

A minor triad with neighbor - Aeolian no six examples

neighbor above lowest

TAB: 7 4 5 5 7 5 5 8 5 8 5 5 7 5 5 4 7

neighbor above middle note

TAB: 7 5 7 5 5 8 5 5 5 7 8 7 5 5 5 8 5 5 7 5 7

neighbor above top note

TAB: 7 5 5 8 5 5 5 7 9 10 8 10 8 10 9 7 5 5 5 8 5 5 7

mixing during each triad

TAB: 7 4 5 5 7 5 7 5 7 5 5 8 5 5 5 8 7 5 5 7 5 7 5 5 4 7 5 5 8 5 5 7 5 5 7 8 5 8 5

TAB: 8 7 5 5 8 5 8 5 8 5 5 7 5 5 5 7 5 8 5 5 7 8 5 7 5 5 8 5 5 4 7 5 7 5

descending inversions with theme and variation by choice of neighbor

ascending inversions with theme and variation by choice of neighbor

mixing with neighbor after last tone

EXERCISES AND SKETCHING

Played as is, these exercises can sound like exercises. To bring them into interesting, free form, creative improvisation, use a mixture of different instances and sketching. With sketching, you would leave notes out or add notes, add decoration like mordents and turns, syncopation and theme and variation.

For each of the instances below, add 7, 2, 4 or 6 in the appropriate version (b7, #4, etc.) to make a triad with neighbor. Be aware of non-chordal tone relationships to the beat: if you are descending 3-1-5 (fifth in the bass), and adding a “4”, putting it on the beat would cause an appoggiatura (leaning tone) tension, so you usually would put the “4” before the beat.

Triads with Neighbor in All Three Triad Inversions

fingerings

See “[Scale-Tone Triads](#)” and “[Triad Bass Harmonization](#)”.

Triads with Neighbor Stepwise in Position

Triads with Neighbor, Roots in Fourths, in Position

Triads with Neighbor Stepwise Horizontally

Play triads with neighbor up and down on the same strings, horizontally), including chromatic chords (Ima, #Ima, IIm, #IIm, IIIm, IVma, #IVma, Vma #Vma, VIm, bVIIma, VIIdim.

One Major to Flat Five Major

TRIAD WITH NEIGHBOR AS A CHORD COLOR

Build Your Improvising Palette of Colors

the triad defines the primary color

Major is happy, minor sad, diminished is depressed, augmented is tormented, suspended is euphoric or heavenly.

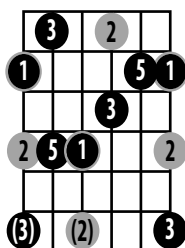
tones added to the triad add shades of color

Two and six are bright shades, six is associated with swing music, flat three and flat seven are bluesy, major seven is romantic. Flat two and flat six are dark and exotic.

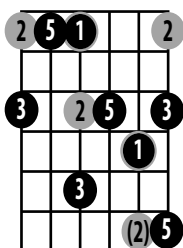
Fingerings for Major Triads with One Added Tone

major add 2 (major add 9 or add9)

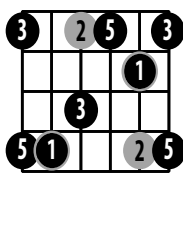
E form



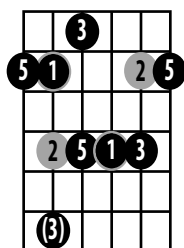
D form



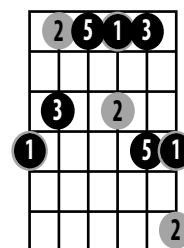
C form



A form

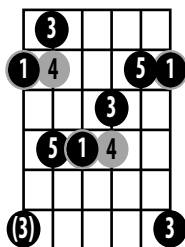


G form

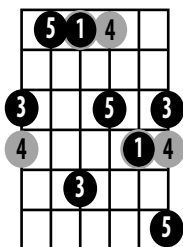


major add 4 (major add 11)

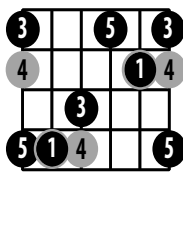
E form



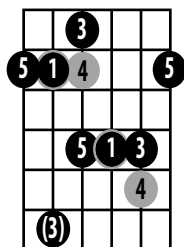
D form



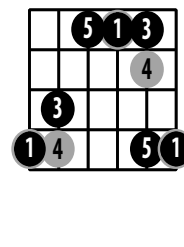
C form



A form

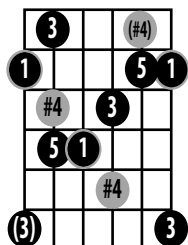


G form

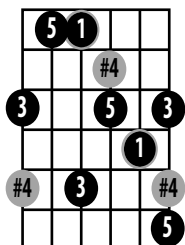


major add #4 (major add #11)

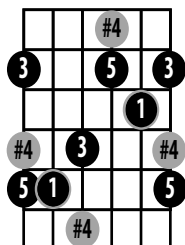
E form



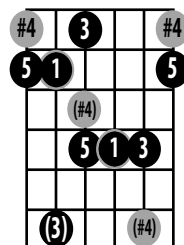
D form



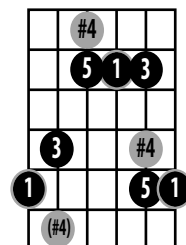
C form



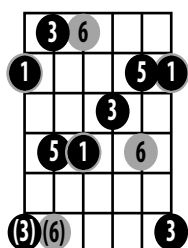
A form



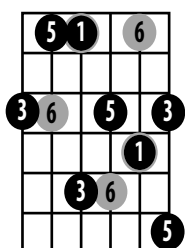
G form

**major add 6 (sixth or major sixth)**

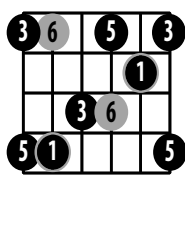
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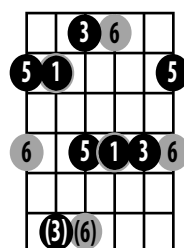
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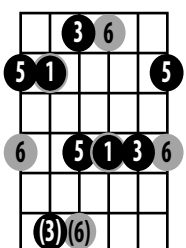
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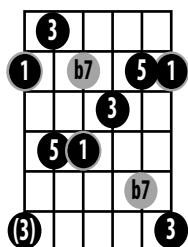
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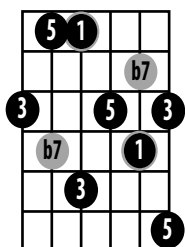
G form

**major add b7 (seventh or dominant seventh)**

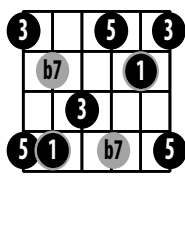
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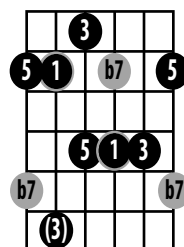
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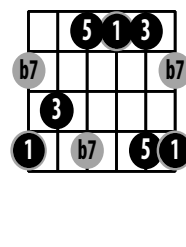
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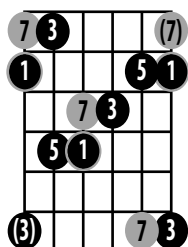
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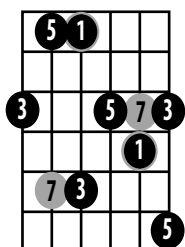
G form

**major add 7 (major seventh)**

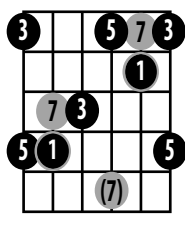
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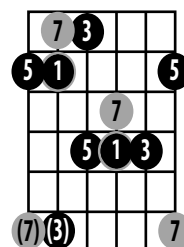
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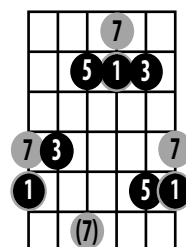
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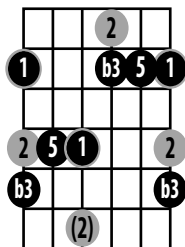
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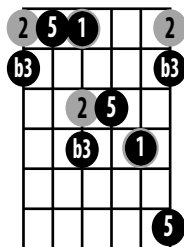
Fingerings for Minor Triads with One Added Tone

minor add 2 (minor add 9 or m add9)

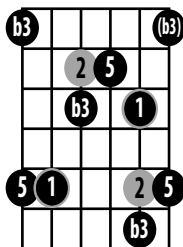
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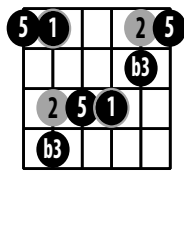
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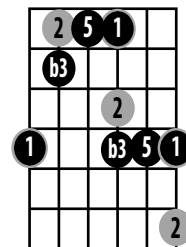
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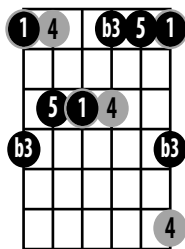


G form

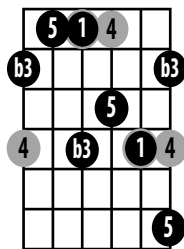


minor add 4 (minor add 11)

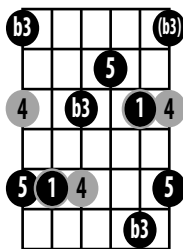
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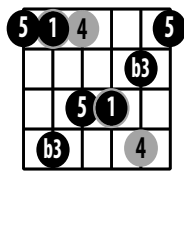
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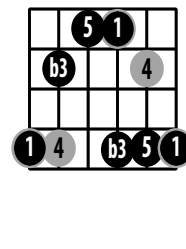
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A form

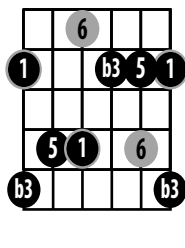


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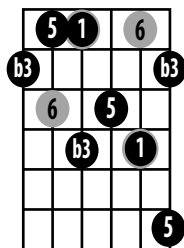


minor add 6 (minor sixth)

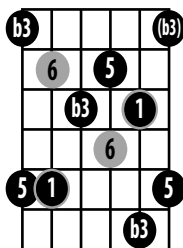
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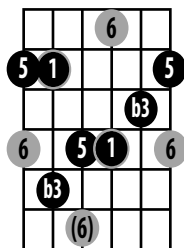
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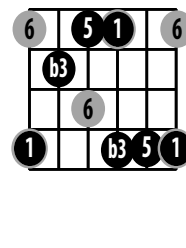
C form



A form

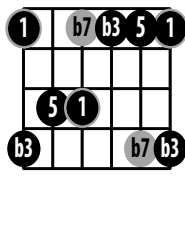


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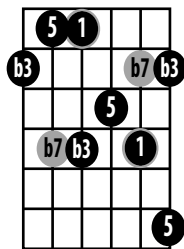


minor add b7 (minor seventh)

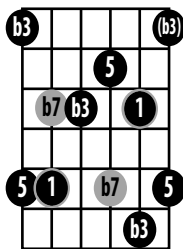
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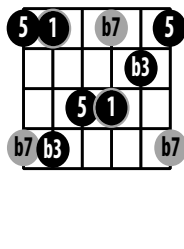
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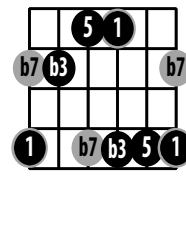
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A form



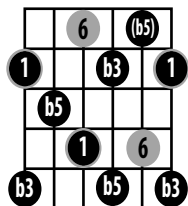
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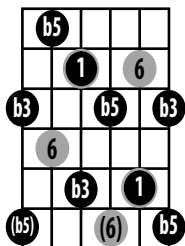
Fingerings for Diminished Triads with One Added Tone

diminished add 6 (diminished seventh)

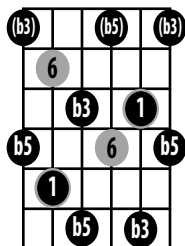
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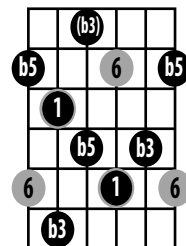
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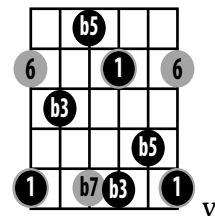
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A form

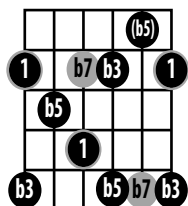


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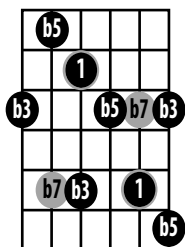


diminished add b7 (minor seventh flat five or half diminished)

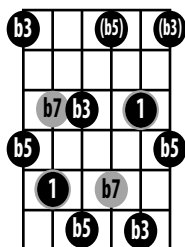
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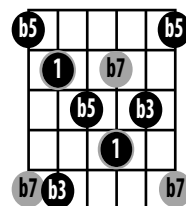
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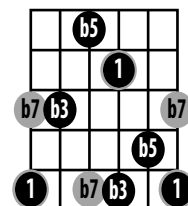
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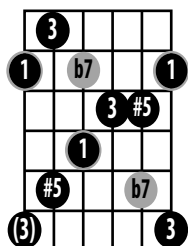
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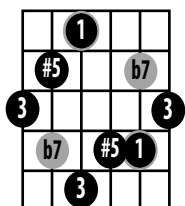
Fingerings for Augmented Triads with One Added Tone

augmented add b7 (seventh sharp five)

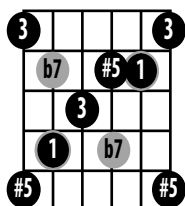
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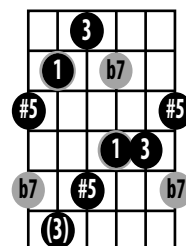
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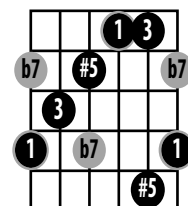
C form



A form



G form



IMPROVISING WITH A SINGLE TRIAD WITH NEIGHBOR

IMPROVISING WITH MULTIPLE TRIADS WITH NEIGHBOR

Triads with Neighbor on a Chord Root and Secondary Root

Two Triads with Neighbor on Multiple Roots and Secondary Roots

Triads Common to Multiple Chords

USING TRIADS WITH NEIGHBOR TO IMPLY CADENCES

Focus On The Roots of the Cadenced Triads on the Fretboard

Learn triad fingerings thoroughly, so you can quickly conceive and play these triads with neighbor. Visualize the sequence of root locations for the three chords involved on the fretboard.

Use a Variety of Triad with Neighbor Cells

Any number may be altered as necessary with a flat or sharp. The 1-2-3-5 triad with neighbor cell is a favorite. Use the others listed below as well. Notice that 1-3-6-5 and 5-3-7-1 have had their last two numbers reversed to end on a triad (1-3-5) tone. “5-6-7-1” and “1-7-6-5” are technically “triad tones 1-5 with passing tones 6-7”.

ascending 7-1-3-5 1-2-3-5 1-3-4-5 1-3-6-5 3-4-5-1 3-5-7-1 5-7-1-3 5-1-2-3 5-6-7-1
 descending 5-3-7-1 5-3-2-1 5-4-3-1 6-5-3-1 1-5-4-3 1-7-5-3 3-1-7-5 3-2-1-5 1-7-6-5

Modal II-V-I Cadences with Roots in Fourths

Cadences are based on the traditional II-V-I cadence (Dm-G-C). Modally, this is three chords in perfect fourths, with the third chord numbered as “I”. Here is a table comparing major scale-tone three-chord cadences with the same cadences numbered modally with the target chord as “I”.

modal table of II-V-I cadences

example in	Dm-G-C	Em-Am-Dm	F-Bdim.-Em	G-C-F	Am-Dm-G	Bdim.-Em-Am	C-F-Bdim.
C major parent scale							
target mode	major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
parent major scale-tone numbers	IIm-V-I	IIIIm-VI-IIm	IV-VIIIdim-I	IIIIm-VI-IIIIm	VIIm-IIm-V	VIIIdim.IIIIm-VIm	I-IV-VIIIdim.
modal scale numbers	IIm-V-I	IIm-Vm-Im	bII-Vdim-I	II-V-I	IIm-Vm-I	IIdim.-Vm-Im	bII-bV-Idim

1-2-3-5 example of a IIm-V-I cadence - [click to play](#)

This example is very predictable and not that interesting. We’ll work on making interesting variations. Since IIm (Dm) and V (G) are generally interchangeable, Dm and G are played during G.

The musical notation shows a sequence of chords: Dm7, G13, Cmaj9, and Fmaj7. Below the staff, the fingerings for the triads are shown: D minor (1 2 b3 5), G major (1 2 3 5), and C major (1 2 3 5). The fretboard diagram below shows the root positions for these chords on the fretboard.

The Flat Five Substitute

In triads, a flat five substitute replaces a V triad (G) with a bII triad (Db). This is called a “flat five substitute” because the interval between V and bII is a flatted fifth.

Roots up in fourths should be associated with roots downward chromatically. The downward chromatic version uses a flat five substitute. Dm-G-C (IIIm-V-I) becomes Dm-Db-C.

1-2-3-5 example of a IIIm-bII-I cadence - [click to play](#)

This is a bit more interesting than the previous example. The example below is the chromatic counterpart of the previous example. The melodic line is a little more pleasing going up on the first four-note cell (Dm) then down on the second cell (Db), then up on the third cell (C). Dm-G-C (IIIm-V-I) becomes Dm-Db-C (IIIm-bII-I). Since IIIm (Dm) and V (G) are generally interchangeable and Db is a flat five substitute for G.

Chords: Dm⁷, G¹³, C^{maj9}, F^{maj7}

Melodic line: 1 2 b3 5, 5 3 2 1, 1 2 3 5

Chord labels: D minor, Db major, C major

Bass line: 10 7 8 7 6 8 6 9, 8 10 7 5

Use Sequences of Chord Roots To Imply Modal II-V-I Cadences

resolving to VI minor and I major

The most common three chord cadence is II-V-I. Use triad with neighbor cells (such as 1-2-3-5) with roots ascending in fourths (or descending chromatically with the second chord as a [flat five substitute](#)) to imply resolution to VI minor with a keyscale VII^{dim}-III^m-VI^m sequence and to imply resolution to I major with a keyscale II^m-V-I sequence.

keyscale VII^{dim}-III^m-VI^m is an Aeolian II-V-I modal cadence to VI^m - [click to play](#)

♩ = 170 Gmaj7 E7(♯9) Am7 D7(♯9)

VIIIdim (1235) IIIIm (1235)

1 Gmaj7 E7(♯9) Am7 D7(♯9)

VIIm (for I major) VIIIdim (1235) IIIIm (1765)

3 Gmaj7 E7(♯9) Am7 D7(♯9)

VIIm (for I major) VIIIdim (1235) bVII (5431)

bVII is a flat five substitute for IIIIm

5 Gmaj7 E7(♯9) Am7 D7(♯9)

VIIm (for I major) VIIIdim (5431) bVII (1345)

7 Gmaj7 E7(♯9) Am7 D7(♯9)

VIIm (for I major)

keyscale II^m-V-I is a major (Ionian) II-V-I modal cadence to I major - [click to play](#)

1 *G*maj7 *E*7(#9) *A*m7 *D*7(#9)

I major (G) II^m (1235 *A*m) V (1765 *D*)

3 *G*maj7 *E*7(#9) *A*m7 *D*7(#9)

I major (G) II^m (1235 *A*m) *b*II (5431 *A*b)

*b*II is a flat five substitute for V

5 *G*maj7 *E*7(#9) *A*m7 *D*7(#9)

I major (G) VII^{dim} (1235) II^m (5431 *A*m) *b*VII (1345 *F*)

7 *G*maj7 *E*7(#9) *A*m7 *D*7(#9)

I major (G)

7-3-6-2-5-1-4 Root Sequences to Join Multiple Modal II-V-I Cadences

By adding some [flat five substitutes](#), sequences of four four-note triad with neighbor cells can be used. This allows practice of modal II-V-I cadences to VIIm, I and IIIIm (III diminished in Mixolydian mode) in a continuous sequence. See the examples below. The chord numbers in parenthesis are flat five substitutes for the chords that precede them.

resolving to I major with VI minor, I major and III minor

7-3-6-(b3)-2-5-1-(b5)-4-7-3 in I major - [click to play](#)

1

Gmaj7 E7(#9) Am7 D7(#9)

I VIIIdim IIIIm

T 12 12 9 12 12 9 11 12 10 13 12 10 12 11

A

B

3

Gmaj7 E7(#9) Am7 D7(#9)

VIIm bIII IIIm V as bII (b5 of V)

T 9 11 12 12 11 13 10 13 12 8 12 10 13 11 13 11

A

B

5

Gmaj7 E7(#9) Am7 D7(#9)

I bV IV VIIIdim

T 10 12 10 12 13 10 13 11 10 12 9 12 11 12 10 13

A

B

7

Gmaj7 E7(#9) Am7 D7(#9)

IIIIm

T 12 10 12 14

A

B

resolving to I Mixolydian with VI minor, I major and III minor

b7-3-6-(b3)-2-5-1-(b5)-4-b7-3 in Mixolydian - [click to play](#)

Compare this example with the previous major example. They use essentially the same melodic line, but change the chord qualities from those in major mode to Mixolydian mode.

1 G^9 $E7(\sharp 9)$ $A m^7$ $D7(\sharp 9)$
I $bVII$ major $III dim$

3 G^9 $E7(\sharp 9)$ $A m^7$ $D7(\sharp 9)$
 $VI m$ $bIII$ $II m$ V as bII ($b5$ of V)

5 G^9 $E7(\sharp 9)$ $A m^7$ $D7(\sharp 9)$
I bV IV $bVII$ major

7 G^9 $E7(\sharp 9)$ $A m^7$ $D7(\sharp 9)$
 $III dim$

TAB

resolving to VI minor with VI minor, I major and III minor**7-3-6-(b3)-2-#5-1-(b5)-4-7-3 in VI Aeolian - [click to play](#)**

The key is VI Aeolian (E Aeolian). Roman numerals below the music notation staff refer to the parent major (the relative major scale, G major). Note that the V7 chord is changed to #Vdiminished seventh. By using sharp five of the parent major scale, the VI minor scale becomes VI harmonic minor. Note that otherwise, the melody in this example is identical to its I major counterpart, [7-3-6-\(b3\)-2-5-1-\(b5\)-4-7-3 in I major](#).

The musical score is written for guitar in 4/4 time, featuring a treble and bass staff. The key signature has one sharp (F#), indicating E Aeolian. The score is divided into five systems, each with a measure number (1, 3, 5, 7) at the beginning. Above the treble staff, chords are indicated: Em7, Cmaj7, F#m7(b5), and B7(b9). Below the bass staff, Roman numerals are provided for each measure, corresponding to the parent G major scale. The first system (measures 1-2) shows I, VIIIdim, and IIIIm. The second system (measures 3-4) shows VIIm, bIII, IIIm, and #Vdim. The third system (measures 5-6) shows I, bV, IV, and VIIIdim. The fourth system (measures 7-8) shows IIIIm. The score concludes with a double bar line and repeat dots. Fingerings (1-4) are indicated below the bass staff for measures 1, 3, 5, and 7.

resolving to II minor or IV major with II minor, IV major and VI minor

To imply resolution to II minor or IV major, play three four-note triad with neighbor cells (such as 1-2-3-5) with roots ascending in fourths (or descending chromatically with the second chord as a [flat five substitute](#)), designed to end on II minor, IV major and VI minor. The IIm is the “modal relative minor” of IV major and suggests a IV6 chord.

(IV)-3-6-2-(b2)-5-1-4-(b7)-7-3-6 in II Dorian - [click to play](#)

Am⁷

5 Am⁷ D⁹ Am⁷ D⁹

IV(C) IIIm(Bm) VIIm(Em) IIIm(Am) VII°(F#°) bVI(Eb) V(D) #I°(G#°)
(b5 of VII) (D7 no root) (b5 of II) E7 no root as V of Am

9 Am⁷ D⁹ Am⁷ D⁹

IV(C) bVII(F) VII°(B°) IIIm(Bm) VIIm(Em) I(G) IV(C) V(D)
(secondary root on third of Am7) (same as next chord but with F note which moves to F#)

(IV) 3-6-2-(b6)-5-1-4-(b7)-7-3-6 in IV Lydian - [click to play](#)

resolving to V major with III minor, V major, VII diminished and II minor

To imply resolution to V major, play three four-note triad with neighbor cells with roots ascending in fourths (or descending chromatically with the second chord as a [flat five substitute](#)), designed to end on III minor, V major, VII diminished or II minor. The III^m is the “modal relative minor” of V major and suggests a V6 chord.

4-7-3-(b7)-6-2-5-(b2)-1-4-7-(4)-3-6-2 in V Mixolydian - [click to play](#)

Implying V-bII-I Cadences Using Triads with Neighbor

Making I-VII dim. or IV-III_m Into a Three-Chord Cadence

Use I-Idim.-VII_{dim.} for I-VII_{dim.} and use II-V_{dim.}-III_m for IV-III_m.

A Wide Variability of Content for the Target I Chord

You don't necessarily need to play a triad with neighbor cell on the target I chord. Begin the I chord with a triad tone or another chord tone followed by one or more additional I chord tones. You could begin the I chord with a triad chord tone then continue with an appropriate pentatonic scale named after the I chord (I major pentatonic for a Ima7 chord, for example) or you could begin the I chord with a large arpeggio, such as a VIIm11 arpeggio for a Ima7 target chord (VIIm11 has the same notes as Ima9/6). See the example below.

I-VIm-IIIm-V with a variety of 1-2-3-5 cell and flat five substitutes - [click to play](#)

1 Am⁷ D⁹ Gmaj⁷ E7(#9)

Cma⁷ Cm⁷ Bm⁷

IV can chromatically voice lead to IIIm⁷ with IVma⁷-IVm⁷-IIIm⁷. IIIm⁷ is Ima⁹nr.

3 Am⁷ D⁹ Gmaj⁷ E7(#9)

Em Am D G Ab Em

To ascend four-note cells in fourths, back-cycle to the target Gmaj⁷ by starting down a fourth for each beat preceding G. Ab is "chromatic drift", with its Eb note on top voice leading to the "E" on the E7#9, thinking Em11 to sound the key of G.

5 Am⁷ D⁹ Gmaj⁷ E7(#9)

G D Am Em

To ascend four-note cells in fourths, back-cycle to the target Em11 (substitute for Gma9) by starting down a fifth for each beat preceding Em. This follow the cycle of fifths: 4-1-5-2-6-3-7-4 etc. or F-C-G-D-A-E-B.

TRIADS WITH NEIGHBOR WITH THIRDS AND SIXTHS

TRIADS WITH NEIGHBOR WITH DOUBLE STOPS

Quadrads with Neighbor

- **Quadrads with Neighbor and Synthetic Pentatonic Scales**
- **Free-Form Quadrads with Neighbor**
- **Quadrat Hybrid Chord Colors**
- **Secondary Root Quadrads with Neighbor**
- **Improvising with a Single Quadrat with Neighbor**
- **Improvising with Two Quadrads with Neighbor**
- **Using Quadrads with Neighbor to Imply Cadences**
- **Quadrads with Neighbor with Thirds and Sixths**
- **Quadrads with Neighbor with Double Stops**

QUADRADS WITH NEIGHBOR AND SYNTHETIC PENTATONIC SCALES

FREE-FORM QUADRADS WITH NEIGHBOR

Four Quadrad Arpeggio Tones and a Neighbor

Pentatonic cells, like 1-2-3-5-6 (major pentatonic), 1-b3-4-5-b7 (minor pentatonic) and 1-3-4-5-7 (major seven add four) are quadrads with a neighboring scale tone.

There are about twenty types of quadrads. See “[Chord Archetypes](#)”/Twenty Quadrad Types. Each quadrad is a hybrid of two triads, each triad producing specific mood color.

Free-form Quadrads With Neighbor

With seven tone scales and modes, each quadrad has three options for an added tone. Each added tone has its own character.

Expanding to Octatonic Scales

The chapter “[Relating Chord Tones to the Beat](#)” defines the strategies of adding a half step to a seven-tone scale so a quadrad (seventh or sixth(arpeggio can be ascended or descended with chord tones on the beat and play neighboring or passing tones on the offbeats. This is explored with scales in the chapter “[Bebop and Other Octatonic Scales](#)” and explored with chord progression in the chapter “[Jazz Bass Harmonization](#)”.

QUADRAD HYBRID CHORD COLORS

Build Your Improvising Palette of Colors

the triad defines the primary color

Major is happy, minor sad, diminished is depressed, augmented is tormented, suspended is euphoric or heavenly.

tones added to the triad add shades of color

Two and six are bright shades, six is associated with swing music, flat three and flat seven are bluesy, major seven is romantic. Flat two and flat six are dark and exotic.

Fingerings for Quadrads with One Added Tone

major seven add 2

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

major seven add 4

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

major seven add 6

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

dominant seven add 2

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

dominant seven add b2

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

dominant seven add 4

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

dominant seven add #4

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

dominant seven add 6

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

dominant seven add b6

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

minor seven add 2

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

minor seven add b2

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

minor seven add 4

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

minor seven add #4

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

minor seven add 6

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

minor seven add b6

E form	D form	C form	A form	G form
--------	--------	--------	--------	--------

SECONDARY ROOT QUADRADS WITH NEIGHBOR

IMPROVISING WITH A SINGLE QUADRAD WITH NEIGHBOR

IMPROVISING WITH TWO QUADRADS WITH NEIGHBOR

Quadrads with Neighbor on a Chord Root and Secondary Root

Two Quadrads with Neighbor on Multiple Roots and Secondary Roots

Quadrads Common to Multiple Chords

USING QUADRADS WITH NEIGHBOR TO IMPLY CADENCES

Focus On The Roots of the Cadenced Quadrads on the Fretboard

Learn quadrad fingerings thoroughly, so you can quickly conceive and play these triads with neighbor. Visualize the sequence of root locations for the three chords involved on the fretboard.

Use a Variety of Quadrad with Neighbor Cells

Modal II-V-I Cadences with Roots in Fourths

The **Flat Five Substitute**

Use Sequences of Chord Roots To Imply Modal II-V-I Cadences

resolving to VI minor and I major

7-3-6-2-5-1-4 Root Sequences to Join Multiple Modal II-V-I Cadences

By adding some [flat five substitutes](#), sequences of four four-note quadrad with neighbor cells can be used. This allows practice of modal II-V-I cadences to VIIm, I and IIIIm (III diminished in Mixolydian mode) in a continuous sequence. See the examples below. The chord numbers in parenthesis are flat five substitutes for the chords that precede them.

resolving to I major with VI minor, I major and III minor

resolving to I Mixolydian with VI minor, I major and III minor

resolving to VI minor with VI minor, I major and III minor

resolving to II minor or IV major with II minor, IV major and VI minor

resolving to V major with III minor, V major, VII diminished and II minor

Implying V-bII-I Cadences Using Triads with Neighbor

Making I-VII dim. or IV-IIIm Into a Three-Chord Cadence

A Wide Variability of Content for the Target I Chord

QUADRADS WITH NEIGHBOR WITH THIRDS AND SIXTHS

QUADRADS WITH NEIGHBOR WITH DOUBLE STOPS

Chromaticized Arpeggios

- **Preview Chromaticized Arpeggios**
- **General Chromaticized Arpeggio Fundamentals**
- **Three-Note Chromaticized Arpeggio Fundamentals**
- **Four-Note Chromaticized Arpeggio Fundamentals**
- **Building Four-Note Chromaticized Arpeggio Cells**
- **Linear Chromatic Sequences**
- **“Every Other” Chromatic Cell Sequences**
- **Skip Chromatic Sequences**
- **Encircling Chromatic Sequences**
- **Looped Chromatics**
- **Chromaticizing Full-Tertian Arpeggios**
- **Chromatic Drift**
- **Free Form Chromatics**

PREVIEW CHROMATICIZED ARPEGGIOS.

Chromaticized Cm9 - [click to play video](#)

three-note linear chromatics on Cm9 (chromatic scale without natural three nor natural seven)

♩ = 140 [E form high] Cm⁹

3 4 1 1 3 4 1 2 3 4 1 2 3 2 1 4 3 2 1 4 3 1 1 4 3

10 11 7 8 10 11 8 9 10 11 10 9 8 11 10 9 8 11 10 8 7 11 10

3 4 1 1 3 4 1 2 3 4 1 1 3 4 1 4 3 1 4 4 3 2 1 4 3 2 1

3 4 5 6 3 4 5 6 2 3 5 6 3 6 5 3 7 6 5 4 3 6 5 4 3

3 4 1 1 3 4 1 1 2 3 1 2 3 2 1 3 2 1 1 4 3 1 1 4 3

15 16 12 13 15 16 12 13 14 15 13 14 15 14 13 12 15 14 13 12 16 15 13 12 16 15

three-note linear chromatics on Cm9 with “gallop” and Creedence four-pulse rhythms

♩ = 100 [E form high] Cm⁹

3 4 1 1 3 4 1 2 3 4 1 2 3 2 1 4 3 2 1 4 3 1 1 4 3

10 11 7 8 10 11 8 9 10 11 10 9 8 11 10 9 8 11 10 8 7 11 10

1 2 3 4 1 2 3 4 1 1 3 4 1 4 3 1 4 4 3 2 1 4 3 2 1

3 4 5 6 3 4 5 6 2 3 5 6 3 6 5 3 7 6 5 4 3 6 5 4 3

3 4 1 1 3 4 1 1 2 3 1 2 3 2 1 3 2 1 1 4 3 1 1 4 3

15 16 12 13 15 16 12 13 14 15 13 14 15 14 13 12 15 14 13 12 16 15 13 12 16 15

three-note linear chromatics on Cm9 with “all four” and “2-4” four-pulse rhythms

34 $\text{♩} = 100$ [E form high] 35 36 39

3 4 1 1 3 4 1 2 3 4 1 2 3 2 1 4 3 2 1 4 3 1 1 4 3

TAB: 10 11 7 8 10 11 8 9 10 11 8 9 10 9 8 11 10 9 8 11 10 8 7 11 10

40 [A form mid] Cm⁹ 41 42 45

1 2 3 4 1 2 3 4 1 1 3 4 1 4 3 1 4 4 3 2 1 4 3 2 1

TAB: 3 4 5 6 3 4 5 6 2 3 5 6 3 6 5 3 7 6 5 4 3 6 5 4 3

46 [C form mid] Cm⁹ 47 48 51

3 4 1 1 3 4 1 1 2 3 1 2 3 2 1 3 2 1 1 4 3 1 1 3 3

TAB: 15 16 12 13 15 16 12 13 14 15 13 14 15 14 13 15 14 13 12 16 15 13 12 16 15

every-other chromatics: two chromatics below the fifth and ninth on Cm9

52 $\text{♩} = 160$ Swing Eighths [E form high] Cm⁹ 53 54 55 58

3 1 3 4 1 4 1 2 3 2 1 4 1 4 3 1 3

TAB: 10 8 10 11 8 11 8 9 10 9 8 11 8 11 10 8 10

59 [A form mid] Cm⁹ 60 61 64

3 1 3 4 1 4 1 2 3 2 1 4 1 4 3 1 3

TAB: 3 6 3 4 5 3 5 6 3 6 5 3 5 4 3 6 3

65 Straight [C form mid] Cm⁹ 66 69

3 1 3 4 1 3 1 2 3 2 1 3 1 4 3 1 3

TAB: 15 13 15 16 12 15 13 14 15 14 13 15 12 16 15 13 15

four-note linear chromatics on Cm9

When the interval between two chord tones is a major third, all of the chromatic tones are played between them. When the interval between two chord tones is a minor third, the second note of each four-note cell is the same note as the first note of the next four-note cell. See [Linear Chromatic Sequences/ Four-Note Unresolved Linear Chromatic Cells](#).

Swing Eighths Major thirds: all three chromatics are played between the two chord tones.

70 [E form high] Cm⁹ 71 72 73 74 79

3 1 4 1 1 2 3 4 1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1 4 3 2 1 3 1 4 3

T
A
B

Straight

80 [A form mid] Cm⁹ 81 82 83 88

1 4 2 3 4 1 1 2 3 1 4 1 1 2 3 4 1 4 3 2 1 3 1 4 3 2 1 4 4 1 3 2 1

T
A
B

Swing Eighths

89 [C form mid] Cm⁹ 90 91 92 97

3 1 4 1 1 2 3 4 1 3 1 2 3 4 1 2 3 2 1 4 3 1 3 2 1 4 3 2 1 3 1 4 3

T
A
B

encircling chromatics on Cm9

Ascend: (1) a chord tone, (2 & 3) two chromatics below the next higher chord tone, (4) an upper scale tone of the next higher chord tone, resolve to next higher chord tone. **Descend:** (1) a chord tone followed by (2 & 3) two chromatics immediately below it, (4) a lower chromatic of the next lower chord tone. resolve to next lower chord tone.

98 [E form high] Cm⁹ 99 100 101 102 107

3 4 1 3 1 3 4 2 1 2 3 1 4 1 1 4 3 2 1 3 4 3 2 1 1 4 3 1 2 1 4 2 3

T
A
B

[A form mid]

108 Cm⁹ 109 110 111 116

1 2 3 1 4 1 1 4 3 4 1 3 1 2 3 2 1 4 3 1 2 1 4 2 3 2 1 3 4 3 2 1 1

T
A
B

[C form mid]

117 Cm⁹ 118 119 120 125

3 4 1 3 1 3 4 1 4 1 2 1 3 4 1 4 3 2 1 2 3 2 1 4 1 4 3 1 1 4 4 2 3

T
A
B

Chromaticized C9 - [click to play video](#)

three-note linear chromatics on C9

These use the chromatic scale from root to ninth, omitting both sharp one and and natural seven.

♩ = 140

E form high C⁹

3 1 1 2 3 4 1 2 3 4 1 2 3 2 1 4 3 2 1 4 3 2 1 1 3

A form mid C⁹

1 3 4 1 1 2 3 4 1 1 3 4 1 4 3 1 1 4 3 2 1 1 4 3 1

C form mid C⁹

4 1 2 3 4 1 1 2 3 4 2 3 4 3 2 4 3 2 1 4 4 3 2 1 4

every-other chromatics: two chromatics below the fifth and ninth on C9

E form high C⁹

3 2 3 4 1 4 1 2 3 2 1 4 1 4 3 2 3

A form mid C⁹

3 4 3 4 1 4 1 2 3 2 1 4 1 4 3 4 3

C form mid C⁹

3 2 3 4 1 3 1 2 3 2 1 3 1 4 3 2 3

four-note linear chromatics on C9

When the interval between two chord tones is a major third, all of the chromatic tones are played between them. When the interval between two chord tones is a minor third, the second note of each four-note cell is the same note as the first note of the next four-note cell. See [Linear Chromatic Sequences/ Four-Note Unresolved Linear Chromatic Cells](#).

E form high C⁹

A form mid C⁹

C form mid C⁹

encircling chromatics on C9

Ascend: (1) a chord tone, (2 & 3) two chromatics below the next higher chord tone, (4) an upper scale tone of the next higher chord tone, resolve to next higher chord tone. **Descend:** (1) a chord tone followed by (2 & 3) two chromatics immediately below it, (4) a lower chromatic of the next lower chord tone. resolve to next lower chord tone.

E form high C⁹

A form mid C⁹

C form mid C⁹

Chromaticized Cma9 - [click to play video](#)

three-note linear chromatics on Cma9

These use the chromatic scale from root to ninth, omitting both sharp one and and sharp five.

♩ = 140 [E form high] Cmaj9

4 1 2 3 4 1 2 4 1 1 2 3 4 3 2 1 4 4 2 1 4 3 2 1 4

TAB: 10 7 8 9 10 7 8 10 6 7 8 9 10 9 8 7 11 10 8 7 10 9 8 7 10

[A form mid] Cmaj9

2 4 1 1 2 3 4 1 2 3 4 1 1 4 4 3 2 1 4 3 2 1 4 4 2

TAB: 8 10 6 7 8 9 10 7 8 9 10 6 7 11 10 9 8 7 10 9 8 7 11 10 3

[C form mid] Cmaj9

4 1 2 3 4 1 1 3 4 1 2 3 4 3 2 1 4 3 1 4 4 3 2 1 4

TAB: 15 12 13 14 15 11 12 14 15 12 13 14 15 14 13 12 15 14 12 16 15 14 13 12 15

every-other chromatics: two chromatics below the fifth and ninth on Cma9

[E form high] Cmaj9

3 2 3 4 1 4 1 2 3 2 1 4 1 4 3 2 3

TAB: 10 9 10 11 8 12 8 9 10 9 8 12 8 11 10 9 10

[A form mid] Cmaj9

1 4 1 2 3 2 3 4 1 4 3 2 3 2 1 4 1

TAB: 3 7 3 4 5 4 5 6 3 6 5 4 5 4 3 7 3

[C form mid] Cmaj9

4 3 4 1 1 1 2 3 4 3 2 1 1 4 4 3 4

TAB: 15 14 15 11 12 12 13 14 15 14 13 12 12 16 15 14 15

four-note linear chromatics on Cma9

When the interval between two chord tones is a major third, all of the chromatic tones are played between them. When the interval between two chord tones is a minor third, the second note of each four-note cell is the same note as the first note of the next four-note cell. See [Linear Chromatic Sequences/ Four-Note Unresolved Linear Chromatic Cells](#).

E form high Cmaj9

32 33 34 35 36 41

4 1 1 2 3 2 3 4 1 2 3 1 1 4 2 3 4 1 3 2 1 4 4 3 2 3 1 4 3 2 1 4 4

A form mid Cmaj9

42 43 44 45 50

2 3 4 1 1 4 2 3 4 1 1 2 3 2 4 1 2 3 1 4 3 2 1 4 4 1 3 2 1 4 4 2 1

C form mid Cmaj9

51 52 53 54 59

4 1 1 2 3 1 4 1 1 2 3 4 1 4 2 3 4 1 3 2 1 4 3 2 1 3 1 4 3 2 1 4 4

encircling chromatics on Cma9

Ascend: (1) a chord tone, (2 & 3) two chromatics below the next higher chord tone, (4) an upper scale tone of the next higher chord tone, resolve to next higher chord tone. **Descend:** (1) a chord tone followed by (2 & 3) two chromatics immediately below it, (4) a lower chromatic of the next lower chord tone. resolve to next lower chord tone.

E form high C⁹

60 61 62 63 64 69

3 1 1 3 2 3 4 3 2 3 4 2 1 2 3 4 4 3 2 1 1 4 4 1 2 1 4 2 3 2 1 3 4

A form mid C⁹

70 71 72 73 78

1 3 4 1 4 1 2 1 3 4 1 3 2 3 4 3 1 4 3 1 2 1 1 2 3 2 1 4 1 4 3 1 1

C form mid C⁹

79 80 81 82 87

4 1 2 4 3 4 1 3 1 2 3 2 1 2 3 1 4 3 2 4 1 4 3 1 1 4 4 2 3 2 1 3 4

GENERAL CHROMATICIZED ARPEGGIO FUNDAMENTALS

Melodic cells that chromaticize arpeggios usually involve three ascending or descending chromatics. They insert chromatics below chord tones, most commonly two chromatics below a chord tone.

Cm9 with two chromatics below each chord tone

ascending or descending
fingering

		1	
		1	1
		2	2
	3	3	3
	4	4	4

descending numbered
tones

		2	
		b3	5
		b6	b2
	1	4	6
	b2	b5	b7

ascending numbered
tones

		2	
		b3	5
		#5	#1
	1	4	6
	#1	#4	b7

Chord Tones on the Beat

You don't always have to have a chord tone on the beat. However, if you are well-practiced at playing melodic cells that *do* place chord tones on the beat, you will find it much easier to play freely and abstractly. Then you won't have to take so much care in putting chord tones on the beat since you have practiced melodic cells that put them on the beat.

Resolved Versus Unresolved Cells

If the last note of a cell is a tone of the current chord, it is "resolved" and is more flexible in rhythmically displacing the melodic cell. If the last note is not a tone of the current chord, it is more important that it is not on the beat, especially at slower melodic rates (notes per minute) where the dissonance would be more apparent. Every-other chromatics are resolved four-note cells where the fourth note is a chord tone. In fragment patterns, 1-2-3-5 and 1-3-4-5 are resolved four-note cells (not chromatic) for the chord "1-3-5".

Avoiding Redundancy in Favor of Movement

It is preferred that the last note of one cell is *not* the same note as the target tone beginning the chord on the next beat. If you see that it would be, change the last note of the four-note cell to a neighboring tone of the target tone, to avoid playing the same note twice in succession. This preserves movement and drive in the melody.

Two Chromatics Below An Arpeggio Tone

Chromatic arpeggio cells feature two chromatics immediately below a chord tone. Rather than practicing every possibility of each type of arpeggio (ma9, min9, etc.), learn to play two chromatic notes below each note in the in-position chromatic scale. Practice the in-position chromatic scale below and be able to:

1. play any tone followed by two chromatic tones immediately below it *with the fingering precisely as written*
2. precede any tone with the two chromatics immediately below it *with the fingering precisely as written*

During the course of playing an arpeggio with chromatics, you will sometimes change position up or down a fret, where the same in-position fingering would be used up or down a fret. Exceptions are often made where an out-of-position note is reached on the head side of the fretboard with the index finger, rather than on the body side with the little finger, especially on the bass strings.

chromatic scale

The chromatic scale exercise is presented in five measures with the following time signatures: 4/4, 3/4, 2/4, 3/4, and 4/4. The notation includes a treble clef and a bass clef. Fingerings are indicated by numbers 1-4 on the treble staff and 7-12 on the bass staff. The exercise shows ascending and descending chromatic patterns with specific fingering instructions.

Play the ascending fingering
in order of ascending pitch.

Play the descending fingering
in order of descending pitch.

ascending fingering

1	1	1	1	1
1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4

descending fingering

1	1	1	1	1
2	2	2	2	2
3	3	3	3	3
4	4	4	4	4
4	4	4	4	4

THREE-NOTE CHROMATICIZED ARPEGGIO FUNDAMENTALS

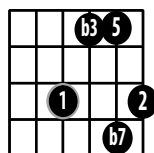
Three-Note Chromatic Arpeggio Cells

A melodic cell is a short lick or theme, usually of two to six notes. See the chapter [Melodic Cells](#). More often, melodic cells use chord tones of the current chord on the beat. The melodic cells in the following sections “Three-Note Cells With Ascending Chromatics” and “Three-Note Cells With Descending Chromatics” use chord tones on the beat (shown with a diamond) and chromatics leading either up to (ascending) or down from (descending) each chord tone. The chord tones on the beat could be thought of as *target tones*.

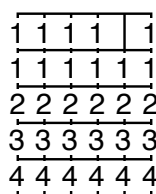
Three-Note Chromatic Arpeggio Cells with Ascending Chromatics

When ascending, arpeggio-chromaticizing melodic cells progress to a target chord tone with two chromatics immediately below the chord tone. In the first two bars below, the notes of a Dm9 arpeggio are shown on the second string. Seeing the notes chromaticized by playing two consecutive frets *before* each chord tone is easier to see on a single string. Next, in bars five through eight, the fingering is shown as it would typically be played, in a single position. Notice in the last two bars that the rhythm may vary, as long as the chord tones remain on the beat.

Dm9
arpeggio X



ascending chromatic
fingering IX



root chromaticized up to b3 successively chromaticized b3, 5, b7 and 9

Dm9

3 root b3

root b3 5 b7 9

T 12 10 10 13 12

A 12 10

B 12 13 9 10 12 13 10 11 12 13 10 11 12

in three-note, unresolved melodic cells with ascending chromatics, chord tones beginning the beat don't have to be consecutive

Ascending three-note, unresolved chromatic cells have a chord tone on the beat, followed by two chromatic tones below the chord tone that begins the next beat. With consecutive ascending three-note chromatic cells, the sequence of chord tones on the beat does not have to be consecutive chord tones in ascending or descending order. The two chromatic notes that end each three-note unresolved melodic cell are *two chromatic tones ascending to the chord tone on the next beat*.

It's okay to play the chord tones out of order. Rather than ascending from root to third to fifth, etc. You can whimsically decide the order, such as root to fifth to third to seventh. As you create this whimsical order, insert two ascending chromatics up to each chord tone. In the example below, there are two ascending chromatics before the flatted third of the Dm9 arpeggio (the "F" note, third string, tenth fret) on the second beat, followed by two ascending chromatics to the flatted seventh of the Dm9 arpeggio (the "C" note, second string, thirteenth fret) on the third beat, then to the fifth, then to the ninth.

Dm⁹

3 3 3 3

root b3 b7 5 9

T 9 10 11 12 13 12 13 11 10 11 12

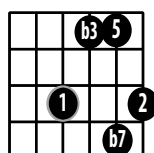
A 12 13

B 12 13

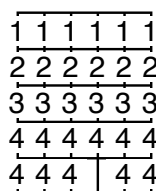
Three-Note Descending Chromaticized Arpeggio Cells

When descending, arpeggio-chromaticizing melodic cells descend from a target chord tone with two chromatics immediately below the chord tone. They are easiest to hear if they then descend to the next lower chord tone. Of course the rhythm may vary (as in the last two bars below), as long as the chord tones are on the beat, as shown earlier with ascending chromatics. Sequences of them are shown below where chromatics descend from the ninth, seventh, fifth, then the third.

Dm9
arpeggio X



descending chromatic
fingering X



9 chromaticized down to b7 successively chromaticized 9, b7, 5 and b3

9 b7 5 b3 root 9 b7 9 b7 5 b3 root

12 13 10 10 12 11 10 13 12 11 10 13 12 11 10 13 12 10 9 13 12

in three-note cells with descending chromatics, its preferred that chord tones on the successive beats are consecutive chord tones

Descending three-note chromatic cells have a chord tone on the beat, followed by two chromatic tones below *that specific chord tone*. descending chromatics follow a chord tone, it is best if you then proceed to the next lower chord tone. Therefore, it is best if you resolve to the next lower chord tone at the beginning of the next beat.

FOUR-NOTE CHROMATICIZED ARPEGGIO FUNDAMENTALS

The most common chromaticized arpeggio cells are four-note cells.

Resolving Chromaticized Arpeggio Cells

resolved and unresolved four-note chromaticized cells

Like all melodic cells, chromatic arpeggio cells are unresolved when the last note is not a chord tone and are resolved when the last note is a chord tone.

resolved versus unresolved - [click to play video](#)

♩ = 120
Swing Eighths

Cm⁷

5 b5 4 b3
resolved, since
b3 is in the Cm7

5 1 b5 4
unresolved:
4 is note in
the chord

5 1 b5 4 b3
unresolved until it
resolves to b3 on the first
beat of the next bar

T
A
B

8 11 10 8

resolving to the current chord or to the next chord

Unresolved chromaticized arpeggio cells can resolve to the current chord or to the next chord. If the last two tones of the cell resolve by *ascending* to the next chord, they have to be immediately below the chord tone that begins the next chord, so the last two notes of the cell and their target beginning the next beat form a series of three chromatic tones.

If the last two tones of the cell are descending chromatically from the second note of the cell, they should resolve down a minor third or less to a chord tone of the next chord. This works well when the chord tone of the next chord is a tone common to the next chord, but it doesn't have to be.

resolving to the current chord or to the next chord - [click to play video](#)

The chromatic arpeggio cells below are all in the key of Bb, since melody can be in relation to the key and doesn't have to be in the key of each chord. each cell resolves to a chord tone of the or the next chord, which is only sometimes a Bb chord.

♩ = 100

Swing Sixteenths

Chord progression: Cm7 F9 Bb Bbmaj7 Bb6 Bbm(maj7) Ebmaj7

Chord progression: Abmaj7 Ab6 1 Cm7 F9

Chord progression: 2 Bbmaj7 Bb6 G7(b9)

Chord progression: 4 Cm7 F7 Bbmaj7

Labels: Bb chromatic arpeggio cell, Bbm chromatic arpeggio cell

BUILDING FOUR-NOTE CHROMATICIZED ARPEGGIO CELLS

Quick Links to Cell Types Covered In This Section

un-resolved four-note chromaticized arpeggio cells

[Two Arpeggio Tones, Then Two Chromatics Ascending to a Tone of the Same Chord](#)
[Two Arpeggio Tones, Then Two Chromatics Ascending to A Tone of the Next Chord](#)
[Two Arpeggio Tones, Then Two Descending Chromatics to A Tone of the Same Chord](#)
[Major Third - Five Consecutive Chromatic Tones Ending on the Target](#)
[An Ascending Linear Chromatic Arpeggio Cell with an Inserted Fourth Note](#)
[A Descending Linear Chromatic Arpeggio Cell with an Inserted Fourth Note](#)

resolved four-note chromaticized arpeggio cells

[Two Consecutive Ascending Arpeggio Tones with Two Chromatics Between](#)
[Two Consecutive Descending Arpeggio Tones with Two Chromatics Between](#)

See The Types In Other Sections Of This Chapter

[Linear Chromatic Sequences](#)
[“Every Other” Chromatic Cell Sequences](#)
[Skip Chromatic Sequences](#)
[Encircling Chromatic Sequences](#)
[Looped Chromatics](#)
[Chromaticizing Full-Tertian Arpeggios](#)
[Chromatic Drift](#)
[Free Form Chromatics](#)

Unresolved Cells

Each of these four-note cells should resolve with the first note on the next beat. They include four types: beginning with two arpeggio tones, the **major third type** and two linear types.

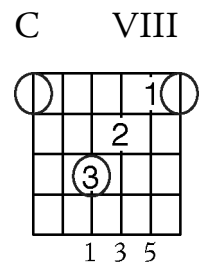
Two Arpeggio Tones, Then Two Chromatics Ascending to a Tone Of the Same Chord

Begin with two arpeggio tones (in any order) then conceive the chord tone you intend to play beginning the next beat. Follow the second arpeggio tone with two chromatics ascending to resolve on the chord tone you have planned on the next beat.

The second arpeggio tone can be the same note as the arpeggio tone (of the same chord) on the next beat. This is the manner of playing minor thirds with **linear chromatics** shown in the next section.

Begin by conceiving three-note chords that are part of the current chord. Think of them graphically. Assign two of the three notes as the first two notes in the four-note chromaticized arpeggio cell. Think of the remaining note as the target tone that begins the next beat. Play the first two notes. Play two chromatics ascending to the third note.

In the C major chord at the right, let's determine that the note on the second string is the first note. That's the fifth of the chord, as indicated with the "5" below the second string. Make the note on the fourth string the second note (the root, labeled "1" below the string). That leaves the note on the third string as the target note on the next beat (the third, labeled "3" below the third string). Precede the third with two chromatic tones, as described below and shown in notation.



Now play the notes of the second string and fourth string, followed by two notes chromatically ascending to the note on the third string, as you see below in the notation and tablature.

two arpeggio tones, then two ascending chromatics on a C chord (C chord tone order 1-5-3)

This is included in the next video example below.

C VIII

Two Arpeggio Tones, Then Two Ascending Chromatics on a C Chord (Six Orders of C Chord Tones)

- [click to play video](#)

Six orders of C chord tones are shown in this example: 1-3-5, 1-5-3, 3-1-5, 3-5-1, 5-1-3 and 5-3-1.

C

Measure	Chord Tones	Fingers
1	1 3 5	3 2 3 4 1
2	1 5 3	4 2 1 2 3
3	3 1 5	2 3 3 4 1
4	3 5 1	1 3 1 1 2
5	5 1 3	1 2 1 2 3
6	5 3 1	1 2 1 2 3

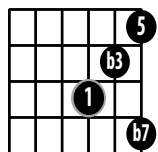
Two Arpeggio Tones, Then Two Chromatics Ascending to a Tone Of the Next Chord

As with the previous example, but ascending to a tone of the next chord, begin with two arpeggio tones (they don't have to be consecutive) then conceive the chord tone of a new chord you intend to play beginning the next beat. Follow the second arpeggio tone with two chromatics ascending to resolve on the chord tone you have planned on the next beat.

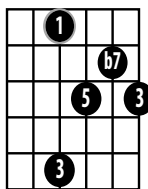
two arpeggio tones, then two ascending chromatics to a tone of the next chord, basic

Numbered tones of Fm7 move to a Bb chord tone, then numbered tone of Bb7 move to an Fm7 chord tone

Fm7 VIII



Bb7 VIII



Measure	Chord Tones	Fingers
1	b3 b7	2 4 1 2
2	3	3
3	3 5	1 3 4 1
4	b3	2

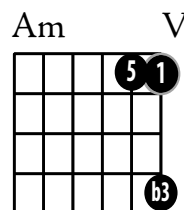
Two Arpeggio Tones, Then Two Descending Chromatics to a Tone Of the Same Chord

Begin with chord tone followed by two chromatic descending tones. Resolve to the next lower chord tone. This is a three-note descending chromatic cell. [See Three-Note Descending Chromaticized Arpeggio Cells.](#)

Next, convert the three-note descending cell to a four-note cell by inserting a note before or after the first note. Still it needs to resolve to a fifth note that is the next lower chord tone below the first note. Begin with two arpeggio tones (they don't have to be consecutive), followed by two chromatics descending from the *second* chord tone, then resolve to the next lower chord tone of the same chord on the next beat

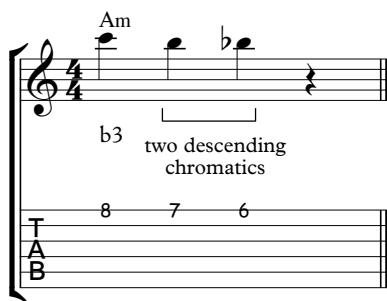
Choose three chord tones where two of them are consecutive in pitch (root and third, third and fifth, fifth and seventh, etc.) but not root and seventh. The three steps to constructing these cells are listed below.

In this example, consecutive tones of an A minor arpeggio were chosen in the V position.



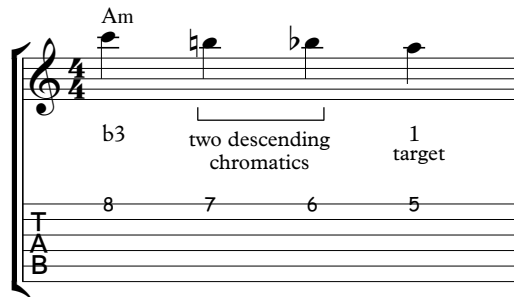
1. Play the higher-pitched tone of two consecutive chord tones followed by two consecutive chromatics descending from it.

I chose "b3" as the higher-pitched tone of the tones "1" and "b3", then followed it by two descending chromatics.



2. Next, play the next lower-pitched chord tone. It will be the target. So far, you've built a descending three-note chromaticized cell followed by a target.

Having played "b3" as the higher-pitched tone (of the "1" and "b3" pair of consecutive tones), followed by two descending chromatics, I will then plan on "1" as being the target.



3. Next, convert the three-note descending chromaticized cell to a four-note descending chromaticized cell by inserting a chord tone before or after the first tone. When the chord tone is inserted after the first chord tone, it interrupts the chromatic descent from the first chord tone, which still needs to resolve to the next lower chord tone (below the first chord tone) on the next beat.

Overview: Looking at completed four-note cells constructed in this manner, there are one or two variables. Trading the first two notes is always a variable. If the three tones are consecutive chord tones like root-third-fifth or third-fifth-seventh, the consecutive pair of chord tones could be the first two chord tones or the second and third chord tones.

Scale tones should be used in place of chromatics to descend from the root, making a descent to the fifth (1-7-6-5, 1-b7-b6-5, etc.).

Major Third - Five Consecutive Chromatic Tones Ending On The Target

Without the fifth note, this chromaticized arpeggio cell type is unresolved. It requires a specific target as its fifth note and all five notes are consecutively chromatic, ascending or descending.

Use this option only when the first arpeggio tone in the four-note chromatic arpeggio cell and the target tone (the fifth note) are a major third apart.

Practice the three fingerings for major thirds to prepare. The unique major third fingerings are:

1. spanning five frets inclusively when the two notes are on the same string,
2. the same diagonal shape on each of the pairs of strings 6-5, 5-4, 4-3 or 2-1 (such as fourth string third fret “F” and third string second fret “A”) or
3. the barred notes on the same fret when they are on strings 2 and 3. Play the first chord tone and three chromatic tones to ascend or descend to the chord tone that begins the next beat.

This is the manner of playing major thirds in [linear chromatic sequences](#).

An Ascending Linear Chromatic Arpeggio Cell with an Inserted Fourth Note

This is within a single chord. For the first three notes, play a chord tone followed by two chromatics ascending from immediately below the target tone (the fifth note). For the fourth note, insert a chord tone within a sixth or an upper neighbor scale tone of the fifth note. The fifth note is a target chord tone.

Using the upper neighbor is the basis of ascending [encircling chromatics](#).

A Descending Linear Chromatic Arpeggio Cell with an Inserted Fourth Note

This is within a single chord. For the first three notes, play a chord tone followed by two chromatics descending from it. For the fourth note, insert a chord tone within a sixth or a lower neighbor of the fifth note. Chromatic lower neighbors are preferred. The fifth note is a target chord tone.

Using the lower neighbor is the basis of descending [encircling chromatics](#) (with the preferred lower chromatic neighbor).

Resolved Cells

Both of the following four-note cell types resolve with their last note and don't need to be followed by anything.

Two Consecutive Ascending Arpeggio Tones with Two Chromatics Between

Play ascending consecutive arpeggio tones for the first and fourth notes, such as the third followed by the fifth of an arpeggio. For the second and third notes, play two chromatic tones that ascend to the arpeggio tone on the fourth beat.

Two Consecutive Descending Arpeggio Tones with Two Chromatics Between

Play descending consecutive arpeggio tones for the first and fourth notes, such as the fifth followed by the third of an arpeggio. For the second and third notes, play two chromatic tones that descend immediately below the the arpeggio tone on the first beat.

Review From the Perspective of a Three-Note Chromaticized Arpeggio Cell

Three-note chromaticized arpeggio cells are conceptually simple. You play a tone followed by two chromatic tones descending from it or you play a tone followed by two chromatics that ascend to a chord tone on the next beat.

Three-note chromaticized arpeggio cells can be converted to four-note chromaticized arpeggio cells in either of these three ways:

- ✦ add a chord tone before the first note of the three-note cell
- ✦ add a chord tone as the second note (by adding a note between the first and second notes of the three-note cell)
- ✦ add a note at the end of the three-note cell, making it a resolved four-note cell

Building a Four-Note Cell by Inserting a Note in a Three-Note Cell

inserting a chord tone or neighbor tone

The inserted notes in these chromaticized arpeggio melodic cells will most often be triad chord tones of the current chord. In the case of [encircling chromatics](#), the fourth note in the cell is a neighboring tone. The “inserted” note works best when it is a tone of the triad based on the current chord that is within two triad tones above or below the target chord tone.

conceive and practice three note cells with a space for an inserted note

For each of the insertion types below (before the first note, after the first note, after the second note or after the third note), practice playing a four note cell by inserting a rest as the first, second, third or fourth of four eighth notes or of four sixteenth notes.

inserting a chord tone before the first note of the three-note chromatic cell

Any three-note cell can be elaborated by inserting a triad tone of the current chord before the first note of the cell. This inserted note now begins the beat. Think of these in the following ascending and descending versions:

- ✦ **ascending version:** begin the beat with two chord tones and end it with two ascending chromatic tones to lead up to the chord tone beginning the next beat. Avoid beginning a beat with the same two notes twice consecutively, as you see in beats two and three of the fourth bar below.
- ✦ **descending version:** begin the beat with two chord tones and end it with two chromatic tones descending from the second tone and resolving to the next lower chord tone at the beginning of the next beat.

^{C⁹}

T	10	7	8	8	9	10	9	8	9	10	10	7	8	9	10	11	9	8	9	10	10	9	8	8	10	9	8	11	8	11	10	9	9	8	7	10
A																																				
B																																				

inserting a chord tone after the first note of the three-note chromatic cell

Any three-note cell can be elaborated by inserting a triad tone of the current chord after the first note of the cell. The first note of the three-note cell becomes the first note of the four-note cell. This is used for minor thirds in [linear chromatics](#).

inserting a chord tone after the second note of a three-note chromatic cell

These are the odd-sounding ones, which you may or may not like. Inserting a chord tone after the second note of a three-note unresolved chromatic cell inserts a chord tone in between the two chromatic tones that end the three-note cell. In a three-note chromatic cell, the last two tones are chromatics that (1) lead up to a chord tone that begins the next beat or (2) the last two tones are chromatics that descend from the chord tone on the current beat. In either case, the two chromatics can be interrupted with a triad tone of the current chord, within the range of a fifth.

inserting a chord tone after the after the third note of a three-note chromatic cell

Any three-note cell can be elaborated by inserting a tone of the current chord after the last note of the three-note cell. To avoid redundancy and preserve melodic movement, avoid ending one cell and beginning the next with the same note.

An *arpeggio-encircling chromatic cell* can be made by inserting a neighboring tone as the fourth note, making an *W*. With descending encircling chromatics, it is preferred that the lower neighbor tone (the fourth note in the cell) is a *lower chromatic embellishment*. Lower chromatic embellishments are a half step (one fret) below the note they precede.

C⁹

The image shows a musical exercise for the C9 chord. The top staff is in treble clef and the bottom staff is in bass clef. Both staves show a series of chromaticized arpeggios. The notation includes various accidentals and fingerings. The bottom staff has a label 'T A B' on the left side, indicating the notes of the C9 chord: T (C), A (E), and B (Bb).

four-note free form chromatic cells

Four-note free form chromatic cells will include all of these possibilities. Memorizing sequenced instances of the specific categories like linear chromatics, encircling chromatics or every-other chromatics will give you quick access to your memory of the cells, rather than having to construct each cell on the spot. Though it is very efficient to memorize categories of cells (i.e. linear chromatics) in sequences, playing them on each chord tone as you ascend or descend, you don't want you improv to sound like an exercise. Take care to not play more than two of the same type of cell in improvisation, usually. Also, employ interesting melodic rhythm.

LINEAR CHROMATIC SEQUENCES

Three-Note Unresolved Linear Chromatic Cells

Using three note-per-beat melodic rhythms see [Rhythmic Words and Comping/Melodic Rhythms/Three-Note Rhythms](#)), three-note unresolved linear chromatic cells are straightforward. Start with a chord tone on the beat, continue through a three-note rhythm on that beat and resolve to a chord tone on the next beat.

ascending three-note unresolved linear chromatic cells

In ascending, the first tone on the beat should be any chord tone highest chord tone. So on a ninth chord, where an eleventh chord is not acceptable, such as a major ninth, don't ascend from the ninth. Play the chord tone on the beat followed by ascending two chromatic tones immediately below the next higher chord tone, beginning the next beat. See [Three-Note Cells With Ascending Chromatics](#).

descending three-note unresolved linear chromatic cells

In descending, the first tone on the beat should be any chord tone other than the chord root. Play the chord tone on the beat and descend, playing two chromatics immediately below the first tone, followed by the next lower chord tone on the next beat. If the first chord tone is the chord root, descend with another melodic device, such as descending the scale 1-7-6-5 (with any accidentals necessary for the current scale, such as b7 or b6). See [Three-Note Cells with Ascending Chromatics](#) and [Three-Note Cells with Descending Chromatics](#).

Four-Note Unresolved Linear Chromatic Cells

Four-note unresolved cells are usually expected to resolve on the next beat. See [Resolved Versus Unresolved Cells](#). The initial (first) tone of the four-note cell is a current chord tone. The fifth note is a current chord tone that begins the next beat. The fifth note can optionally begin another four-note cell, resolving on the next beat after that.

applied to major and minor thirds

Purely linear chromatics ascend or descend without exception. Major thirds can be ascended or descended chromatically as a four-note cell with a resolution on the next beat. Minor thirds only provide three chromatic notes and a target, so they need an accommodation, most simply by playing the initial chord tone twice.

Major and minor thirds both can use one of the following designs:

1. **Leave a note out.** Conceiving the four-note linear chromatic cell as four eighth notes or four sixteenth notes, leave out the second or third note and replace it with a rest or sustain. For the remaining notes, leave the two chromatics immediately below the higher chord tone. Usually leaving out the second note is better.

If ascending, the remaining notes would be the initial tone, two chromatics ascending from a whole step below the target tone (the fifth note, on the next beat after the four-note cell) and the target tone on the next beat after the four-note cell.

If descending, the remaining notes would be the initial tone, two chromatics descending immediately below it and the target tone on the next beat after the four-note cell.

ascend major third

an ascending four-note cell, chromaticizing a major third

an ascending four-note cell chromaticizing a major third with the second note omitted

an ascending four-note cell chromaticizing a major third with the third note omitted

C

TAB

5 6 7 8 5 5 7 8 5 5 7 8 5

ascend minor third

an ascending four-note cell, chromaticizing a minor third

an ascending four-note cell chromaticizing a minor third with the second note omitted

an ascending four-note cell chromaticizing a major third with the third note omitted

Cm

to make a four-note cell, the initial tone was played twice

TAB

5 5 6 7 8 5 6 7 8 5 6 7 8

descend major third

a descending four-note cell, chromaticizing a major third

a descending four-note cell chromaticizing a major third with the second note omitted

an ascending four-note cell chromaticizing a major third with the third note omitted

C

TAB

5 8 7 6 5 5 8 7 5 5 8 7 5

descend minor third

an ascending four-note cell, chromaticizing a minor third

an ascending four-note cell chromaticizing a minor third with the second note omitted

an ascending four-note cell chromaticizing a major third with the third note omitted

Cm

to make a four-note cell, the initial tone was played twice

TAB

8 8 7 6 5 8 7 6 5 8 7 6 5

2. Use every-other chromatic cells. Also, see the section “Every-Other” Chromatic Cells.

ascend major third ascend two chord tones, then play ascending lower chromatics immediately below the third chord tone

C C⁷ C^{maj7}

root third fifth third fifth flat 7 third fifth natural 7

T A B

10 9 10 11 8 9 8 9 10 11 9 8 10 11 7

ascend minor third ascend two chord tones, then play ascending lower chromatics immediately below the third chord tone

C^m C^{m7} C^{m(maj7)}

root third fifth third fifth flat 7 third fifth natural 7

T A B

10 8 10 11 8 8 8 9 10 11 8 8 10 11 7

descend major third play the initial chord tone, descend two chromatic tones immediately below it, then descend to the next two lower chord tones in descending order by pitch

C C⁷ C^{maj7}

fifth third root flat 7 fifth third nat. 7 fifth third

T A B

8 9 8 7 10 11 10 9 8 9 7 11 10 8 9

descend minor third play the initial chord tone, descend two chromatic tones immediately below it, then descend to the next two lower chord tones in descending order by pitch

C^m C^{m7} C^{m(maj7)}

fifth third root flat 7 fifth third nat. 7 fifth third

T A B

8 11 10 8 10 11 10 9 8 8 7 11 10 8 8

3. **Insert a nearby chord tone.** Accommodations for four-note linear chromatic cells can be made that are not purely linear. For these accommodations, make an exception to the linear chromatic sequence by playing the initial chord tone, the target chord tone, or any chord tone within a fifth (rarely a larger interval) as either the first, second third or fourth note in the four-note cell. See Chromaticized Arpeggios/ **+s**, which include these linear chromatics with an inserted chord tone, but also with larger intervals to the inserted tone.

major third with a nearby chord tone inserted, ascending

ascend major third with added first note

play the initial tone for the first note

play the target tone for the first note (not strictly linear)

play a nearby chord tone for the first note (not strictly linear)

root root third third root third fifth root third

T
A
B

5 5 7 8 5 5 5 7 8 5 8 5 7 8 5

ascend major third with added second note

play the initial tone for the second note

play the target tone for the second note (not strictly linear)

play a nearby chord tone for the second note (not strictly linear)

root root third root third third root fifth third

T
A
B

5 5 7 8 5 5 5 7 8 5 5 8 7 8 5

ascend major third with added third note

play the initial tone for the third note

play the target tone for the third note (not strictly linear)

play a nearby chord tone for the third note (not strictly linear)

root root third root third third root fifth third

T
A
B

5 7 5 8 5 5 7 5 8 5 5 7 8 8 5

ascend major third with added fourth note

play the initial tone for the fourth note

play the target tone for the fourth note (not strictly linear)

play a nearby chord tone for the fourth note (not strictly linear)

root root third root third third root fifth third

T
A
B

5 7 8 5 5 5 7 8 5 5 5 7 8 8 5

major third with a nearby chord tone inserted, descending

**descend major third
with added first note**

play the initial tone for the
first note

play the target tone for the
first note (not strictly linear)

play a nearby chord tone for the
first note (not strictly linear)

root third root third root fifth (near) root

TAB: 5 5 8 7 5 | 5 5 8 7 5 | 5 5 8 7 5

**descend major third
with added second note**

play the initial tone for the
second note

play the target tone for the
second note (not strictly linear)

play a nearby chord tone for the
second note (not strictly linear)

third third root third root root third fifth (near) root

TAB: 5 5 8 7 5 | 5 5 8 7 5 | 5 5 8 7 5

**descend major third
with added third note**

play the initial tone for the
third note

play the target tone for the
third note (not strictly linear)

play a nearby chord tone for the
third note (not strictly linear)

third third root third root root third fifth (near) root

TAB: 5 8 5 7 5 | 5 8 5 7 5 | 5 8 5 7 5

**descend major third
with added fourth note**

play the initial tone for the
fourth note

play the target tone for the
fourth note (not strictly linear)

play a nearby chord tone for the
fourth note (not strictly linear)

third third root third root root third fifth (near) root

TAB: 5 8 7 5 5 | 5 8 7 5 5 | 5 8 7 5 5

minor third with a nearby chord tone inserted, ascending

ascend minor third with added first note

play the initial tone for the first note

play the target tone for the first note (not strictly linear)

play a nearby chord tone for the first note (not strictly linear)

Cm

root root third root third third root fifth third

TAB: 5 5 6 7 8, 5 8 6 7 8, 5 8 6 7 8

ascend minor third with added second note

play the initial tone for the second note

play the target tone for the second note (not strictly linear)

play a nearby chord tone for the second note (not strictly linear)

Cm

root root third root third third root third third

TAB: 5 5 6 7 8, 5 8 6 7 8, 5 8 6 7 8

ascend minor third with added third note

repeat the initial tone for the third note

play the target tone for the third note (not strictly linear)

play a nearby chord tone for the third note (not strictly linear)

Cm

root root third root third third root fifth (near) third

TAB: 5 6 5 7 8, 5 6 8 7 8, 5 6 8 7 8

ascend minor third with added fourth note

play the initial tone for the fourth note

play the target tone for the fourth note (not strictly linear)

play a nearby chord tone for the fourth note (not strictly linear)

Cm

root root third root third third root fifth third (near)

TAB: 5 6 7 5 8, 5 6 7 8 8, 5 6 7 8 8

minor third with a nearby chord tone inserted, descending

**descend minor third
with added first note**play the initial tone for the
first noteplay the target tone for the
first note (not strictly linear)play a nearby chord tone for the
first note (not strictly linear)

Cm

third third root

third root root

third fifth (near) root

TAB: 8 8 7 6 5

TAB: 8 5 7 6 5

TAB: 8 5 7 6 5

**descend minor third
with added second note**play the initial tone for the
second noteplay the target tone for the
second note (not strictly linear)play a nearby chord tone for the
second note (not strictly linear)

Cm

third third root

third root root

third fifth (near) root

TAB: 8 8 7 6 5

TAB: 8 5 7 6 5

TAB: 8 5 7 6 5

**descend minor third
with added third note**repeat the initial tone for the
third noteplay the target tone for the
third note (not strictly linear)play a nearby chord tone for the
third note (not strictly linear)

Cm

third third root

third root root

third fifth (near) root

TAB: 8 7 8 6 5

TAB: 8 7 5 6 5

TAB: 8 7 5 6 5

**descend minor third
with added fourth note**play the initial tone for the
fourth noteplay the target tone for the
fourth note (not strictly linear)play a nearby chord tone for the
fourth note (not strictly linear)

Cm

third third root

third root root

third fifth root (near)

TAB: 8 7 6 8 5

TAB: 8 7 6 5 5

TAB: 8 7 6 5 5

Linear Chromatics by Octave Shape

E form

Cm⁹

1 4 2 3 4 1 1 2 3 1 4 1 1 2 3 4 1 4 3 2 1 3 1 4 3 2 1 4 4 1 3 2

TAB: 8 11 9 10 11 7 8 9 10 8 11 7 8 9 10 11 7 11 10 9 8 10 7 11 10 9 8 12 11 8 10 9 8

4

3 1 4 1 1 2 3 4 1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1 4 3 2 1 3 1 4 3

TAB: 10 8 11 7 8 9 10 11 8 11 9 10 11 7 8 9 10 9 8 12 11 8 10 9 8 11 10 9 8 10 7 11 10

C⁹

2 3 4 1 1 4 2 3 4 2 1 1 2 3 4 1 2 1 4 3 2 4 1 4 4 1 3 2 1 4 4 3 2

TAB: 8 9 10 6 7 10 8 9 10 8 6 7 8 9 10 6 7 6 10 9 8 10 7 11 10 7 9 8 7 11 10 9 8

10

3 4 1 1 2 1 3 4 1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1 2 4 3 2 1 1 4 3

TAB: 10 11 7 8 9 10 11 8 11 9 10 11 7 8 9 10 9 8 12 11 8 10 9 8 9 11 10 9 8 7 11 10

Cma⁹

2 3 4 1 1 4 2 3 4 1 2 3 3 1 4 1 1 3 1 4 3 2 1 4 4 1 3 2 1 4 4 2 1

TAB: 8 9 10 6 7 10 8 9 10 6 7 8 9 10 6 7 9 6 10 9 8 7 11 10 7 9 8 7 11 10 9 8

Cma⁹

4 1 1 2 2 3 4 1 2 3 4 1 1 4 2 3 4 1 3 2 1 4 4 3 2 3 1 4 3 2 1 4 4

TAB: 10 6 7 8 9 10 7 8 9 10 6 7 10 8 9 10 7 9 8 7 11 10 9 8 9 7 10 9 8 7 11 10

2

A form

19 Fm⁹

1 4 2 3 4 1 1 2 3 1 4 1 1 2 3 4 1 4 3 2 1 3 1 4 3 2 1 4 4 1 3 2 1

T A B

8 11 9 10 11 7 8 9 10 11 8 7 8 9 10 11 8 11 10 9 8 10 7 11 10 9 8 12 11 8 10 9 8

22

3 2 4 1 2 3 4 1 1 4 2 3 4 1 3 2 1 4 4 3 2 3 1 4 3

T A B

10 9 11 8 9 10 11 7 8 11 9 10 11 8 10 9 8 12 11 10 9 10 8 11 10

25 F⁹

1 2 3 4 1 3 1 2 3 1 4 1 1 2 3 4 1 4 3 2 1 3 1 4 3 1 3 2 1 4 3 2 1

T A B

8 9 10 11 7 10 8 9 10 8 11 7 8 9 10 11 8 11 10 9 8 10 7 11 10 7 9 8 7 11 10 9 8

28 F⁹

3 4 1 2 3 1 4 1 1 4 2 3 4 1 3 2 1 3 1 4 3 2 1 4 3

T A B

10 11 8 9 10 11 7 8 11 9 10 11 8 10 9 8 10 7 11 10 9 8 11 10

31 Fma⁹

1 2 3 4 1 3 1 2 3 4 1 1 2 1 3 4 1 2 4 3 2 1 1 4 3 1 3 2 1 4 3 2 1

T A B

8 9 10 11 7 10 8 9 10 11 7 8 9 10 11 8 9 11 10 9 8 7 11 10 7 9 8 7 11 10 9 8

34 Fma⁹

3 4 1 2 3 1 4 1 1 1 2 3 4 3 2 1 1 3 1 4 3 2 1 4 3

T A B

10 11 8 9 10 11 7 8 9 10 11 12 11 10 9 8 10 7 11 10 9 8 11 10

D form

3

37 B^bm⁹

2 3 4 1 1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1 4 4 3 2

TAB: 9 10 11 7 8 11 9 10 11 10 9 8 12 11 8 10 9 8 12 11 10 9

40

1 4 2 3 4 1 1 2 3 2 4 1 2 3 4 1 2 1 4 3 2 3 1 4 3 2 1 4 4 1 3 2 1

TAB: 8 11 9 10 11 7 8 9 10 11 11 8 9 10 11 7 8 7 11 10 9 8 10 11 10 9 8 12 11 8 10 9 8

43 B^b9

3 1 4 1 1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1 3 1 4 3

TAB: 10 8 11 7 8 11 9 10 11 7 8 9 10 9 8 7 11 8 10 9 8 10 7 11 10

46

1 2 3 4 1 3 1 2 3 2 4 1 2 3 4 1 2 1 4 3 2 3 1 4 3 1 3 2 1 4 3 2 1

TAB: 8 9 10 11 7 10 8 9 10 11 11 8 9 10 11 7 8 7 11 10 9 8 10 11 10 7 9 8 7 11 10 9 8

49 B^bma⁹

3 1 4 1 1 2 3 4 1 3 1 2 3 1 3 2 1 4 3 2 1 3 1 4 3

TAB: 10 8 11 7 8 9 10 11 7 10 8 9 10 7 9 8 7 11 10 9 8 10 7 11 10

52 B^bma⁹

1 2 3 4 1 3 1 2 3 4 1 2 3 1 4 1 1 3 1 4 3 2 1 4 3 1 3 2 1 4 3 2 1

TAB: 8 9 10 11 7 10 8 9 10 11 8 9 10 11 7 8 7 11 10 9 8 11 10 7 9 8 7 11 10 9 8

4

G form

55 Ebm⁹

4 2 1 1 2 3 4 1 1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1 4 4 3 2 4 1 4 4

T
A
B

11 9 7 8 9 10 11 7 8 11 9 10 11 7 8 9 10 9 8 7 11 8 10 9 8 7 11 10 9 11 8 7 11

58 Ebm⁹

1 3 1 2 3 4 1 2 3 1 4 1 1 2 3 4 3 2 1 1 1 3 1 4 3 2 1 4 3 1 3 2 1

T
A
B

8 11 9 10 11 12 9 10 11 12 8 9 10 11 12 13 12 11 10 9 11 8 12 11 10 9 12 11 8 10 9 8

61 Eb⁹

4 1 1 2 3 1 4 1 1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1 3 1 4 3 2 1 4 4

T
A
B

11 7 8 9 10 8 11 7 8 11 9 10 11 7 8 9 10 9 8 7 11 8 10 9 8 10 7 11 10 9 8 7 11

64 Eb⁹

1 2 3 4 1 4 1 2 3 1 4 1 1 2 3 4 4 3 2 1 1 3 1 4 4 1 3 2 1 4 3 2 1

T
A
B

8 9 10 11 8 11 9 10 11 12 8 9 10 11 12 13 12 11 10 9 11 8 12 11 8 10 9 8 11 10 9 8

67 Ebma⁹

4 1 1 2 3 1 4 1 1 2 3 4 1 3 1 2 3 1 3 2 1 4 3 2 1 3 1 4 3 2 1 4 4

T
A
B

11 7 8 9 10 8 11 7 8 9 10 11 7 10 8 9 10 7 9 8 7 11 10 9 8 10 7 11 10 9 8 7 11

70 Ebma⁹

1 2 3 4 1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1 4 3 2 1

T
A
B

8 9 10 11 8 11 9 10 11 7 8 9 10 9 8 12 11 8 10 9 8 11 10 9 8

C form

5

73 Gm⁹

3 1 4 1 1 2 3 4 1 3 1 2 3 4 1 2 3 2 1 4 3 1 3 2 1 4 3 2 1 3 1 4 3

T: 8 11 9 10 11 7 10 8 9 10 11 8 9 10 9 8 11 10 7 9 8 7 11 10 9 8 10 7 11 10

A: 10 8 11 7 8 9 10 11 7 10 8 9 10 11 8 9 10 9 8 11 10 7 9 8 7 11 10 9 8 10 7 11 10

B: 10 8 11 7 8 9 10 11 7 10 8 9 10 11 8 9 10 9 8 11 10 7 9 8 7 11 10 9 8 10 7 11 10

76 Gm⁹

1 4 2 3 4 1 1 2 3 2 1 4 4 1 3 2 1

T: 8 11 9 10 11 7 8 9 10 9 8 12 11 8 10 9 8

A: 8 11 9 10 11 7 8 9 10 9 8 12 11 8 10 9 8

B: 8 11 9 10 11 7 8 9 10 9 8 12 11 8 10 9 8

78 G⁹

3 4 1 1 2 1 3 4 1 3 1 2 3 4 1 2 3 2 1 4 3 1 3 2 1 2 4 3 2 1 1 4 3

T: 7 8 9 7 10 11 7 10 8 9 10 11 8 9 10 9 8 11 10 7 9 8 7 9 11 10 9 8 7 11 10

A: 10 11 7 8 9 7 10 11 7 10 8 9 10 11 8 9 10 9 8 11 10 7 9 8 7 9 11 10 9 8 7 11 10

B: 10 11 7 8 9 7 10 11 7 10 8 9 10 11 8 9 10 9 8 11 10 7 9 8 7 9 11 10 9 8 7 11 10

81

1 2 3 4 1 3 1 2 3 1 3 2 1 4 3 2 1

T: 8 9 10 11 7 10 8 9 10 7 9 8 7 11 10 9 8

A: 8 9 10 11 7 10 8 9 10 7 9 8 7 11 10 9 8

B: 8 9 10 11 7 10 8 9 10 7 9 8 7 11 10 9 8

83 Gma⁹

4 1 1 2 3 1 4 1 1 2 3 4 1 3 1 2 3 1 3 2 1 4 3 2 1 3 1 4 3 2 1 4 4

T: 6 7 8 9 7 10 6 7 8 9 10 7 10 8 9 10 7 9 8 7 10 9 8 7 9 6 10 9 8 7 11 10

A: 10 6 7 8 9 7 10 6 7 8 9 10 7 10 8 9 10 7 9 8 7 10 9 8 7 9 6 10 9 8 7 11 10

B: 10 6 7 8 9 7 10 6 7 8 9 10 7 10 8 9 10 7 9 8 7 10 9 8 7 9 6 10 9 8 7 11 10

86

2 3 4 1 1 4 2 3 4 1 2 1 4 4 3 2 1

T: 8 9 10 6 7 10 8 9 10 7 9 8 7 11 10 9 8

A: 8 9 10 6 7 10 8 9 10 7 9 8 7 11 10 9 8

B: 8 9 10 6 7 10 8 9 10 7 9 8 7 11 10 9 8

“EVERY OTHER” CHROMATIC CELL SEQUENCES

(start with two chromatics below the third and seventh or below the fifth and ninth)

Chromaticizing Every Other Tertian Tone

To make sure chord tones are on the beat, these four-note cells play two chord tones, then two chromatics. Ascending, the two chromatics ascend up to the chord tone on the next beat. Descending, the two chromatics descend from the chord tone at the beginning of the beat (making them the second and third of the four notes in the cell), followed by the next lower chord tone.

Ascending in thirds, chromaticizing every other tone (with two lower chromatic) creates the cycle of chromaticized tones 4-1-5-2-6-3-7 (repeat), which is the cycle of fifths. Descending in thirds, chromaticizing every other tone (with two lower chromatic) creates the cycle of chromaticized tones 7-3-6-2-5-1-4 (repeat), which is the cycle of fourths.

The question is, where do you start and stop to harmonize with the current chord? The answer is, you want the highest chord tone to an acceptable chord tone and the lowest tone to be the root or major sixth (if there is one) of the current chord. Acceptable thirteenthths are II^m13, IV^{ma}13#11 and V13 (though the eleventh should not be emphasized strongly unless you want a suspended sound). The highest acceptable tone of a VI type chord is the eleventh (VI^m11). The highest acceptable tone of a I type chord is the ninth (though the thirteenth can work if the eleventh is de-emphasized). Unless altered, III and VII type chords are only acceptable as sevenths. III can use a flat nine if changed to a III7b9 (with a major third). VII^m11b5b9 is usable as an arpeggio if the b9 is de-emphasized.

Descend from a note that can be an upper chord tone and descend only as far as the root or sixth (if there is a major sixth).

Chromaticizing Every Other Chord Tone Examples

Examples of chromaticizing every other chord tone for C⁷ and C^{m7} chords.

C⁷ and C⁹ Examples:

- C⁷ Arpeggio:** C (root), E[♮] (third), G[♮] (flat seventh), B[♮] (third). Chromaticized: C, E[♮], E[♭], G[♮], G[♭], B[♮], B[♭], C.
- C⁹ Arpeggio:** C (root), E[♮] (fifth), G[♮] (ninth). Chromaticized: C, E[♮], E[♭], G[♮], G[♭], B[♮], B[♭], C.

C^{m7} and C^{m9} Examples:

- C^{m7} Arpeggio:** C (root), E[♭] (flat third), G[♮] (flat seventh), B[♭] (flat third). Chromaticized: C, E[♭], E[♮], G[♮], G[♭], B[♭], B[♮], C.
- C^{m9} Arpeggio:** C (root), E[♭] (fifth), G[♮] (ninth). Chromaticized: C, E[♭], E[♮], G[♮], G[♭], B[♭], B[♮], C.

Each example includes a treble clef staff with the melodic line and a bass staff with the arpeggio sequence (T, A, B) and fingerings (10, 7, 8, 9, 10, 11, 10, 9, 8, 9, 8, 7, 10, 10).

C^{ma9}, C⁹, C^{m9} triad subsets with two chromatics below 3 & 7, 5 & 9

C^{ma9}, C⁹, C^{m9} triad subsets with two chromatics below 3 & 7, 5 & 9

Examples of chromaticizing every other chord tone for C^{ma9}, C⁹, and C^{m9} chords.

C^{ma9} and C⁹ Examples:

- C^{ma9} Arpeggio:** C (root), E[♮] (third), G[♮] (fifth), B[♮] (ninth). Chromaticized: C, E[♮], E[♭], G[♮], G[♭], B[♮], B[♭], C.
- C⁹ Arpeggio:** C (root), E[♮] (fifth), G[♮] (ninth). Chromaticized: C, E[♮], E[♭], G[♮], G[♭], B[♮], B[♭], C.

C^{m9} Example:

- C^{m9} Arpeggio:** C (root), E[♭] (flat third), G[♮] (flat seventh), B[♭] (flat third). Chromaticized: C, E[♭], E[♮], G[♮], G[♭], B[♭], B[♮], C.

Each example includes a treble clef staff with the melodic line and a bass staff with the arpeggio sequence (T, A, B) and fingerings (10, 7, 8, 9, 10, 11, 10, 9, 8, 9, 8, 7, 10, 10).

Fma9, F9, Fm9 triad subsets with two chromatics below 3 & 7, 5 & 9

Fma9, F9, Fm9 triad subsets with two chromatics below 3 & 7, 5 & 9

Fmaj7 **Fmaj9**

F7 **F9**

Fm7 **Fm9**

G13, Gm13 two chromatics below 5, 9 and 13**E form**

G⁹

Gm¹³

G⁹ G⁹ G¹³

G¹³

Gm⁹ Gm¹³

A form

G⁹

Gm¹³

G⁹

G¹³

G¹³

Gm⁹

Gm¹³

G⁹

D form

G⁹

G¹³

G⁹ **G¹³**

G¹³

Gm⁹ **Gm¹³**

Gm¹³

C form

G⁹

Gm¹³

G¹³ **Gm¹³**

G¹³ **G¹³**

Gm¹³

G¹³

G form

System 1: G⁹

Treble staff: 4 3 4 1 1 3 1 4 1 2 3 2 1 2 1 4 1 4 3 4 3 1 3

Tablature: 15 14 15 11 12 14 12 15 12 13 14 13 12 13 12 15 12 11 15 16 15 13 15

System 2: G^{m13}

Treble staff: 1 4 3 4 3 1 2 1 1 2 1 4 1 4 3 4 3 1 3

Tablature: 12 16 15 16 15 13 14 13 12 13 12 15 12 11 15 16 15 13 15

System 3: G⁹ (8va-), G⁹, G¹³

Treble staff: 3 1 3 1 4 1 4 1 1 1 1 2 3 1 2 3 4 3 2 12 3 2 1 1 4 3 1 4 3 2 1 2

Tablature: 12 12 15 13 17 13 15 12 12 12 13 14 15 13 15 16 17 16 15 13 15 14 13 12 15 14 12 15 14 13 13

System 4: G¹³

Treble staff: 3 4 1 3 4 4 3 3 1 1 4 1 2 3 2 4 1 1 4 4 2 3 2 1 4 1 4 4 2

Tablature: 14 15 12 14 15 15 14 15 11 12 15 12 13 14 13 15 11 12 16 15 13 14 13 12 15 12 16 15 14

System 5: G^{m9} (8va-), G^{m13}

Treble staff: 13 17 13 15 15 12 15 13 14 15 13 15 16 17 16 15 13 15 14 13 15

Tablature: 12 15 15 13 17 13 15 15 12 15 13 14 15 13 15 16 17 16 15 13 15 14 13 15

System 6: G^{m13}

Treble staff: 14 15 12 13 15 15 13 15 11 12 15 12 13 14 13 15 11 12 11 15 13 14 13 12 15 12 11 15 13

Tablature: 14 15 12 13 15 15 13 15 11 12 15 12 13 14 13 15 11 12 11 15 13 14 13 12 15 12 11 15 13

SKIP CHROMATIC SEQUENCES

Basics of Skip Chromatics

Skips are intervals of a third or larger that “skip” scale tones, rather than ascending or descending stepwise.

woodwind, horn and flute players think chord tones differently

Skip chromatics are inspired by the skips used in funk and jazz saxophone improv. Woodwind players (which include sax players), horn players and flute players don't have a linear graphic layout to play from like fretboard players and keyboard players. They have to think by note name. They think the names of the notes in a chord and whimsically jump from one chord tone to another.

Where fretboard and keyboard players have complicated graphic patterns to play skips, sax players (and other horn players) find it easier for to use skips because they just think a note name and the fingers respond, having memorized the fingering to where it is second nature. They don't have to think the fingering for each note consciously. They have a more intuitive access to chord tones.

Guitar players have to think differently to use skips. *Skip chromatics* is a chromaticizing strategy and employs skips for the guitarist. This strategy would work with lesser ease for keyboard players. Guitarists would find skip chromatics easier, since they use a more repeating sets of fingering patterns for scales and arpeggios, due to the chromatic transposing ability of the guitar, changing key by moving everything up or down so many frets and playing the same pattern.

skip chromatics during a single chord

Skip chromatics are easiest to play and hear during a single chord. Skip chromatics use chord tones of the current chord for skip tones. These are a bit of a stretch melodically, but sound cool. To reinforce the chord, play another chord tone after the resolution, as shown in every third bar below.

It is preferred that skip tones are triad tones, but can also be sixths on chords with a major third (Cma7, Cma9, C7, C9), and flatted sevenths can be used as skip tones on dominant seventh, dominant ninth, minor seventh or minor ninth chords.

Types of Skip Chromatics

descending four-note chromaticized arepeggio cells with the fourth tone as a skip

These cells use a chord tone, two chromatic tones descending immediately below it, a skip to a nearby chord tone as the fourth note, followed by the target tone.

descending four-note chromaticized arepeggio cells with the second tone as a skip

These cells use a chord tone, a skip to a nearby chord tone as the second note, two chromatic tones descending immediately below the first tone, followed by the target tone.

ascending four-note chromaticized arepeggio cells with the fourth tone as a skip

These cells use a chord tone, two chromatic tones ascending from immediately below the target tone (fifth note), a skip to a nearby chord tone as the fourth note, followed by the target chord tone (the fifth note).

ascending four-note chromaticized arpeggio cells with the second tone as a skip

These cells use a chord tone, a skip to a nearby chord tone as the second note, two chromatic tones ascending from immediately below the target tone (fifth note), followed by the target chord tone (the fifth note).

Skip Chromatics on Ninth Arpeggios

In these sequences, each target tone doubles as the first note of the next cell, making a sequence. In the final bar, the first note is the target tone, followed by another chord tone to reinforce the sound of the current chord.

Though the skip tones can be of larger intervals, the skips shown here are the next higher chord tone above the first note or the next higher chord tone below the target chord tone. Notice that for major ninth and ninth chords, (Cma9, C9) chord tone “6” (“A” in the key of C) is used as the fourth note, a skipped chord tone.

descending chromatics with the “skip” interval as fourth note

The musical notation consists of three systems, each with a treble clef staff and a bass staff. The first system (measures 1-6) shows descending chromatic lines for Cm9 and Cmaj9. The second system (measures 7-12) continues the sequence for Cm9 and Cmaj9. The third system (measures 13-18) continues for C9 and Cm9. Fingerings are indicated by numbers 1-4. Chord symbols are placed above the first measure of each system.

19 Cmaj9 C9

25 Cm9 Cmaj9

31 C9 Cm9

ascending chromatics with the “skip” interval as fourth note

1 Cmaj9 C9

7 Cm9 Cmaj9

13 C9 Cm9

descending chromatics with the “skip” interval as second note

1 Cmaj9 C9

7 Cm9 Cmaj9

13 C9 Cm9

ascending chromatics with the “skip” interval as second note

1 Cmaj9 C9

7 Cm9 Cmaj9

13 C9 Cm9

ENCIRCLING CHROMATIC SEQUENCES

Four-Note Chromatic Encircling

A *lower chromatic embellishment* is the use of a note a half step below a chord tone to lead up to that tone. They are usually preferred to lower scale tone neighbors of a whole step. *Upper chromatic embellishments* are rarely used. I do use upper chromatic embellishments on diminished sevenths, resourcing the diminished scale.

ascending one chord tone to another

1. Play a chord tone (there must be another chord tone a third above). Call this first note the *initial chord tone*.
2. Play two chromatic tones immediately below the chord tone a third above the initial chord tone, in ascending order. Call the note a third above the initial chord tone the *higher chord tone*. The resolution to the higher chord tone will be delayed (read on).
3. Play the scale tone above the higher chord tone.
4. Play the higher chord tone. Call this the *target tone*.
5. Treating the target tone as another starting point, repeat steps 1-4.

descending one chord tone to another

1. Play a chord tone (there must be another chord tone a third below). Call this first note the *initial chord tone*.
2. Play two chromatic tones immediately below the *initial chord tone*, in descending order.
3. Call the note a third below the *initial chord tone* the *lower chord tone*. The resolution to the *lower chord tone* will be delayed (read on). Play the chromatic tone immediately below the *lower chord tone*. This is a lower chromatic embellishment to the *lower chord tone*.
4. Play the lower chord tone. Now call this lower chord tone the *target tone*.
5. Treating the target tone as another starting point, repeat steps 1-4.

Encircling Thirds

major third minor third

T
A
B

10 7 8 10 9 8 7 9 10

10 11 7 10 8 7 11 9 10

These are four-note cells, intended to resolve on the fifth note. Encircled major thirds ascend 1-2-#2-4 to target 3 and descend 3-b3-2-7 to target 1. “4” is an upper neighbor to 3. “7” is a lower chromatic embellishment.

Encircled minor thirds ascend 1-#1-2-4 to target b3 and descend b3-2-b2-7 to target 1. “4” is an upper neighbor to b3. “7” is a lower chromatic embellishment.

Pickups may precede the first arpeggio tone with a number of notes one fewer than the interval to the arpeggio tone.

encircled third within a triad

These are easiest to conceive in numbers or music notation. These four-note cells can be any of the following:

four versions for each triad type

C

1 5 b5 4 3 1 5 2 #2 3 5 1 b5 4 3 5 1 2 #2 3

Cm

1 5 b5 4 b3 1 5 #1 2 b3 5 1 b5 4 b3 5 1 #1 2 b3

C°

1 b5 4 b4 b3 1 b5 #1 2 b3 b5 1 4 b4 3 b5 1 #1 2 b3

encircling thirds within ninth chords

1-5-2-#2 to 3 type on G9

G⁹

TAB: 3 4 5 2 3 4 6 5 6 3 5 4 5 6 3 5 3 3 2 6 4 5 4 3 5 6 5 4 3 2 6 5

1-5-2-#2 to 3 type on Gm9

Gm⁹

TAB: 3 4 5 6 2 3 6 5 6 3 5 4 5 6 3 5 3 3 2 6 3 5 4 3 5 4 3 3 2 6 5

1-5-2-#2 to 3 type on Gma9

Gma⁹

TAB: 3 4 5 2 3 4 5 6 3 5 5 6 2 3 5 3 4 3 2 4 5 4 3 6 5 4 4 2 6 5

encircling chromatics on thirds within G9

G⁹

TAB: 2 3 5 4 5 6 3 4 5 6 3 4 7 5 5 4 3 5 6 5 4 6 3 6 5 3 4 3 2 4 5

root third fifth flat seven ninth ninth flat seven fifth third root

encircling chromatics on thirds within Gm9

Gm⁹

root flat third fifth flat seven ninth ninth flat seven fifth flat third root

TAB: 5 6 2 5 3 5 6 3 4 5 6 3 4 6 5 5 4 3 5 6 5 4 6 3 6 5 2 3 7 6 4 5

four-note linear or encircling chromatics on G9 with four-note linear heptatonic pickups
 the number of pickup notes plus the target (1 note) equals the interval from the starting note to the target

G⁹

4 pickups + 1 = fifth 4 pickups + 1 = fifth

TAB: 5 2 4 5 3 6 4 5 6 5 6 3 3 5 2 3 5 2 3 5 4 3 4 5

four-note linear or encircling chromatics on Gm9 with four-note linear heptatonic pickups
 the number of pickup notes plus the target (1 note) equals the interval from the starting note to the target

Gm⁹

4 pickups + 1 = fifth 4 pickups + 1 = fifth

TAB: 5 2 3 5 3 6 4 5 6 5 6 3 3 5 2 3 5 1 2 5 3 3 3 5

Encircling Chromatics by Octave Shape

E form

Cm⁹

1 2 3 1 4 1 2 4 3 4 1 3 1 3 4 1 1 4 3 1 1 4 4 2 3 2 1 3 4 3 2 1 1

TAB: 8 9 10 8 11 8 9 11 10 11 7 10 8 10 11 8 7 11 10 7 8 7 11 9 10 9 8 10 11 10 9 7 8

4

3 4 1 3 1 3 4 2 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1 4 3 1 1 4 4 2 3

TAB: 10 11 7 10 8 10 11 10 8 9 10 8 11 8 9 11 10 9 8 10 11 10 9 11 8 11 10 7 8 12 11 9 10

C⁹

1 3 4 1 4 1 2 1 3 4 1 3 1 3 4 2 1 4 3 1 1 4 4 2 3 2 1 4 1 4 3 1 1

TAB: 8 10 11 8 12 8 9 7 10 11 7 10 8 10 11 9 7 11 10 7 8 12 11 9 10 9 8 11 7 11 10 7 8

10

3 1 1 3 2 3 4 3 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1 4 3 1 2 1 1 2 3

TAB: 10 7 8 10 9 10 11 10 8 9 10 8 11 8 9 12 10 9 8 10 11 10 9 11 8 11 10 8 9 8 7 9 10

Cma⁹

1 3 4 1 4 1 2 1 3 1 1 3 2 3 4 2 1 4 3 1 2 1 1 2 3 2 1 4 1 4 3 1 1

TAB: 8 10 11 8 12 8 9 7 10 7 8 10 9 10 11 9 7 11 10 8 9 8 7 9 10 9 8 11 7 11 10 7 8

16

3 1 1 3 2 3 4 3 1 3 4 1 4 1 2 4 3 2 1 4 1 4 3 4 1 4 3 1 2 1 1 2 3

TAB: 10 7 8 10 9 10 11 10 8 10 11 12 8 9 12 10 9 8 11 7 11 10 11 8 11 10 8 9 8 7 9 10

A form

19 Fm⁹

1 2 3 1 4 1 2 4 3 4 1 3 1 3 4 2 1 4 3 1 1 4 4 2 3 2 1 3 4 3 2 1 1

T: 8 9 10 8 8 9 11 10 11 7 10 8 10 11 9 8 11 10 7 8 12 11 9 10 9 8 10 11 10 9 7 8

22 Fm⁹

3 4 1 4 2 4 1 2 1 2 3 3 4 3 2 1 1 4 4 1 2 1 4 2 3 3 3

T: 10 11 8 11 9 11 7 9 8 9 10 13 11 10 9 7 8 12 11 8 9 8 11 9 10

25 F⁹

1 3 4 1 4 1 2 1 3 4 1 3 1 3 4 3 1 4 3 1 1 4 4 2 3 2 1 4 1 4 3 1 1

T: 8 10 11 8 8 9 7 10 11 7 10 8 10 11 10 8 11 10 7 8 12 11 9 10 9 8 11 7 11 10 7 8

28

3 1 2 4 3 4 1 3 1 2 3 3 4 3 2 1 1 4 4 2 3 2 1 2 3

T: 10 8 9 11 9 11 7 10 8 9 10 13 11 10 9 7 8 12 11 9 10 9 8 9 10

31 Fma⁹

1 3 4 1 4 1 2 1 3 1 1 3 2 3 4 3 1 4 3 1 2 1 1 2 3 2 1 4 1 4 3 1 1

T: 8 10 11 8 8 9 7 10 7 8 10 9 10 11 10 8 11 10 8 9 8 7 9 10 9 8 11 7 11 10 7 8

34

3 1 2 4 3 4 1 3 1 3 4 4 3 2 1 4 1 4 4 2 3 2 1 2 3

T: 10 8 9 11 10 11 7 10 8 10 11 13 12 11 10 12 8 12 11 9 10 9 8 9 10

D form

37 B \flat m 9

1 2 3 1 4 1 2 4 3 4 1 4 2 4 1 2 1 4 4 1 2 1 4 2 3 2 1 3 4 3 2 1 1

T
A
B

8 9 10 8 11 8 9 11 10 11 8 11 9 11 7 9 8 12 11 8 9 8 11 9 10 9 8 10 11 10 9 7 8

40

2 4 1 2 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 1 1 4 4 1 2

T
A
B

9 11 7 9 8 9 10 8 11 8 9 11 10 9 8 10 11 10 9 7 8 12 11 8 9

43 B \flat 9

1 3 4 1 4 1 2 1 3 4 1 4 2 4 1 3 1 4 4 1 2 1 4 2 3 2 1 4 1 4 3 1 1

T
A
B

8 10 11 8 12 8 9 8 10 11 8 11 9 11 7 10 8 12 11 8 9 8 11 9 10 9 8 11 7 11 10 7 8

46

3 4 1 3 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 1 1 4 4 1 3

T
A
B

10 11 7 10 8 9 10 8 11 8 9 12 10 9 8 10 11 10 9 7 8 12 11 9 10

49 B \flat ma 9

1 3 4 1 4 1 2 1 3 1 2 4 3 4 1 3 1 4 4 2 3 2 1 2 3 2 1 4 1 4 3 1 1

T
A
B

8 10 11 8 12 8 9 8 10 8 9 11 10 11 7 10 8 12 11 9 10 9 8 9 10 9 8 11 7 11 10 7 8

52

3 4 1 3 1 2 3 1 4 1 2 1 3 2 1 4 1 4 3 1 1 4 4 1 3

T
A
B

10 11 7 10 8 9 10 8 12 8 9 7 10 9 8 11 7 11 10 7 8 12 11 9 10

G form

55 Ebm⁹

4 1 1 4 2 4 1 2 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 1 1 4 4 1 2 1 1 3 4

T
A
B

11 7 8 11 9 11 7 9 8 9 10 8 11 8 9 11 10 9 8 10 11 10 9 7 8 7 11 8 9 8 7 10 11

58 Ebm⁹

1 2 3 2 4 2 3 1 4 1 1 4 2 1 1 3 4 3 2 3 4 3 2 1 1

T
A
B

8 9 10 9 11 9 10 7 11 7 8 11 9 8 7 10 11 10 9 10 11 10 9 7 8 8

61 Eb⁹

4 1 2 4 3 4 1 3 1 2 3 1 4 1 2 1 3 2 1 3 4 3 2 1 1 4 4 2 3 2 1 3 4

T
A
B

11 8 9 11 10 11 7 10 8 9 10 8 11 8 9 8 10 9 8 10 11 10 9 7 8 12 11 9 10 9 8 10 11

64

1 2 3 2 1 2 3 1 4 1 1 4 2 1 1 3 4 3 2 4 1 4 3 1 1

T
A
B

8 10 11 9 8 9 10 8 11 7 8 11 9 8 7 10 11 10 9 11 8 11 10 7 8 8

67 Ebma⁹

4 1 2 4 3 4 1 3 1 3 4 1 4 1 2 1 3 2 1 4 1 4 3 1 1 4 4 2 3 2 1 3 4

T
A
B

11 8 9 11 10 11 7 10 8 10 11 12 8 9 8 10 9 8 11 7 11 10 7 8 12 11 9 10 9 8 10 11

70

1 3 4 2 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1 4 3 1 1

T
A
B

8 10 11 9 8 9 10 8 11 8 9 11 10 9 8 10 11 10 9 11 8 11 10 7 8 8

C form

73 Gm⁹

3 4 1 3 1 3 4 1 4 1 2 1 3 1 2 4 3 2 1 2 3 2 1 4 1 4 3 1 1 4 4 2 3

T
A
B

10 11 7 10 8 10 11 8 8 9 10 8 9 11 9 10 9 8 11 7 11 10 7 8 12 11 9 10

76

1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1

T
A
B

8 9 10 8 11 8 9 11 10 9 8 10 11 10 9 11 8

78 G⁹

3 1 1 3 2 3 4 2 1 1 2 1 3 1 2 1 3 2 1 2 3 2 1 4 1 4 3 1 2 1 1 2 3

T
A
B

10 7 8 10 9 10 11 9 7 8 9 10 8 9 7 10 9 8 9 10 9 8 11 7 11 10 8 9 8 7 9 10

81

1 2 3 1 4 1 2 4 3 2 1 4 1 3 2 4 1

T
A
B

8 9 10 8 12 8 9 12 10 9 8 11 7 10 9 11 8

83 Gma⁹

3 1 1 3 2 3 4 2 1 2 3 1 4 1 2 1 3 2 1 3 4 3 2 4 1 4 3 1 2 1 1 2 3

T
A
B

10 7 8 10 9 10 11 9 7 9 10 8 11 8 9 7 10 9 8 10 11 10 9 11 7 11 10 8 9 8 7 9 10

86

1 2 3 1 4 1 2 4 3 2 1 4 1 3 2 4 1

T
A
B

8 9 10 8 12 8 9 12 10 9 8 11 7 10 9 11 8

Encircling Chromatics by Mode

Aeolian minor ninth- index finger root

Cm⁹

1 2 3 1 4 1 2 4 3 4 1 3 1 3 4 1 1 4 3 1 1 4 4 2 3 2 1 3 4 3 2 1 1

TAB: 8 9 10 8 11 8 9 11 10 11 7 10 8 10 11 8 7 11 10 7 8 7 11 9 10 9 8 10 11 10 9 7 8

Fm⁹

1 2 3 1 4 1 2 4 3 4 1 3 1 3 4 2 1 4 3 1 1 4 4 2 3 2 1 3 4 3 2 1 1

TAB: 8 9 10 8 11 8 9 11 10 11 7 10 8 10 11 9 8 11 10 7 8 12 11 9 10 9 8 10 11 10 9 7 8

B^bm⁹

1 2 3 1 4 1 2 4 3 4 1 4 2 4 1 2 1 4 4 1 2 1 4 2 3 2 1 3 4 3 2 1 1

TAB: 8 9 10 8 11 8 9 11 10 11 8 11 9 11 7 9 8 12 11 8 9 8 11 9 10 9 8 10 11 10 9 7 8

E^bm⁹

2 4 1 2 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 1 1 4 4 1 2

TAB: 9 11 7 9 8 9 10 8 11 8 9 11 10 9 8 10 11 10 9 7 8 12 11 8 9

E^bm⁹

1 1 2 1 3 1 2 4 3 4 1 3 1 4 4 2 3 2 1 2 3 2 1 4 1

TAB: 8 9 10 9 11 9 10 12 11 12 8 11 9 13 12 10 11 10 9 10 11 10 9 7 8

Aeolian minor ninth- ring finger root

16 Dm⁹

3 4 1 3 1 3 4 1 4 1 2 1 3 1 1 3 2 1 1 2 3 2 1 4 1 4 3 1 1 4 4 2 3

TAB: 10 11 7 10 8 10 11 8 12 8 9 7 10 7 8 10 9 8 7 9 10 9 8 11 7 11 10 7 8 12 11 9 10

alternate fingering with little finger root

19 Dm⁹

4 1 1 4 2 4 1 2 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 1 1 4 4 1 2 1 1 3 4

TAB: 10 11 7 10 8 10 11 8 7 8 9 7 10 7 8 10 9 8 7 9 10 9 8 6 7 11 10 7 8 7 6 9 10

22 Gm⁹

3 4 1 3 1 3 4 1 4 1 2 1 3 1 2 4 3 2 1 2 3 2 1 4 1 4 3 1 1 4 4 2 3

TAB: 10 11 7 10 8 10 11 8 9 8 10 8 9 11 10 9 8 9 10 9 8 11 7 11 10 7 8 12 11 9 10

25 Cm⁹

3 4 1 3 1 3 4 2 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1 4 3 1 1 4 4 2 3

TAB: 10 11 7 10 8 10 11 10 8 9 10 11 8 9 11 10 9 8 10 11 10 9 11 8 11 10 7 8 12 11 9 10

28 Fm⁹

3 4 1 4 2 4 1 2 1 2 3 3 4 3 2 1 1 4 4 1 2 1 4 2 3 3 3

TAB: 10 11 8 11 9 11 7 9 8 9 10 13 11 10 9 7 8 12 11 8 9 8 11 9 10

Dorian minor ninth- index finger root

The notes that differ from the Aeolian version are shown with an exclamation point (!).

31 Cm⁹ !

1 2 3 1 4 1 2 1 3 4 1 3 4 1 1 4 3 1 1 4 4 2 3 2 1 3 4 3 2 1 1

T
A
B
8 9 10 11 8 9 7 10 11 7 10 8 10 11 8 7 11 10 7 8 7 11 9 10 9 8 10 11 10 9 7 8

34 Fm⁹ !

1 2 3 1 4 1 2 1 3 4 1 3 1 3 4 2 1 4 3 1 1 4 4 2 3 2 1 3 4 3 2 1 1

T
A
B
8 9 10 11 8 9 7 10 11 7 10 8 10 11 9 8 11 10 7 8 12 11 9 10 9 8 10 11 10 9 7 8

37 Bbm⁹ !

1 2 3 1 4 1 2 1 3 4 1 4 2 4 1 2 1 4 4 1 2 1 4 2 3 2 1 3 4 3 2 1 1

T
A
B
8 9 10 11 8 9 8 10 11 8 11 9 11 7 9 8 12 11 8 9 8 11 9 10 9 8 10 11 10 9 7 8

40 Ebm⁹ !

1 1 2 1 3 1 2 4 3 4 1 3 1 4 4 2 3 2 1 2 3 2 1 4 1

T
A
B
8 9 10 11 9 10 13 11 12 8 11 9 13 12 10 11 10 9 10 11 10 9 7 8

Dorian minor ninth- ring finger root

The notes that differ from the Aeolian version are shown with an exclamation point (!).

43 Dm⁹

3 4 1 3 1 3 4 2 1 1 2 1 3 1 1 3 2 1 1 2 3 2 1 4 1 4 3 1 1 4 4 2 3

TAB: 10 11 7 10 8 10 11 9 7 8 9 7 10 7 8 10 9 8 7 9 10 9 8 11 7 11 10 7 8 12 11 9 10

alternate fingering with little finger root

46 Dm⁹

4 1 1 4 2 4 1 3 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 1 1 4 4 1 2 1 1 3 4

TAB: 10 11 7 10 8 10 11 9 7 8 9 7 10 7 8 10 9 8 7 9 10 9 8 6 7 11 10 7 8 7 6 9 10

49 Gm⁹

3 4 1 3 1 3 4 2 1 1 2 1 3 1 2 4 3 2 1 2 3 2 1 4 1 4 3 1 1 4 4 2 3

TAB: 10 11 7 10 8 10 11 9 7 8 9 8 10 8 9 11 10 9 8 9 10 9 8 11 7 11 10 7 8 12 11 9 10

52 Cm⁹

3 4 1 3 1 3 4 3 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1 4 3 1 1 4 4 2 3

TAB: 10 11 7 10 8 10 11 10 8 9 10 8 11 9 11 10 9 8 10 11 10 9 11 8 11 10 7 8 12 11 9 10

55 Fm⁹

3 4 1 4 2 4 1 3 1 2 3 3 4 3 2 1 1 4 4 1 2 1 4 2 3

TAB: 10 11 8 11 9 11 7 10 8 9 10 13 11 10 9 7 8 12 11 8 9 8 11 9 10

Mixolydian dominant ninth - index finger root

The notes that differ from the Dorian version are shown with an exclamation point (!).

58 C⁹

1 3 4 1 4 1 2 1 3 4 1 3 1 3 4 2 1 4 3 1 1 4 4 2 3 2 1 4 1 4 3 1 1

TAB: 8 10 11 12 8 9 7 10 11 7 10 8 10 11 9 7 11 10 7 8 12 11 9 10 9 8 11 7 11 10 7 8

61 F⁹

1 3 4 1 4 1 2 1 3 4 1 3 1 3 4 3 1 4 3 1 1 4 4 2 3 2 1 4 1 4 3 1 1

TAB: 8 10 11 12 8 9 7 10 11 7 10 8 10 11 10 8 11 10 7 8 12 11 9 10 9 8 11 7 11 10 7 8

64 B^b9

1 3 4 1 4 1 2 1 3 4 1 4 2 4 1 3 1 4 4 1 2 1 4 2 3 2 1 4 1 4 3 1 1

TAB: 8 10 11 12 8 9 8 10 11 8 11 9 11 7 10 8 12 11 8 9 8 11 9 10 9 8 11 7 11 10 7 8

67

3 4 1 3 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 1 1 4 4 1 3

TAB: 10 11 7 10 8 9 10 8 11 8 9 12 10 9 8 10 11 10 9 7 8 12 11 9 10

70 D⁹

1 2 3 1 4 1 2 1 3 4 1 3 1 1 2 4 3 2 1 3 1 4 4 2 3 2 1 3 4 3 2 4 1

TAB: 7 9 10 11 8 9 7 10 11 7 10 8 10 11 13 12 11 10 8 12 11 9 10 9 8 10 11 10 9 11 7

Mixolydian dominant ninth - ring finger root

The notes that differ from the Dorian version are shown with an exclamation point (!).

73 D⁹

3 1 1 3 2 3 4 2 1 1 2 1 3 1 1 4 2 1 1 2 3 2 1 4 1 4 3 1 2 1 1 2 3

TAB: 10 7 8 10 9 10 11 9 7 8 9 7 10 7 8 11 9 8 7 9 10 9 8 11 7 11 10 8 9 8 7 9 10

alternate fingering with little finger root

76 D⁹

4 1 2 4 3 4 1 3 1 2 3 1 4 1 2 1 3 2 1 3 4 3 2 1 1 4 4 2 3 2 1 3 4

TAB: 10 7 8 10 9 10 6 9 7 8 9 7 10 7 8 7 9 8 7 9 10 9 8 6 7 11 10 8 9 8 7 9 10

79 G⁹

3 1 1 3 2 3 4 2 1 1 2 1 3 1 2 1 3 2 1 2 3 2 1 4 1 4 3 1 2 1 1 2 3

TAB: 10 7 8 10 9 10 11 9 7 8 9 8 10 8 9 7 10 9 8 9 10 9 8 11 7 11 10 8 9 8 7 9 10

82 C⁹

3 1 1 3 2 3 4 3 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1 4 3 1 2 1 1 2 3

TAB: 10 7 8 10 8 10 11 10 8 9 10 11 8 9 12 10 9 8 10 11 10 9 11 8 11 10 8 9 8 7 9 10

85 F⁹

3 1 2 4 3 4 1 3 1 2 3 3 4 3 2 1 1 4 4 2 3 2 1 2 3

TAB: 10 8 9 11 9 11 7 10 8 9 10 13 11 10 9 7 8 12 11 9 10 9 8 9 10

Ionian major ninth - index finger root

88 Cma⁹

1 3 4 1 4 1 2 1 3 1 1 3 2 3 4 2 1 4 3 1 2 1 1 2 3 2 1 4 1 4 3 1 1

T
A
B

8 10 11 8 12 8 9 7 10 7 8 10 9 10 11 9 7 11 10 8 9 8 7 9 10 9 8 11 7 11 10 7 8

91 Fma⁹

1 3 4 1 4 1 2 1 3 1 1 3 2 3 4 3 1 4 3 1 2 1 1 2 3 2 1 4 1 4 3 1 1

T
A
B

8 10 11 8 12 8 9 7 10 7 8 10 9 10 11 10 8 11 10 8 9 8 7 9 10 9 8 11 7 11 10 7 8

94 B^bma⁹

1 3 4 1 4 1 2 1 3 1 2 4 3 4 1 3 1 4 4 2 3 2 1 2 3 2 1 4 1 4 3 1 1

T
A
B

8 10 11 8 12 8 9 10 8 9 11 10 11 7 10 8 12 11 9 10 9 8 9 10 9 8 11 7 11 10 7 8

97

3 4 1 3 1 2 3 1 4 1 2 1 3 2 1 4 1 4 3 1 1 4 4 1 3

T
A
B

10 11 7 10 8 9 10 8 12 8 9 7 10 9 8 11 7 11 10 7 8 12 11 9 10

100 E^bma⁹

1 3 4 2 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1 4 3 1 1

T
A
B

8 10 11 9 8 9 10 11 8 9 11 10 9 8 10 11 10 9 11 8 11 10 7 8

Ionian major ninth - ring finger root

103 Dma⁹

3 1 1 3 2 3 4 2 1 2 3 1 4 1 2 4 2 1 1 3 4 3 2 4 1 4 3 1 2 1 1 2 3

T
A
B
10 7 8 10 9 10 11 9 7 9 10 11 7 8 11 9 8 7 10 11 10 9 11 7 11 10 8 9 8 7 9 10

alternate fingering with little finger root

106 E^bma⁹

4 1 2 4 3 4 1 3 1 3 4 1 4 1 2 1 3 2 1 4 1 4 3 1 1 4 4 2 3 2 1 3 4

T
A
B
11 8 9 11 10 11 7 10 8 10 11 8 12 8 9 8 10 9 8 11 7 11 10 7 8 12 11 9 10 9 8 10 11

109 Gma⁹

3 1 1 3 2 3 4 2 1 2 3 1 4 1 2 1 3 2 1 3 4 3 2 4 1 4 3 1 2 1 1 2 3

T
A
B
10 7 8 10 9 10 11 9 7 9 10 11 8 9 7 10 9 8 10 11 10 9 7 11 10 8 9 8 7 9 10

112 Cma⁹

3 1 1 3 2 3 4 3 1 3 4 1 4 1 2 4 3 2 1 4 1 4 3 4 1 4 3 1 2 1 1 2 3

T
A
B
10 7 8 10 9 10 11 10 8 10 11 8 12 8 9 12 10 9 8 11 7 11 10 11 8 11 10 8 9 8 7 9 10

115 Fma⁹

3 1 2 4 3 4 1 3 1 3 4 4 3 2 1 4 1 4 4 2 3 2 1 2 3

T
A
B
10 8 9 11 10 11 7 10 8 10 11 13 12 11 10 12 8 12 11 9 10 9 8 9 10

Lydian major ninth - index finger root

These are the same as Ionian major ninth, except for the fourth note in each example.

118 Cma⁹ !

1 3 4 2 4 1 2 1 3 1 1 3 2 3 4 2 1 4 3 1 2 1 1 2 3 2 1 4 1 4 3 1 1

TAB: 8 10 11 12 9 8 9 7 10 7 8 10 9 10 11 9 7 11 10 8 9 8 7 9 10 9 8 11 7 11 10 7 8

121 Fma⁹ !

1 3 4 2 4 1 2 1 3 1 1 3 2 3 4 3 1 4 3 1 2 1 1 2 3 2 1 4 1 4 3 1 1

TAB: 8 10 11 9 12 8 9 7 10 7 8 10 9 10 11 10 8 11 10 8 9 8 7 9 10 9 8 11 7 11 10 7 8

124 B^bma⁹ !

1 3 4 2 4 1 2 1 3 1 2 4 3 4 1 3 1 4 4 2 3 2 1 2 3 2 1 4 1 4 3 1 1

TAB: 8 10 11 9 12 8 9 10 8 9 11 10 11 7 10 8 12 11 9 10 9 8 9 10 9 8 11 7 11 10 7 8

127 E^bma⁹ !

1 3 4 3 1 2 3 1 4 1 2 4 3 2 1 3 4 3 2 4 1 4 3 1 1

TAB: 8 10 11 10 8 9 10 8 11 8 9 11 10 9 8 10 11 10 9 11 8 11 10 7 8

Lydian major ninth - ring finger root

130 Dma⁹ !

3 1 1 4 2 3 4 2 1 2 3 1 4 1 2 4 2 1 1 3 4 3 2 4 1 4 3 1 2 1 1 2 3

T
A
B

alternate fingering with little finger root

133 Ebma⁹ !

4 1 2 4 3 4 1 3 1 3 4 1 4 1 2 1 3 2 1 4 1 4 3 1 1 4 4 2 3 2 1 3 4

T
A
B

136 Gma⁹ !

3 1 1 4 2 3 4 2 1 2 3 1 4 1 2 1 3 2 1 3 4 3 2 4 1 4 3 1 2 1 1 2 3

T
A
B

139 Cma⁹ !

3 1 1 4 2 3 4 3 1 3 4 1 4 1 2 4 3 2 1 4 1 4 3 4 1 4 3 1 2 1 1 2 3

T
A
B

142 Fma⁹ !

3 1 2 4 3 4 1 3 1 3 4 4 3 2 1 4 1 4 4 2 3 2 1 2 3

T
A
B

Encircling Master Patterns

STANDARD m9

4 STANDARD m7b5

7 STANDARD 7b9

10 chromatic 32121, encircle

13

15

17

19

22

24

27

30

34

38

LOOPEd CHROMATICS

Looped chromatics cycle repeatedly back and forth from one chord tone to another (of the same chord). The basic version cycles between two notes of a chord in an interval of a third, such as root to third, third to fifth, fifth to seventh, etc.

Looped Chromatics on Minor 9 Arpeggios, Four-Note Groups

“Linear connectors” are not part of the repeated loop.

index finger root, sixth string

Cm⁹

linear connector

linear connector

5

linear connector

linear connector

9

linear connector

12

linear connector

linear connector

15

linear connector

index finger root, fifth string

18 Fm⁹ linear connector

1 4 3 2 1 4 2 3 4 3 2 1 4 1 2 3 4 3 2 1 4 1 1 2 3 1 1 4 3 4 1 2

TAB: 8 11 10 9 8 11 9 10 11 10 9 8 11 8 9 10 11 10 9 8 11 7 8 9 10 11 8 7 11 10 8 9

22 linear connector

3 1 1 4 3 1 4 1 1 1 4 3 1 3 4 1 1 1 4 3 1 2 3 4 1 4 3 2 1 1 3 4

TAB: 10 8 7 11 10 8 11 7 8 8 11 10 8 10 11 7 8 8 11 10 8 9 10 11 8 11 10 9 8 8 10 11

26 linear connector

1 1 3 4 1 4 3 2 1 1 3 4 1 4 3 2 1 3 4 1 1 1 4 3

TAB: 8 8 10 11 8 11 10 9 8 8 10 11 8 11 10 9 8 10 11 7 8 8 11 10 8 10 11

29 linear connector

1 3 4 1 1 3 1 4 3 4 1 2 3 1 1 4 3 4 1 2 3 2 1 4

TAB: 8 10 11 7 8 10 7 11 10 11 8 9 10 8 7 11 10 11 8 9 10 9 8 12

32 linear connector

4 1 2 3 4 3 2 1 4 1 2 3 4 1 3 2 1

TAB: 11 8 9 10 11 10 9 8 11 8 9 10 11 9 10 9 8

index finger root, fourth string

35 $B^b m^9$

linear connector

1 4 3 2 1 4 2 3 4 3 2 1 4 1 2 3 4 3 2 1 4 1 1 2 3 2 1 4 3 4 1 2

TAB: 8 11 10 9 8 11 9 10 11 10 9 8 11 8 9 10 11 10 9 8 11 7 8 9 10 11 9 8 11 10 8 9 11

39

linear connector

3 2 1 4 3 2 4 1 2 1 4 4 2 3 4 1 2 1 4 4 2 3 4 1 1 4 3 2 1 2 4 1

TAB: 10 9 8 11 10 9 11 8 9 8 12 11 9 10 11 8 9 8 12 11 9 10 11 7 8 11 10 9 8 9 11 7

43

linear connector

1 2 4 1 1 4 3 2 1 2 4 1 1 4 4 3 2 3 4 1 2 1 4 4

TAB: 8 9 11 7 8 11 10 9 8 9 11 7 8 12 11 10 9 10 11 8 9 8 12 11

46

linear connector

2 3 4 1 2 3 1 4 3 4 1 2 3 2 1 4 3 4 1 2 3 2 1 4

TAB: 9 10 11 8 9 10 8 11 10 11 8 9 10 9 8 11 10 11 8 9 10 9 8 12

49

linear connector

4 1 2 3 4 3 2 1 4 1 2 3 4 1 3 2 1

TAB: 11 8 9 10 11 10 9 8 11 8 9 10 11 9 10 9 8

index finger root, third string

52 $E^b m^9$

linear connector

1 4 3 2 1 3 1 2 3 3 2 1 3 1 1 2 3 3 2 1 3 4 1 2 3 1 1 1 3 3 1 2

TAB 8 11 10 9 8 11 9 10 11 11 10 9 11 8 9 10 11 11 10 9 11 12 11 9 8 7 11 9 10

56

linear connector

3 1 1 1 3 1 4 1 1 4 3 2 1 3 4 1 1 3 4 1 1 4 3 2

TAB 11 9 8 7 11 9 12 8 9 13 12 11 9 11 12 8 9 11 12 8 9 13 12 11

59

linear connector

linear connector

1 3 4 1 1 3 1 4 3 3 1 2 3 1 1 4 3 3 1 2 3 2 1 4

TAB 9 11 12 8 9 11 8 12 11 11 9 10 11 9 8 12 11 11 9 10 11 10 9 12

62

linear connector

3 1 1 2 3 3 2 1 3 1 1 2 3 1 3 2 1

TAB 11 8 9 10 11 11 10 9 11 8 9 10 11 9 10 9 8

ring finger root, sixth string

65 Dm⁹

linear connector

TAB

69

linear connector

TAB

73

linear connector

TAB

76

linear connector

TAB

79

linear connector

TAB

ring finger root, fifth string

82 Gm⁹

linear connector

3 1 1 4 3 1 4 1 1 4 3 2 1 3 4 1 1 4 3 2 1 2 3 4 1 4 3 2 1 2 4 1

T 8 7 11 10 8 7 8 12 11 10 8 10 11 8 12 11 10 8 9 10 11 7 10 9 8 7 8 10 6

B 10 8 7 11 10 11 8 12 11 10 8 10 11 8 12 11 10 8 9 10 11 7 10 9 8 7 8 10 6

86

linear connector

1 4 3 2 1 3 1 2 3 3 2 1 3 1 1 2 3 3 2 1 3 4 1 2 3 1 1 4 3 3 1 2

T 7 10 9 8 7 10 8 9 10 9 8 10 7 8 9 10 9 8 10 11 8 9 10 8 7 11 10 8 9 10

B 7 10 9 8 7 10 8 9 10 9 8 10 7 8 9 10 9 8 10 11 8 9 10 8 7 11 10 8 9 10

90

linear connector

3 3 1 2 3 1 1 4 3 3 1 2 3 2 1 4 3 1 1 2 3 3 2 1

T 10 8 9 10 8 12 11 10 8 9 10 9 8 11 10 7 8 9 10 10 9 8

B 10 8 9 10 8 12 11 10 8 9 10 9 8 11 10 7 8 9 10 10 9 8

93

linear connector

3 1 1 2 3 1 3 2 1 2 4 1 1 4 3 2 1 2 4 1 1 4 3 2

T 10 7 8 9 10 7 9 8 7 8 10 6 7 10 9 8 7 8 10 11 7 11 10 9

B 10 7 8 9 10 7 9 8 7 8 10 6 7 10 9 8 7 8 10 11 7 11 10 9

96

linear connector

1 3 4 1 1 4 3 2 1 3 4 1 1 3 1 4 3

T 8 10 11 7 8 12 11 10 8 10 11 7 8 11 7 11 10

B 8 10 11 7 8 12 11 10 8 10 11 7 8 11 7 11 10

ring finger root, fourth string

99 Cm⁹ linear connector

3 1 1 4 3 1 4 1 1 1 4 3 1 3 4 1 1 1 4 3 1 2 3 4 1 4 3 2 1 1 3 4

T 8 7 11 10 8 11 7 8 11 10 8 9 10 11 8 10 11

A 10 8 7 11 10 8 11 7 8 11 10 8 9 10 11 8 10 11

B 10 8 7 11 10 8 11 7 8 11 10 8 9 10 11 8 10 11

103 linear connector

1 4 3 2 1 4 2 3 4 3 2 1 4 1 2 3 4 1 2 3 4 3 2 1

T 8 11 10 9 8 11 9 10 11 10 9 8 11 8 9 10 11 10 9 8

A 8 11 10 9 8 11 9 10 11 10 9 8 11 8 9 10 11 10 9 8

B 8 11 10 9 8 11 9 10 11 10 9 8 11 8 9 10 11 10 9 8

106 linear connector

4 1 2 3 4 1 3 2 1 1 3 4 1 4 3 2 1 1 3 4 1 4 3 2

T 11 8 9 10 11 8 10 9 8 10 11 8 11 10 9 8 10 11 8 11 10 9

A 11 8 9 10 11 8 10 9 8 10 11 8 11 10 9 8 10 11 8 11 10 9

B 11 8 9 10 11 8 10 9 8 10 11 8 11 10 9 8 10 11 8 11 10 9

109 linear connector

1 3 4 1 1 1 4 3 1 3 4 1 1 3 1 4 3

T 8 10 11 7 8 8 11 10 8 10 11 7 8 11 7 11 10

A 8 10 11 7 8 8 11 10 8 10 11 7 8 11 7 11 10

B 8 10 11 7 8 8 11 10 8 10 11 7 8 11 7 11 10

ring finger root, third string

112 Fm⁹

linear connector

3 2 1 4 3 2 4 1 2 1 4 4 2 3 4 1 2 1 4 4 2 3 4 1 1 4 3 2 1 2 4 1

T 9 8 11 10 11 8 9 8 12 11 9 10 11 8 11 10 9 8 9 11 7

A 10 9 8 11 10 11 8 9 8 12 11 9 10 11 8 11 10 9 8 9 11 7

B

116

linear connector

1 2 4 1 1 4 3 2 1 2 4 1 1 4 4 3 2 3 4 1 2 1 4 4

T 8 9 11 7 8 11 10 9 8 9 11 7 8 12 11 10 9 10 11 8 9 8 12 11

A

B

119

linear connector

2 3 4 1 2 3 1 4 3

T 9 10 11 8 9 11 8 11 10

A

B

CHROMATICIZING FULL-tertIAN ARPEGGIOS

Most arpeggios are built with every-other scale tone, called thirds. A continuous sequence of every other scale tone is termed *tertian*, Greek for made of thirds. Notice that every-other scale tone of the scale at the left below creates the “full-tertian” sequence at the right.



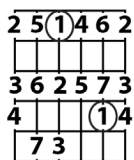
In each major scale fingering, there are two sets of “every other note”. Beginning on the lowest scale tone (by pitch) and playing every other note, you’ll create the “lowest full-tertian arpeggio”. The notes you skipped constitute the “next lowest full-tertian arpeggio”. All of the scale tone triads, sevenths and larger chords built in thirds are part of these full-tertian arpeggios. You have to sort out which full-tertian arpeggio and the part of it you will use in playing on a particular chord.

Primary Major Scale Fingerings and Full-Tertian Arpeggios

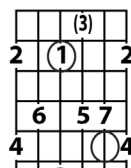
	fingering 2 C IX	fingering 6 F X	fingering 3 Bb X	fingering 7 Eb X	fingering 4/5 Ab IX
parent major scale by finger number					
parent major scale by scale number					
lowest full tertian					
next-lowest full tertian					

Chromaticizing arpeggios usually involves cells that move from one chord tone to another, commonly following the sequence root, third, fifth, seventh, ninth, eleventh, thirteenth or the reverse order. Chromaticizing cells may, of course, be a smaller version of the thirteenth, such as a ninth chord using root through ninth. They don't usually involve the two chromatics below the root.

major scale fingering 2



lowest full-tertian arpeggio



Bb Major Scale Fingering 2, Lowest Full Tertian Arpeggio

this contains Cm15 and its subsets Ebma13#11, Gm11, Bbma9 and Dm7

lowest full-tertian arpeggio

chromaticized lowest full-tertian arpeggio

1 4 3 1 4 3 3 1 4 1 3 3 4 1 3 4 1

1 2 3 4 1 2 3 4 1 1 3 4

8 11 10 8 12 10 10 8 11 8 10 12 8 10 6 8

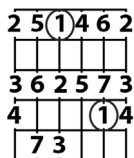
8 9 10 11 8 9 10 11 7 8 10 11 8

5

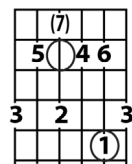
1 1 2 3 1 2 3 4 1 2 2 3 4 3 2 1 1 4 3 2 1 3 2 1 1 4 3 1 1 4 3 2 1 4 3 2 1

7 8 9 10 8 9 10 11 7 8 9 10 11 10 9 8 7 11 10 9 8 10 9 8 7 11 10 8 7 11 10 9 8 11 10 9 8

major scale fingering 2



next-lowest full-tertian arpeggio



Bb Major Scale Fingering 2, Next-Lowest Full Tertian Arpeggio

this contains Bbma9 and Dm7 in the bass and F13 in the mid to high range with its subsets Am11b5b9, Cm9 and Ebma7

9 next-lowest full-tertian arpeggio chromaticized next-lowest full-tertian arp.

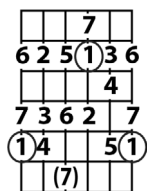
1 3 1 4 3 1 1 4 3 4 1 1 3 4 1 3 1 1 1 2 3 4 1 1 3 4 1 1 2

6 10 8 12 10 8 6 10 6 8 8 10 12 8 10 6 8 9 10 11 7 8 10 11 7 8 9

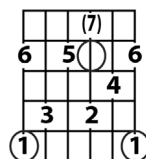
13 3 4 1 1 3 4 1 2 3 4 1 2 3 2 1 4 3 2 1 4 3 1 1 4 3 2 1 1 4 3 1 1 4 3 2 1 1

10 11 7 8 10 7 8 9 10 11 8 9 10 9 8 11 10 9 8 11 10 8 7 11 10 9 8 7 11 10 8 7 11 10 9 8 6

major scale fingering 6



lowest full-tertian arpeggio



Eb Major Scale Fingering 6, Lowest Full Tertian Arpeggio

This contains Cm11 and its subsets Ebma9 and Gm7 in the low range.

In the mid to high range, it contains Bb11 and its subset Dm7.

17 Eb major scale

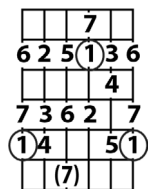
1 4 3 1 4 3 2 1 4 1 2 3 4 1 3 4 1 1 2 3 4 1 2 3 4 1 1 3 4

8 11 10 8 7 10 9 11 8 9 10 7 8 10 6 8 8 9 10 11 8 9 10 11 7 8 10 11

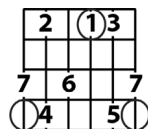
21 1 1 2 3 4 1 2 4 1 1 2 3 4 3 2 1 1 4 3 2 1 3 2 1 1 4 3 1 1 4 3 2 1 4 3 2 1

7 8 9 10 11 8 9 11 7 8 9 10 11 10 9 8 7 11 10 9 8 10 9 8 7 11 10 8 7 11 10 9 8 11 10 9 8

major scale fingering 6



next-lowest full-tertian arpeggio



Eb Major Scale Fingering 6, Next-Lowest Full Tertian Arpeggio

this contains Bb13 and its subsets Dm11b5b9, Fm13, Abma9#11, Cm9 and Ebma7.

25 Eb major scale

29

CHROMATIC DRIFT

After the swing and bebop eras in the thirties and forties, jazz mellowed and became harmonically simpler with cool jazz, west coast jazz and then modal jazz. With arrangers like Gil Evans (Miles Davis' arranger) and George Russell (author of *The Lydian Chromatic Concept*), arrangements became clearer and uniform, making the melody easier to hear. Chord durations were much longer, giving the improviser more freedom to periodically deviate from the current chord.

A decade later, jazz fusion guitarists John Scofield, Pat Martino, Scott Henderson, Allan Holdsworth and other jazz fusion guitarists expanded what is aurally acceptable to listeners with innovative harmonic, melodic and rhythmic design. They have all used chromatic drift, where bits of pentatonic scales, diatonic scales, arpeggios and melodic themes can reoccur a half step up or down and return. Chromatic drift establishes brief secondary keys. Voice leading is used to return to the original key with chromatic and common tones.

Not everyone likes chromatic drift. They tend to love it or hate it. Look at it as an intense spice and use it sparingly and set it up to make sense. Upon first hearing chromatic drift, it may sound out of key or atonal. Once you realize that the accompaniment has not deviated from the current chord, brief instances of chromatic drift can become acceptable when the listener realizes that the harmonic deviation was intentional and playful.

John Scofield has played in a diversity of styles, including traditional jazz, funk, rock and blues. He's played with Miles Davis, Herbie Hancock, Pat Metheny, Phil Lesh and John Mayer. From all these associations, he picked up ways to play "outside" the key and return while still making sense.

On the score for the "Hip Sway", the chromatic drift example below, there are annotations below the standard notation staff to show superimposed chords and scales that are played. While the main chord is "C7", the melody may play brief melodic cells to represent Cm7 (darkened C7), Bm7, Bbm7 then Cm7 again. Before becoming to questionable harmonically, the tonality returns to the original key. Use a "two second rule": keep your deviation from the current chord shorter than two seconds, so the listener doesn't hear the harmonic disagreement long enough to identify it as too dissonant.

Hip Sway - [click to play video](#)

Hip Sway is in a jazz funk style based on John Scofield, Scott Henderson and Allan Holdsworth.

Swing Sixteenths
♩ = 95

head C⁷

solos C⁷

C⁷ Dorian
2 1 3 3 2 3 1 1 3 1 3 1

C⁷ Bm⁷ Bbm⁷ Cm⁷
4 1 2 4 3 4 4 1 3 2 3 4 4 3 4

Bm⁷ Cm⁷ Cm⁷ Bm⁷ Bdim⁷ Cm⁷
1 1 3 1 1 1 3 1 3 3 1 3 1 4 1 2 1 4 1 2 1 3 2 1 3 1 1/4 3 3

C⁷ Cm⁷ Ddim⁷ Ebdim⁷ Cm⁷ Cm pent. with b5 PC Cm⁷ Cm⁷ C#m⁷ Cm⁶ chrom. b3 to 5 Cm chrom. b3 to 5 & back Cm⁹

1 3 1 1 3 2 1 1 2 3 1 1 3 1 3 3 2 1 2 3 1 3 1 3 1 2 2 1 3 1 1 3 1 2 3 2 1 1 2 3 4 1 3 2 1 1 2 3 4 3 2 1 4 4 1 2 4

Ab⁷ G⁷ Ab⁷ A⁹ Ab⁷

4 3 2 1 3 1 3 1 2 1 2 1 4 1 2 1 2 3 2 1 1 2 3 3 4 2 1 2 2 3 1 3 3 4 1 2 3 4 1 2 3 1 3 1 1 3 1 3 1

Ab⁷ B^{o7} Ab⁷ A¹³ Ab⁷

3 1 3 1 3 4 2 3 4 1 3 1 1 3 4 1 2 3 1 3 3 1 2 1 2 1 1 3 3 3 2 1 2 3 4 1 1 3 4 1 1 3 1 1 4 3 2 1 4 3

FREE FORM CHROMATICS

Two chromatic tones can ascend to any chord tone, from immediately below the chord tone and two chromatic tones can descend from the chord tone, immediately below it. The theory of using chromatics in improv is more complex in descending.

Freeform Neighbor Chromatic Cells, Four-Note

Four-note free-neighbor cells are a more intentional version of chromaticized arpeggios, where the first two notes (of four) are always chord tones. The four-note group starts on the beat and is made up of half-beat notes (eighth notes in 4/4, 3/4 or X/4) or quarter-beat notes (sixteenth notes in 4/4, 3/4 or X/4).

Begin on a beat. Play four notes where the first two notes are chord tones within the range of a sixth and the last two tones are linear chromatic scalar upper or lower neighbors to a chord tone on the next beat.

The next beat could be another free neighbor cell or any cell beginning with a chord tone. To avoid odd-sounding chromatics, use two upper scalar neighbors (instead of chromatic) when the upper neighbor to the next target tone is a half step.

The third and fourth notes can be a combination of upper and lower neighbors to the target chord tone on the following beat, making it a type of encircling. In this case, the third note could be a lower chromatic and the fourth note an upper scale neighbor to the target. Or, vice-versa, the third note could be an upper scale tone and the fourth note a lower chromatic to the target. See encircling chromatics below.

When the cell begins on the beat, pickups may precede the first chord tone with a number of notes one fewer than the interval to the chord tone.

four-note free-neighbor chromatic cell examples

four-note freeform neighbor chromatics (any size arpeggio)

two chord tones, then two neighboring chromatics up or down to a chord tone on the next beat (eighths or sixteenths)

C^{13}

T
A
B

8 7 10 8 7 10 10 7 8 10 7 8

8 7 10 8 7 10 10 7 8 10 7 8

four-note free-neighbor cell examples on G⁹

G⁹

Gm⁹

Freeform Neighbor Chromatic Cells, Triplet

Triplet free-neighbor cells start with a chord tone on the beat and divide the beat into three equal parts rhythmically, or on the half beat and divide the half beat into three equal parts.

They can be very mentally intensive, so use fingerings that are mechanically and graphically easy for you. They are typically intensive to listen to as well, and should be used sparingly. Avoid playing more than two consecutive triplet free-neighbor cells. This is due to the likelihood that over half the time, you may be playing tones not in the chord and chromatic tones not in the scale a third of the time.

To use a single neighbor, play triplets where the first two notes are chord tones within the range of an octave or less. The third tone is a scalar upper or lower neighbor or a lower chromatic neighbor to a chord tone beginning the next beat (also within an octave of the first two of the four notes). The next beat could be another triplet free neighbor cell or any cell beginning with a chord tone.

Triplet free-neighbor cells ending with two neighbors should be used less frequently, usually not consecutively. Play a chord tone first. The last two tones are linear scalar or chromatic upper or lower neighbors to a chord tone on the next beat. The next beat could be another triplet free neighbor cell or any cell beginning with a chord tone. Like with four-note free-neighbor cells, avoid odd-sounding chromatics by using two upper scalar neighbors (instead of chromatic) when the upper neighbor to the next target tone is a half step.

When the cell begins on the beat, pickups may precede the first chord tone with a number of notes one fewer than the interval to the chord tone.

triplet free-neighbor chromatic cell examples

triplet freeform neighbor chromatics (any size arpeggio)

one chord tones, then two neighboring chromatics up or down to a chord tone on the next beat

Example 1: C¹³ triplet freeform neighbor chromatics. The melodic line consists of two measures, each containing a triplet of eighth notes. The fretboard positions for strings T, A, and B are indicated below the staff.

triplet free-neighbor cell examples on G⁹

Example 2: G⁹ triplet free-neighbor cell examples. The melodic line consists of two measures, each containing a triplet of eighth notes. The fretboard positions for strings T, A, and B are indicated below the staff.

triplet free-neighbor cell examples on Gm⁹

Example 3: Gm⁹ triplet free-neighbor cell examples. The melodic line consists of two measures, each containing a triplet of eighth notes. The fretboard positions for strings T, A, and B are indicated below the staff.

Use the Principles You Learned from This Chapter

ascend to any chord two with two chromatics below it

descend from any chord tone with two chromatics below it

Be sure to resolve to the next lower chord tone. If you are descending from the root, use heptatonic (major scale or mode) tones instead of chromatics to resolve down to the fifth.

practice sequences, but don't overuse them in improvisation

Practice applying one of the types of arpeggio chromaticizing to each tone as you ascend or descend an arpeggio, but don't use more than two or three consecutive instances of any one type of chromaticized arpeggio or your improv may sound too much like an exercise. An example of a sequence is [Encircling Chromatics by Mode](#).

become expert at segue into and out of chromaticized arpeggio cells

Use melodic content typical of the style you are playing and work to seamlessly integrate chromaticized arpeggio cells into phrases. If, for example, you are integrating chromaticized arpeggio cells into blues rock, incorporate bent notes and blues licks. If you are integrating chromaticized arpeggio cells into funk, incorporate syncopation with consecutive offbeats.

Chromaticized Scales on Arpeggios

- **Chromaticizing a Scale to Target Arpeggio Tones**
- **Categories of Melodic Cells for Chromaticized Scales on Arpeggios**
- **Fingering Chromaticized Scales**
- **Library of Scalar Encircling Cells**
- **Melodic Examples of Scalar-Chromaticized Arpeggios**

CHROMATICIZING A SCALE TO TARGET ARPEGGIO TONES

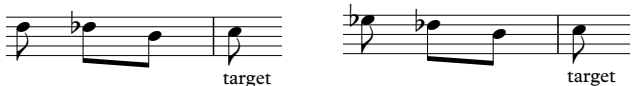
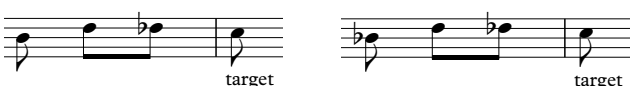
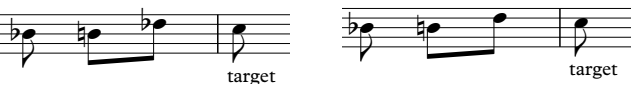
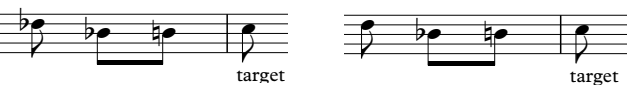


Scalar chromatics place chromatics between and adjacent to scale tones. That is the focus of this chapter.

By contrast, the “[Chromaticized Arpeggios](#)” chapter focused on placing chromatics below chord tones (before a chord tone ascending and after a chord tone descending). Both scalar chromatics and chromaticized arpeggios have the ultimate goal of targeting chord tones.

To get an overview of all the primary types of chromaticizing, see the chapter [Modal II V I Cadences and Turnarounds](#)/Chromaticized Turnarounds/Progressive Chromaticized Cadences. There you will find a list with links to eleven types of chromaticizing.

CATEGORIES OF MELODIC CELLS FOR CHROMATICIZED SCALES ON ARPEGGIOS



Six Primary Cell Categories

<p>2 above, 1 below</p> <p>2 chrom. above, 1 chrom. below m3 above, m2 above, 1 chrom. below*</p> 		<p>1 below, 2 above</p> <p>1 chrom. below, 2 chrom. above whole step below, 2 chrom. above</p> 	
<p>2 below, 1 above</p> <p>2 chrom. below, half step above 2 chrom. below, whole step above</p> 		<p>1 above, 2 below</p> <p>half step above, 2 chrom. below whole step above, 2 chrom. below</p> 	
<p>2 above, 2 below</p> <p>2 chrom. above, 2 chrom. below m3 above, m2 above, 2 chrom. below*</p> 		<p>2 below, 2 above</p> <p>2 chrom. below, 2 chrom. above 2 chrom. below, m3 above, m2 above</p> 	



* The categories that include “two above” may use a minor third and a half step above instead of two chromatic tones when the tone a whole step above the target doesn’t work harmonically. For example, the tone a whole step above the target shouldn’t be a major third on a minor chord nor a major seventh on a chord that has a flatted seventh.

Suggested Order of Study

Start with this pair, applied to each target tone of a dominant ninth chord. In applying it to the fifth, the two chromatics will begin with a flatted fifth, usually an acceptable blue note.

<p>2 above, 1 below</p> <p>2 chrom. above, half step below</p> 	<p>1 below, 2 above</p> <p>half step below, 2 chrom. above</p> 
-----------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------

Next, apply the same pair (above) to a minor ninth chord. In applying it to the ninth (of the minor ninth arpeggio), use the “minor third above, minor second above, half step below version. The root, flatted third, fifth and flatted seventh can use the designs above, but substitute those below for the ninth.

2 above, 1 below	1 below, 2 above
m3 above, m2 above, half step below	half step below, 2 chrom. above
	

FINGERING CHROMATICIZED SCALES

The fingerings on strings 1-2 below are relatively the same for strings 3-4, 4-5, 5-6 and for single-string versions on string 6. Fingerings that involve both strings 2 and 3 are unique to those strings.

Library of Chromatic Designs

Figure 1 displays 12 musical staves, each showing a chromatic scale starting on a different pitch class (C, D, E, F, G, A, B, C, D, E, F, G). The staves are numbered 1 through 12 on the left. Above each staff, the intervallic structure of the scale is described in text. The scales are:

- Staff 1: C-D-E-F-G-A-B-C (two chromatics above, one chromatic below)
- Staff 2: D-E-F-G-A-B-C-D (one chromatic below, two chromatics above)
- Staff 3: E-F-G-A-B-C-D-E (whole step below, two chromatics above)
- Staff 4: F-G-A-B-C-D-E-F (two chromatics below, half step above)
- Staff 5: G-A-B-C-D-E-F-G (half step above, two chromatics below)
- Staff 6: A-B-C-D-E-F-G-A (two chromatics below, whole step above)
- Staff 7: B-C-D-E-F-G-A-B (whole step above, two chromatics below)
- Staff 8: C-D-E-F-G-A-B-C (two chromatics above, two chromatics below)
- Staff 9: D-E-F-G-A-B-C-D (m3 above, half step above, two chromatics below)
- Staff 10: E-F-G-A-B-C-D-E (two chromatics below, two chromatics above)
- Staff 11: F-G-A-B-C-D-E-F (two chromatics below, m3 above, half step above)
- Staff 12: G-A-B-C-D-E-F-G (two chromatics below, two chromatics above)

Fingerings on Strings 1-2 and on Strings 2-3

two chromatics above, one chromatic below

The musical score consists of two systems, each with a treble and bass staff. The first system covers measures 22 to 26. Measure 22 has a whole rest in the treble and a whole note G2 in the bass. Measure 23 has a quarter rest in the treble and a quarter note G2 in the bass. Measure 24 has a quarter rest in the treble and a quarter note G2 in the bass. Measure 25 has a quarter rest in the treble and a quarter note G2 in the bass. Measure 26 has a quarter rest in the treble and a quarter note G2 in the bass. The second system covers measures 27 to 31. Measure 27 has a whole rest in the treble and a whole note G2 in the bass. Measure 28 has a quarter rest in the treble and a quarter note G2 in the bass. Measure 29 has a quarter rest in the treble and a quarter note G2 in the bass. Measure 30 has a quarter rest in the treble and a quarter note G2 in the bass. Measure 31 has a quarter rest in the treble and a quarter note G2 in the bass.

minor third above, half step above, one chromatic below

Measures 32-36. Treble clef, key signature of two flats. Fingerings: 4 3 1 2, 4 2 1 1, 3 1 4 1, 2 1 3 4. Arpeggio patterns: 11 9 7 8, 11 9 7 8, 11 9 12 8, 11 9 12 13.

Measures 37-42. Treble clef, key signature of two flats. Fingerings: 4 3 1 2, 4 2 1 1, 3 1 3 4, 2 1 2 3, 1 3 1 2. Arpeggio patterns: 16 14 12 13, 16 14 12 13, 4 2 4 5, 4 2 4 5, 4 6 4 5.

one chromatic below, two chromatics above

Measures 43-48. Treble clef, key signature of two flats. Fingerings: 1 4 3 2, 4 3 2 1, 4 2 1 1, 3 1 1 4, 2 1 4 3. Arpeggio patterns: 7 10 9 8, 12 10 9 8, 12 10 9 8, 12 10 9 13, 12 10 14 13.

Measures 49-53. Treble clef, key signature of two flats. Fingerings: 1 4 3 2, 4 3 2 1, 3 2 1 4, 2 1 4 3. Arpeggio patterns: 12 15 14 13, 16 15 14 13, 16 15 14 17, 16 15 18 17.

one chromatic below, minor third above, half step above

Measures 54-57. Treble clef, key signature of two flats. Fingerings: 4 3 1 1, 3 2 1 4, 2 1 4 3. Arpeggio patterns: 12 11 9 8, 12 11 9 13, 12 11 14 13.

Measures 58-62. Treble clef, key signature of two flats. Fingerings: 4 4 2 1, 3 3 1 4, 2 2 4 3, 1 1 3 2. Arpeggio patterns: 16 16 14 13, 16 16 14 17, 16 16 18 17, 16 16 18 17.

whole step below, two chromatics above

Measures 63-74. Treble clef. Key signature: two flats. Fingerings: 1 4 3 2, 1 3 2 1, 3 2 1 1, 3 2 1 4, 2 1 1 4, 2 1 4 4. TAP: 6 10 9 8, 6 10 9 8, 11 10 9 8, 11 10 9 13, 11 10 9 13, 11 10 14 13. AB: 11 15 14 13, 15 15 14 13, 15 15 14 17, 15 15 18 17.

whole step below, minor third above, half step above

Measures 75-83. Treble clef. Key signature: two flats. Fingerings: 4 4 2 1, 3 2 1 1, 2 2 1 4, 1 1 4 3. TAP: 11 11 9 8, 11 11 9 8, 11 11 9 13, 11 11 14 13. AB: 3 4 2 1, 2 3 1 4, 1 2 4 3, 15 16 14 13, 15 16 14 17, 15 16 18 17.

two chromatics below, half step above

Measures 84-94. Treble clef. Key signature: two flats. Fingerings: 1 2 4 3, 1 1 3 2, 4 1 2 1, 3 4 1 1, 2 3 1 4. TAP: 6 7 9 8, 6 7 9 8, 11 7 9 8, 11 12 9 8, 11 12 9 13. AB: 11 12 14 13, 11 12 14 13, 15 16 14 13, 15 16 14 17.

half step above, two chromatics below

Measures 95-99:

Right Hand (RH) Fingerings: 3 1 1 2, 2 4 1 1, 1 3 4 1, 1 2 3 4

Left Hand (LH) Fingerings: 9 6 7, 8, 9 11 7, 8, 9 11 12, 8, 9 11 12, 13

two chromatics below, whole step above

Measures 100-111:

Right Hand (RH) Fingerings: 4 1 2 3, 3 1 1 2, 3 4 1 2, 2 3 4 1, 1 2 3 4

Left Hand (LH) Fingerings: 14 11 12, 13, 14 11 12, 13, 14 15 12, 13, 14 15 16, 13, 14 15 16, 17

whole step above, two chromatics below

Measures 112-127:

Right Hand (RH) Fingerings: 1 2 4 2, 1 1 4 2, 4 1 3 1, 3 4 2 1, 2 3 1 4

Left Hand (LH) Fingerings: 6 7 10, 8, 6 7 10, 8, 11 7 10, 8, 11 12 10, 8, 11 12 10, 13

two chromatics above, two chromatics below

Exercise 128-141: two chromatics above, two chromatics below. The exercise is written for piano with a treble and bass staff. The melody consists of eighth-note runs with chromatic alterations. The bass line provides harmonic support with specific arpeggiated figures.

Measure numbers: 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141.

Hand positions (T = Treble, A = Alto, B = Bass):

- Measure 128: T (4 4 1 2 3), A (6 7 10 9), B (8)
- Measure 129: T (4 3 1 1 2), A (6 7 10 9), B (8)
- Measure 130: T (3 2 4 1 1), A (11 7 10 9), B (8)
- Measure 131: T (2 1 3 4 1), A (11 12 10 9), B (8)
- Measure 132: T (1 1 2 3 4), A (11 12 10 9), B (13)
- Measure 133: T (1 4 1 2 3), A (11 12 10 9), B (13)
- Measure 134: T (4 4 1 2 3), A (11 12 15 14), B (13)
- Measure 135: T (4 3 1 1 2), A (11 12 15 14), B (13)
- Measure 136: T (3 2 3 1 1), A (15 12 15 14), B (13)
- Measure 137: T (3 2 3 4 1), A (15 16 15 14), B (13)
- Measure 138: T (2 1 2 3 4), A (15 16 15 14), B (17)
- Measure 139: T (1 4 1 2 3), A (15 16 15 14), B (17)
- Measure 140: T (4 4 1 2 3), A (15 16 15 14), B (17)
- Measure 141: T (4 3 1 1 2), A (15 16 15 14), B (17)

two chromatics below, two chromatics above

Exercise 142-155: two chromatics below, two chromatics above. The exercise continues the melodic and harmonic patterns from the previous section.

Measure numbers: 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155.

Hand positions (T = Treble, A = Alto, B = Bass):

- Measure 142: T (1 2 4 4 3), A (6 7 10 9), B (8)
- Measure 143: T (1 1 4 3 2), A (6 7 10 9), B (8)
- Measure 144: T (4 1 3 2 1), A (11 7 10 9), B (8)
- Measure 145: T (3 4 2 1 1), A (11 12 10 9), B (8)
- Measure 146: T (2 3 1 1 4), A (11 12 10 9), B (13)
- Measure 147: T (1 2 1 4 3), A (11 12 10 9), B (13)
- Measure 148: T (1 2 4 4 3), A (11 12 15 14), B (13)
- Measure 149: T (1 1 4 3 2), A (11 12 15 14), B (13)
- Measure 150: T (4 1 4 3 2), A (15 12 15 14), B (13)
- Measure 151: T (3 4 3 2 1), A (15 16 15 14), B (13)
- Measure 152: T (2 3 2 1 4), A (15 16 15 14), B (17)
- Measure 153: T (1 2 1 4 3), A (15 16 15 14), B (17)
- Measure 154: T (1 2 4 4 3), A (15 16 15 14), B (17)
- Measure 155: T (1 1 4 3 2), A (15 16 15 14), B (17)

two chromatics below, m3 above, half step above

Exercise 156-166: two chromatics below, m3 above, half step above. The exercise introduces a major third interval in the upper voice.

Measure numbers: 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166.

Hand positions (T = Treble, A = Alto, B = Bass):

- Measure 156: T (4 1 3 2 1), A (11 7 11 9), B (8)
- Measure 157: T (3 4 3 1 1), A (11 12 11 9), B (8)
- Measure 158: T (2 3 2 1 4), A (11 12 11 9), B (13)
- Measure 159: T (1 2 1 4 3), A (11 12 11 9), B (13)
- Measure 160: T (4 1 2 3 2), A (15 12 16 14), B (13)
- Measure 161: T (3 4 4 2 1), A (15 16 16 14), B (13)
- Measure 162: T (2 3 3 1 4), A (15 16 16 14), B (17)
- Measure 163: T (1 2 2 4 3), A (15 16 16 14), B (17)
- Measure 164: T (1 1 1 3 2), A (15 16 16 14), B (17)
- Measure 165: T (4 1 2 3 2), A (15 16 16 14), B (17)
- Measure 166: T (3 4 4 2 1), A (15 16 16 14), B (17)

m3 above, half step above, two chromatics below

System 1 (Measures 167-171):

Treble Clef: 167, 168, 169, 170, 171

Bass Clef: 11, 9, 11, 7, 8, 11, 9, 11, 12, 8, 11, 9, 11, 12, 13, 11, 14, 11, 12, 13

System 2 (Measures 172-176):

Treble Clef: 172, 173, 174, 175, 176

Bass Clef: 16, 14, 15, 16, 13, 16, 14, 15, 16, 17, 16, 18, 15, 16, 17, 16, 18, 15, 16, 17

song example without cadences

Measures 177-186

Chords: E7, Am7, G7, Fmaj7, E7

Fingerings: 4 2 1, 2, 1 3 4, 1, 1 2 3, 4, 3 4 1, 2, 4 2 1, 2

Bass Staff: 7 6 4, 5, 5 7 8, 4, 4 5 6, 7, 7 8, 6, 7 6 4, 5

song example with transistions and cadences

Am7-G7 and G7-Fmaj7 are transistions, Fmaj7-E7 (b2 to target) and E7-Am are cadences

Measures 187-196

Chords: E7, Am7, G7, Fmaj7, E7

Fingerings: 3 4 2 1, 2, 3 1 3 4, 1, 3 1 2 3, 4, 1 3 4 1, 2, 3 4 2 1, 2

Bass Staff: 6 7 6 4, 5, 5 7 8, 4, 7 4 5 6, 7, 5 7 8, 6, 6 7 6 4, 5

song example with four-note cells, without cadences

Measures 197-206

Chords: E7, Am7, G7, Fmaj7, E7

Fingerings: 4 4 3 1, 2, 1 1 2 3, 1, 3 4 1 2, 3, 3 3 4 1, 2

Bass Staff: 7 7 6 4, 5, 5 5 7 8, 4, 4 5 6, 7, 7 7 8, 5, 6

LIBRARY OF SCALAR ENCIRCLING CELLS

Swing Eighthths

♩ = 120

four-note cells with pushes

on dominant ninth chords

2A/1B ² C⁹

1B/2A

2B/1A

1A/2B

2A/2B

2B/2A

on minor ninth chords

2A/1B ³⁷ C^{m9}

1B/2A

2B/1A

1A/2B

2A/2B

2B/2A

on major ninth chords

2A/1B ⁷³ ⁷⁴ ⁷⁵ ⁷⁶ ⁷⁷ ⁷⁸ ^{C^{major}}

 1B/2A ⁷⁹ ⁸⁰ ⁸¹ ⁸² ⁸³ ⁸⁴

 2B/1A ⁸⁵ ⁸⁶ ⁸⁷ ⁸⁸ ⁸⁹ ⁹⁰

 1A/2B ⁹¹ ⁹² ⁹³ ⁹⁴ ⁹⁵ ⁹⁶

 2A/2B ⁹⁷ ⁹⁸ ⁹⁹ ¹⁰⁰ ¹⁰¹ ¹⁰²

 2B/2A ¹⁰³ ¹⁰⁴ ¹⁰⁵ ¹⁰⁶ ¹⁰⁷ ¹⁰⁸

on minor ninth flat five chords

2A/1B ¹⁰⁹ ¹¹⁰ ¹¹¹ ¹¹² ¹¹³ ¹¹⁴ ^{C^{minor}9(b5)}

 1B/2A ¹¹⁵ ¹¹⁶ ¹¹⁷ ¹¹⁸ ¹¹⁹ ¹²⁰

 2B/1A ¹²¹ ¹²² ¹²³ ¹²⁴ ¹²⁵ ¹²⁶

 1A/2B ¹²⁷ ¹²⁸ ¹²⁹ ¹³⁰ ¹³¹ ¹³²

 2A/2B ¹³³ ¹³⁴ ¹³⁵ ¹³⁶ ¹³⁷ ¹³⁸

 2B/2A ¹³⁹ ¹⁴⁰ ¹⁴¹ ¹⁴² ¹⁴³ ¹⁴⁴

on dominant seven flat nine chords

b3 is sometimes used as a blue note upper scale tone neighbor (b3BN)

2A/1B 145 146 147 148 149 150
b3BN root ST 3 5 b7 b9

1B/2A 151 152 153 154 155 156
b3BN root ST 3 5 b7 ST b9

2B/1A 157 158 159 160 161 162
root 3 5 b7 b3BN b9

1A/2B 163 164 165 166 167 168
root 3 5 b7 b3BN b9

2A/2B 169 170 171 172 173 174
b3BN root ST 3 5 b7 9

2B/2A 175 176 177 178 179 180
b3BN root ST 3 5 b7 9

on diminished ninth chords (minor 6b5 add 9)

2A/1B 181 182 183 184 185 186
C^{o9} root b3 b5 ST 6 ST 9

1B/2A 187 188 189 190 191 192
root b3 b5 6 9

2B/1A 193 194 195 196 197 198
root b3 b5 6 9

1A/2B 199 200 201 202 203 204
root b3 b5 6 9

2A/2B 205 206 207 208 209 210
root b3 b5 6 9

2B/2A 211 212 213 214 215 216
root b3 b5 ST b7 9

Swing Eighthths

♩ = 120

four-note cells with the target on the beat

on dominant ninth chords

2A/1B
217 218^{C⁹} 219 220 221 222^{C⁹}

1B/2A
223 224 225 226 227 228

2B/1A
229 230 231 232 233 234

1A/2B
235 236 237 238 239 240

2A/2B
241 242 243 244 245 246

2B/2A
247 248 249 250 251 252

on minor ninth chords

2A/1B
253 254^{Cm⁹} 255 256 257 258^{Cm⁹}

1B/2A
259 260 261 262 263 264

2B/1A
265 266 267 268 269 270

1A/2B
271 272 273 274 275 276

2A/2B
277 278 279 280 281 282

2B/2A
283 284 285 286 287 288

on major ninth chords

2A/1B ²⁹⁰ C^{major} 291 292 293 294

1B/2A 295 296 297 298 299 300

2B/1A 301 302 303 304 305 306

1A/2B 307 308 309 310 311 312

2A/2B 313 314 315 316 317 318

2B/2A 319 320 321 322 323 324

root 3 5 7 9 ST

on minor ninth flat five chords

2A/1B ³²⁵ C^{minor 9(b5)} 326 327 328 329 330

1B/2A 331 332 333 334 335 336

2B/1A 337 338 339 340 341 342

1A/2B 343 344 345 346 347 348

2A/2B 349 350 351 352 353 354

2B/2A 355 356 357 358 359 360

root b3 b5 b7 9 ST

on dominant seven flat nine chords

b3 is sometimes used as a blue note upper scale tone neighbor (b3BN)

2A/1B

361 362 363 364 365 366

b3BN root ST 3 5 b7 b9

1B/2A

367 368 369 370 371 372

b3BN root ST 3 5 b7 ST b9

2B/1A

373 374 375 376 377 378

root 3 5 b7 b3BN b9

1A/2B

379 380 381 382 383 384

root 3 5 b7 b3BN b9

2A/2B

385 386 387 388 389 390

b3BN root ST 3 5 b7 9

2B/2A

391 392 393 394 395 396

b3BN root ST 3 5 b7 9

on diminished ninth chords (minor 6b5 add 9)

2A/1B

397 398 399 400 401 402

root b3 b5 ST 6 ST 9

1B/2A

403 404 405 406 407 408

root b3 b5 6 9

2B/1A

409 410 411 412 413 414

root b3 b5 6 9

1A/2B

415 416 417 418 419 420

root b3 b5 6 9

2A/2B

421 422 423 424 425 426

root b3 b5 6 9

2B/2A

427 428 429 430 431 432

root b3 b5 ST b7 9

MELODIC EXAMPLES OF SCALAR-CHROMATICIZED ARPEGGIOS

Chromatic Enclosure Blues - [click to play](#)

The musical score consists of six systems, each with a treble and bass staff. The notation includes notes, rests, and fingerings (numbers 1-5). Labels such as "chrom. scale" and "chrom. arpeggio" are placed below the staffs to indicate the type of melodic movement. Chord symbols are placed above the staffs to indicate the harmonic context. The key signature is B-flat major (two flats).

System 1: Treble staff starts with a whole rest, followed by a chromatic scale (Bb, B, C, D, Eb, E, F, G, Ab, A, Bb, B). Bass staff has fingerings 6, 9, 7, 8, 6, 5, 8, 6, 7, 6, 8, 6, 6, 6, 9, 7, 8, 6, 7, 6, 8, 9, 8, 7, 6, 5, 9, 7. Labels: chrom. scale, chrom. scale, chrom. arpeggio, chrom. sc.

System 2: Treble staff has chords Eb7, Eo7, Bb13, G7. Bass staff has fingerings 8, 8, 5, 9, 7, 8, 9, 8, 7, 9, 6, 6, 10, 9, 7, 8, 8, 10, 9, 7. Labels: chrom. scale, chrom. arpeggio, chrom. scale, chrom. scale.

System 3: Treble staff has chords Cm7, F9, Bb13, G7, Cm7, F9. Bass staff has fingerings 8, 8, 5, 9, 7, 8, 8, 6, 7, 9, 8, 6, 7, 10, 9, 7, 8, 8, 9, 8, 8, 8, 8. Labels: chrom. scale, chrom. arpeggio, chrom. scale.

System 4: Treble staff has chords Bb7, Eb9, Bb7. Bass staff has fingerings 6, 10, 6, 9, 8, 7, 9, 6, 6, 6, 8, 5, 6, 8, 7, 7, 8, 9, 8, 7, 8, 7, 6, 8, 7, 9. Labels: chrom. scale, chrom. arpeggio, chrom. arpeggio, chrom. scale.

System 5: Treble staff has chords Eb9, Eo7, Bb7, G7(b9). Bass staff has fingerings 6, 9, 6, 8, 8, 7, 9, 6, 8, 8, 7, 9, 6, 10, 6, 9, 8, 7, 9, 6, 7, 9, 9, 6, 8, 7, 9. Labels: chrom. scale, chrom. scale, chrom. scale, chrom. scale.

System 6: Treble staff has chords Cm11, F9, Bb9, G7, Bb13, F9, A9 Bb9. Bass staff has fingerings 6, 7, 8, 5, 8, 7, 9, 6, 8, 6, 9, 8, 6, 7, 8, 7, 5, 9, 8, 8, 5, 8, 7, 9, 6, 5, 6, 5, 6, 5. Labels: chrom. scale, chrom. arpeggio, chrom. scale.

Autumn Leaves - Scalar Chromatics - [click to play](#)

Swing Eighthths

♩ = 160

two (or three) above, one below

First system of musical notation for 'Autumn Leaves'. It features a treble clef and a key signature of two flats (Bb and Eb). The tempo is marked 'Swing Eighthths' with a quarter note equal to 160 beats. The time signature is 4/4. The notation includes a series of eighth notes with fingerings (1-4, 3-2, 4-2, 4-2, 2-4, 3-2, 1-4, 2-2, 4-1, 2-4, 2-2, 1-4, 2-1, 4-2, 1-4) and a corresponding bass line with fingerings (7-10-9, 8-10-8-10-8, 10-9-8-6-7, 8-8-10, 6-10-8, 7-10-7, 8-10-8, 8-7, 6-10-8, 7-10, 9-7, 11). Chord symbols above the staff include Cm7, F9, Bbmaj7, and Ebmaj9.

Second system of musical notation for 'Autumn Leaves'. It continues the melodic line with fingerings (3-3, 1-3, 1-3, 1-4, 3-1, 2-1, 4-2, 1-4, 3-2, 1-4, 2-1, 1-4, 3-2, 1-3, 4-3) and a bass line with fingerings (10-10-8-10-8, 10-7, 11-10-8, 9-7, 10-8, 7-10-9, 8-6, 10-8, 7-7, 10-9, 8-7, 10-11, 10). Chord symbols above the staff include Am7(b5), D7(b9), and Gm7.

two (or three) below, one above

Third system of musical notation for 'Autumn Leaves'. It features a treble clef and a key signature of two flats. The notation includes a series of eighth notes with fingerings (1-3, 1-1, 3-3, 1-3, 1-1, 2-3, 1-4, 3-4, 2-1, 3-1, 3-1, 1-3, 1-2, 2-4, 2-1, 4-2, 1-1, 4-1) and a bass line with fingerings (8-10-8, 8-10-10-8, 10-8, 7-8, 9-7, 10-9, 10-8, 7-10, 8-10-8, 8-10-7, 8-8, 10-8, 7-10, 8, 6-7, 10). Chord symbols above the staff include Cm7, F9, Bbmaj7, and Ebmaj9.

Fourth system of musical notation for 'Autumn Leaves'. It features a treble clef and a key signature of two flats. The notation includes a series of eighth notes with fingerings (2-3, 1-3, 1-1, 3-2, 1-1, 1-4, 2-2, 2-3, 1-4, 3-4, 3-1, 3-4, 1-1, 2-4, 2-1) and a bass line with fingerings (8-10-8-10-8, 10-9-8-6-7, 10-8, 9-10, 8-11, 10-11, 10-8, 10-11, 8-7, 10-8). Chord symbols above the staff include Am7(b5), D7(b9), and Gm7. The system ends with a double bar line.

Somewhere Over the Rainbow- Scalar Chromatics - [click to play](#)

Swing Sixteenths

♩ = 70

Somewhere Over the Rainbow scalar chromatics

Chord symbols: C, Am7, Em7, Cmaj7, C7, Fmaj7, F#m7(b5), B7(b9), Em7, A7, Fma7, Bb7, Cma7, A7(b9), D7, G7, C, Dm7, G7, C, Am7, Em7, Cmaj7, C7, Fmaj7, F#m7(b5), B7(b9), Em7, A7, Fma7, Bb7, Cma7, A7(b9), D7, G13, C.

The Way You Look Tonight - Scalar Chromatics - [click to play](#)

Swing Eighths

♩ = 180

First system of musical notation for "The Way You Look Tonight". It features a treble clef, key signature of one flat (Bb), and 4/4 time. The melody is written in eighth notes. Chords indicated above the staff are Fmaj7, Dm7, Gm7, and C7. Fingerings are shown below the staff. Tension and release (T/R) are indicated below the staff.

Second system of musical notation. Chords indicated above the staff are Fmaj7, D7, Gm7, and C7. Fingerings and T/R are shown below the staff.

Third system of musical notation. Chords indicated above the staff are Cm7, F7, Bbmaj7, and Eb9. Fingerings and T/R are shown below the staff.

Fourth system of musical notation. Chords indicated above the staff are Fmaj7, D7, Gm7, C7, Am7(b5), D7, Gm7, and C7. Fingerings and T/R are shown below the staff.

Fifth system of musical notation. Chords indicated above the staff are Fmaj7, Dm7, Gm7, and C7. Fingerings and T/R are shown below the staff.

Sixth system of musical notation. Chords indicated above the staff are Fmaj7, D7, Gm7, and C7. Fingerings and T/R are shown below the staff.

Seventh system of musical notation. Chords indicated above the staff are Cm7, F7, Bbmaj7, and Eb9. Fingerings and T/R are shown below the staff.

30 Fmaj7 D7 Gm7 C7 Fmaj7 D7 Bbm7 Eb7

1 2 3 4 2 1 4 2 1 4 2 3 2 1 3 4 3 2 1 4 2 2 1

5 6 7 8 6 5 8 6 5 8 6 7 6 5 7 8 7 6 4 8 6 6 5

34 Abmaj7 F7 Bbm7 Eb7

2 4 4 1 2 1 4 3 1 4 2 2 3 1 4 4 1 2 3 3 2 1 4 1 2 2 1 4 1

6 8 8 5 6 5 8 7 5 8 6 6 7 5 8 8 8 10 11 9 8 11 8 9 9 8 11

38 Abmaj7 F7 Bbm7 Eb7

1 4 2 1 2 1 1 3 1 4 3 1 3 1 3 1 2 1 2 1 3 4 3 1 3 1 4 3 1 4 1 2 1 4 1 1

8 11 9 8 9 8 8 10 11 10 6 10 8 8 9 8 9 8 10 11 10 8 10 8 11 10 8 11 8 9 11 8

42 Abmaj7 F7 Bbm7 Eb7

2 4 4 1 2 1 4 3 1 4 2 2 3 1 4 4 1 2 3 3 2 1 4 1 2 2 1 4 1

11 8 8 10 6 5 8 7 5 8 6 6 7 5 8 8 8 10 11 10 9 8 11 8 9 9 8 11

46 Abmaj7 Dbmaj7 Gm7 C7

2 1 2 3 4 3 2 1 2 3 1 4 3 2 1 1 2 3 1 1 3 2 1 2 1 4

9 6 7 8 9 8 9 6 7 8 6 13 12 11 9 10 11 12 10 9 12 11 10 9 7 11

50 Fmaj7 Dm7 Gm7 C7

3 1 1 3 3 1 4 3 3 1 4 4 1 2 3 1 3 1 3 4 1 3 1 3 2 1 3 2 1 1

10 7 7 10 10 8 11 10 10 8 12 11 8 9 10 8 10 8 10 11 8 10 7 10 9 8 10 9 8 6

54 Fmaj7 D7 Gm7 C7

1 4 2 4 4 1 4 3 1 4 3 1 4 4 2 3 3 1 3 3 2 2 4 1 1 2 2

7 10 10 10 7 11 10 7 11 10 8 12 11 9 10 10 7 10 10 9 9 11 8 7 8 8

58 Cm^7 F^7 $\text{B}^{\flat}\text{maj}^7$ $\text{E}^{\flat}9$ 3

4 1 2 4 1 2 4 2 2 4 2 1 1 3 4 4 1 2 1 1 4 1 2 2 4 3 2 1

T 10 7 8 10 7 8 10 8 8 10 8 7 6 9 10 10 7 8 7 6 9 5 6 6 8 7 6 4

A B

62 $\text{F}^{\text{maj}7}$ D^7 Gm^7 C^7 $\text{Am}^7(\text{b}5)$ D^7 Gm^7 C^7 F^6

1 2 3 4 2 1 4 2 1 4 2 3 2 1 3 4 3 2 1 4 2 1 4 2

T 5 6 7 8 6 5 8 6 5 8 6 7 6 5 7 8 7 6 5 8 6 5 8 6

A B

66 Gm^7 C^7 F^6

2 1 4 2 1 1 2

T 6 5 8 6 5 5 6

A B

Satin Doll - turnarounds & scalar chromatics - [click to play](#)

$\text{♩} = 150$

1

Am⁷ D⁷ Abm⁷ Db⁷ Cmaj⁷ F⁷ Em⁷ A⁷

5

Dm⁷ G⁷ Dm⁷ G⁷ Em⁷ A⁷ Em⁷ A⁷

9

Am⁷ D⁷ Abm⁷ Db⁷ Cmaj⁷

13

Gm¹¹ C⁹ Gm¹¹ Gm⁹ Gm¹¹ Gm⁹ Db⁹ B⁹ C⁹ F⁶ E⁶ F⁶ Fmaj⁹ Fmaj⁷ C^b6 B^b6 F

17

Am¹¹ D⁹ Am¹¹ Am⁹ Am¹¹ Am⁹ Eb⁹ C[#]9 D⁹ G¹³ Dm D#m Em Dm D#m Em G⁹ G¹³

21

Dm⁷ G⁷ Dm⁷ G⁷ Em⁷ A⁷ Em⁷ A⁷

25

Am⁷ D⁷ Abm⁷ Db⁷ Cmaj⁷ G⁷ Cmaj⁷ G⁷(b9) Cmaj⁷

29

Half-Whole-Half Cells and Diminished Scale

- **Half-Whole-Half Melodic Cells Defined**
- **Fingering Half-Whole-Half**
- **Commonly-Used Half-Whole-Half Cells**
- **Using Phrygian Dominant to Sound Diminished Seventh**
- **Using Diminished Scale to Sound Diminished Seventh or 13b9#9#11**
- **Perfect Fourths Moving in Minor Thirds**
- **Diminished Fifths Moving in Minor Thirds**
- **Harmonic Application of Half-Whole-Half**
- **Half-Whole-Half Cell Library**
- **Half-Whole-Half Examples**

HALF-WHOLE HALF MELODIC CELLS DEFINED

The term “half-whole-half” implies a common melodic cell, very prevalent in jazz, especially Bebop. It adds color to the melody and should be used freely to express diminished seventh sounds, without necessarily associating it with any particular scale. Each instance has options of scales to associate it with. So, it can stand alone, or be elaborated with a scale.

When the half-whole-half sequence is played twice or more consecutively ascending or descending it alternates half and whole steps and ends with a half step. If the half-whole interval sequence is continued in ascending or descending an octave, it creates the diminished scale. The half-whole-half interval sequence can occur linearly through one, two, three or four consecutive minor thirds. If it continues through four consecutive minor thirds, it constitutes the diminished scale.

Decorate Minor Thirds

Half-whole-half sequences decorate the minor third part of chords. They can decorate a single minor third. When they decorate two or more consecutive minor thirds they make diminished sounds. A single minor third occurs within most chords. Two consecutive minor thirds occur in a diminished triad and from the third to flatted seventh of a dominant seventh chord, among many other chords. Three consecutive minor thirds constitute a diminished seventh arpeggio which can form a continuous cycle of minor thirds limited only by the range of your instrument and the range of our hearing.

Phrase With the Chord Tones on the Beat

Phrase the half-whole-half sequences so the tones of the chord you are decorating are on the beat, or push the beat by playing the tone you are decorating immediately before the beat, then don't play on the beat. The lower chromatic and upper chromatic embellishments you read about below should generally be on the metrically de-emphasized part of the beat, like the last half or third of the beat or the second quarter of the beat.

Three Things to Work on with Half-Whole-Half

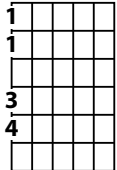
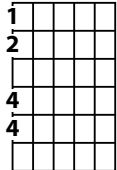
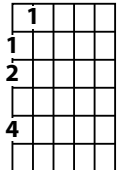
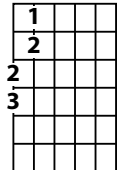
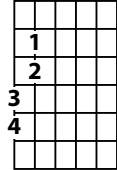
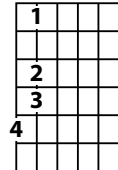
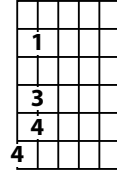
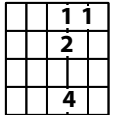
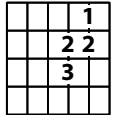
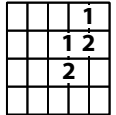
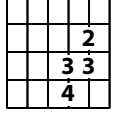
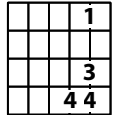
- which chords to use the half whole half on
- simple numeric memory devices to apply them
- memorize [diminished seventh arpeggios and diminished scale](#)

In regard to the chords to use half-whole-half, it can be applied to harmonic minor-type V chords, melodic minor -type V chords (super Locrian) and diminished seventh chords.

For numeric memory devices, think “b6” of target for harmonic minor type V of target, “5” of target for melodic minor-type V chords. For diminished seventh chords, use the half-whole-half sequence has the higher pitched of each half step on diminished seventh chord tones.

FINGERING HALF-WHOLE-HALF

It is essential that you memorize all these fingerings to use half-whole-half cells in your improv. The first fingering can be used on any string, including the third. Those shown on strings six and five could be used on any adjacent pair of strings except 3-2 (on 6-5, 5-4, 4-3 or 2-1). Due to the change of tuning between the third and second strings (a major third instead of a perfect fourth), fingerings on 3-2 are unique.

any string	any string	not on 32	not on 32	not on 32	not on 32	not on 32
						
		only on 32	only on 32	only on 32	only on 32	only on 32
						

Key Scale Versus Chord Scale Half-Whole-Half Cell Numbering

Key scale numbers relate to a major scale named after the tone center for the key. Chord scale numbers relate to a major scale named after the root of the chord.

Thinking the numbers for half-whole-half cells in terms of key scale numbers promotes the continuity of the overall key of the melody, rather than fragmenting the melody into a key for each chord. At the same time, it helps to build melody graphically and numerically on a chord by thinking in chord scale numbers. If a chord has a duration long enough to warrant a temporary key, then it makes sense to think numbers in relation to it, where it then becomes a "I" chord of the temporary key.

COMMONLY-USED HALF-WHOLE-HALF CELLS

Unless noted otherwise, half-whole-half cells are numbered here in terms of the key (I chord). 7-b7-b6-5 is descending (“down”), since it has descending numbers. Its ascending (“up”) version is in reverse order: 5-b6-b7-7. The fourth tone of each half-whole-half sequence should be a current chord tone or a tone of the chord you are superimposing (such as a V of the current chord).

Note that the key b3-2-1-7 and 7-b7-b6-5 half-whole-half cells can be used on I, V or bII. There are special considerations for using them on Ima7 and Im, as you can see in the “use on I” column of the table. The commonality of the b3-2-1-7 and 7-b7-b6-5 half-whole-half cells can make them ambiguous in regard to which chord they apply to and there for contributes to them being somewhat “stand-alone” melodic cells that we can relate to without necessarily assigning them aurally to a particular chord.

key tones	resolve to the I chord	resolve to the V chord
b3-2-1-7	resolve the “7” to “1”	sustain “7” into the V chord (its third)
7-1-2-b3	sustain “b3” into the I minor chord (its flat third)	sustain “b3” into the V7 augmented chord (its sharp five)
7-b7-b6-5	sustain “5” into the I chord or resolve it up to the root of the I chord	sustain “5” into the V chord (its root)
5-b6-b7-7	sustain the last note into the I minor chord	sustain “7” into the V7 chord (its third)
b5-4-b3-2	sustain “2” into the Im9 chord (its ninth) or resolve to the “b3” of the I chord	sustain “2” into the V chord (its third)

Temporary Keys

relative minor

Think of VIm as a key (I) in the key of VIm (VIm becomes Im).

secondary dominants

See [Secondary Dominant](#).

Think of III7 as V of VIm in the key of VIm (VIm becomes Im and III7 becomes its V7).

Think of VI7 as V of IIm in the key of IIm (IIm becomes Im and VI7 becomes its V7).

Think of II7 as V of V in the key of V (V becomes I and II7 becomes its V7).

USING PHRYGIAN DOMINANT TO SOUND DIMINISHED SEVENTH

Half-whole-half occurs with tones 7-1-2-b3 in the harmonic minor scale (also in melodic minor). In terms of the same scale named after the root of the V chord, Phrygian major, it is tones 3-4-5-b6. This sequence of four notes is very important in jazz and in the north African and middle-eastern music from which it came.

diminished seventh as part of the V chord in minor keys

V7b9 is a typical chord in minor keys. V7b9 without a root is VII diminished seventh. The VII diminished seventh can be elaborated with I harmonic minor. Naming the I harmonic minor scale tones in terms of the temporary key of the V chord is the Phrygian major (also called Phrygian dominant) mode (scale or mode are interchangeable here: it could be called Phrygian major mode, Phrygian major scale, Phrygian dominant mode or Phrygian dominant scale).

The most common application of half-whole-half is in minor keys, during the V chord. See [Harmonic Application of Half-Whole-Half](#). In terms of key scale, the half-whole-half interval sequence can ascend from #1-3,5-b7 (the tones of #I°7) or from 2-4-b6-7 (the tones of II°7). Half-whole-half melodic cells are most effective when related to the V chord of I, II, IV or VI harmonic minor (or major flat six). The respective key scale names for each of those are V Phrygian major (V of I harmonic minor), VI Phrygian major (V of II harmonic minor), I Phrygian major (V of IV harmonic minor) and III Phrygian major (V of VI harmonic minor).

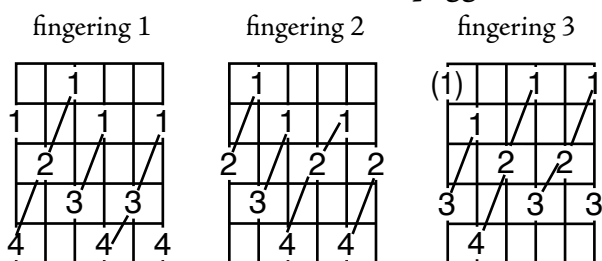
USING DIMINISHED SCALE TO SOUND DIMINISHED SEVENTH OR 13b9#9#11

Use diminished scale as a resource for more often fingering short passages of half and whole step sequences, not so much as a scale you would play over a large range.

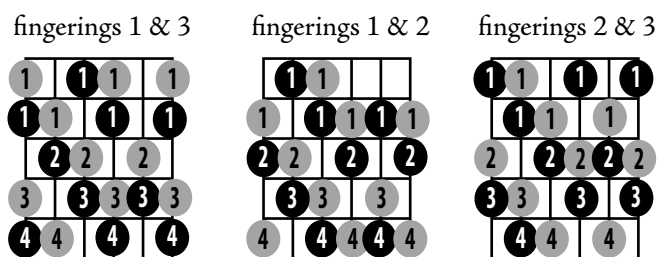
Fingering Diminished Arpeggios and the Diminished Scale

the numbers on the diagrams below are finger numbers
for diminished scale, the target diminished seventh is black when ascending, grey when descending

diminished seventh arpeggio



diminished scale



Diminished Scale

The diminished scale is commonly referred to with two names: “whole/half diminished scale” and “half/whole diminished scale”, each referring to the two repeating intervals that *ascend* from its tone center. Diminished whole-half scale sounds one diminished seventh chord, which has four synonyms. Diminished half-whole scale sounds either of four altered thirteenth chords, 13b9#9#11 chords.

Linearly Emulating Diminished Seventh

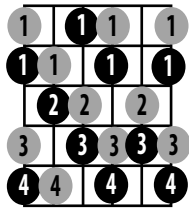
More often, diminished scale is used to emulate a diminished seventh chord or the *diminished seventh part* of a 7b9 chord. Bb diminished seventh can be used when the accompaniment chord is Bb dim7 or when the accompaniment chord is A7b9, which includes all the tones of a Bb dim7 chord. A7b9 no root = Bbdim7. A7b9 contains A-C#-E-Bb-G and Bbdim7 contains Bb-C#-E-G (C# is the same note as Db).

Start applying diminished scale by sounding diminished seventh chords (the black tones on the diagrams above) or 7b9 no root chords (also the black tones above). Be clear that the root of 7b9 is a gray note on the diagrams above and the remaining third, fifth, flatted seventh and flatted ninth of the 7b9 chord are black tones, which by themselves make a diminished seventh chord.

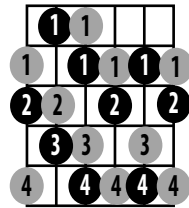
Using Diminished Scale To Sound Diminished Seventh

Diminished scale, black tones on the beat, making a diminished seventh sound on the black tones.

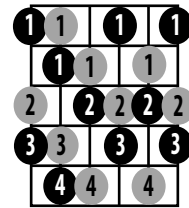
fingerings 1 & 3



fingerings 1 & 2



fingerings 2 & 3

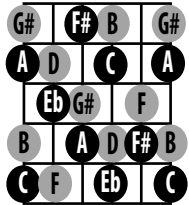


Here is an example of the fingerings above applied to a diminished seventh arpeggio, which can be name after either of its four tones: A diminished seventh, C diminished seventh, Eb diminished seventh or F# diminished seventh.

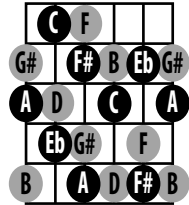
diminished whole-half scale, black tones on the beat

A^{dim}7 = C^{dim}7 = Eb^{dim}7 = F#^{dim}7 on the black tones.

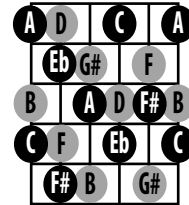
fingerings 1 & 3

A^{dim}7 IV

fingerings 1 & 2

A^{dim}7 III

fingerings 2 & 3

A^{dim}7 V

A^{dim}7 emulated with diminished whole-half - [click to play](#)

Swing Eighths

♩ = 120

The musical score is written for piano in 4/4 time, Swing Eighths, with a tempo of 120. It features a melody line and a bass line. The melody line starts with a whole note A^{dim}7 chord, followed by a series of eighth notes. The bass line follows a similar pattern. The score includes fingerings for both hands.

Using Diminished Scale To Sound 13b9#9#11 and 7b9 no root

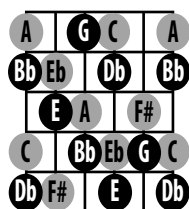
Diminished half-whole scale is either of the three fingerings below with the key on one of the gray tones. Each gray tone repeats in octaves and each octave set of gray tones can be a root of a different 13b9#9#11 chord. The 7b9 no root part of each 13b9#9#11 chord (with a gray root) is a diminished seventh made of the black tones (bII dim7 = III dim7 = V dim7 = b7 dim7).

Playing the scale linearly up and down works better to sound 7b9 no root chords. 7b9 no root is part of 13b9#9#11. Playing the scale in a non-linear, melodic manner (i.e. with skips and irregular rhythm) works better to sound 13b9#9#11 chords.

gray 13b9#9#11 roots, black bII°7 = III°7 = V°7 = bVII°7 roots

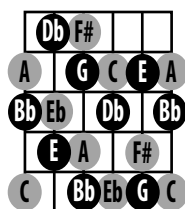
fingerings 1 & 3

V position



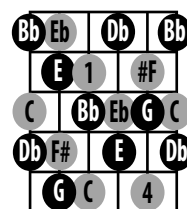
fingerings 1 & 2

IV position



fingerings 2 & 3

VI position



diminished whole-half scale with black dim7 tones on the beat

The roots of Bbdim7 (A7b9 no root), Dbdim7 (C7b9 no root) Edim7 (Eb7b9 no root) and G dim7 (Eb7b9 no root) are on black. The "missing" roots of the 7b9 chords they are based on are on gray.

Bb dim7 (A7b9 no root) emulated linearly with diminished whole-half scale - [click to play](#)

Swing Eighthths
♩ = 120

"b2" is "b9", "C#" = Db"

tones of A7b9 no root: b2 3 4 1 2 4 1 2 3 1 1 3 4 2 3 1

5 6 8 9 6 7 9 5 7 8 5 6 8 9 7 8 5

6 8 9 8 6 5 8 7 5 8 6 5 8 7 5 9 7 6 9 8 6

25 Bb $Bb7$ Eb Bb $F7$ $Bb7$

29 $Eb7$ $Eb7$ $Bb6$ $F7$ $Bb7$ $G7$

33 $Cm7$ $F7$ $Bb6$ $F7$

37 Bb $Bb7$ Eb Bb $F7$ $Bb7$

41 $Eb7$ $Eo7$ $Bb6$ $F7$ $Bb7$ $G7$

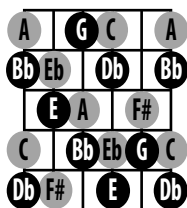
45 $Cm7$ $F7$ $Bb6$

Three systems of musical notation for a piano piece. Each system includes a treble and bass staff with chords and fingerings. System 1: Chords Bb7, Eb9, Bb7. System 2: Chords Eb9, Eo7, Bb7, Db o7. System 3: Chords Cm9, Cm7(b5), Go7, Bbo7, Bb9.

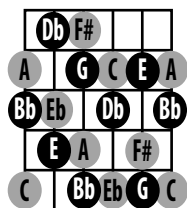
diminished half-whole scale with A13b9#9#11 roots on the beat

The roots of A13b9#9#11, C13b9#9#11, Eb13b9#9#11 and F#13b9#9#11 are on the gray tones.

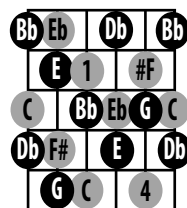
fingerings 1 & 3
V position



fingerings 1 & 2
IV position



fingerings 2 & 3
VI position



A13b9#9#11 emulated linearly with diminished half-whole scale - [click to play](#)

Swing Eighths
♩ = 120

A13(#9) A13(b9) A13(b5)

3

fingers: 1 2 4 1 2 3 1 1 3 4 1 2 4 1 3
numbered tones in A: 1 3 5 b7 b2 3 5 6

5 6 8 4 6 7 4 5 7 3 5 6 8 5 7

1

3

4 3 1 4 2 1 4 3 1 1 3 2 1 4 2 1
b7 5 3 b2 1 5 3 1

7 6 5 8 6 5 8 7 5 4 8 7 6 4 8 6 5

An Oddity: Diminished Half-Whole Scale To Sound Diminished Seventh with “Upper Chromatic Embellishments”

In late nineteenth century eastern European classical music and in ragtime and marching band music that followed, it was established that a chord tone could be preceded by a tone a half step below. This has been called a *lower chromatic embellishment*. Since this was *not* also done in approaching from a half step above, there is no generally accepted use of an *upper chromatic embellishment*. But, there could be. We can make new rules to expand composition and arranging.

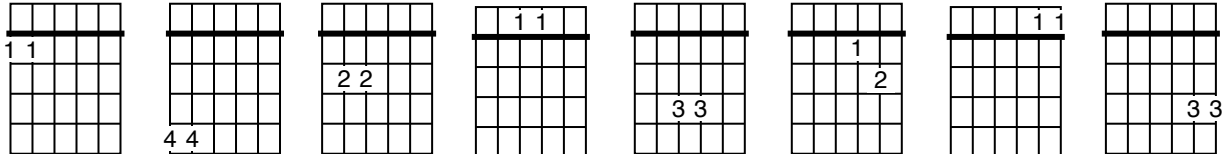
PERFECT FOURTHS MOVING IN MINOR THIRDS

fingering diminished scale in perfect fourths, moving in minor thirds

The diagrams below show fingering in a single strict vertical position. See [Playing in Position/Strict Vertical Position](#). On the diagrams below, the *second* fret from the top of each diagram is the numbered position. In any case, keep the top fret on all the diagrams below on the *same* fret.

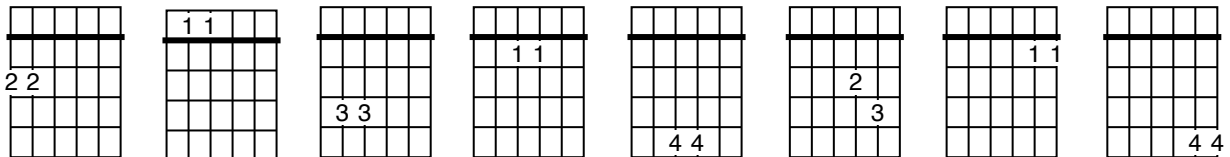
fingering 1

numbered after the finger of the lowest note on the sixth string



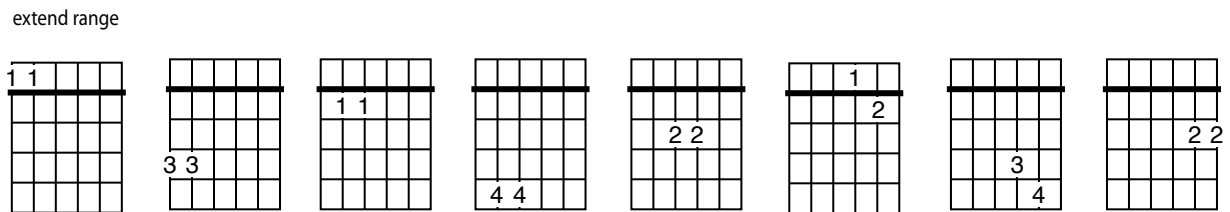
fingering 2

numbered after the finger of the lowest note on the sixth string



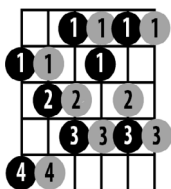
fingering 3

numbered after the finger of the lowest in-position note on the sixth string—"extended range" is not "in-position"

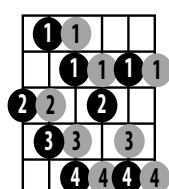


In the fingerings below, play the notes in perfect four pairs, as shown in the tablature below. Be sure to use the finger numbers as on the diagrams and as shown in the white space above the tablature.

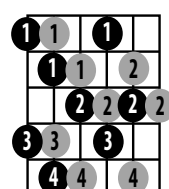
fingering 1



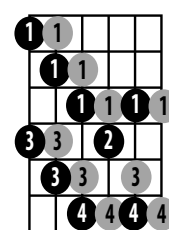
fingering 2



fingering 3



fingering 2 wide range



fingering 1 (the "boxed" finger numbers the fingering, since it is the lowest pitch)

[illegible]

fingering 2 (the "boxed" finger numbers the fingering, since it is the lowest pitch)

7 8 A^{o7} 9 10 11 12 A^{o7}

4 4 4 1 1 3 2 4 4 1 1 3 3 1 1 2 2 2 1 1 3 3 1 1 4 4 2 3 1 1 4 4

9 8 8 5 5 7 6 8 8 5 5 7 7 4 4 6 6 6 4 4 7 5 5 8 8 6 7 5 5 8 8

fingering 3 (the "boxed" finger numbers the fingering, since it is the lowest pitch)

Pairs Of Fourths Using the Eight Notes of One Diminished Scale

When you use lower chromatic embellishments to each of the four tones of a target diminished seventh in ascending *and* upper chromatic embellishments to each of the four tones of the same target diminished seventh in descending, *you will use all twelve chromatic tones*: four unique tones in the target diminished seventh arpeggio, four lower chromatics for them and four upper chromatics for them.

With perfect four pairs of notes moving in minor thirds, *you will use only the eight notes of the diminished scale.* The lower tone of each perfect fourth and the upper tone of each chromatic pair are in the same diminished seventh arpeggio part of the diminished scale. Conversely, the upper tone of each perfect fourth and the lower tone of each chromatic pair are in the same diminished seventh arpeggio part of the diminished scale.

Usually, the upper tones of the perfect fourth parts are the emphasized diminished seventh chord tones. With [the 13#11b9#9 exception](#), the *lower tones* are the emphasized diminished seventh chord tones. By *not* using all twelve chromatic tones as you would do with upper and lower chromatic embellishments to a diminished seventh chord (see [ascending and descending uses all twelve chromatic tones](#)), the target diminished seventh chord sound is preserved.

The target diminished seventh chord sound is would be muddled if pairs of fourths (moving in minor thirds) were used with the target tones as the *upper* tones of each perfect fourth pair and as the *lower* tones in descending, using all twelve chromatic tones. The chromatic embellishments make it more clear what the target diminished seventh chord is, since the chromatic embellishment tones are de-emphasized and create a strong tension and release with their half step resolution to each diminished seventh chord tone.

Prefer to Place Target Diminished Seventh Tones As the Upper Tones of Pairs of Fourth

There is a historical preference to emphasize the upper tone of each perfect fourth as established in using scale tone five to precede scale tone one above it. For this reason, I generally put the tones of the diminished seventh chord I want to emphasize as the collection of *upper* tones of the perfect fourth pairs.

Emphasize the chord tones by phrasing so the upper-pitched tone of each perfect fourth pair is on the beat. In descending, this means the first tone of each pair (the upper tone) is on the beat. In ascending, the lower-pitched tone of each perfect fourth would be on the beat. So, ascend with the first (upper) tone of each pair on the beat and descend with the second (upper) tone of each pair on the beat.

The diminished seventh chord you are emphasizing could be either the V7b9 no root (VII dim7) or the Goodman/Christian Im6b5 (Idim7).

Using Perfect Fourth Pairs with the 13#11b9#9 Exception

An exception to the historical preference to emphasize the upper tone of each perfect fourth can come into play in where you are using the diminished scale to establish a 13b9 chord sound. This works especially well on 13b9 with b2 in the bass (C13b9/Db bass). See [applying diminished scale to 13b9 chords](#).

With the treatment described here for the 13#11b9#9, you are only using the eight notes of the diminished scale, since you play the same notes in ascending and descending.

Thinking in the key of the chord, sound the C7b9 no root part of C13b9#9#11, which is Db diminished seventh, use pairs of perfect fourths tones moving in minor thirds, with the *lower* tones of the perfect fourths would as the Dbdim7 part of the C13b9#9#11.

This is an opposite manner to how you would use fourths with a VIIIdim7 (Bdim7) part of a V7b9 (G7b9) chord, you would put the second note on the beat in descending and the first note on the beat in ascending.

DIMINISHED FIFTHS MOVING IN MINOR THIRDS

Diminished Seventh as Diminished Fifths Moving in Minor Thirds

The diagrams below show fingering in a single strict vertical position. See [Playing in Position/Strict Vertical Position](#). Keep the top fret on all the diagrams below on the *same* fret.

extend rangevv

fingering 1
numbered after the finger of the lowest note on the sixth string

1 2 4 1 2 3 1 2 3 4 1 3 4 1 3 4 3 1 4 3 1 4 3 2 1 3 2 1 4 2 1

T
A
B

5 6 8 4 6 7 4 5 7 8 5 7 8 5 7 8 7 5 4 7 6 4 8 6 5

extend rangevv

fingering 2
numbered after the finger of the lowest in-position note on the sixth string- "extended range" is not "in-position"

1 2 4 1 2 3 1 2 3 4 1 3 4 1 3 4 3 1 4 3 1 4 3 2 1 3 2 1 4 2 1

T
A
B

5 6 8 4 6 7 4 5 7 8 5 7 8 5 7 8 7 5 4 7 6 4 8 6 5

extend range

fingering 3
numbered after the finger of the lowest in-position note on the sixth string- "extended range" is not "in-position"

1 2 4 1 2 3 1 2 3 4 1 3 4 1 3 4 3 1 4 3 1 4 3 2 1 3 2 1 4 2 1

T
A
B

5 6 8 4 6 7 4 5 7 8 5 7 8 5 7 8 7 5 4 7 6 4 8 6 5

The image displays a musical score for guitar, consisting of a treble clef staff and a bass clef staff. The treble staff contains a melodic line with a key signature of one sharp (F#) and a time signature of 4/4. The melody is composed of eighth and quarter notes, with a final measure containing a half note and a quarter note. The bass staff contains a bass line with a key signature of one sharp (F#) and a time signature of 4/4. The bass line is composed of eighth and quarter notes, with a final measure containing a half note and a quarter note. Fingerings are indicated by numbers 1-4 for the right hand and 1-8 for the left hand. The score is divided into four measures by vertical bar lines.

1 2 3 4 1 2 4 1 2 3 1 2 3 1 2 3 2 1 3 2 1 3 2 1 4 2 1 4 3 2 1

T
A
B

4 5 7 8 5 6 8 6 7 4 6 7 6 4 7 6 4 8 6 5 8 7 5 4

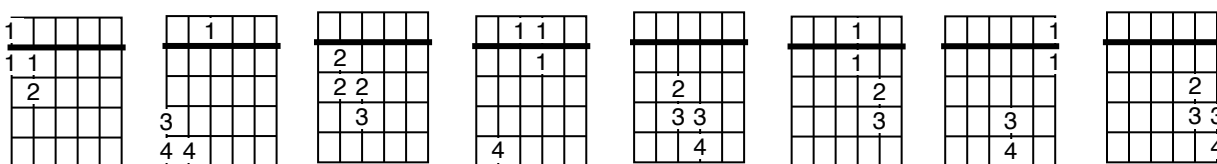
Diminished Fifths Moving in Minor Thirds with Lower Chromatics

Keep the higher-pitched tone of each chromatic pair on the beat. Use the lower-pitched tone of each chromatic pair (1) as a pickup, or (2) as a “trailing lower chromatic”, where the higher-pitched tone of the chromatic pair is played on the beat, followed by the lower-pitched tone of the same chromatic pair afterward on the offbeat.

In any case, keep the top fret on all the diagrams below on the *same* fret, except for the first diagram in the “fingering 3”, the second fret from the top is the same fret as the top fret on all the other diagrams.

fingering 1

numbered after the finger of the lowest note on the sixth string

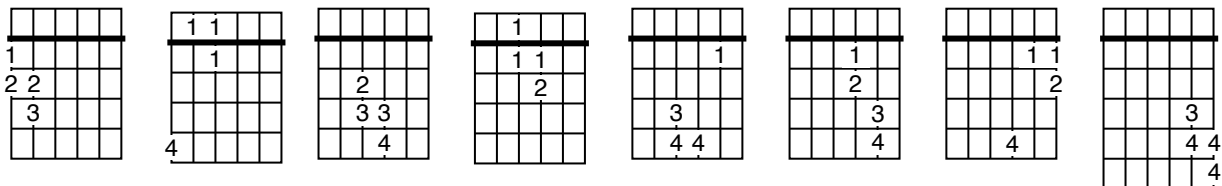


fingering 1 - chord tones on the beat with lower chromatics as pickups

fingering 1 - chord tones on the beat with trailing lower chromatics afterward on the offbeat

fingering 2

numbered after
the finger of the
lowest note on
the sixth string



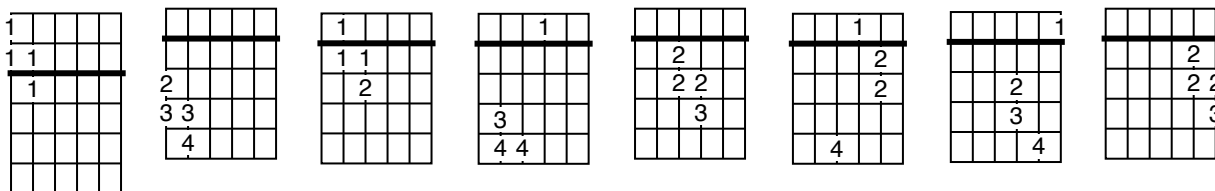
extend range

fingering 2 - chord tones on the beat with lower chromatics as pickups

fingering 2 - chord tones on the beat with trailing lower chromatics afterward on the offbeat

fingering 3 extend range

numbered
after the finger
of the lowest
in-position
note on the
sixth string-
"extended range"
is not
"in-position"

**fingering 3- chord tones on the beat with lower chromatics as pickups**
fingering 3 - chord tones on the beat with trailing lower chromatics afterward on the offbeat

HARMONIC APPLICATION OF HALF-WHOLE-HALF

Emphasis

Emphasize notes most commonly by putting them on the beat, by accenting, pivot tone, etc. Most commonly, you'll use half-whole-half interval parts of a diminished scale to emphasize a particular diminished seventh chord. The diminished seventh may be [used as V7b9 no root](#), I dim 7 in the case of a "[Goodman/Christian Im6b5](#)" or [#IVdim7 as in bar six of a jazz blues](#). In any case, treat the diminished seventh as follows:

Ascend half-whole diminished scale with the upper tone of each half step on tones of the diminished seventh target chord. Descend another half-whole diminished scale with the lower tone of each half step on tones of the dim7 target chord. Play perfect fourths ascending or descending in minor thirds with the upper tone of each perfect fourth on tones of the diminished seventh target chord.

Using V Diminished Half/Whole Scale as V7b9

To sound the V7b9 no root (II dim7) linearly with the V half/whole diminished scale, emphasize the upper note of each chromatic pair. In a minor key, de-emphasize the 13 of the V chord, since it is the unwanted natural three in the minor key. See also [Pairs Of Fourths Moving In Minor Thirds](#).

applying half-whole-half to harmonic minor type V chords

Harmonic minor V type chords can be effectively applied to I type (C), II type (Dm), IV type ("F") and VI type (Am) chords (examples were given in the key of "C"). In the key of each of these target chords, a V7b9 no root chord is a diminished seventh on 7, 2, 4 or b6 of the target chord (detail below).

Avoid playing more than seven consecutive notes linearly in the diminished scale. Apply diminished scale ascending half-whole from "#1" of the target root for 7b9 no root. Learn to make any of the four half-whole-half cells that make it up work melodically, by blending with common scales. These create harmonic minor V-I cadences (though the "I" chord may be minor or major).

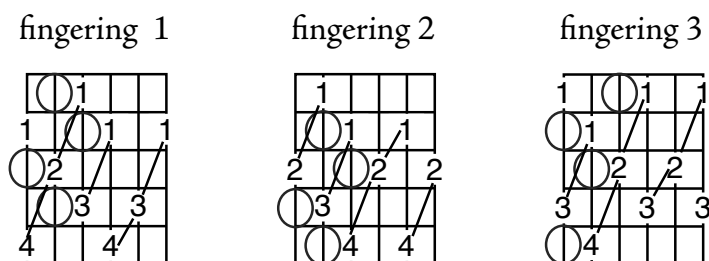
Melodic Minor on Flat Six of Target

Flat six of a target chord is the tone on which to build a diminished seventh to represent V7b9 no root of the target. It is also the tone center of melodic minor that will build both b13#11 and V7#9b9#5b5 (super Locrian) of the target. Good to know.

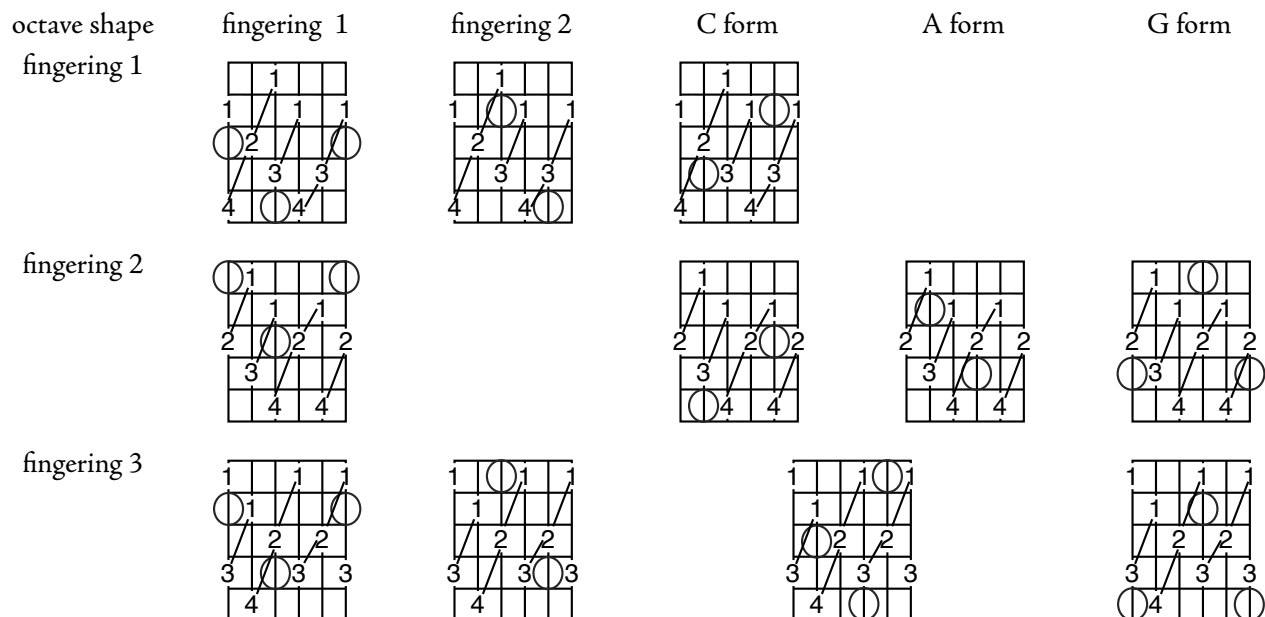
locating diminished seventh for harmonic minor type V chords

Ascend half-whole diminished scale with the upper tone of each half step on VII dim7. Descend another half-whole diminished scale with the lower tone of each half step on VII dim7. Play perfect fourths diminished or descending in minor thirds with the upper tone of each perfect fourth on a VII dim7 tone.

The circled notes below are target roots. The V7b9 no root (diminished seventh) includes a note a half step below each potential target. The second table below shows each octave shape separately. After becoming familiar with that table, the top table below can serve as a summary.



the circled notes below are target roots



For each of the effective target chords, I, II, IV or VI type in each octave shape (E, D, C A or G form), you need to be able to locate the diminished seventh chord to represent its V7b9 no root. Since diminished sevenths are all minor thirds and can be named after either of their notes. Since the interval between I and VI is a minor third. Diminished sevenths are all minor thirds, so the diminished seventh (V7b9 no root for the respective target chord) for I and VI is the same. Likewise, the interval between IV and II is a minor third, so the diminished seventh (V7b9 no root for the respective target chord) for IV and II is the same.

I and VI chords share the same diminished seventh as part of their respective V7b9 no root chords. In the key of C, “C” is the I chord and “Am” is the VIIm chord. The V7b9 chord in C is G7b9. Without a root, G7b9 is B diminished seventh, with the synonyms B°7, D°7, F°7 and G#°7. In A, the key of the VI chord, V7b9 is E7b9. E7b9 no root is G# diminished seventh, which is a synonym of B diminished seventh.

IV and II chords share the same diminished seventh as part of their respective V7b9 no root chords. In the key of C, “F” is the IV chord and “Dm” is the IIIm chord. The V7b9 chord in F is C7b9. Without a root, C7b9 is E diminished seventh, with the synonyms E°7, G°7, Bb°7 and Db°7. In D, the key of the II chord, V7b9 is A7b9. A7b9 no root is C# (‘Db) diminished seventh, which is a synonym of E diminished seventh.

Applying Half-Whole-Half to Melodic Minor Type V Chords

A single half-whole-half cell from the root of a V type chord, making 5-b6-b7-7 (in the key of “I”, G-Ab-Bb-B in C) and elaborating it with the rest of V super Locrian (B super Locrian for the key of C) the mode on the seventh of bVI melodic minor (Ab melodic minor for the key of C). Continuing from “7” up to “6” in this mode would be all whole steps. (B-Db-Eb-F-G in the key of “C”).

Using I Diminished Scale As a “Goodman/Christian Im6b5

Ascend whole-half-diminished scale with the upper-pitched tone of each half step on I dim7.

Play perfect fourths ascending or descending in minor thirds with the lower-pitched tone of each perfect fourth on the beat and on a I dim7 tone.

This is a more vocal-oriented melodic approach found in many Benny Goodman songs with Charlie Christian on guitar. Think of a I diminished seventh chord as Im6b5. Im6b5 is the same as I dim7, but by thinking Im6b5, you are more likely to think of the individual character of each note.

The m6b5 chord has a flat third for bluesy sounds, which can be played with a microtonal bend. The flat third uses the #9 in the I13b9#9#11 chord. It functions as an upper neighbor to the root, in terms of a pentatonic upper neighbor. If you’ve heard the blues song “Spoonful” (written by Willie Dixon and recorded by Howlin’ Wolf and Cream), that’s the main theme, repeating flat three to one.

The m6b5 chord also has a flat five. The flat five should usually be used sparingly for a very dark, bluesy effect.

Arguably, the most significant swing era tone is six. The m6b5 chord has a six to get that swing color. It is the thirteenth in the I13b9#9#11 chord. Especially use the six as a lower neighbor to the root, which could be called a “low six”.

I diminished seventh has the same notes as #IVdim7, which is commonly bar six of a jazz blues. Use this Goodman/Christian approach for that chord.

To sound Im6b5 no root (I dim7) linearly with the I half/whole diminished scale, emphasize the lower note of each chromatic pair. The group of lower notes of the lower notes of each chromatic pair makes I dim7.

See also [Pairs of Fourths Moving in Minor Thirds / Emulating the Goodman/Christian Im6b5](#).

Applying Diminished Scale to 13b9 Chords (Optional b9 and #9)

If all the tones of the diminished scale are played at once (spread voicing with largely intervals of a third or more), it sounds the chord 13#11b9#9. So, the diminished scale can be used as chord sound, naming it G diminished scale (half-whole ascending from “G”) and equating the scale with G13#11b9#9.

This presents an exception to upper and lower chromatic embellishments. To sound the G7b9 part of G13b9#9#11 (harmonized diminished scale), use lower chromatic embellishments of the B dim7 ascending and descending. This means you would put the higher-pitched tone of each chromatic pair on the beat regardless of whether you’re ascending or descending. Also think of it as the “13b9#9#11” way to elaborate a 7b9 chord. This works particularly well on 13b9 chords with the flat nine in the bass. Here are some occurrences:

bar 9 of Alone Together

bar 3 of Corcovado (Quiet Nights Of Quiet Stars)

bar 3 of How Insensitive (play C#dim7 as C13b9/Db)

bar 6 of the B section of Meditation (play Ebdim7 as D13b9/Eb)

Stormy Weather in the repeating progression Gma7 G#dim7 Am7 D7,

treat the G#dim7 as G13b9/Ab

bars 3 and 4 of Witchcraft

See also [using perfect fourth pairs with the 13#11b9#9 exception](#).

Elaborating Half-Whole-Half with Scales and Chords

Elaborate half-whole-half cells by playing modes of major scale, harmonic minor or melodic minor immediately before or after them. Melodically blend Aeolian, harmonic minor, and melodic minor by alternating the versions of the notes that differ: 7-1-2. Tones b3-4-5-b6 are common to all three.

Key scale Phrygian flat one (bVI melodic minor) has b7-7(b1)-b2 . Key scale Aeolian flat one (bIII major flat six) has b7-7(b1)-2, differing only with its natural two.

Combine Cells for Practice

Refer to the table above. For V7b9 and III7b9, practice the diminished scale b7-7-#1-2-3-4-5-b6 and elaborating on each of the four cells that make it up. Also for V7b9 and III7b9, practice 7-1-2-b3-4-b5 and elaborate on each of the two cells that make it up (7-1-2-b3 and 2-b3-4-b5). For VI7b9, practice #1-2-3-4-5-b6 and elaborate on each of the two cells that make it up (#1-2-3-4 and 3-4-5-b6).

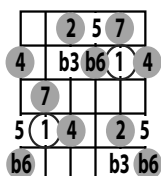
Half-Whole-Half Cells Don't Have to Be Complete Subsets

Each half-whole-half cell is typically used to emphasize two of its notes that are subsets of the chord it is being used on. The remaining two notes don't have to be in the scale that elaborates the half-whole-half cell. The notes that differ substantially, such as a major third during a minor chord, should be de-emphasized.

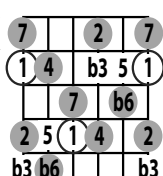
diminished commonality with half-whole-half and V7b9

harmonic minor scale
V7b9 no root in grey

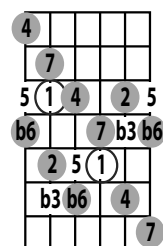
fingering 2
E har.m. IV



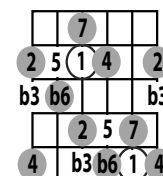
fingering 6
A har.m. IV



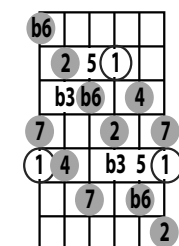
fingering 2/3
D har.m. III



fingering 7
G har.m. III

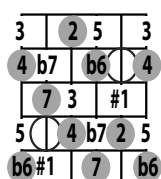


fingering 4/5
C har.m. IV

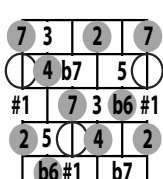


diminished scale
V7b9 no root in grey

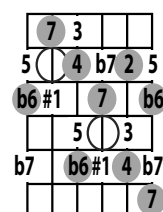
fingering 2
E #1 half/
whole dim. IV



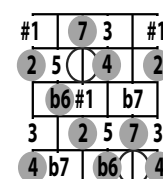
fingering 6
A #1 half/
whole dim. IV



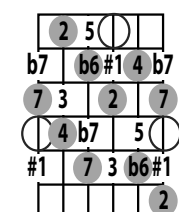
fingering 2/3
D #1 half/
whole dim. III



fingering 7
G #1 half/
whole dim. III

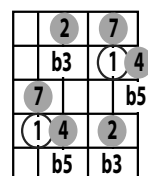


fingering 4/5
C #1 half/
whole dim. IV

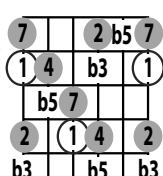


7-1-2-b3-4-b5
with grey 7-2-4

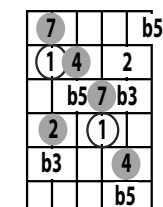
7-1-2-b3-4-b5
C form IV



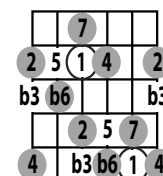
7-1-2-b3-4-b5
E form IV
b5 on 3 or 2



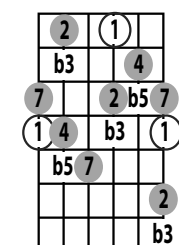
7-1-2-b3-4-b5
A form IV
b5 on 1 or 1



fingering 7
G har.m. III



fingering 4/5
C har.m. IV



HALF-WHOLE-HALF CELL LIBRARY

One Minor Third With Chromatic Embellishments
shown with Adim7 (ACEbF#) setup chord and Gm7 or Bb target chord

Chord progression: Gm7 or Bb A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb A^{o7}

6 Chord progression: A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb

11 Chord progression: A^{o7} A^{o7} A^{o7} A^{o7}

16 Chord progression: A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb

Three Notes In Minor Thirds With Chromatic Embellishments
When ascending, upper neighbors to diminished seventh tones should be a whole step
in the beginning or middle of a figure. The setup chord is Adim7 and the target is Gm7 or Bb

19 Chord progression: A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb

23 Chord progression: A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb

27 V pos. Chord progression: A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb

31 VII pos. Chord progression: A^{o7} Gm7 or Bb A^{o7} Gm7 or Bb

immediately before the target, use the scale of the target,
as on the fourth beat in each of these two examples

35 $A^{\circ 7}$ Gm7 or Bb $A^{\circ 7}$ Gm7 or Bb

in the beginning or middle of the figure, resource diminished
scale, as on the third beat in each of these two examples

39 $A^{\circ 7}$ Gm7 or Bb $A^{\circ 7}$ Gm7 or Bb

Half-Whole-Half Minor Third In Triple Time

The setup chord is Adim7 and the target is Gm7 or Bb. The intervals are half step, whole step, step, minor third on the setup chord (Adim7), ascending or descending. The second tone begins a triplet on a setup chord tone and the next beat begins with a setup chord tone. Follow all of that with the target chord.

43 $A^{\circ 7}$ Gm7 or Bb $A^{\circ 7}$ Gm

47 $A^{\circ 7}$ Gm7 or Bb $A^{\circ 7}$ Gm7 or Bb

HALF-WHOLE-HALF EXAMPLES

Harmonic Minor V7b9 no root Of Target (7-2-4-b6)

#1 - 2 - 3 - 4

D7(b9) Gm D7(b9) Gm D7(b9) Gm D7(b9) Gm

5

D7(b9) Gm D7(b9) Gm

8

b5 - 4 - b3 - 2

D7(b9) Gm D7(b9) Gm D7(b9) Gm D7(b9) Gm

12

D7(b9) Gm D7(b9) Gm

15

3 - 4 - 5 - b6

Gm D7(b9) Gm Gm Gm Gm Gm

resolove down only resolove down only

20

b7 - b6 - b5 - 4 (exception: "b7" instead of "6")

D7(b9) Gm D7(b9) Gm D7(b9) Gm D7(b9) Gm

24

D7(b9) Gm D7(b9) Gm

The musical score is written for guitar in E-flat major (three flats). It consists of six systems, each with a melodic line on a single staff and a corresponding fretboard diagram below it. The fretboard diagrams are labeled with 'T' for the thumb and 'A' for the index finger, with numbers 1-8 indicating fret positions. Chord symbols (D7(b9) and Gm) are placed above the melodic lines to indicate the harmonic context. The examples show various melodic patterns, including half-whole-half cells and diminished scale runs, with some patterns labeled as 'resolove down only'.

27 5 - $\flat 6$ - $\flat 7$ - 7

Gm D7($\flat 9$) Gm Gm Gm Gm Gm

avoid because of chromatic crowding avoid because of chromatic crowding

7 8 6 7 8 7 8 6 7 8 7 8 6 7 5 8 7 8 6 7 8 7

32 1 - 7 - 6 - $\flat 6$

Gm D7($\flat 9$) Gm D7($\flat 9$) Gm D7($\flat 9$) Gm

avoid because of chromatic crowding avoid because of chromatic crowding

8 7 5 8 7 8 7 5 8 7 8 7 5 8 5 7 8 7 5 8 6 7

37 $\flat 7$ - 7 - $\sharp 1$ - 2

Gm D7($\flat 9$) Gm Gm D7($\flat 9$) Gm Gm Gm Gm Gm Gm

avoid because of chromatic crowding avoid because of chromatic crowding

6 7 4 5 6 6 7 4 5 6 6 7 4 5 8 6 7 4 5 8 6 6 7 4 5 7 8

44 $\flat 3$ - 2 - 1 - 7

Gm D7($\flat 9$) Gm Gm D7($\flat 9$) Gm D7($\flat 9$) Gm D7($\flat 9$) Gm D7($\flat 9$) Gm

avoid resolving with an interval over a minor third (except five up to root)

6 5 8 7 8 6 5 8 7 8 6 5 8 7 7 6 5 8 7 8 6 5 8 7 5 8 6 5 8 7 7 8

Harmonic Minor V7b9 no root Of Target - entire diminished seventh with lower or upper chromatics

WARNING: these should be abstracted for acutal use so they don't sound like an exercise

7-2-4-b6(#5)

51 whatever chord avoid chromatic crowding F whatever chord F

56 whatever chord F whatever chord F

60 b6(#5)-4-2-7 whatever chord F whatever chord F

65 whatever chord F whatever chord F

69 abstract

72 b6(#5)-7-2-4 whatever chord F whatever chord F

77 whatever chord F whatever chord F

4

Half-Whole-Half Phrases

81

whatever chord

F

whatever chord

F

86

whatever chord

F

F

4-2-7-b6(#5)

90

whatever chord

F

whatever chord

F

F

melodic minor: 1-b2-b3-3 of bII13#11 = V7#9b9#5b5

97

F

G \flat 13(#11)

F

G \flat 13(#11)

F

G \flat 13(#11)

F

104

G \flat 13(#11)

F

G \flat 13(#11)

F

108

G \flat 13(#11)

F

PART 7 CONTENTS

Building Phrases and Sections

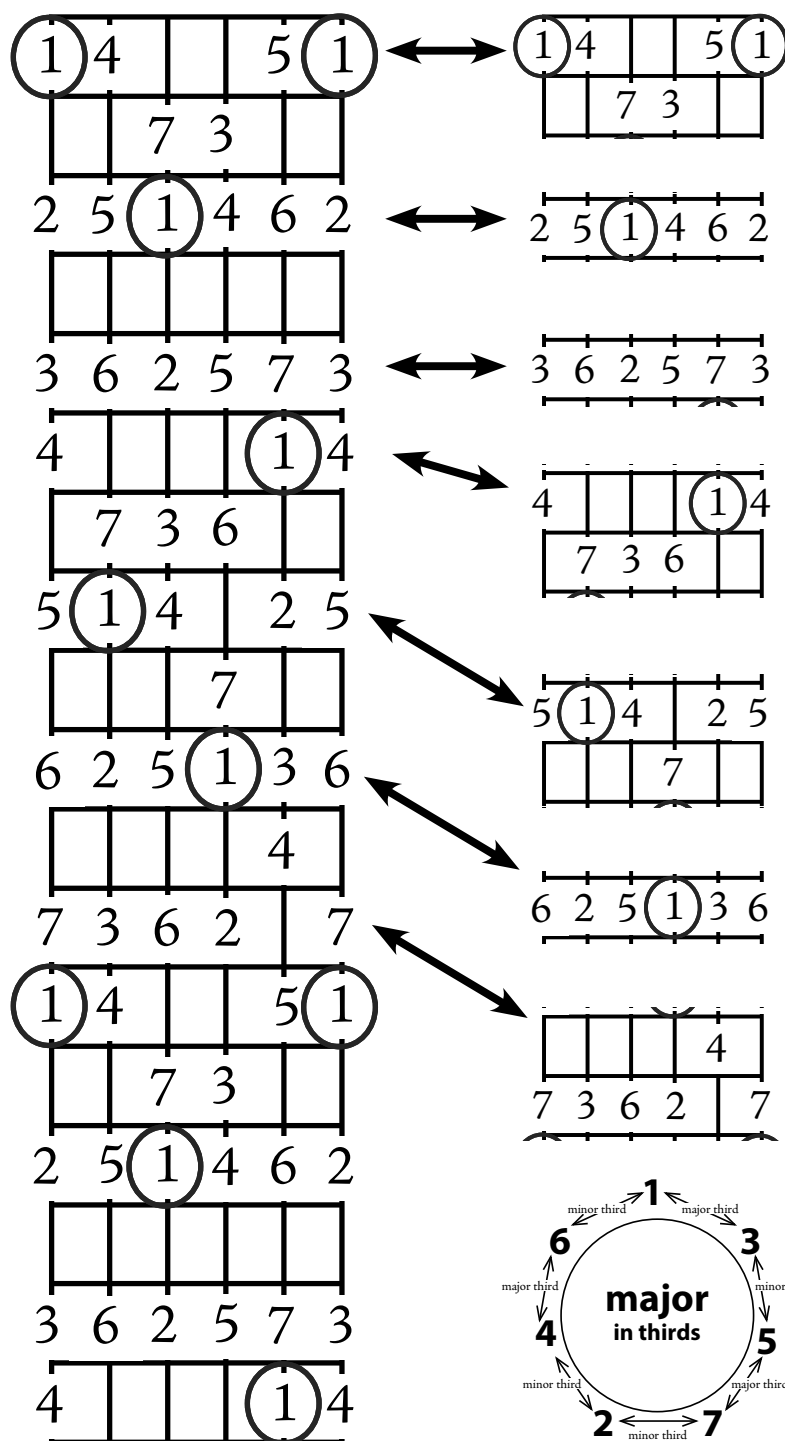
[Full-Fretboard Major Scale Visualization](#)
[Voice Leading Improv with Arpeggio Cadences](#)
[Voice Leading Improv with Substitute Chords](#)
[Bebop Phrases](#)
[Phrases Built with Core Melody, Cell Elaboration and Filler](#)
[Core Melody with Baroque-Bebop Ornamentation](#)
[Sections Built with Phrases](#)
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[Building Chord Melody](#)
[Melodic Character and Story](#)
[The Emotive Curve and Sentiments](#)

Full-Fretboard Major Scale Visualization

- **Major Scale Lines**
- **Chunking Major Scale Lines**
- **Three-String Major Scale Fingerings**
- **Two-String Major Scale Fingerings**
- **Three-Octave Major Scale Fingerings**
- **Major Scale-Tone Triad Arcs**
- **Major Scale Linear Triad Subsets**

MAJOR SCALE LINES

The major scale can be visualized in a scanning fashion by looking at the notes going across the strings, parallel to the frets. At scale tones 2, 3 and 6 on the sixth string, the “lines” include notes all on the same fret.



line 1 - “three and four high”

notes on its third and fourth strings are one fret toward the guitar body

line 2 - “a straight line”

(2, 3 and 6)

line 3 - “a straight line”

(2, 3 and 6)

line 4 - “three, four and five high”

notes on its third, fourth and fifth strings are one fret toward the guitar body

line 5 - “three high”

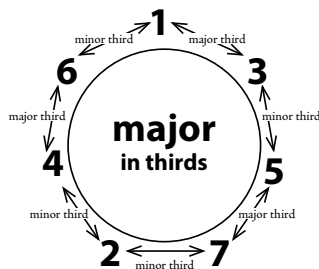
the note on its third string is one fret toward the guitar body

line 6 - “a straight line”

(2, 3 and 6)

line 7 - “two low”

the note on the second string is one fret toward the head of the guitar



CHUNKING MAJOR SCALE LINES

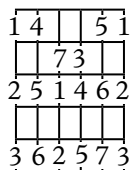
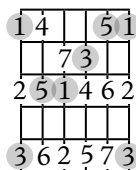
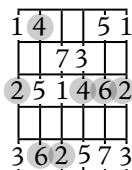
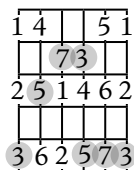
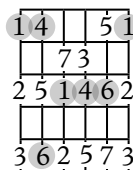
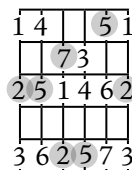
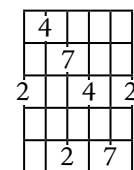
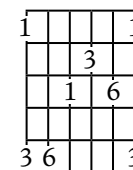
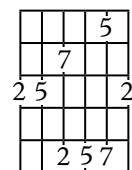
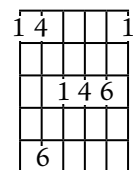
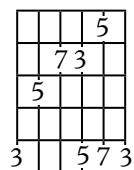
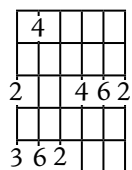
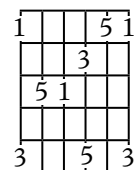
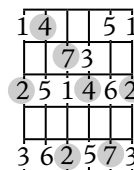
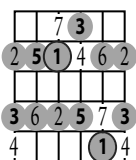
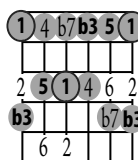
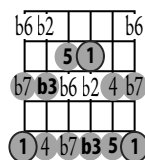
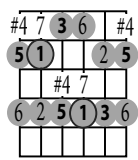
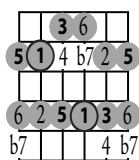
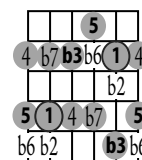
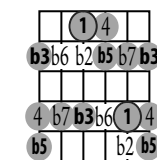
forty two notes

The full-fretboard major scale pattern contains forty two notes. We cannot visualize that much information at once. We can, however visualize it in chunks of various kinds. Major scale chunking methods include major scale lines, in-position scale-tone triad subsets, in-position pentatonic scale subsets, triad arcs and linear triads by string set.

Major Scale in-Position Triad and Pentatonic Subsets

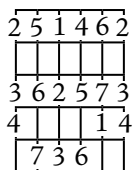
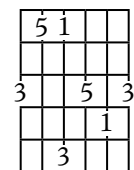
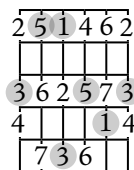
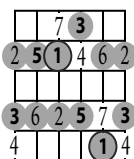
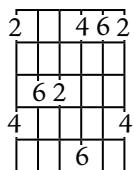
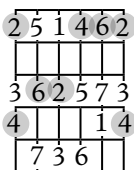
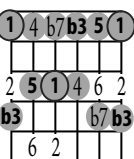
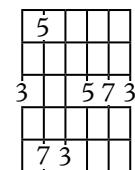
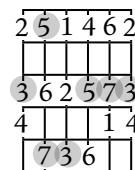
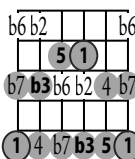
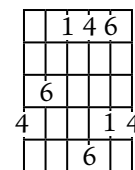
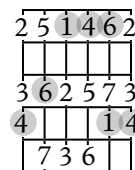
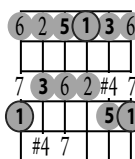
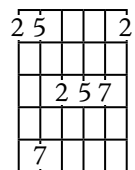
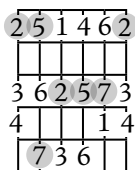
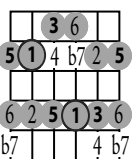
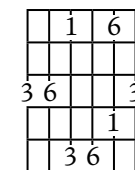
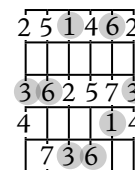
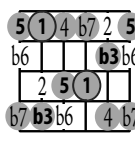
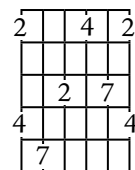
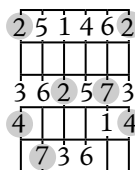
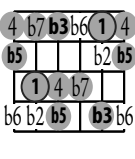
fingering 1

major scale

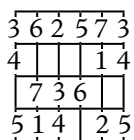
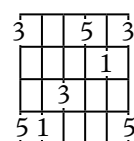
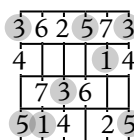
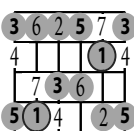
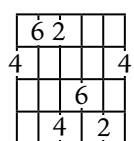
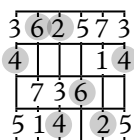
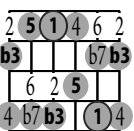
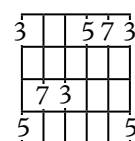
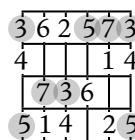
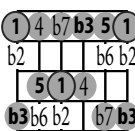
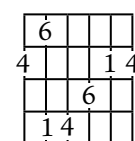
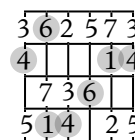
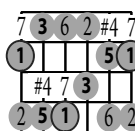
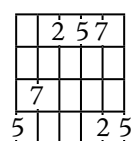
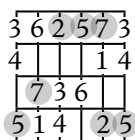
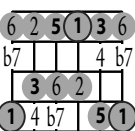
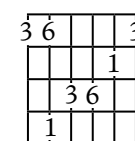
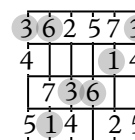
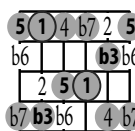
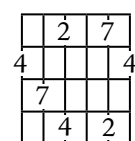
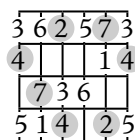
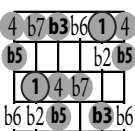
I major
1-3-5II minor
2-4-6III minor
3-5-7IV major
4-6-1V major
5-7-2VI minor
6-1-3VII dim.
7-2-4I^{ma}6/9
1-2-3-5-6II^m7/11
2-4-5-6-1III^m7/11
3-5-6-7-2IV^{ma}6/9
4-5-6-1-2V^{ma}6/9
5-6-7-2-3VI^m7/11
6-1-2-3-5VII^m7/11b5
7-2-3-4-6

fingering 2

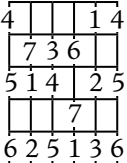
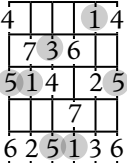
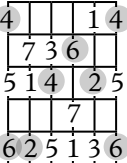
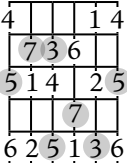
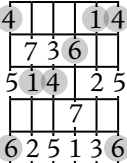
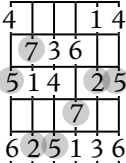
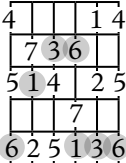
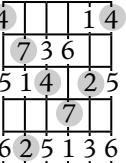

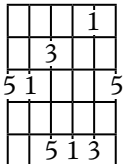
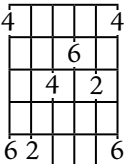
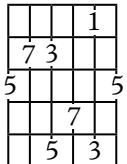
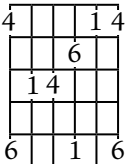
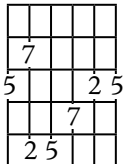
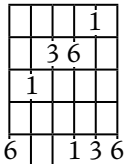
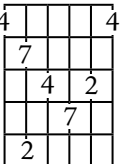

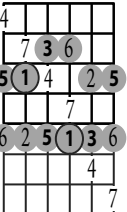
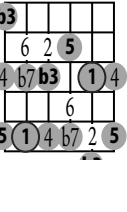
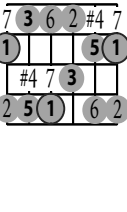
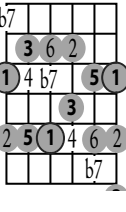
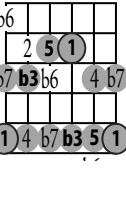
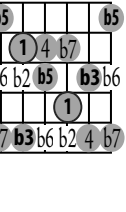
major scale

I major
1-3-5Ima6/9
12356II minor
2-4-6IIIm7/11
24561III minor
3-5-7IIIIm7/11
35672IV major
4-6-1IVma6/9
45612V major
5-7-2Vma6/9
56723VI minor
6-1-3VIIm7/11
61235VII dim.
7-2-4VIIIm7/11b5
72346**fingering 3**

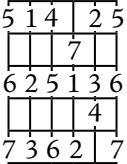
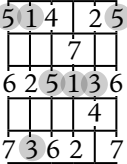
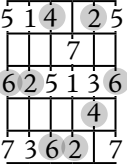
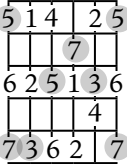
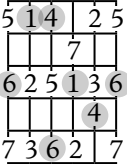
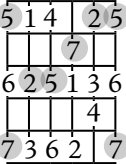
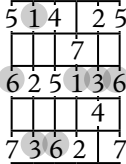
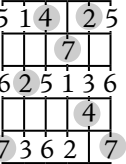

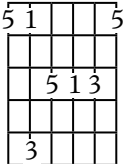
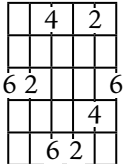
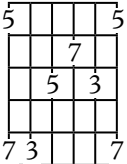
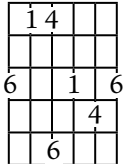
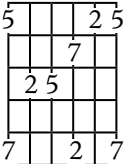
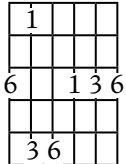
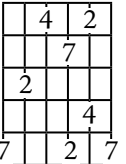

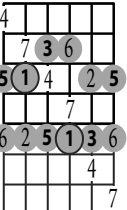
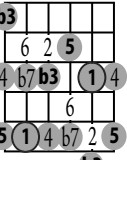
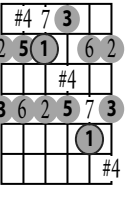
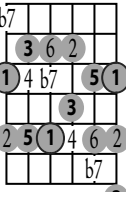
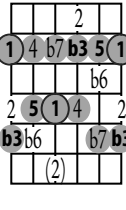
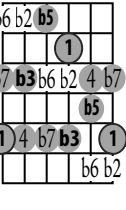
major scale

I major
1-3-5Ima6/9
1-2-3-5-6II minor
2-4-6IIIm7/11
2-4-5-6-1III minor
3-5-7IIIIm7/11
3-5-6-7-2IV major
4-6-1IVma6/9
4-5-6-1-2V major
5-7-2Vma6/9
5-6-7-2-3VI minor
6-1-3VIIm7/11
6-1-2-3-5VII dim.
7-2-4VIIIm7/11b5
7-2-3-4-6

fingering 4

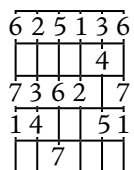
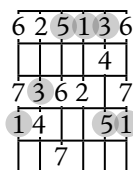
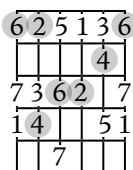
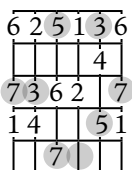
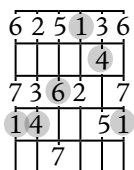
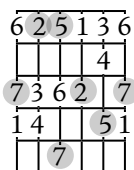
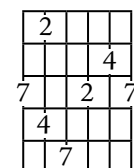
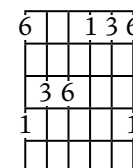
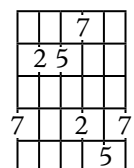
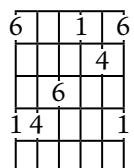
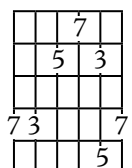
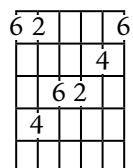
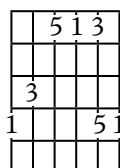
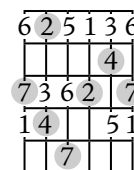
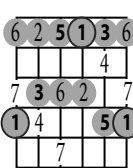
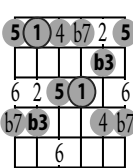
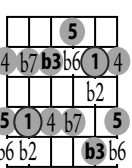
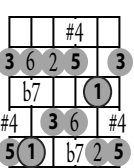
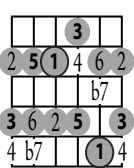
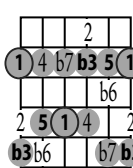
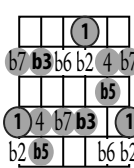
major scale	I major 1-3-5	II minor 2-4-6	III minor 3-5-7	IV major 4-6-1	V major 5-7-2	VI minor 6-1-3	VII dim. 7-2-4
							
							
Ima6/9 12356	IIm7/11 24561	IIIm7/11 35672	IVma6/9 45612	Vma6/9 56723	VIIm7/11 61235	VIIIm7/11b5 72346	
							

fingering 5

major scale	I major 1-3-5	II minor 2-4-6-	III minor 3-5-7	IV major 4-6-1	V major 5-7-2	VI minor 6-1-3	VII dim. 7-2-4
							
							
Ima6/9 1-2-3-5-6	IIm7/11 2-4-5-6-1	IIIm7/11 3-5-6-7-2	IVma6/9 4-5-6-1-2	Vma6/9 5-6-7-2-3	VIIm7/11 6-1-2-3-5	VIIIm7/11b5 7-2-3-4-6	
							

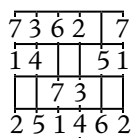
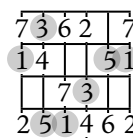
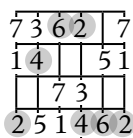
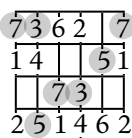
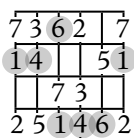
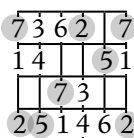
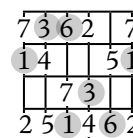
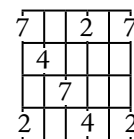
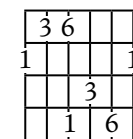
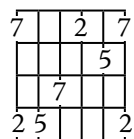
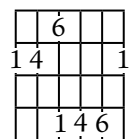
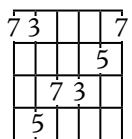
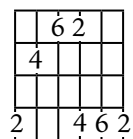
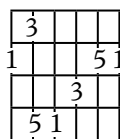
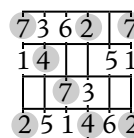
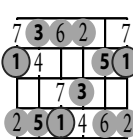
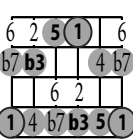
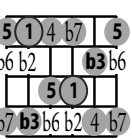
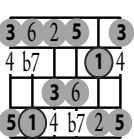
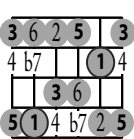
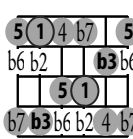
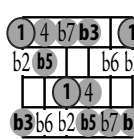
fingering 6

major scale

I major
1-3-5II minor
2-4-6III minor
3-5-7IV major
4-6-1V major
5-7-2VI minor
6-1-3VII dim.
7-2-4Ima6/9
12356IIIm7/11
24561IIIIm7/11
35672IVma6/9
45612Vma6/9
56723VIIm7/11
61235VIIIm7/11b5
72346

fingering 7

major scale

I major
1-3-5II minor
2-4-6III minor
3-5-7IV major
4-6-1V major
5-7-2VI minor
6-1-3VII dim.
7-2-4Ima6/9
1-2-3-5-6IIIm7/11
2-4-5-6-1IIIIm7/11
3-5-6-7-2IVma6/9
4-5-6-1-2Vma6/9
5-6-7-2-3VIIm7/11
6-1-2-3-5VIIIm7/11b5
7-2-3-4-6

THREE-STRING MAJOR SCALE FINGERINGS

Based on the Three Bass Strings of In-Position Major Scale Fingerings

These three-string fingerings are designed for speed. Changing strings in picking is a common barrier to accomplish fast playing. It is easier to pick more notes on each string. These three-string fingerings have three notes per string and often extend to have four notes on some strings. They can be played very fast when well-memorized. When played in two or more octaves, they are also easy to recall because they use the same fingering on two or more sets of three strings.

These three-note per string fingerings are based on the fingerings on the three largest strings in the in-position major scale fingerings shown below. Usually strings 5-4-3 are best for fast playing.

the seven in-position major scale fingerings

These are numbered according to the number of the lowest pitch on the sixth (largest) string. Fingering 3, for example has major scale tone "3" as its lowest pitch. That would be C major scale fingering 3 in the twelfth position, where the lowest pitch on the sixth string is "E", the third step of the C major scale. Here are the seven in-position fingerings in numerical order:

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

the extractions from strings 6-5-4

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

the extractions from strings 6-5-4 replicated on strings 5-4-3 (best for fast playing)

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

the replications from strings 6-5-4 by formula (top row) and fingers (bottom row)

Inspect the fingering in the bottom row. Each two-string fingering on the sixth and fifth strings is duplicated on the fourth and third strings with one added note on the head side.

For example, in fingering 1, the first finger is used twice on the fourth string, first to fret scale tone “7”, then to begin the original 1-2-3-4-5-6 vsequence that occurred on the sixth and fifth strings.

The two-string fingering from strings six and five is then repeated again on strings two and one with an added note on the head side on strings two. In fingering 1, first finger is used twice on the second string, adding scale tone “7” to the original 1-2-3-4-5-6 sequence on the sixth and fifth strings.

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

TWO-STRING MAJOR SCALE FINGERINGS

Based on the Two Bass Strings of In-Position Major Scale Fingerings

These two-string fingerings are designed for the ultimate speed of playing major scales. They have two notes per string and include one out-of-position note on the larger of the two strings and another out-of-position note on the smaller of the two strings. They can be played very fast because they are easy to memorize and minimize changing strings.

These two-note per string fingerings are based on the fingerings on the two largest strings in the in-position major scale fingerings shown below.

the seven in-position major scale fingerings

These are numbered according to the number of the lowest pitch on the sixth (largest) string. Fingering 3, for example has major scale tone "3" as its lowest pitch. That would be C major scale fingering 3 in the twelfth position, where the lowest pitch on the sixth string is "E", the third step of the C major scale. Here are the seven in-position fingerings in numerical order:

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

the extractions from strings 6-5

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

the replications from strings 6-5 by formula (top row) and fingers (bottom row)

In each fingering, the index finger frets the two lowest-pitched two notes on each string.

strings 6-5 (formula numbers in the top row, finger numbers in the bottom row)

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

strings 5-4 (formula numbers in the top row, finger numbers in the bottom row)

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

strings 4-3 (formula numbers in the top row, finger numbers in the bottom row)

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

strings 3-2: (formula numbers in the top row, finger numbers in the bottom row)

these awkward fingerings require compressing the hand upon string changes

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

strings 2-1 (formula numbers in the top row, finger numbers in the bottom row)

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

THREE-OCTAVE MAJOR SCALE FINGERINGS

The top row is numbered by scale tone and the bottom row is numbered by fretting fingers.

fingering 1 based on two- string fingering 1	fingering 2 based on two- string fingering 2	fingering 3 based on two- string fingering 3	fingering 4 based on two- string fingering 4	fingering 5 based on two- string fingering 5	fingering 6 based on two- string fingering 6	fingering 7 based on two- string fingering 7

Construction of Three-Octave Major Scale Fingerings

on strings 6-5, ascend the first seven notes of the two-note-per-string fingering

The first row below is scale tone numbers and the second row is finger numbers.

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

on strings 4-3, ascend the first seven notes of the two-note-per-string fingering

The first row below is scale tone numbers and the second row is finger numbers. The fingering is modified so position changes only happen on the fourth string.

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

combine the seven notes on strings 6-5 and the seven notes on strings 4-3, ascending

The first row below is scale tone numbers and the second row is finger numbers.

fingering 1 based on two- string fingering 1	fingering 2 based on two- string fingering 2	fingering 3 based on two- string fingering 3	fingering 4 based on two- string fingering 4	fingering 5 based on two- string fingering 5	fingering 6 based on two- string fingering 6	fingering 7 based on two- string fingering 7

prepare to add the eight-note, two-note-per-string fingerings on strings 1-2

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

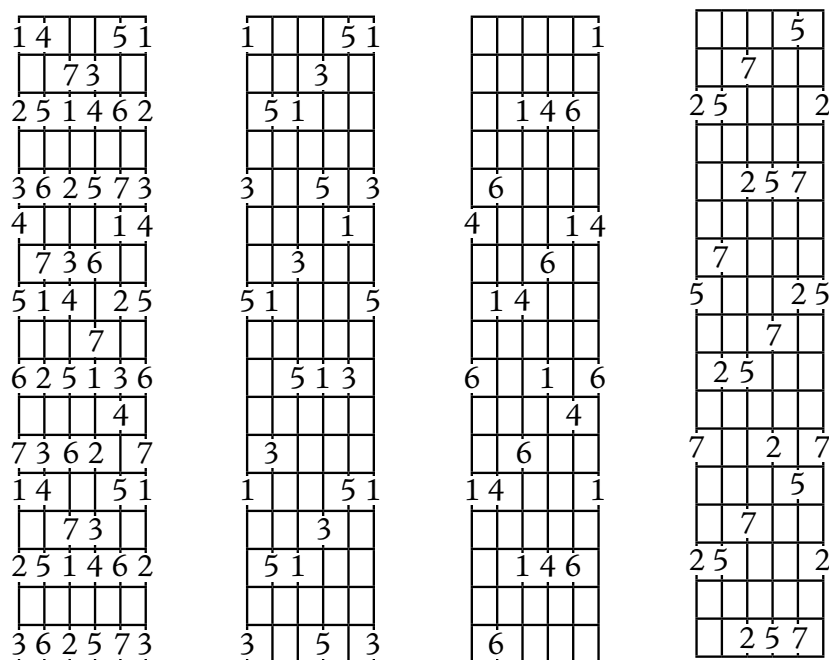
combine the seven notes on strings 6-5 & 4-3 and the eight notes on strings 2-1

The result shown below is the same as at the beginning of this section. The top row is numbered by scale tone and the bottom row is numbered by fretting fingers.

fingering 1 based on two- string fingering 1	fingering 2 based on two- string fingering 2	fingering 3 based on two- string fingering 3	fingering 4 based on two- string fingering 4	fingering 5 based on two- string fingering 5	fingering 6 based on two- string fingering 6	fingering 7 based on two- string fingering 7

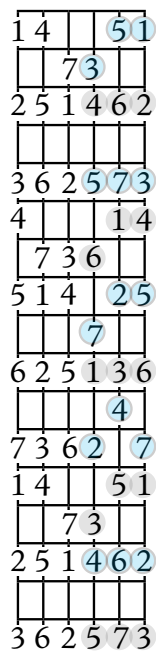
MAJOR SCALE-TONE TRIAD ARCS

See [Note Sets, Structures And Design/Triad Arcs](#) and [EdCage Movable Triads And Arcs](#).



MAJOR SCALE LINEAR TRIAD SUBSETS

See [Scale-Tone Triads Of Four Heptatonic Scales](#).



Voice Leading Improv with Arpeggio Cadences

- **Diatonic Voice Leading**
- **Graphically Voice Leading Improv with Arpeggio Cadences**
- **Modal Secondary Dominants**
- **Building Voice Leading with Secondary Dominants**

DIATONIC VOICE LEADING

Diatonic Defined

“Diatonos” was one of three tunings of the Greek lyre (the other two were chromatic [khrōmatikós] and enharmonic [enarmonikós]). Diatonos meant “through” (dia) “tone” (tonos). It referred to the use of what we now call the major scale to make music. The Greeks began a tradition of modes that lasted until 1600. With modes, any tone of the major scale can be a tone center. See [Modes and Voice Leading](#).

During the common practice period of classical music from 1600-1910, most music was composed with either the first step or the sixth step as a tone center. This is reflected in the major-minor key signature system. There has since been a misconception (or changed conception) as to what “diatonic” means. It is commonly thought to refer to a two-tone system with major (Ionian) or relative minor (Aeolian) as the possible modes. “Dia” means “through”, implying the relationship between two *or more* things. The term is not “duo-tonic”, which would imply two tone centers.

Diatonic Cadence Exercises

The diatonic cadences shown here involve chord root movement ascending in perfect fourths. This is the backbone of European church, classical, American ragtime, blues, jazz and popular music. These cadences sound simple, but don’t overlook them. They are the canvas on which you can paint your masterpiece. If you know the concrete diatonic cadences, you can learn to abstract them and build all the colorful things done with them in jazz.

The examples below use four of the six directional types of turnarounds. See [II-V-I Cadences and Turnarounds/Building Turnarounds/Six Directional Types of Turnarounds](#).

[click here to play a video of the exercises below](#)

Tablature is not provided for these exercises. If you do not read standard notation, this may be a good time to start. If necessary, see Reading Notation/[Reading Standard Music Notation](#). Use major scale fingerings shown in [Prime Scales, Chords and Arpeggios/Major Scale Fingering](#). Once you can read them as they are written in the key of C, you can play them by fingering pattern and by scale-tone number, moving up or down the fretboard to different keys.

C major scale-tone arpeggio cadences, up-down from the root

♩ = 100

0 Bm7(b5) Em7 1 Am7 Dm7 2 G7 Cmaj7 3 Fmaj7 Bm7(b5) 4 Em7 Am7

5 Dm7 G7 6 Cmaj7 Fmaj7 7 Bm7(b5) Em7 8 Am7 Dm7 9 G7 Cmaj7

10 Fmaj7 Bm7(b5) 11 Em7 Am7 12 Dm7 G7 13 Cmaj7 Fmaj7 14 Bm7(b5) Em7 15 Am7

C major scale-tone arpeggio cadences, down-up from the root

0 Bm7(b5) Em7 1 Am7 Dm7 2 G7 Cmaj7 3 Fmaj7 Bm7(b5) 4 Em7 Am7

5 Dm7 G7 6 Cmaj7 Fmaj7 7 Bm7(b5) Em7 8 Am7 Dm7 9 G7 Cmaj7

10 Fmaj7 Bm7(b5) 11 Em7 Am7 12 Dm7 G7 13 Cmaj7 Fmaj7 14 Bm7(b5) Em7 15 Am7

C major scale-tone arpeggio cadences, up-down from the third

0 G⁷ C^{maj7} 1 F^{maj7} Bm^{7(b5)} 2 Em⁷ Am⁷ 3 Dm⁷ G⁷ 4 C^{maj7} F^{maj7}

5 Bm^{7(b5)} Em⁷ 6 Am⁷ Dm⁷ 7 G⁷ C^{maj7} 8 F^{maj7} Bm^{7(b5)} 9 Em⁷ Am⁷

10 Dm⁷ G⁷ 11 C^{maj7} F^{maj7} 12 Bm^{7(b5)} Em⁷ 13 Am⁷ Dm⁷ 14 G⁷ C^{maj7} 15 F^{maj7}

C major scale-tone arpeggio cadences, down-up from the third

0 G⁷ C^{maj7} 1 F^{maj7} Bm^{7(b5)} 2 Em⁷ Am⁷ 3 Dm⁷ G⁷ 4 C^{maj7} F^{maj7}

5 Bm^{7(b5)} Em⁷ 6 Am⁷ Dm⁷ 7 G⁷ C^{maj7} 8 F^{maj7} Bm^{7(b5)} 9 Em⁷ Am⁷

10 Dm⁷ G⁷ 11 C^{maj7} F^{maj7} 12 Bm^{7(b5)} Em⁷ 13 Am⁷ Dm⁷ 14 G⁷ C^{maj7} 15 F^{maj7}

C major scale-tone arpeggio cadences, up-down from the fifth

16 Dm⁷ G⁷ 17 Cmaj⁷ Fmaj⁷ 18 Bm⁷(b⁵) Em⁷ 19 Am⁷ Dm⁷ 20 G⁷ Cmaj⁷

21 Fmaj⁷ Bm⁷(b⁵) 22 Em⁷ Am⁷ 23 Dm⁷ G⁷ 24 Cmaj⁷ Fmaj⁷ 25 Bm⁷(b⁵) Em⁷

26 Am⁷ Dm⁷ 27 G⁷ Cmaj⁷ 28 Fmaj⁷ Bm⁷(b⁵) 29 Em⁷ Am⁷ 30 Dm⁷ G⁷ 31 Cmaj⁷

C major scale-tone arpeggio cadences, down-up from the fifth

32 Dm⁷ G⁷ 33 Cmaj⁷ Fmaj⁷ 34 Bm⁷(b⁵) Em⁷ 35 Am⁷ Dm⁷ 36 G⁷ Cmaj⁷

37 Fmaj⁷ Bm⁷(b⁵) 38 Em⁷ Am⁷ 39 Dm⁷ G⁷ 40 Cmaj⁷ Fmaj⁷ 41 Bm⁷(b⁵) Em⁷

42 Am⁷ Dm⁷ 43 G⁷ Cmaj⁷ 44 Fmaj⁷ Bm⁷(b⁵) 45 Em⁷ Am⁷ 46 Dm⁷ G⁷ 47 Cmaj⁷

C major scale-tone arpeggio cadences, up-down from the seventh

48 Bm7(b5) Em7 49 Am7 Dm7 50 G7 Cmaj7 51 Fmaj7 Bm7(b5) 52 Em7 Am7

53 Dm7 G7 54 Cmaj7 Fmaj7 55 Bm7(b5) Em7 56 Am7 Dm7 57 G7 Cmaj7

58 Fmaj7 Bm7(b5) 59 Em7 Am7 60 Dm7 G7 61 Cmaj7 Fmaj7 62 Bm7(b5) Em7 63 Am7

The musical notation shows three staves of music. The first staff contains measures 48-52, the second staff contains measures 53-57, and the third staff contains measures 58-63. Each measure is labeled with a chord name above it. The notation uses a treble clef and a key signature of one flat (Bb). The music consists of eighth-note arpeggios for each chord, with a repeat sign at the beginning of measure 49 and a double bar line at the end of measure 63.

C major scale-tone arpeggio cadences, down-up from the seventh

64 Bm7(b5) Em7 65 Am7 Dm7 66 G7 Cmaj7 67 Fmaj7 Bm7(b5) 68 Em7 Am7

69 Dm7 G7 70 Cmaj7 Fmaj7 71 Bm7(b5) Em7 72 Am7 Dm7 73 G7 Cmaj7

74 Fmaj7 Bm7(b5) 75 Em7 Am7 76 Dm7 G7 77 Cmaj7 Fmaj7 78 Bm7(b5) Em7 79 Am7

The musical notation shows three staves of music. The first staff contains measures 64-68, the second staff contains measures 69-73, and the third staff contains measures 74-79. Each measure is labeled with a chord name above it. The notation uses a treble clef and a key signature of one flat (Bb). The music consists of eighth-note arpeggios for each chord, with a repeat sign at the beginning of measure 65 and a double bar line at the end of measure 79.

GRAPHICALLY VOICE LEADING IMPROV WITH ARPEGGIO CADENCES

Also see the chapter [Voice Leading](#).

Driving Your Improv with Your Vocal-Compositional Imagination

Guitarists need to base their improvisation on their vocal/compositional imagination. A well-exercised and free musical imagination is very powerful. You've probably heard enough music to can extend ideas you've heard, if you can find what you're hearing on the guitar.

That's the challenge. You need to find what you're hearing on the guitar without moving your primary focus to the guitar. Your attention needs to stay on your imagination and the graphics on the guitar must be secondary.

Imagine Melody while Using the Graphic Context

A good exercise is to play a few consecutive notes of a scale while duplicating them with your voice. While repeating the notes, ascending and descending, gradually decrease your pressure on fretting the notes and pick or pluck softer and softer until you are still singing, but gesturing the notes in "air guitar" fashion. Then try to conjure up some order of the notes into a melodic theme in your mind and sing what you have come up with. Next, teach yourself the part on the guitar, being careful to keep the focus on your voice and your imagination.

You'll get better and better at imagining the sounds of scales and arpeggios until you won't need to sound them. Imagine being somewhere without a guitar and playing it in your mind. It's difficult, but you can learn to do it.

Don't let the graphics of the guitar drive your melody. Drive your melody with your imagination and use the graphic view of the guitar as a tool to play what you hear.

Scale-Tone Triad Arpeggios in Stepwise Order, Numbered By Parent Major Scale (includes **secondary dominants**)

Memorize all these arpeggios in order for each octave shape and their options for secondary dominants to be an expert improviser. See [Stepwise Major Scale-Tone Seventh Arpeggios by Finger Number](#) for fingerings. In the diagrams below, seventh chord tones are black-backed. The alternate tones to make a secondary dominant (major or augmented) are gray-backed. I and IV triads are changed to augmented.

form	I major key #5 makes I augmented	II minor key #4 makes II major	III minor key #5 makes III major	IV major key #1 makes IV augmented	V major	VI minor key #1 makes VI major	VII diminished
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Triad Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale (includes **secondary dominants**)

Memorize all these arpeggios in order for each octave shape and their options for secondary dominants to be an expert improviser. See [Stepwise Major Scale-Tone Seventh Arpeggios by Finger Number](#) for fingerings. In the diagrams below, seventh chord tones are black-backed. The alternate tones to make a secondary dominant (major or augmented) are gray-backed. I and IV triads are changed to augmented.

form	VII diminished	III minor key #5 makes III major	VI minor key #1 makes VI major	II minor key #4 makes II major	V major	I major key #5 makes I augmented	IV major key #1 makes IV augmented
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Seventh Arpeggios in Stepwise Order, Numbered By Parent Major Scale (includes **secondary dominants**)

It is essential that you memorize all these arpeggios in order for each octave shape and their options for secondary dominants to be an expert improviser. See [Stepwise Major Scale-Tone Seventh Arpeggios by Finger Number](#) for fingerings. In the diagrams below, seventh chord tones are black-backed. The alternate tones to make a secondary dominant (dominant seventh with 1-3-5-b7) are gray-backed. To make a secondary dominant, use #5 instead of 5, #1 instead of 1, #4 instead of 4 or b7 instead of 7.

form	I^{ma}7 key b7 makes I7	II^m7 key #4 makes II7	III^m7 key #5 makes II7	IV^{ma}7 key b3 makes IV7	V7	VI^m7 key #1 makes VI7	VII^m7b5
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Seventh Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale (includes **secondary dominants**)

It is essential that you memorize all these arpeggios in order for each octave shape and their options for secondary dominants to be an expert improviser. See [Stepwise Major Scale-Tone Seventh Arpeggios by Finger Number](#) for fingerings. In the diagrams below, seventh chord tones are black-backed. The alternate tones to make a secondary dominant (dominant seventh with 1-3-5-b7) are gray-backed. To make a secondary dominant, use #5 instead of 5, #1 instead of 1, #4 instead of 4 or b7 instead of 7.

form	VIIIm7b5	IIIm7 key #5 makes II7	VIIm7 key #1 makes VI7	IIIm7 key #4 makes II7	V7	IIm7 key b7 makes I7	IVma7 key b3 makes IV7
E form parent							
D form parent							
C form parent							
A form parent							
G form parent							

Scale-Tone Ninth Arpeggios in Stepwise Order, Numbered By Parent Major Scale (includes **secondary dominants**)

Memorize these arpeggios in order for each octave shape and their options for secondary dominants to be an expert improviser. See [Scale-Tone Ninth Arpeggios in Stepwise Order](#) for fingerings. In the diagrams below, ninth chord tones are black-backed in one octave, gray-backed in the other(s). The alternate tones to make a secondary dominant ninth arpeggio are in a **felt marker** font. Note that the III chord does not have an acceptable minor ninth version and is 7b9 only. There is no useful ninth version for VII.

form	I ^{ma} 9 key b7 makes I ⁹	II ^m 9 key #4 makes II ⁹	III ^{7b9} with key #5	IV ^{ma} 9 key b3 makes IV ⁹	V ⁹	VI ^m 9 key #1 makes VI ⁹
E form parent						
D form parent						
C form parent						
A form parent						
G form parent						

Scale-Tone Ninth Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale (includes **secondary dominants**)

Memorize these arpeggios in order for each octave shape and their options for secondary dominants to be an expert improviser. See [Scale-Tone Ninth Arpeggios in Stepwise Order](#) for fingerings. In the diagrams below, ninth chord tones are black-backed in one octave, gray-backed in the other(s). The alternate tones to make a secondary dominant ninth arpeggio are in a **felt marker** font. Note that the III chord does not have an acceptable minor ninth version and is 7b9 only. There is no useful ninth version for VII.

form	III7b9 with key #5	VIIm9 key #1 makes VI9	IIIm9 key #4 makes II9	V9	IIma9 key b7 makes I9	IVma9 key b3 makes IV9
E form parent						
D form parent						
C form parent						
A form parent						
G form parent						

Four-Note Linear Arpeggios on Three Strings

Four-note linear arpeggios usually bridge three consecutive strings (occasionally two and rarely four).

Visualize the Target Tone

Visualize the target chord on the fretboard (the triad is best) and choose a target tone from it to begin the next chord from. The interval between the setup tone and the target tone that begins the next chord should usually be a minor third or less.

Begin with Core Melody

Start by using four-note-per-chord core melody. Rules are similar for three-note-per-chord core melody.

Free-Form with Skips and Whimsical Order

use skips up to a sixth

Use a skip up to an interval of a sixth to the setup tone neighbor of the target tone. The exception is the interval from the setup tone to the target tone, which is usually a minor third or less.

chord tones in whimsical order

Chord tones of each chord may be in whimsical order, involving skips.

resolving each chord tone as a setup tone to its target tone

A setup tone fifth or seventh resolves up or down. A setup tone root or third needs a substitute tone to avoid redundancy.

MODAL SECONDARY DOMINANTS

Specifically “Major Scale Modal” Dominants

Modes can be conceived in harmonic minor, melodic minor or Aeolian major (major flat six) scales, but this section is showing modal secondary dominant of the major scale. Each mode of the major scale is converted to a scale that includes a dominant seventh, except Mixolydian, which already contains a dominant seventh.

only change the necessary tones

In changing each mode of the major scale into a major scale modal dominant scale type, only change the necessary notes to include a dominant seventh chord. See the table below. A modal V type is a secondary dominant built on the fifth step of the target chord.

major scale modal dominant scales to be used as secondary dominants (modal V types)

target →	I	II	III	IV	V	VI
major modal V type	V Mixolydian	VI Aeol. dom.	VII Phry. dom.	I Mixolydian	II Mixolydian	III Phry. dom.
key scale	I major	I major #1	I Lydian #2	I Mixolydian	I Lydian	I major #5

Fingering Modal Secondary Dominants

E form for the key on I

target →	I _{ma} 7	II _m 7	III _m 7	IV _{ma} 7	V7	VI _m 7
setup: major modal V type (shown in the key of V)	V Mixolydian 	VI Aeol. dom. 	VII Phry. dom. 	I Mixolydian 	II Mixolydian 	III Phry. dom.
setup: key scale for secondary dominant (shown in the key of I)	V7 & I major 	VI7 & I major #1 	VII7 & I Lydian #2 	I7 & I Mixolydian 	II7 & I Lydian 	III7 & I major #5

D form for the key on I

target →	<p>Ima7</p>	<p>IIm7</p>	<p>IIIm7</p>	<p>IVma7</p>	<p>V7</p>	<p>VIIm7</p>
setup: major modal V type (shown in the key of V)	<p>V Mixolydian</p>	<p>VI Aeol. dom.</p>	<p>VII Phry. dom.</p>	<p>I Mixolydian</p>	<p>II Mixolydian</p>	<p>III Phry. dom.</p>
setup: key scale for <i>secondary dominant</i> (shown in the key of I)	<p>V7 & I major</p>	<p>VI7 & I major #1</p>	<p>VII7 & I Lydian #2</p>	<p>I7 & I Mixolydian</p>	<p>II7 & I Lydian</p>	<p>III7 & I major #5</p>

C form for the key on I

target →	<p>Ima7</p>	<p>IIm7</p>	<p>IIIm7</p>	<p>IVma7</p>	<p>V7</p>	<p>VIIm7</p>
setup: major modal V type (shown in the key of V)	<p>V Mixolydian</p>	<p>VI Aeol. dom.</p>	<p>VII Phry. dom.</p>	<p>I Mixolydian</p>	<p>II Mixolydian</p>	<p>III Phry. dom.</p>
setup: key scale for <i>secondary dominant</i> (shown in the key of I)	<p>V7 & I major</p>	<p>VI7 & I major #1</p>	<p>VII7 & I Lydian #2</p>	<p>I7 & I Mixolydian</p>	<p>II7 & I Lydian</p>	<p>III7 & I major #5</p>

A form for the key on I

target →						
setup: major modal V type (shown in the key of V)	V Mixolydian	VI Aeol. dom.	VII Phry. dom.	I Mixolydian	II Mixolydian	III Phry. dom.
setup: key scale for secondary dominant (shown in the key of I)	V7 & I major	VI7 & I major #1	VII7 & I Lydian #2	I7 & I Mixolydian	II7 & I Lydian	III7 & I major #5

G form for the key on I

target →						
setup: major modal V type (shown in the key of V)	V Mixolydian	VI Aeol. dom.	VII Phry. dom.	I Mixolydian	II Mixolydian	III Phry. dom.
setup: key scale for secondary dominant (shown in the key of I)	V7 & I major	VI7 & I major #1	VII7 & I Lydian #2	I7 & I Mixolydian	II7 & I Lydian	III7 & I major #5

Modal Secondary Dominant Exercise - V7 of Target Arpeggio

Tablature is not provided for these exercises. If you do not read standard notation, this may be a good time to start. If necessary, see [Reading Notation/Reading Standard Music Notation](#). Use major scale fingerings in [Prime Scales, Chords and Arpeggios/Major Scale Fingering](#). Once you can read them as they are written in the key of C, you can play them by fingering pattern and by scale-tone number, moving up or down the fretboard to different keys.

[click here to play a video of the exercise](#)

modal secondary dominants, up-down from the root

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm^{7(b5)} B⁷ 7 Em⁷ E⁷ 8 Am⁷ E^{7(♯9)} 9 Am⁷

modal secondary dominants, down-up from the root

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm^{7(b5)} B⁷ 7 Em⁷ E⁷ 8 Am⁷ E^{7(♯9)} 9 Am⁷

modal secondary dominants, up-down from the third

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

modal secondary dominants, down-up from the third

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

modal secondary dominants, up-down from the fifth

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

modal secondary dominants, down-up from the fifth

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm^{7(b5)} B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

modal secondary dominants, up-down from the flatted seventh

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm^{7(b5)} B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

modal secondary dominants, down-up from the flatted seventh

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm^{7(b5)} B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

BUILDING VOICE LEADING WITH **SECONDARY DOMINANTS**

Start with Simple Core Melody

Core melody with [voice leading](#) builds the foundation of melody. If the chord durations are two to four beats each, begin by choosing one note per chord. Core melody can be elaborated through each of the steps from a triad to two notes, three or four notes, then further elaborated to full composed or improvised melody, but let's start by studying simple core melody with one note per chord.

key scale numbers

It's usually best to think core melody [voice leading](#) in terms of key scale numbers. In most cases, you will be voice leading scale-tone chords or secondary dominants (see [Secondary Dominant/Scale-Tone Secondary Dominants](#)).

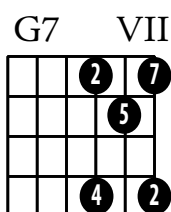
When using a [flat five substitute](#), it is usually a bII Lydian dominant and can be thought in terms of it's scalar synonym V super Locrian, to think in key scale.

keep the number of notes in mind for each chord down to three to five notes

Follow George A. Miller's chunking principle (expressed in his 1956 paper "The Magical Number Seven, Plus or Minus Two: Some Limits on Our Capacity for Processing Information"). The average person can memorize a set of around seven characters or items, a "chunk" of seven items. Due to the elements of which string and which fret, each note is a pair of numbers (third string, seventh fret). In a sense, each note is a "chunk" of two items, the string and fret. So, we should keep the number of notes down five or less.

graphic visualization

We do also have the graphic image of the notes, which may include other helpful elements such as the triangle shape on the top of the G7 arpeggio shown below. In the same G7, the pair of notes on the first and third strings are on the same frets. Though it is better to know the key scale number for each chord tone, having an arpeggio memorized by its graphic image (visualizing a chord style diagram) can be very effective.



Core Melody **Voice Leading** for V-I

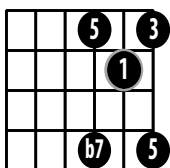
G7 to C6 in the VII position area - [click to play video](#)

V7 of C by key scale (5-7-2-4)

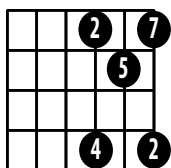
V7 of C by key scale (1-3-5-b7)

I6 of C by key scale (1-3-5-6)
(same numbers for chord scale)

G7 VII



G7 VII



C6 VIII

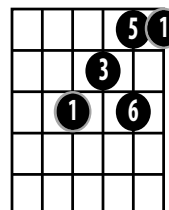


Diagram illustrating a core melody voice leading exercise for G7 to C6 in the VII position area, showing four measures of music with key scale tones and fret numbers.

Measure 1: G7. Key scale tones: 7, 1. Fret numbers: 7, 8.

Measure 2: C6. Key scale tones: 7, 5, 4, 7, 1, 3. Fret numbers: 7, 8, 10, 9.

Measure 3: G7. Key scale tones: 2, 5. Fret numbers: 10, 8.

Measure 4: C6. Key scale tones: 7, 1, 2, 1, 7, 6, 5, 1. Fret numbers: 10, 8, 10, 8, 7, 10, 8, 8.

Core Melody **Voice Leading** for Major II-V-I

Each example below shows a simple core melody of one note per chord, then an elaboration. The first elaboration (in bar three) was chord tones (numbered by key scale). The second elaboration (in bar four) was scale tones in addition to chord tones (numbered by key scale).

Core Melody **Voice Leading** for Minor II-V-I

Core Melody **Voice Leading** for Major I-VI-II-V-I

Voice Leading the Last Tone of the V7 Setup Arpeggio or Scale

number the tones in terms of the target I chord key

With a little initial memorization, this makes voice leading much more straightforward. The root, third, fifth and flatted seventh of the V7 setup chord are respectively 5-7-2-4 in the key of the target I chord.

the root of the V7 setup ("5" in the key of the target) is skipped and resolves with scalar encircling

The root of the V type setup chord is the same note as the fifth of the target I chord. Whether ascending or descending, if the last tone would be the root of the setup chord, it is the fifth of the target chord and would cause redundancy. Skip key "5", pass it by one tone, then turn back and resolve it ("5" in the key of the target I chord).

the third of the V7 setup ("7" in the key of the target) resolves up to the root of the target

Whether ascending or descending, if the last setup tone is the third of the V7 chord ("7" of the key), resolve up to the root of the target I chord.

the fifth of the V7 setup ("2" in the key of the target) resolves to the root or third of the target

Whether ascending or descending, if the last setup tone the fifth of the V7 chord ("2" of the key), , resolve down to the root or up to the third of the target I chord.

the flatted seventh of the V7 setup ("4" in the of key the target) resolves to the third or fifth of the target

Whether ascending or descending, if the last setup tone the flatted seventh of the V7 chord ("4" of the key), resolve down to the third or up to the fifth of the target I chord.

the ninth or flatted ninth of the V7 setup ("6" or "b6" In the target's key) resolves down to the fifth of the target

The ninth or flatted ninth can be added to the V7 setup chord, making V9 or V7b9, respectively. Nine and flat nine of the setup V chord are the sixth or flatted sixth in the key of the target I chord. Whether ascending or descending, if the last setup tone is the ninth or flatted ninth of the V7 setup chord ("6" or "b6" in the key of the target I chord), you can resolve down to the fifth of the target I chord.

the ninth of the V7 setup ("6" in the key of the target) resolves up to the root of the target

The ninth (not the flatted ninth) as an added to the V7 setup chord, making V9 chord is the sixth of the target I chord. Whether ascending or descending, if the last setup tone is the ninth of the V7 setup

chord (“4” of the key), you can resolve up to the root of the target I chord. This larger minor third interval from the sixth to the root of the target I chord is common to swing and R&B. This sixth is referred to as a low sixth in this relationship.

Voice Leading the V7 Secondary Dominant Arpeggio

The tones of the V7 chord are 5-7-2-4, in terms of the target I chord key. Typical four-note sequences of the V7 arpeggio tones, with those numbers, are shown below in the far left column.

ascending tones in the key of the target I chord	descending order, key of I	numbered tones in the key of the V7 chord	letter names for the target key of C
5-7-2-4	4-2-7-5	1-3-5-b7	C-E-G-Bb
7-2-4-5	5-4-2-7	3-5-b7-1	E-G-Bb-C
2-4-5-7	7-5-4-2	5-b7-1-3	G-Bb-C-E
4-5-7-2	2-7-5-4	b7-1-3-5	Bb-C-E-G

Voice Leading Eight-Note Scalar Cadences with Secondary Dominants

Once you are accustomed to playing eight-note scalar cadences, you can build more interesting phrases by omitting some of the first notes and varying the rhythm. See [Modal II-V-I Cadences and Turnarounds/ Favored Turnarounds/ Favored Four-Note Rhythms for the First Chord in a Turnaround](#) and [Triplet Rhythms for Any Chord in a II-V-I Cadence](#).

This same voice leading strategy will be used for scalar cadences with Harmonic V Type Secondary Dominant. See [Voice Leading Eight-Note Scalar Cadences with Harmonic Minor V Type Secondary Dominants](#).

using setup chord with eight linear heptatonic (seven-tone) scale tones

The voice leading is straight forward with eight linear (ascending or descending without skips) of a seven-tone scale. The first note is the same as the last note, so it is relatively easy to think the voice leading as described earlier in [Voice Leading the Last Tone of the V7 Setup Arpeggio or Scale](#). The chord scale for the setup chord includes the tones of the seventh chord. Use eight linear setup chord scale tones (eighths at a fast tempo or sixteenths at a slow tempo) to represent the setup chord. Linear scale tones ascend or descend the scale by step, without skips.

Play the eight linear heptatonic (7 tone scale) setup tones in the last half of the bar preceding the target. With an octave of linear notes as a setup to target chord triad tones the root of the setup is to only tone common to the target triad.

Voice Leading Four-Note Scalar Cadences with Secondary Dominants

The chord scale for the setup chord includes the tones of the seventh chord. Use eighth notes at a fast tempo or sixteenth notes at a slow tempo. Play them during the last beat or two of the bar preceding the target I chord.

ascend 1-2-3-5 from the root, third or fifth of the V chord, resolve up or down

Ascend 1-2-3-5 from the root of the V chord, then resolve down to the root of the target I chord or up to the third of the target I chord. Ascend 1-2-3-5 from the third of the V chord, then resolve down to the third of the target I chord or up to the fifth of the target I chord. Ascend 1-2-3-5 from the fifth of the V chord, then resolve down to the fifth of the target I chord or up to the seventh of the target I chord. If you resolve up to the seventh of the I chord, it helps to immediately continue down the I chord (at least to its fifth) or up the I chord (at least to its ninth),

descend linearly from any tone of the V7

Descending four tones from any tone in the V7 can resolve to a tone of the I seventh chord (Ima7, I7, Im7, whatever its type).

Voice Leading with Roots Up in Fourths, by Key Scale Number

target →	VII	III	VI	II	V	I	IV	VII	III	VI
diatonic stack	VII ^m 7b5 6 4 2 7	III ^m 7 2 7 5 3	VI ^m 7 5 3 1 6	II ^m 7 1 6 4 2	V7 4 2 7 5	I ^m a7 7 5 3 1	IV ^m a7 3 1 6 4	VII ^m 7b5 6 4 2 7	III ^m 7 2 7 5 3	VI ^m 7 5 3 1 6
modal dominant stack	VII7 6 <u>#4</u> <u>#2</u> 7	III7 2 7 <u>#5</u> 3	VI7 5 3 <u>#1</u> 6	II7 1 6 <u>#4</u> 2	V7 4 2 7 5	I7 <u>b7</u> 5 3 1	IV7 <u>b3</u> 1 6 4	VII7 6 <u>#4</u> <u>#2</u> 7	III7 2 7 <u>#5</u> 3	VI7 5 3 <u>#1</u> 6
notable	#2, #4	#5	#1	#4		b7	b3	#2, #4	#5	#1
har. min. V type dominant stack	VII7b9 1 6 <u>#4</u> <u>#2</u> 7	III7b9 4 2 7 <u>#5</u> 3	VI7b9 <u>b7</u> 5 3 <u>#1</u> 6	II7b9 <u>b3</u> 1 6 <u>#4</u> 2	V7b9 <u>b6</u> 4 2 7 5	I7b9 <u>b2</u> <u>b7</u> 5 3 1	IV7b9 <u>b5</u> <u>b3</u> 1 6 4	VII7b9 1 6 <u>#4</u> <u>#2</u> 7	III7b9 4 2 7 <u>#5</u> 3	VI7b9 <u>b7</u> 5 3 <u>#1</u> 6
notable	#2, #4	#5	#1, b7	#4, b3	b6	b7, b2	b3, b5	#2, #4	#5	#1, b7
super Locrian V7#5 type stack	n/a	III7#5 2 1 (#7) <u>#5</u> 3	VI7#5 5 4 (#3) <u>#1</u> 6	II7#5 1 #6 <u>#4</u> 2	V7#5 4 #2 7 5	I7#5 <u>b7</u> #5 3 1	IV7 #5 <u>b3</u> #1 6 4	n/a	III7#5 2 1 (#1) <u>#5</u> 3	VI7#5 5 4 (#3) <u>#1</u> 6
notable		#5, 1	#1, 4	#4, #6	#2	#5, b7	#1, b3		#5, 1	#1, 4
b5 sub	n/a	bVII	bIII	bVI	bII	bV	use IV ^m a7	n/a	bVII	bIII
bII7 Lydian dominant stack		<u>bVII7</u> <u>b6</u> 4 2 <u>b7</u>	bIII7 b2 b7 5 b3	bVI7 b5 b3 1 b6	bII7 7 (b1) b6 4 b2	bV7 3 (b4) b2 b7 b5	IV ^m a7 3 1 6 4		<u>bVII7</u> <u>b6</u> 4 2 <u>b7</u>	bIII7 b2 b7 5 b3
notable		b7, b6	b3, b7, b2	b6, b3, b5	b2, b6	b5, b7, b2			b7, b6	b3, b7, b2

Voice Leading Improv with Substitute Chords

- **Substitute Progressions**
- **Substitutes with Pentatonic Scales and Modes**
- **Harmonic Minor V Type Secondary Dominant**
- **Flat Five Substitute of Secondary Dominant**
- **Super Locrian Type Secondary Dominant**
- ^ **Modal Chord Progression with Substitutes**
- **Major II-V-I with Substitutes**
- **Minor II-V-I with Substitutes**
- **I-VI-II-V with Substitutes**
- **VII-III-VI-II-V-I-IV with Substitutes**

SUBSTITUTE PROGRESSIONS

Building Melody By **Voice Leading** Substitute Arpeggios

Usually I and II chords are not changed. VI and V chords are usually substituted with either:

1. a harmonic minor V type of target (E7b9 to Am7; or G7b9 to C or to Cm)
2. a **flat five substitute** (Bb13#11 to Am7 or Db13#11 to C or to Cm)

Bebop Melodic Development:

do the following steps within a confined area on the fretboard:

1. Conceive substitute chords (re-harmonize) with **voice leading**, expressed in chord fingerings, commonly two beats per chord, especially for cadences. See [Substitution](#).
2. Decide on arpeggio and scale fingerings and memorize them (you need to the steps that follow below to make those decisions).
3. Make up a simple three or four-note thematic cell for each chord so the sequence of chord with their cells embody **voice leading** through the series of chords. See [Voice Leading](#).
4. Build two-bar core melody with two or four notes per chord with the cells (see the chapters [Core Melody Built with Duality Tones](#), [Core Melody with Baroque-Bebop Ornamentation](#)).
5. Decorate the cells with bebop ornamentation, scales or arpeggios.

Thinking Substitute in Key Scale

To be able to conceive good **voice leading**, it is essential to be able to think the scale you are using in key scale. For example, in the chord progression Ima7-VI7b9-IIIm7, you could play II harmonic minor during the VI7b9 chord, making it a V7b9 in the key of the II minor chord . By thinking of the II harmonic minor scale as a key scale #I Mixolydian (which has the same notes as II harmonic minor) you can recognize that scale tone “1” in the I chord can chromatically voice lead to “#1” in the VI7 chord. Also, “7” in the I chord can move chromatically down to “b7” in the VI7b9 chord and continue chromatically to the “6” of the key in the IIIm7 chord.

key scales for common secondary dominants and flat five substitutes

target →	I	II	III	IV	V	VI
major modal V type	V Mixolydian	VI Aeol. dom.	VII Phrygian dominant	I Mixolydian	II Mixolydian	III Phrygian dominant
key scale	I major	I major #1	I Lydian #2	I Mixolydian	I Lydian	I major #5
harmonic minor V type	V Phrygian dominant	VI Phrygian dominant	VII Phrygian dominant	I Phrygian dominant	II Phrygian dominant	III Phrygian dominant
key scale	I har. min.	I Mixo. #1	I Lydian #2	I Phry. dom.	I Dorian. #4	I major #5
bV substitute for V (bII of target)	bII Lydian dominant	bIII Lydian dominant	IV Lydian dominant	bV Lydian dominant	bVI Lydian dominant	bVII Lydian dominant
key scale	I Phrygian b1	I Dorian b2	I mel. min.	I super Locrian	I Aeolian b5	I Mixolydian b6
super Locrian V type	V super Locrian	VI super Locrian	VII super Locrian	I super Locrian	II super Locrian	III super Locrian
key scale	I Phrygian b1	I Dorian b2	I mel. min.	I super Locrian	I Aeolian b5	I Mixolydian b6

scale formulas

major	1-2-3-4-5-6-7	major #1	#1-2-3-4-5-6-7	major b3 (melodic minor)	1-2-b3-4-5-6-7	major #5	1-2-3-4-#5-6-7
Dorian	1-2-b3-4-5-6-b7	Dorian b2	1-b2-b3-4-5-6-b7	Dorian #4	1-2-b3-#4-5-6-b7	Dor. dom. (Mixolydian)	1-2-3-4-5-6-b7
Phrygian	1-b2-b3-4-5-b6-b7	Phrygian dominant	1-b2-3-4-5-b6-b7	Phrygian b1	1-b2-b3-4-5-b6-b7	super Phrygian	1-b2-b3-b4-5-b6-b7
Lydian	1-2-3-#4-5-6-7	Lydian dominant	1-2-3-#4-5-6-b7				
Mixolydian	1-2-3-4-5-6-b7	Mixolydian #1	#1-2-3-4-5-6-b7				
Aeolian	1-2-b3-4-5-b6-b7	Aeolian natural 7 (harmonic minor)	1-2-b3-4-5-b6-7	Aeolian b5	1-2-b3-4-b5-b6-b7	Aeolian dominant	1-2-3-4-5-b6-b7
Locrian	1-b2-b3-4-b5-b6-b7	super Locrian	1-b2-b3-b4-b5-b6-b7				
melodic minor (major b3)	1-2-b3-4-5-6-7						

Replacing Or Playing With?

when you replace, a substitute chord replaces the original accompaniment chord

When you *replace* a chord with a substitute, the substitute chord replaces the original accompaniment chord *and* the substitute chord is used in the improvised melody. If the original chords were Cma7-Am7-Dm7-G7-Cma7 and you replaced the Am7 with A7b9, making Cma7-A7b9-Dm7-G7-Cma7. The accompaniment would play A7b9 as the second chord and you would melodically emphasize the tones of A7b9 during the A7b9 chord.

when you play a substitute chord with the original accompaniment chord

When you improvise melody to *represent a substitute chord along with the original chord*, both the original chord and its substitute can be heard. It is important that the original chord and its substitute are compatible. Chord synonyms have the same notes with a different name, such as B7b5 (B-D#-F-A) and F7b5 (F-A-Cb-Eb). Note that D# and Eb are enharmonically the same note and that B and Cb are enharmonically the same note. If improvised melody represents a synonym of the original chord, the melody is usually harmonically acceptable.

There are many cases where the substitute chord may clash with the original. For example, a [flat five substitute](#) is sometimes misused where the original chord is not a dominant seventh type chord, such as Dm7 in the key of C, and it is improved upon with a “flat five substitute”, which would be Ab7. An altered Ab7 could make acceptable altered synonyms of an altered D7 chord such as D7b5b9 (D-F#-Ab-C-Eb), where the altered Ab7 chord would be Ab7#11. Combining Dm7 in the accompaniment with Ab7#11 would be disastrous, unless at such a fast tempo that the harmonic mismatch was unnoticed.

use the [flat five substitute](#) correctly

Think of a flat five substitute as a *dominant flat five substitute*, implying that the chord being replaced (Dm7) should be a dominant chord. If you want to apply a flat five substitute to a minor or diminished chord, first change it to a dominant seventh in the accompaniment. Replace Dm7 with D7 in the accompaniment, then imply Ab7 (flat five substitute of D7) in the melody.

SUBSTITUTES WITH PENTATONIC SCALES AND MODES

	E form	D form	C form	A form	G form
I harmonic minor V7b9 root=black back VII dim7 is grey diminished fingering (finger numbers)	 fingering 3 	 fingering 1 	 fingering 2 	 fingering 2 	 fingering 3
bII Lydian dominant					
minor pentatonic elaborated to Aeolian					
minor pentatonic elaborated to Dorian					
major pentatonic elaborated to major (Ionian)					
major pentatonic elaborated to Mixolydian					

HARMONIC MINOR V TYPE SECONDARY DOMINANT

Using Diminished Seventh to Represent Harmonic Minor V Type Setup Chords

an easy way to get a sophisticated sound with diminished sevenths

This is a relatively easy way to get a sophisticated jazz sound with few fingerings. There are only three diminished seventh arpeggio fingerings for all keys. Take advantage of that by using diminished seventh built on the tone a half step (one fret) below the root of the target chord. Use a four-note diminished seventh arpeggio at the end of the bar preceding the target chord on beat one.

how this works

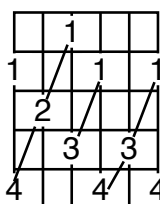
If C, Cma7 or Cm7 is your target chord, the setup chord that immediately precedes it can be a harmonic minor V type, G7b9. Without a root, a 7b9 chord (five notes) is a diminished seventh, which can be named after any of the tones in the diminished seventh, which are the third, fifth, flat seventh or flat nine of the G7b9. If you identify one note by name in a complete four-four-note diminished seventh chord fingering, you can name the remaining notes from the chord fingering.

the three in-position diminished seventh arpeggio fingerings

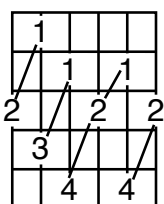
Use “chunking” by memorizing the groups of notes shown with diagonal lines in the diminished seventh ‘George A. Miller wrote “The Magical Number Seven, Plus or Minus Two”, which referred to the number of digits a human can typically memorize. This is why phone numbers have seven digits (though the phone number system was in place long before 1956).

His strategy was “chunking” items by grouping them according to commonality. This allows us to memorize more data. In this case, we are chunking notes of the arpeggios into diagonal two or three-note chords, so we memorize three or four chords and may need to add a single note or two.

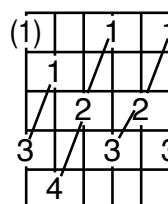
fingering 1



fingering 2



fingering 3



segue in and out with your existing style of improv

Start in 4/4, in eighths at a fast tempo (over 120 BPM, ideally starting around 180 BPM), start the four-note diminished seventh on beat three. Or, start in 4/4, in sixteenths at a slow tempo (under 120 BPM, ideally starting around 90 BPM).

Make a loop of a short chord progression. Determine a target chord. For example, play one bar of Em7 and one bar of B7. First improvise in your existing style. Next, work at playing continuous eighths or continuous sixteenths (as described in the paragraph above).

segue in to the turnaround

The “turnaround” is four notes of the setup VII dim. 7 at the end of the setup bar (B7) and four notes of the target on the first beat of the next bar (Em7). Play continuous eighths or sixteenths in the first half of the bar preceeding the target chord. Then play four ascending notes of the diminished seventh built a half step below your target at the end of the bar. If in 4/4 with eighth notes, play four eighths of the VII dim7 beginning on beat three. Continue with “segue out” below.

segue out of the turnaround

If in 4/4 with sixteenth notes, play four sixteenths of the VII dim7, beginning on beat four. On beat one of the next bar, continue playing at the same rhythmic level (eighths or sixteenths) and “segue out” into your existing improv.

turnaround designs

Two four-note arpeggios can form a turnaround by playing one of them at the end of a setup chord bar (BD#dim7 to represent B7) and another at the beginning of the target chord bar (Em7). The designs of these can be any of the following: up-down, down-up, up-up, down-down, up-continue up, - down-continue up. Up-down would be going up in pitch on the D#dim7 and down in pitch on the Em7. See [Fly Me to the Moon with Harmonic Minor V Secondary Dominants](#) the [video of the exercise](#) to study these designs.

Voice Leading the Harmonic Minor V7 Type Arpeggio

The same voice leading strategy can be used for harmonic minor V Type secondary dominant arpeggios as is described earlier in [Voice Leading the V7 Secondary Dominant Arpeggio](#). Use the root, fifth and flatted seventh of the harmonic minor V7b9 setup chord.

Voice Leading Eight-Note Scalar Cadences with Harmonic Minor V Type Secondary Dominants

The same eight-note voice leading strategy can be used for harmonic minor V Type secondary dominants as is described earlier in [Voice Leading Eight-Note Scalar Cadences with Secondary Dominants](#). Use the root, fifth and flatted seventh of the harmonic minor V7b9 setup chord.

Voice Leading Four-Note Scalar Cadences with Harmonic Minor V Type Secondary Dominants

The same four-note voice leading strategy can be used for harmonic minor V Type secondary dominants as is described earlier in [Voice Leading Four-Note Cadences with Secondary Dominants](#). Use the root, fifth and flatted seventh of the harmonic minor V7b9 setup chord.

Fingering Harmonic Minor V Secondary Dominant and Target Options

	I harmonic minor V7b9 root=black back VII dim7 is grey	major pentatonic Ionian	major pentatonic Mixolydian	minor pentatonic Dorian	minor pentatonic Aeolian
E form					
D form					
C form					
A form					
G form					

	c minor V7b9 root=black back VII dim7 is grey	Ima9/6 Ionian	I 13 Mixolydian	Im13 Dorian	Im11 Aeolian
E form					
D form					
C form					
A form					
G form					

Fly Me to the Moon with Harmonic Minor V Secondary Dominants

[click here to play a video of the exercise](#)

harmonic minor V type **secondary dominants**, up-down from the root

0 ♩ = 100

1 Am7 2 Dm7 3 G7 4 Cmaj7 5 Fmaj7

E7b9 A7b9 D7b9 G7b9 C7b9

2 3 2 1 3 1 3 1 2 1 1 4 2 1 3 1 3 1 1 1 4 3 1 1 2 4 1 3 4 2 1 3 2 3 2 3 3 4 2 1 4

6 Bm7(b5) 7 E7 8 Am7 9 Am7 10 Am7

Fma7 B7b9 E7b9 E7b9 E7b9

3 3 3 1 1 2 1 4 3 1 3 1 2 2 3 2 1 4 3 3 1 3 1 2 1 3 1 4 1 4 1 2 3 2 1 3 1 3 1 2

harmonic minor V type **secondary dominants**, down-up from the root

0 ♩ = 100

1 Am7 2 Dm7 3 G7 4 Cmaj7 5 Fmaj7

E7b9 A7b9 D7b9 G7b9 C7b9

9 10 7 9 6 7 10 9 8 10 11 8 9 11 7 10 8 7 8 10 7 9 9 10 7 10 8 9 10 7 9 10 8 9 11 8 9

6 Bm7(b5) 7 E7 8 Am7 9 Am7 10 Am7

Fma9 B7b9 E7b9 E7b9 E7b9

10 8 12 7 8 9 7 10 10 7 8 9 7 10 9 10 7 8 9 10 7 9 6 7 10 9 8 9 10 7 9 6 7 10 9 8

harmonic minor V type **secondary dominants**, up-down from the third

♩ = 100

0 1 Am7 2 Dm7 3 G7 4 Cmaj7

E7b9 A7b9 D7b9 G7b9 C7b9

5 Fmaj7 6 Bm7(b5) 7 E7 8 Am7 9 Am7

Fma9 B7b9 E7b9 E7b9

harmonic minor V type **secondary dominants**, down-up from the third

♩ = 100

0 1 Am7 2 Dm7 3 G7 4 Cmaj7

E7b9 A7b9 D7b9 G7b9 C7b9

5 Fmaj7 6 Bm7(b5) 7 E7 8 Am7 9 Am7

Fma9 B7b9 E7b9 E7b9

harmonic minor V type **secondary dominants**, up-down from the fifth

♩ = 100

0 1 Am7 2 Dm7 3 G7 4 Cmaj7

E7b9 A7b9 D7b9 G7b9 C7b9

5 Fmaj7 6 Bm7(b5) 7 E7 8 Am7 9 Am7

Fma9 B7b9 E7b9 E7b9

harmonic minor V type **secondary dominants**, down-up from the fifth

♩ = 100

0 1 Am7 2 Dm7 3 G7 4 Cmaj7

E7b9 A7b9 D7b9 G7b9 C7b9

5 Fmaj7 6 Bm7(b5) 7 E7 8 Am7 9 Am7

Fma9 B7b9 E7b9 E7b9

harmonic minor V type secondary dominants, up-down from the seventh

♩ = 100

1 Am7 2 Dm7 3 G7 4 Cmaj7 5 Fmaj7

E7b9 A7b9 D7b9 G7b9 C7b9

6 Bm7(b5) 7 E7 8 Am7 9 E7(#9) 10 Am7

Fma9 B7b9 E7b9 E7b9

harmonic minor V type secondary dominants, down-up from the seventh

♩ = 100

1 Am7 2 Dm7 3 G7 4 Cmaj7 5 Fmaj7

E7b9 A7b9 D7b9 G7b9 C7b9

6 Bm7(b5) 7 E7 8 Am7 9 E7(#9) 10 Am7

Fma9 B7b9 E7b9 E7b9

FLAT FIVE SUBSTITUTE OF SECONDARY DOMINANT

Building Turnarounds with Flat Five Substitute Arpeggios

The *dominant* is the fifth of a target. G7 is the dominant seventh of C (Cma7, C7, C6 or any type of C chord with a perfect fifth). The flat five substitute uses a dominant seventh on the flatted fifth of the dominant (flat five of five: Db is the flat five of G for the target chord C). The flat five of five is equivalent to flat two, which is easier to think on the fretboard. If the target is “C”, the flat five substitute of the dominant (G) is Db7.

Build dominant seventh arpeggios (Db7) to precede your target chord one fret above the root of the target chord. If C, Cma7 or Cm7 is your target chord, the setup chord that immediately precedes it can be a bII7 chord. Use only the F7 to E7 in this Flat Five Substitute exercise and figure out how to play the same notes in various positions.

Voice Leading the bII Arpeggio (the Flat Five Substitute)

Resolve by a small interval. Resolving to a triad tone of the target is dependable.

the root of the bII7 chord ascends 1-2-3-5 or descends 5-3-2-1 in bII Lydian dominant

Ascend up from the root or down to the root of the bII7 chord. Since the bII7 doesn't resolve well, use a 1-2-3-5 structure based on the root of the bII. Ascend 1-2-3-5 where “1” is the bII of the key. Or, descend 5-3-2-1, where “1” is the bII of the key. Db7 to C7 “melodic minor IV type secondary dominants up down (or down up) from the root” uses 1-2-3-5 on Db (Db-Eb-F-Ab) and resolves to a nearby triad tones of C major (C-E-G).

the third of the bII7 chord ascends the bII9 to the ninth, or descends the ninth of bII9 to the third

The third of the bII7 chord ascends a m7b5 from key 4 or descends m7b5 from key b3. Ascend up from the third or down to the third of the bII7 chord. Db9 to C9 “melodic minor IV type secondary dominants up down (or down up) from the third” uses a m7b5 on the third (F-Ab-Cb-Eb) and resolves to a nearby ninth chord tones of C9 (C-E-G-Bb-D).

the fifth of the bII7 chord: ascend or descend a minor sixth rooted on the fifth of bII9

Db7 to C7 “melodic minor IV type secondary dominants up down (or down up) from the fifth” uses a minor sixth arpeggio on the fifth of the Db7 setup chord (Ab-Cb-Eb-F on Db7) and resolves to a nearby triad tones of C major (C-E-G).

the flatted seventh of the bII chord: ascend or descend a ma7#5 arpeggio on the b7 of the bII chord

Db7 to C7 “melodic minor IV type secondary dominants up down (or down up) from the flatted seventh” uses a ma7#5 arpeggio on the flatted seventh of the setup chord (Cb-Eb-G-Bb on Db7) and resolves to a nearby triad tones of C major (C-E-G)

Voice Leading Eight-Note Scalar Cadences with Flat Five Substitutes

using setup chord with eight linear scale tones

The chord scale for the setup chord includes the tones of the bII seventh chord. Use eight linear Lydian dominant scale tones (eighths at a fast tempo or sixteenths at a slow tempo) to represent the setup chord. Linear scale tones ascend or descend the scale by step, without skips.

Play the eight linear Lydian dominant setup tones in the last half of the bar preceding the target. With an octave of linear notes as a setup to target chord triad tones the root of the setup is to only tone common to the target triad.

the root of the bII7 chord resolves down a half step, whether ascending or descending

Since you are playing the bII Lydian dominant scale for an octave, it will begin and end on the same note, the flat two of the target. So, whether ascending or descending, resolve down a half step to the root of the target I chord.

the third of the bII7 setup chord resolves up or down

The third of the bII7 chord is “4” in the target key. Whether ascending or descending the bII Lydian dominant setup scale, resolve down to the third of the target I chord or up to the fifth of the target I chord.

the fifth of the bII7 setup chord resolves down to the fifth of the target I chord

The fifth of the bII7 chord is “b6” in the target key. Whether ascending or descending the bII Lydian dominant setup scale, resolve down to the fifth of the target I chord.

the flatted seventh of the bII7 setup chord resolves up to the root of the target I chord

The flatted seventh of the bII7 chord is “7” in the target key. Whether ascending or descending resolve up to the root of the target I chord.

Fingering Flat Five Substitutes and Target Options

	bII Lydian dominant	Ima9/6 Ionian target	I 13 Mixolydian target	Im13 Dorian target	Im11 Aeolian target	V7b9 Phrygian major target
E form						
D form						
C form						
A form						
G form						

Flat Five Substitute Arpeggio Cadence Exercise - bII13#11 Of Target

[click here to play a video of the exercise](#)

melodic minor IV type secondary dominants, up-down from the root (1-2-3-5 of the root key)

0 ♩ = 100

1 Am7 A7 2 Dm7 D7 3 G7 4 Cmaj7 C7

5 Fmaj7 F7 6 E7 7 Am7 8 E7(#9) 9 Am7

bII13#11 flat five substitute, down-up from the root (1-2-3-5)

0 ♩ = 100

1 Am7 A7 2 Dm7 D7 3 G7 4 Cmaj7 C7

5 Fmaj7 F7 6 E7 7 Am7 8 E7(#9) 9 Am7

bII13#11 flat five substitute, up-down from the third (m7b5 on third)

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

B^b9 E^b7 A^b7 D^b7 G^b7

5 Fmaj⁷ F⁷ 6 E⁷ 7 Am⁷ 8 E⁷(#9) 9 Am⁷

F⁷ B^b9 B^b9

bII13#11 flat five substitute, down-up from the third (m7b5 on third)

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

B^b9 E^b7 A^b7 D^b7 G^b7

5 Fmaj⁷ F⁷ 6 E⁷ 7 Am⁷ 8 E⁷(#9) 9 Am⁷

F⁷ B^b9 B^b9

bII13#11 flat five substitute, up-down from the fifth (m6 on fifth)

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

B^b7 E^b7 A^b7 D^b7 G^b7

5 Fmaj⁷ F⁷ 6 E⁷ 7 Am⁷ 8 E⁷(#9) 9 Am⁷

F⁷ B^b7 B^b7

bII13#11 flat five substitute, down-up from the fifth (m6 on fifth)

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 E⁷ 7 Am⁷ 8 E⁷(#9) 9 Am⁷

bII13#11 flat five substitute, up-down from the flatted seventh (ma7#5 on flatted seventh)

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 E⁷ 7 Am⁷ 8 E⁷(#9) 9 Am⁷

bII13#11 flat five substitute, down-up from the flatted seventh (ma7#5 on flatted seventh)

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 E⁷ 7 Am⁷ 8 E⁷(#9) 9 Am⁷

SUPER LOCRIAN TYPE SECONDARY DOMINANT

Super Locrian V Type Is a Synonym for Flat Five Substitute

The harmonized V super Locrian scale is the V7#5b5#9b9 chord. The flat five substitute of that scale and chord is the bII Lydian dominant scale and its harmonized chord, bII13#11. These two scales share the same notes, so they are synonyms. Likewise, their harmonized versions, the V7#5b5#9b9 chord and the bII13#11 chord are synonyms. For a target C chord, its super Locrian scale is spelled G-Ab-Bb-Cb(B)-Db-Eb-F-G. The bII Lydian dominant scale for the key of C is spelled Db-Eb-F-G-Ab-Bb-Cb(B), which is the same notes.

Use Super Locrian For Scalar Cadences

Super Locrian is difficult to voice lead, because of its lack of regular alternating major and minor thirds and uncommon intervals, such as a whole step between three and flat five (three to five is usually a major or minor third). So, rather than breeching this unnessessary task, voice lead its synonym the bII Lydian dominant scale and its harmonized chord bII13#11.

To use super Locrian for linear scalar cadences (ascending or descending the scale without skips), voice lead its last tone before the target. More so than with other secondary dominant types, the scale passage can have any number of notes. You may be able to voice lead a super Locrian setup scale passage to a target I chord intuitively, but some of the resolutions will work better if you have memorized them. For example, ascending the super Locrian scale key scale “7” as the last note before a target I chord root is “chromatically crowded” and confusing to listen to. It would resolve better if you skipped key scale “7”, played key scale “b2”, then resolved to key scale “1” (the root of the target I chord).

Here is a table of the resolutions from the last note:

voice leading from the last note of of the setup chord

last tone of V super Locrian, numbered in the key of the I target chord	scalar encircling, numbered in the key of the I target chord	resolution in the I target chord, numbered in the key of the I target chord
5 (G in the key of C)	pass “5”, play “b6”, resolve to “5”	5
b6 (Ab in the key of C)		5
b7 (Bb in the key of C)		1
7 (=b1, B in the key of C)	skip “7”, go on to key “b2”, resolve to “1”.	1
b2 (Db in the key of C)		1
b3 (Eb in the key of C)		3
4 (F in the key of C)		3

Fingering Flat Five Substitutes and Target Options

V super Locrian
= I Phrygian b1
V7#5 = black

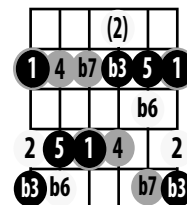
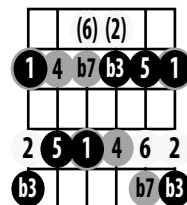
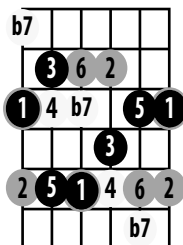
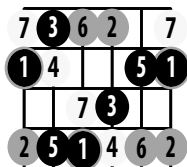
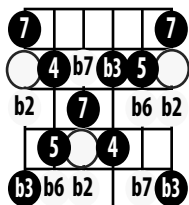
major pentatonic
Ionian

major pentatonic
Mixolydian

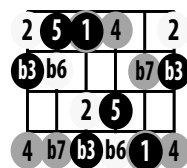
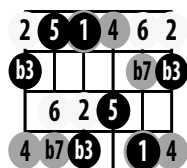
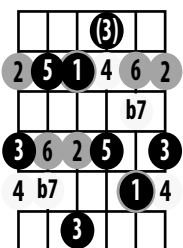
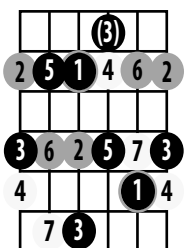
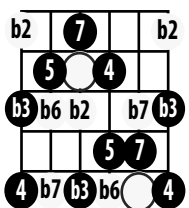
minor pentatonic
Dorian

minor pentatonic
Aeolian

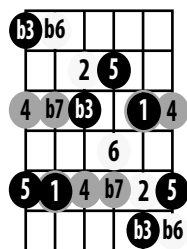
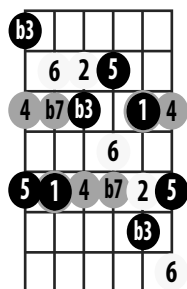
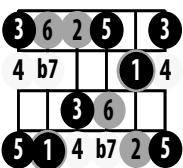
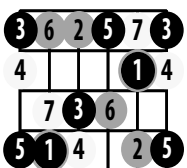
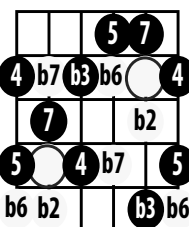
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form
target



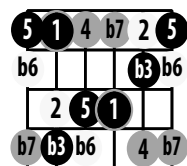
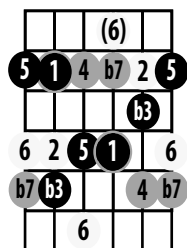
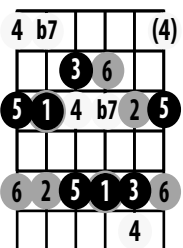
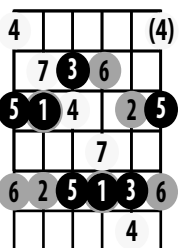
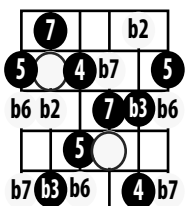
D
form
target



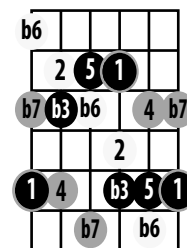
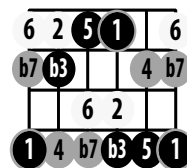
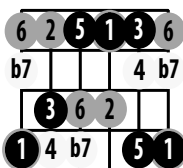
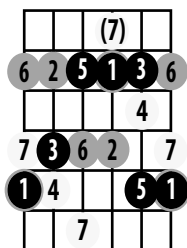
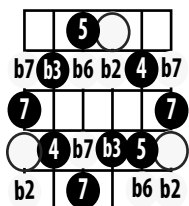
C
form
target



A
form
target



G
form
target



V super Locrian
= I Phrygian b1
V7#5 = black

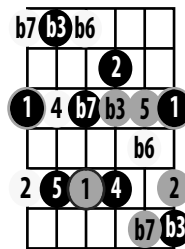
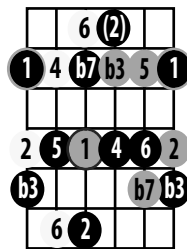
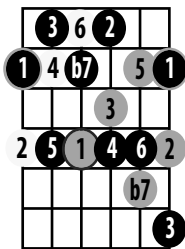
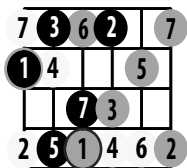
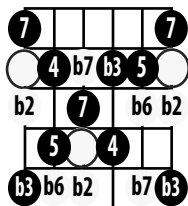
Ima9/6
Ionian
target

I 13
Mixolydian
target

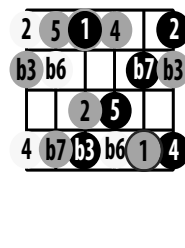
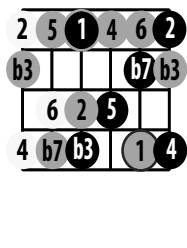
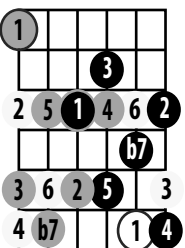
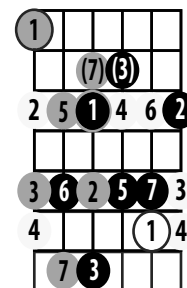
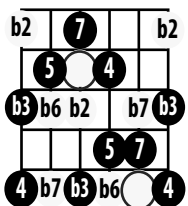
Im13
Dorian
target

Im11
Aeolian
target

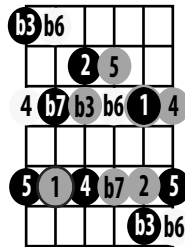
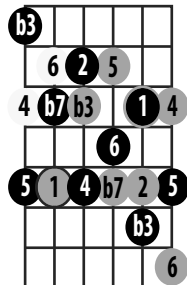
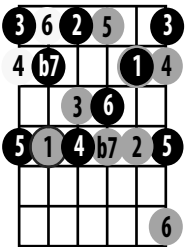
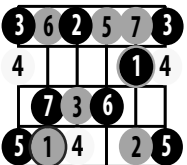
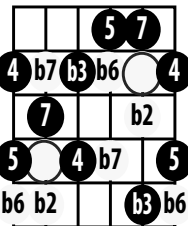
E
form
target



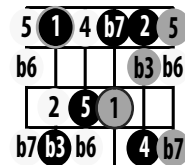
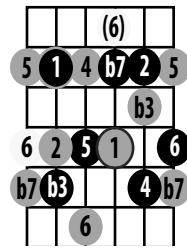
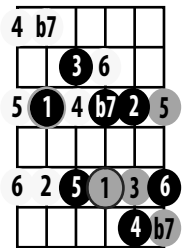
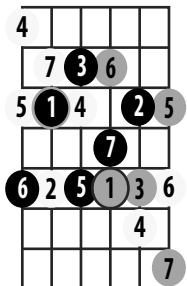
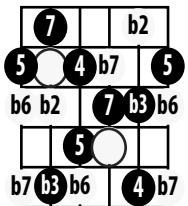
D
form
target



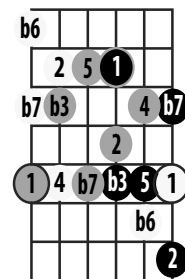
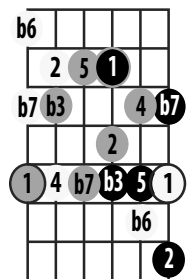
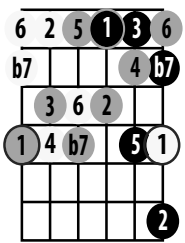
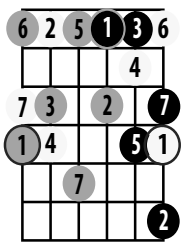
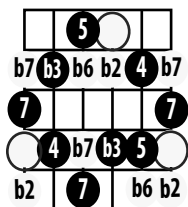
C
form
target



A
form
target



G
form
target



Super Locrian V Type Arpeggio Cadence Exercises - V7#5 Of Target

Tablature is not provided for these exercises. If you do not read standard notation, this may be a good time to start. If necessary, see [Reading Notation/Reading Standard Music Notation](#). Use major scale fingerings in [Prime Scales, Chords and Arpeggios/Major Scale Fingering](#). Once you can read them as they are written in the key of C, you can play them by fingering pattern and by scale-tone number, moving up or down the fretboard to different keys.

[click here to play a video of the exercise](#)

modal secondary dominants, up-down from the root

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

E⁷(#5) A⁷(#5) D⁷(#5) G⁷(#5) C⁷(#5)

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷ E⁷(#5)

F⁷(#5) B⁷(#5) E⁷(#5) E⁷(#5)

modal secondary dominants, down-up from the root

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

E⁷(#5) A⁷(#5) D⁷(#5) G⁷(#5) C⁷(#5)

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷ E⁷(#5)

F⁷(#5) B⁷(#5) E⁷(#5) E⁷(#5)

modal secondary dominants, up-down from the third

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

modal secondary dominants, down-up from the third

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

modal secondary dominants, up-down from the fifth

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

modal secondary dominants, down-up from the fifth

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

E⁷(#5) A⁷(#5) D⁷(#5) G⁷(#5) G⁷(#5)

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

F⁷(#5) B⁷(#5) E⁷(#5) E⁷(#5)

modal secondary dominants, up-down from the flatted seventh

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

E⁷(#5) A⁷(#5) D⁷(#5) G⁷(#5) G⁷(#5)

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

F⁷(#5) B⁷(#5) E⁷(#5) E⁷(#5)

modal secondary dominants, down-up from the flatted seventh

♩ = 100

0 Am⁷ E⁷ 1 Am⁷ A⁷ 2 Dm⁷ D⁷ 3 G⁷ 4 Cmaj⁷ C⁷

E⁷(#5) A⁷(#5) D⁷(#5) G⁷(#5) G⁷(#5)

5 Fmaj⁷ F⁷ 6 Bm⁷(b5) B⁷ 7 Em⁷ E⁷ 8 Am⁷ E⁷(#9) 9 Am⁷

F⁷(#5) B⁷(#5) E⁷(#5) E⁷(#5)

MODAL CHORD PROGRESSION WITH SUBSTITUTES

Afro Blue with Substitute Chords - [click to play video](#)

In this improv study, the Afro Blue chord progression is largely treated like a continuous Fm7 or Fm11 chord. The setup chords that lead into Fm are noted, which happen mostly in the second and fourth of each four bars, setting up the target Fm on the first beat of the third or first bar, respectively. Other melodic designs are used and are noted, such as the diminished scale with pairs of perfect fourths moving in minor thirds, the 1-2-3-5 fragment (a triad with neighbor) in perfect fourths, quartal harmony and quintal harmony. With Scale Ambiguity, F Aeolian predominates over F Dorian. Though the chords are from F Dorian, listeners are more familiar with F Aeolian. Care was taken to not sustain or otherwise overemphasize the "Db" note of F Aeolian during the G minor chord, which contains the "D natural" note.

The musical score is presented in four systems, each with a treble staff and a bass staff. Fingerings are indicated by numbers 1-5. Chord labels and melodic fragments are noted above the staves.

System 1 (Measures 1-4):

- Measures 1-2: Fm7, Gm7. Bass line: 1 3 3, 4 6.
- Measure 3: C7b9 (3 3 2 1), A♭maj7 (2 4 2 3 4 5).
- Measure 4: Gm7, Fm7. Bass line: 2 2, 3 3. Melodic fragment: G♭1235 (2 4 1 4).

System 2 (Measures 5-8):

- Measures 5-6: Fm7, Gm7. Bass line: 3 3 3 1 3 4 1 3 1, 5/6 5 3 5 6 3 5.
- Measure 7: A♭maj7, Gm7. Bass line: 1 1, 3 3 3 1 4 3 1 1.
- Measure 8: Fm7. Bass line: 1 4 3 2 1 3 3 2 1. Melodic fragment: C7b9 (3).

System 3 (Measures 9-12):

- Measures 9-10: Fm7, Gm7. Bass line: 1 3 1 3 1 2 3, 6 3 5 6 3.
- Measure 11: A♭maj7, Gm7. Bass line: 1 2 3 1, 3 1 4 1 1 2 1 4.
- Measure 12: Fm7. Bass line: 3 2 1 4 1 2 2 1 4. Melodic fragments: C7b9 no root = E dim 7, Db13, Eb maj. triad, E maj. triad.

System 4 (Measures 13-16):

- Measures 13-14: Fm7, Gm7. Bass line: 4 1 2 1 2 1, 1 4 3 1 4 2 4.
- Measure 15: A♭maj7, Gm7. Bass line: 2 4 1 2 3 1, 4 6 3 4 5 1.
- Measure 16: Fm7. Bass line: 3 3 3 0 0 0 1 1 1. Melodic fragment: Eb maj. triad = "top of Fm11" (3).

17 *Fm'* *Gm'* *A^bmaj'* *Gm'* *Fm'*

3 3 3 1 3 1 1 4 3 2 3 3 2 1 3 1 1 3 1 3 1 3 1 3 1 0 1 2 3 2 1 3 2

C7b9 no root = E dim 7 Gb9

3 3 3 1 3 1 1 3 3 2 3 6 5 3 6 3 4 6 4 6 4 6 4 5 3 0 2 3 4 3 2 5 4

21 *Fm⁷* *Gm⁷* *A^bmaj⁷* *Gm⁷* *Fm⁷*

E dim 7 Fm pent. with #4 chrom. Gb9#11

1 2 1 3 2 1 3 2 3 1 1 2 1 3 1 3 1 3 1 2 3 4 1 3 2 1 4 1

3 4 3 6 5 4 7 5 6 3 4 5 4 6 3 6 4 6 4 5 6 7 3 5 4 8 4

25 *Fm⁷* *Gm⁷* *A^bmaj⁷* *Gm⁷* *Fm⁷*

C w/h dim. perfect fourth pairs with E dim7 on the beat

1 1 3 3 1 3 1 3 1 1 3 4 1 3 1 3 1 2 3 2 3 2 2 1 1 3 3

6 6 8 8 6 8 6 8 6 6 8 6 8 6 5 6 8 7 8 7 7 5 5 8 8

29 *Fm⁷* *Gm⁷* *A^bmaj⁷* *Gm⁷* *Fm⁷*

C w/h dim. perfect fourth pairs with E dim7 on the beat

2 2 1 4 2 1 1 3 3 1 2 3 3 1 2 4 1 4 1 3 3 1 2 4

6 6 5 8 6 5 5 8 8 6 7 8 8 5 6 8 5 8 5 8 8 6 7 9

33 *Fm'* *Gm'* *A^bmaj'* *Gm'* *Fm'*

1 3 3 4 3 1 1 1 3 3 1 3 1 1 2 2 4 1 2 1 1 3 4 1 4 2

6 8 8 9 8 6 6 5 8 8 6 8 6 5 6 6 11 8 9 8 8 10 11

37

Fm7 Gm7 A \flat maj7 Gm7 Fm7

3 3

1 3 3 2 3 2 1 4 1 2 1 4 1

8 9 8 10 10 9 10 9 8 11 8 9 8 11 8

TAB

41

Fm7 Gm7 A \flat maj7 Gm7 Fm7

lower chrom. embellishment lower chrom. embellishment 3 tritone triads D and A \flat

2 1 2 2 4 2 1 4 1 2 1 4 3 1 1 3 4 2 1 4

13 12 13 13 15 13 13 16 13 14 13 16 15 13 12 15 12 11 14

TAB

45

Fm7 Gm7 A \flat maj7 Gm7 Fm7

tritone triads D and A \flat lower chrom. embellishment 1-2-3-5 up in perfect fourths tritone triads B and Fm

1 1 4 2 1 4 4 1 2 2 1 1 4 1 3 1 4 1 3 2 3 1 3 1 1

13 13 16 15 13 16 18 15 16 16 13 13 16 13 15 13 16 14 16 13 13

TAB

49

Fm7 Gm7 A \flat maj7 Gm7 Fm7

3 3 3 3 3 3 upward chromatic drift

1 3 1 3 1 1 1 4 1 2 1 3 2 1 4 1 1 4 3 1 1 1 1 2 1

13 15 13 15 13 13 12 15 12 13 12 15 14 13 11 13 8 6 10 8 8 9 9 12 11

TAB

53

Fm7 Gm7 A \flat maj7 Gm7 Fm7

upward chromatic drift quartal harmony quintal harmony *p*

2 4 1

12 15 11 13 13 12 11 11 10 9 9 8 8 6 6 4 8 6

TAB

MAJOR II-V-I WITH SUBSTITUTES

IIm7-bII7-I

Each of seventeen linear turnaround cells is demonstrated in this section with the six directional types of turnarounds, voice leading and, where applicable, shared-note redundancy. Each example features the turnaround cell of the IIm7 chord, voice leading to the bII7 chord, then the target I chord.

Here below, the seventeen linear cells are linked to the examples in this section *and* for the IIm7b5-bII7-Im section that follows. Number in parenthesis are [1-2-3-5 cells](#), except 5712 and 2715 are [1-3-4-5 cells](#).

major IIm7-bII7-I links			minor IIm7b5-bII7-Im links		
last note	up	down	last note	up	down
7	1357, (3457)	5317	7	1357, (3457)	5317
1	3571	7531	1	3571	7531
2	3572, (5672, 5712)		2	3572, (5672, 5712)	
3	5713	1753, 2753, (7543)	3	5713	1753, (7543)
5	7135, (1235)	3175, (2175, 2765)	5	7135, (1235)	3175

[click this link to play a video of this major II-V-I section](#)

abbreviations for the last setup chord tone

The abbreviations below are used for the last setup chord tone. See their description in [Shared Note Redundancy](#).

“SP” = sustain push

RP = rest push

UN = upper scale-tone neighbor

LN = lower scale-tone neighbor

PT = passing scale tone

LC = lower chromatic embellishment

PC = passing chromatic tone

blue = blue note

MINOR II-V-I WITH SUBSTITUTES

IIm7b5-bII7-I

Each of fourteen linear turnaround cells is demonstrated in this section with the six directional types of turnarounds, voice leading and, where applicable, shared-note redundancy. Each example features the turnaround cell of the IIm7b5 chord, voice leading to the bII7 chord, then the target I minor chord.

Here below, the seventeen linear cells are linked to the examples in this section *and* for the major IIm7-bII7-I section that preceded it. Number in parenthesis are [1-2-3-5 cells](#), except 5712 and 2715 are [1-3-4-5 cells](#).

major IIm7-bII7-I links			minor IIm7b5-bII7-I links		
last note	up	down	last note	up	down
7	1357, (3457)	5317	7	1357, (3457)	5317
1	3571	7531	1	3571	7531
2	3572, (5672, 5712)		2	3572, (5672, 5712)	
3	5713	1753, 2753, (7543)	3	5713	1753, (7543)
5	7135, (1235)	3175, (2175, 2765)	5	7135, (1235)	3175

[click this link to play a video of this major II-V-I section](#)

abbreviations for the last setup chord tone

The abbreviations below are used for the last setup chord tone. See their description in [Shared Note Redundancy](#).

“SP” = sustain push

RP = rest push

UN = upper scale-tone neighbor

LN = lower scale-tone neighbor

PT = passing scale tone

LC = lower chromatic embellishment

PC = passing chromatic tone

blue = blue note

I-VI-II-V WITH SUBSTITUTES

Decide on Ima7 type or I7 type for the “I” chord and use the appropriate table (Ima7 type or I7 type). Choose one chord from each category I, VI, II and V. Your choices don’t have to be in the same row.

Placement of Scales In Keys Other Than “I”

When arpeggios in this section use scales built on scale tones other than “I”, are numbered on the diagram in relation to the indicated tone. “bII Lydian dominant” in the key of C would be “Db Lydian dominant” and in the diagrams for it, Db is “1”.

placing Lydian dominant and its arpeggios on the fretboard

With bII Lydian dominant (in the “V” chord columns), determine “b2” of the key you are playing in. In the key of C, “b2” would be “Db”. Use these chord tones for each of the two bII Lydian dominant chord types:

column	chord name above diagram	use numbered chord tones on the diagram	scale name above the diagram	tone center number on the diagram	number for the root of chord on the diagram
VI	bIII7	1-3-5-b7	bIII Lydian dominant	1	1
VI	Vm7b5	3-5-b7-2	bIII Lydian dominant	1	3
column	chord name above diagram	use numbered chord tones on the diagram	scale name above the diagram	tone center number on the diagram	number for the root of chord on the diagram
V	bII7	1-3-5-b7	bII Lydian dominant	1	1
V	IVm7b5	3-5-b7-2	bII Lydian dominant	1	3

placing #1 half/whole diminished and its arpeggios on the fretboard

column	chord name above diagram	use numbered chord tones on the diagram	scale name above the diagram	tone center number on the diagram	number for the root of chord on the diagram
V	IIdim7	2-4-b6-7	“#1”half/whole diminished	#1	#1

I-VI-II-V Substitute: VIm7-bIIIdim7-IIIm7-IIIdim7 in Bb, E form

The examples start on bar 80. [Click here to play a video of the examples.](#)

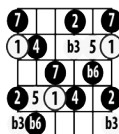
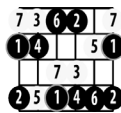
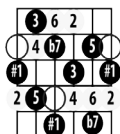
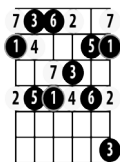
I-VI-II-V exercises in Bb (substituting VIm7-bIIIdim7-IIIm7-IIIdim7) - [click here to play a video](#)

substitute arpeggios
and scales

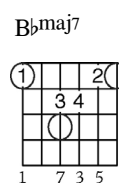
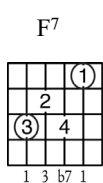
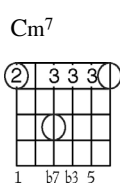
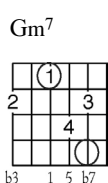
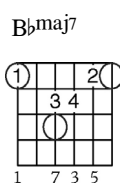
Gm7 Bdim7
Bb major scale Bb Mixo.#1

Cm7
Bb major

Cdim7
Bb har. min.



original chords



♩ = 150

Swing Eighth

Musical notation for I-VI-II-V exercise in Bb. The notation shows a sequence of chords: Bbmaj7, Gm7, Cm7, F7, Bbmaj7. The bass line is in 4/4 time, and the treble line is in 4/4 time. The tempo is 150 bpm, and the feel is Swing Eighth.

♩ = 150

full-range arpeggios for VIm7-bIIIdim7-IIIm7-IIIdim7, E form key

Musical notation for full-range arpeggios for VIm7-bIIIdim7-IIIm7-IIIdim7, E form key. The notation shows a sequence of chords: Gm7, Bdim7, Cm7, Bbmaj7. The bass line is in 12/8 time, and the treble line is in 12/8 time. The tempo is 150 bpm.

Musical notation for full-range arpeggios for VIm7-bIIIdim7-IIIm7-IIIdim7, E form key. The notation shows a sequence of chords: Cm9, C°7, Bbmaj7. The bass line is in 12/8 time, and the treble line is in 12/8 time. The tempo is 150 bpm.

"turnaround" voice leading for I-bII^{dim}7-II^m7-II^{dim}7

Swing Eighthths

up-down, from root of first chord

down-up, from root of first chord

♩ = 150

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

16

down-down, from root of first chord

up-up, from root of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ G⁷(b9) Cm⁷ F⁷

20

up-down, from flatted third of first chord

down-up, from flatted third of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

24

down-down, from flatted third of first chord

up-up, from flatted third of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ G⁷(b9) Cm⁷ F⁷

28

up-down, from flatted third of first chord (low)

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

down-up, from flatted third of first chord (low)

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

32

T
A
B

down-down, from flatted third of first chord (low)

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

up-up, from flatted third of first chord (low)

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

36

T
A
B

up-down, from fifth of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

down-up, from fifth of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

40

T
A
B

down-down, from fifth of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

up-up, from fifth of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷

44

T
A
B

up-down, from fifth of first chord (high) down-up, from fifth of first chord (high)

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ G⁷(b⁹) Cm⁷ F⁷

down-down, from fifth of first chord (high) up-up, from fifth of first chord (high)

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ G⁷(b⁹) Cm⁷ F⁷

up-down, from flatted seventh of first chord down-up, from flatted seventh of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

down-down, from flatted seventh of first chord up-up, from flatted seventh of first chord

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

up-down, from flatted seventh of first chord (high)

down-up, from flatted seventh of first chord (high)

64

Gm⁷ B[♭]maj⁷ B^{°7} Gm⁷ Cm⁷ Cm⁷ C^{°7} F⁷

down-down, from flatted seventh of first chord (high)

up-up, from flatted seventh of first chord (high)

68

Gm⁷ B[♭]maj⁷ B^{°7} Gm⁷ Cm⁷ Cm⁷ C^{°7} F⁷

two chords up, two chords down

72

Gm⁷ B[♭]maj⁷ B^{°7} Gm⁷ Cm⁷ Cm⁷ C^{°7} F⁷

76

Gm⁷ B[♭]maj⁷ B^{°7} Gm⁷ Cm⁷ Cm⁷ C^{°7} F⁷

I-VI-II-V examples in Bb (substituting VIIm-bIIIdim-IIIm7-IIIdim7) - [click here to play a video](#)

chromatic line

♩ = 150
Swing Eighth

Chord progression: Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

pivot tone chromatic line

Chord progression: Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

pivot tone chromatic line and common tones in chords

18

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

T 3 4 3 5 8 8
 A 6 6 4 8 7 7
 B 7 7 5 7 8 8

22

Gm⁷ B^{o7} Cm⁷ F⁷ B^b6

T 2 1 3 1 2 4 1 2 1 2 1 3 3 1 3 2 3 2 3 4
 A 7 6 8 6 7 9 6 7 5 7 5 8 8 8 7 8 8
 B 7 6 8 6 7 9 6 7 5 7 5 8 8 8 7 8 8

fifths and fourths

26

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

T 5 7 6 6 8 8 8 4 2 4 2 1
 A 5 7 6 6 8 8 8 10 8 10 8 7
 B 5 7 6 6 8 8 8 10 8 10 8 7

30

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

T 1 1 3 4 2 1 2 3 3 2 3 2 3 2 3
 A 5 5 7 8 6 5 6 7 8 7 8 7 8
 B 5 5 7 8 6 5 6 7 8 7 8 7 8

34

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

38

Gm⁷ B^{o7} Cm⁷ C^{o7} Gm⁷ B^{o7} Cm⁷ C^{o7}
 B^bmaj⁷ Gm⁷ Cm⁷ F⁷ B^bmaj⁷ Gm⁷ Cm⁷ F⁷

I-VI-II-V Substitute: VIIm7-#IIdim7-IIIm7-II7 in Eb, C form

The examples start on bar 80. [Click here to play a video of the examples.](#)

I-VI-II-V exercises in Eb (substituting VIIm7-#IIdim7-IIIm7-bII7) - [click here to play a video](#)

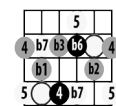
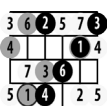
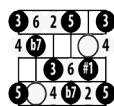
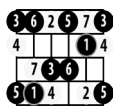
substitute arpeggios
and scales

Cm7
Eb major scale

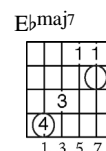
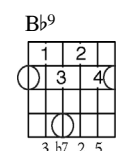
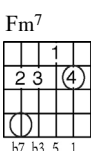
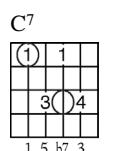
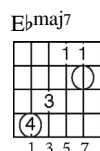
Edim7
Eb Mixo.#1
(F har. min.)

Fm9
Eb major

E9
Eb Phrygian b1
(E Lyd. dom.)



original chords



♩ = 170

Swing Eighths

Musical notation for I-VI-II-V exercise in Eb. The notation shows a sequence of chords: Ebmaj7, C7, Fm7, Bb9, and Ebmaj7. The bass line is marked with T, A, and B notes. The tempo is 170 bpm.

full-range arpeggios for VIIm7-bIIIdim7-IIIm9-bII9, C form key

Musical notation for full-range arpeggios in Eb. The notation shows a sequence of chords: Cm7, E9, and Ebmaj7. The bass line is marked with T, A, and B notes. The tempo is 170 bpm.

Musical notation for full-range arpeggios in Eb. The notation shows a sequence of chords: Fm9, E9, and Ebmaj7. The bass line is marked with T, A, and B notes. The tempo is 170 bpm.

I-VI-IIIm-V Substitutes: VIIm7, bIIIdim7, IIIm9, bII9, C form - exercises

3

turnaround voice leading for VIIm7-bIIIdim7-IIIm9-bII9, C form key

♩ = 170

Swing Eighths

up-down

down-up from root, from root of first chord

Cm⁷
E♭maj⁷E^{o7}
C⁷Fm⁹
Fm⁷E⁹
B♭⁹Cm⁷
E♭maj⁷E^{o7}
C⁷Fm⁹
Fm⁷E⁹
B♭⁹

16

down-down, from root of first chord

up-up, from root of first chord

Cm⁷
E♭maj⁷E^{o7}
C⁷Fm⁹
Fm⁷E⁹
B♭⁹Cm⁷
E♭maj⁷E^{o7}
C⁷Fm⁹
Fm⁷E⁹
B♭⁹

20

up-down, from root of first chord (high)

down-up, from root of first chord (high)

Cm⁷
E♭maj⁷E^{o7}
C⁷Fm⁹
Fm⁷E⁹
B♭⁹Cm⁷
E♭maj⁷E^{o7}
C⁷Fm⁹
Fm⁷E⁹
B♭⁹

24

down-down, from root of first chord (high)

up-up, from root of first chord (high)

Cm⁷
E♭maj⁷E^{o7}
C⁷Fm⁹
Fm⁷E⁹
B♭⁹Cm⁷
E♭maj⁷E^{o7}
C⁷Fm⁹
Fm⁷E⁹
B♭⁹

28

up-down, from flatted third of first chord

Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj7 C⁷ Fm⁷ Bb⁹

down-up, from flatted third of first chord

Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj7 C⁷ Fm⁷ Bb⁹

32

T A B

6 5 3 5 6 3 5 7 | 3 6 5 4 5 3 3 6 | 5 3 5 6 7 5 3 6 | 4 5 6 3 6 3 3 5

down-down, from flatted third of first chord

Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj7 C⁷ Fm⁷ Bb⁹

up-up, from flatted third of first chord

Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj7 C⁷ Fm⁷ Bb⁹

36

T A B

5 3 5 6 3 5 7 | 4 5 6 3 5 3 3 6 | 6 5 3 5 7 5 3 6 | 3 6 5 4 6 3 3 5

up-down, from fifth of first chord

Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj7 C⁷ Fm⁷ Bb⁹

down-up, from fifth of first chord

Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj7 C⁷ Fm⁷ Bb⁹

40

T A B

3 3 5 4 5 6 3 5 | 3 6 5 4 3 4 6 2 | 4 5 3 3 5 3 6 5 | 4 5 6 3 2 6 4 3

down-down, from fifth of first chord

Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj7 C⁷ Fm⁷ Bb⁹

up-up, from fifth of first chord

Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj7 C⁷ Fm⁷ Bb⁹

44

T A B

4 5 3 3 6 4 5 | 4 5 6 3 3 6 2 | 3 3 5 4 3 6 5 | 3 6 5 4 2 6 4 3

up-down, from flatted seventh of first chord

Cm ⁷	E ^{o7}	Fm ⁹	E ⁷
E ^b maj ⁷	Cm ⁷	Fm ⁷	B ^b 7

down-up, from flatted seventh of first chord

Cm ⁷	E ^{o7}	Fm ⁹	E ⁷
E ^b maj ⁷	Cm ⁷	Fm ⁷	B ^b 7

48

T
A
B

6 3 6 5 2 4 6 | 4 3 6 5 6 2 5 2 | 5 6 3 6 6 4 2 5 | 5 6 3 4 2 5 2 6

down-down, from flatted seventh of first chord

Cm ⁷	E ^{o7}	Fm ⁹	E ⁷
E ^b maj ⁷	Cm ⁷	Fm ⁷	B ^b 7

up-up, from flatted seventh of first chord

Cm ⁷	E ^{o7}	Fm ⁹	E ⁷
E ^b maj ⁷	Cm ⁷	Fm ⁷	B ^b 7

52

T
A
B

5 6 3 5 2 4 6 | 5 6 3 6 2 5 2 | 6 3 6 5 6 4 2 5 | 4 3 6 5 2 5 2 6

up-down, from flatted seventh of first chord (high)

Cm ⁷	E ^{o7}	Fm ⁷	E ⁷
E ^b maj ⁷	Cm ⁷	Fm ⁷	B ^b 7

down-up, from flatted seventh of first chord (high)

Cm ⁷	E ^{o7}	Fm ⁷	E ⁷
E ^b maj ⁷	Cm ⁷	Fm ⁷	B ^b 7

56

T
A
B

3 5 4 3 5 6 3 | 6 5 4 3 4 5 3 4 | 3 4 5 3 3 6 5 3 | 4 5 3 4 3 5 4

down-down, from flatted seventh of first chord (high)

Cm ⁷	E ^{o7}	Fm ⁷	E ⁷
E ^b maj ⁷	Cm ⁷	Fm ⁷	B ^b 7

up-up, from flatted seventh of first chord (high)

Cm ⁷	E ^{o7}	Fm ⁷	E ⁷
E ^b maj ⁷	Cm ⁷	Fm ⁷	B ^b 7

60

T
A
B

3 4 5 3 5 6 3 | 3 4 5 4 5 3 4 | 3 5 4 3 6 5 3 | 6 5 4 4 3 5 4

two chords up, two chords down

64

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

68

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

two chords down, two chords up

72

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

76

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

I-VI-II-V examples in Eb (substituting VIIm7-#Idim7-IIIm7-bII7) - [click here to play a video](#)

chromatic lines

♩ = 170
Swing Eighths

Chord Progression: Cm7 Ebmaj7 E^o7 C7 Fm⁹ Fm7 E⁹ Bb⁹ Cm7 Ebmaj7 E^o7 C7 Fm⁹ Fm7 E⁹ Bb⁹

6

Chord Progression: Cm7 Ebmaj7 E^o7 C7 Fm⁹ Fm7 E⁹ Bb⁹ Cm7 Ebmaj7 E^o7 C7 Fm⁹ Fm7 E⁹ Bb⁹

10

Chord Progression: Cm7 Ebmaj7 E^o7 C7 Fm⁹ Fm7 E⁹ Bb⁹ Cm7 Ebmaj7 E^o7 C7 Fm⁹ Fm7 E⁹ Bb⁹

14

Chord Progression: Cm7 Ebmaj7 E^o7 C7 Fm⁹ Fm7 E⁹ Bb⁹ Cm7 Ebmaj7 E^o7 C7 Fm⁹ Fm7 E⁹ Bb⁹

18

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

22

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

26

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

(same as previous core melody)

30

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

stepwise lines

34

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Eb^{maj7} C⁷ Fm⁷ Bb⁹ Eb^{maj7} C⁷ Fm⁷ Bb⁹

T
A
B

38

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Eb^{maj7} C⁷ Fm⁷ Bb⁹ Eb^{maj7} C⁷ Fm⁷ Bb⁹

Eb major flat six E major

4 3 1 1 4 4 2 1 2 1 4 3 2 4 1 1
 7 6 4 3 6 6 4 3 4 3 6 5 4 6 3

T
A
B

42

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Eb^{maj7} C⁷ Fm⁷ Bb⁹ Eb^{maj7} C⁷ Fm⁷ Bb⁹

T
A
B

46

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Eb^{maj7} C⁷ Fm⁷ Bb⁹ Eb^{maj7} C⁷ Fm⁷ Bb⁹

Bb h/w dim. scale

3 1 2 3 4 1 4 1 2 3 4 3 4 3 1 1
 4 6 7 8 9 6 9 5 6 7 10 9 10 9 7 6

T
A
B

50

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

T 3 6 5 3 4
 A
 B

54

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

half-whole-half, C h/w dim. scale

half-whole-half, E Lyd. dom.

1 1 2 4 3 2 1 3 2 4 1 2 1 2 1 4 3 2

T 3 4 6 5 4 6 5 4 6 3 4 3 4 3 6 5 4
 A
 B

descending bVIma7#5

58

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

T 6 3 4 4 3
 A
 B

62

Cm⁷ E^{o7} Fm⁹ E⁹ Cm⁷ E^{o7} Fm⁹ E⁹
 Ebmaj⁷ C⁷ Fm⁷ Bb⁹ Ebmaj⁷ C⁷ Fm⁷ Bb⁹

half-whole-half, Bb h/w diminished scale

4 2 3 1 1 4 2 4 1 2 4 3 4 3 4 1 4

T 6 4 3 5 3 6 4 6 3 4 6 5 6 5 6 3 6
 A
 B

descending diminished fifths

Cm⁷
E^bmaj⁷E^o⁷
C⁷Fm⁹
Fm⁷E⁹
B^b⁹Cm⁷
E^bmaj⁷E^o⁷
C⁷Fm⁹
Fm⁷E⁹
B^b⁹

66

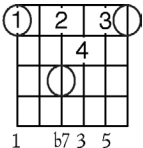
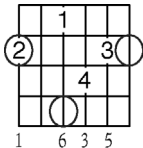
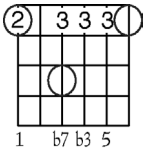
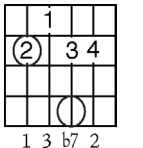
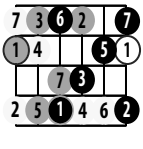
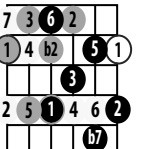
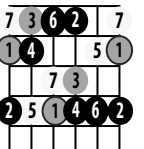
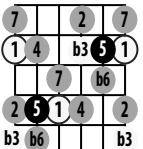
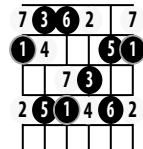
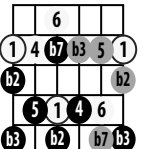
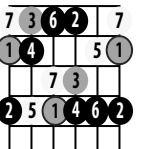
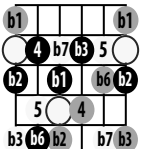
Cm⁷
E^bmaj⁷E^o⁷
C⁷Fm⁹
Fm⁷E⁹
B^b⁹Cm⁷
E^bmaj⁷

70

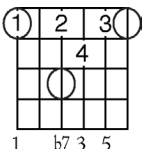
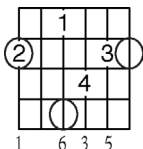
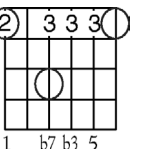
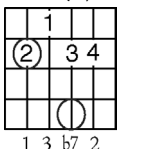
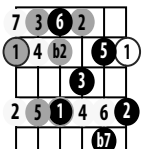
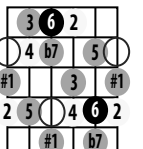
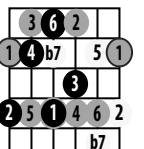
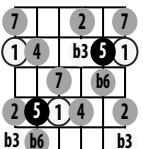
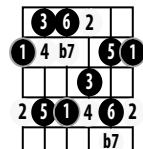
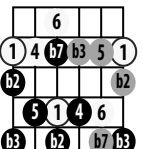
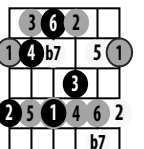
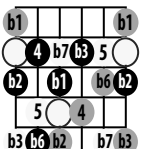
Bb7b9 or Bb w/h dim.

Summary Arpeggios for I-VI-II-V Substitute Progression

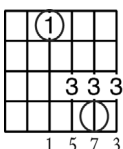
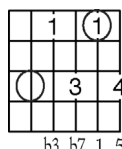
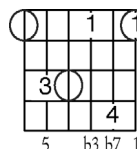
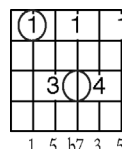
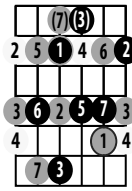
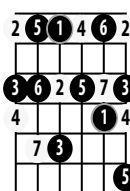
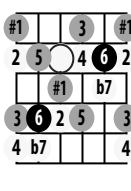
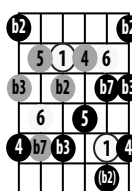
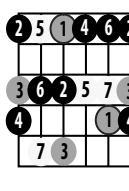
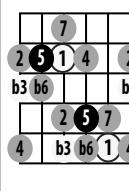
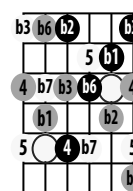
E form major

orig. chord	I _{ma} 7		VI _m 7		II _m 7		V7(9)	
								
sub. arp.	VI _m 11 (I _{ma} 9 add low 6)		VI7b9		II _m 9		V7b9	
sub. scale	I major		I Mixo. #1		I major		I har. min.	
								
								

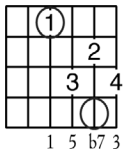
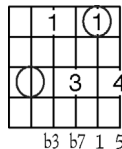
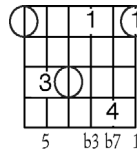
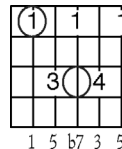
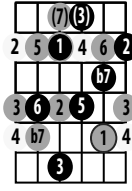
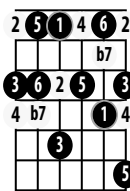
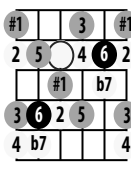
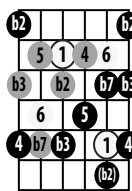
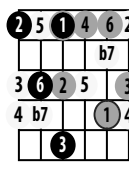
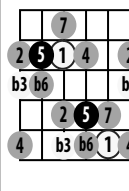
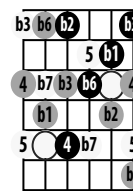
E form Mixolydian

orig. chord	I7		VI _m 7		II _m 7		V7(9)	
								
sub. arp.	VI _m 11 (I9 add low 6)		VI7b9		II _m 9		V7b9	
sub. scale	I Mixolydian		I Mixo. #1		I Mixolydian		I har. min.	
								
								

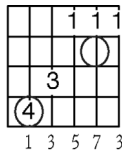
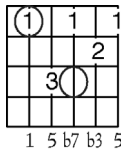
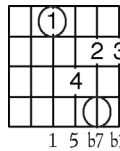
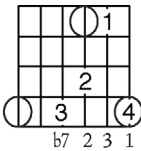
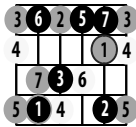
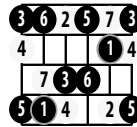
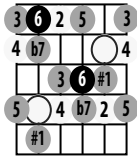
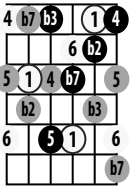
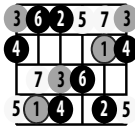
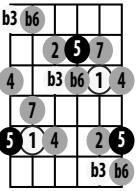
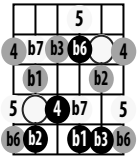
D form major

orig. chord	Ima7 		VIm7 		IIIm7 		V7(9) 	
sub. arp.	VIm11 (Ima9 add low 6)	VIm7	VI7b9	bIII9 (bIII Lyd. dom.)	IIIm9	V7b9	bII9 (bII Lyd. dom.)	
sub. scale	I major 	I major 	I Mixo. #1 	I Dorian b2 	I major 	I har. min. 	I Phryg. b1 	

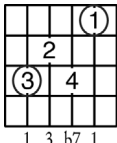
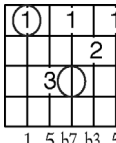
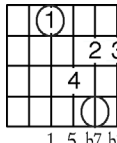
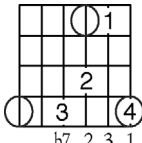
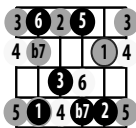
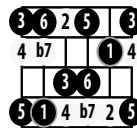
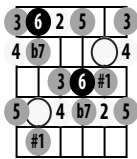
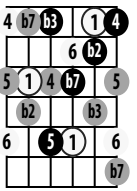
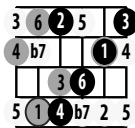
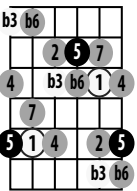
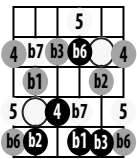
D form Mixolydian

orig. chord	I7 		VIm7 		IIIm7 		V7(9) 	
sub. arp.	VIm11 (I9 add low6)	VIm7	VI7b9	bIII9 (bIII Lyd. dom.)	IIIm9	V7b9	bII9 (bII Lyd. dom.)	
sub. scale	I Mixolydian 	I Mixolydian 	I Mixo. #1 	I Dorian b2 	I Mixolydian 	I har. min. 	I Phryg. b1 	

C form major

orig. chord	Ima7 		VIm7 		IIIm7 		V7(9) 	
sub. arp.	VIm11 (Ima9 add low 6)	VIm7	VI7b9	bIII9 (bIII Lyd. dom.)	IIIm9	V7b9	bII9 (bII Lyd. dom.)	
sub. scale	I major	I major	I Mixo. #1	I Dorian b2	I major	I har. min.	I Phryg. b1	
								

C form Mixolydian

orig. chord	I7 		VIm7 		IIIm7 		V7(9) 	
sub. arp.	VIm11 (I9 add low6)	VIm7	VI7b9	bIII9 (bIII Lyd. dom.)	IIIm9	V7b9	bII9 (bII Lyd. dom.)	
sub. scale	I Mixolydian	I Mixolydian	I Mixo. #1	I Dorian b2	I Mixolydian	I har. min.	I Phryg. b1	
								

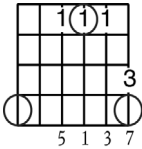
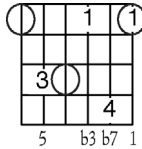
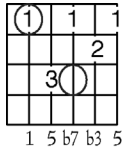
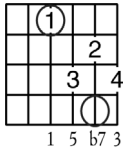
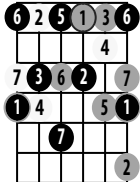
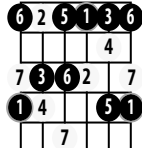
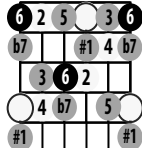
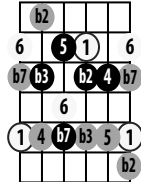
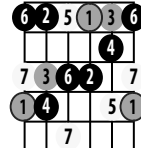
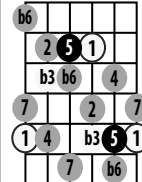
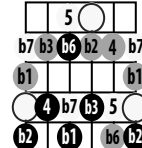
A form major

orig. chord	Ima7		VIm7		IIIm7		V7(9)	
sub. arp.	VIm11 (Ima9 add low 6)	VIm7	VI7b9	bIII9 (bIII Lyd. dom.)	IIIm9	V7b9	bII9 (bII Lyd. dom.)	
sub. scale	I major	I major	I Mixo. #1	I Dorian b2	I major	I har. min.	I Phryg. b1	

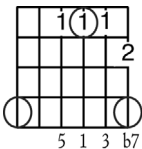
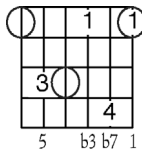
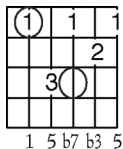
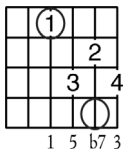
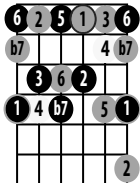
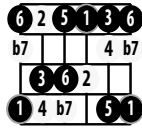
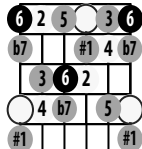
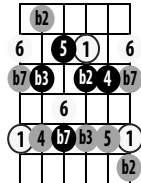
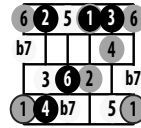
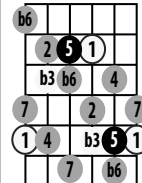
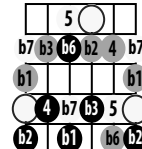
A form Mixolydian

orig. chord	I7		VIm7		IIIm7		V7(9)	
sub. arp.	VIm11 (I9 add low6)	VIm7	VI7b9	bIII9 (bIII Lyd. dom.)	IIIm9	V7b9	bII9 (bII Lyd. dom.)	
sub. scale	I Mixolydian	I Mixolydian	I Mixo. #1	I Dorian b2	I Mixolydian	I har. min.	I Phryg. b1	

G form major

orig. chord	Ima7 		VIm7 		IIm7 		V7(9) 	
sub. arp.	VIm11 (Ima9 add low 6)	VIm7	VI7b9	bIII9 (bIII Lyd. dom.)	IIm9	V7b9	bII9 (bII Lyd. dom.)	
sub. scale	I major	I major	I Mixo. #1	I Dorian b2	I major	I har. min.	I Phryg. b1	
								

G form Mixolydian

orig. chord	I7 		VIm7 		IIm7 		V7(9) 	
sub. arp.	VIm11 (I9 add low6)	VIm7	VI7b9	bIII9 (bIII Lyd. dom.)	IIm9	V7b9	bII9 (bII Lyd. dom.)	
sub. scale	I Mixolydian	I Mixolydian	I Mixo. #1	I Dorian b2	I Mixolydian	I har. min.	I Phryg. b1	
								

Detailed Arpeggios for I-VI-II-V Substitute Progression

E form Ima7 type All scales are I major unless noted otherwise.

I	VI	II	V	I
Ima7 	VIIm7 VIIm11 	IIIm7 	V7 	Ima7
IIIm7 	VI7 (I Mix. #1) VI7b9 (I Mix. #1) 	IVma7 	IIIdim7 / I har. minor 	IIIm7
I6 or VIIm7 	#Idim7 (I Mix. #1) 	IIIm9 	V7b9/I har. minor 	I6 or VIIm7
Ima9 add low 6 	VI7#5 (I Mix. #1) 	IIIm11 		
	bIII7/I Dorian b2 bIII Lydian dom. 		bII7/ I Phry. b1 bII Lydian dom. 	
	Vm7b5/I Dor. b2 bIII Lydian dom. 		IVm7b5/ I Phr. b1 bII Lydian dom. 	
	bIIIdim7/I half whole dim. 		IIIdim7/#1 half-whole dim. 	

E form I7 type All scales are I Mixolydian unless otherwise noted

I I7	VI VIm7	VI VIm11	II IIm7	V V7/I major	I I7

D form Ima7 type All scales are I major unless noted otherwise.

I	VI	II	V	I
Ima7 	VIIm7 VIIm11 	IIIm7 	V7 	Ima7
IIIIm7 	VI7 (I Mix. #1) VI7b9 (I Mix. #1) 	IVma7 	IIIdim7 / I har. minor 	IIIIm7
I6 or VIIm7 	#Idim7 (I Mix. #1) 	IIIm9 	V7b9/I har. minor 	I6 or VIIm7
Ima9 add low 6 	VI7#5 (I Mix. #1) 	IIIm11 		
	bIII7/I Dorian b2 		bII7 / I Phry. b1 	bII Lydian dom.
	Vm7b5/I Dor. b2 	bIII Lydian dom. 	IVm7b5/I Phr. b1. 	bII Lydian dom.
	bIIIdim7/I half whole dim. 		IIIdim7/#1 half-whole dim. 	<p>put "#1" of the key on "#1" on the diagram, using chord tones 2-4-b6-7</p>

D form I7 type All scales are I Mixolydian unless noted otherwise.

I	VI	II	V	I
I7 	VIIm7 VIIm11 	IIIm7 	V7/I major 	I7
IIIIm7b5 	VI7 (I Mix. #1) VI7b9 (I Mix. #1) 	IVma7 	IIIdim7 / I har. minor 	IIIIm7b5
I6 or VIIm7 	#Idim7 (I Mix. #1) 	IIIm9 	V7b9/I har. minor 	I6 or VIIm7
I9 add low 6 	VI7#5 (I Mix. #1) 	IIIm11 		
	bIII7/I Dorian b2 bIII7/bIII Lyd.d. 		bII7 / I Phry. b1 bII Lydian dom. 	
	Vm7b5/I Dor. b2 bIII Lydian dom. 		IVm7b5/I Phr. b1. bII Lydian dom. 	
	bIIIdim7/I half whole dim. 		IIIdim7/#1 half-whole dim. 	

C form Ima7 type All scales are I major unless noted otherwise.

<p>I</p> <p>Ima7</p>	<p>VI</p> <p>VIIm7</p> <p>VIIm11</p>	<p>II</p> <p>IIIm7</p>	<p>V</p> <p>V7</p>	<p>I</p> <p>Ima7</p>
<p>IIIIm7</p>	<p>VI7 (I Mix. #1)</p> <p>VI7b9 (I Mix. #1)</p>	<p>IVma7</p>	<p>IIIdim7 / I har. minor</p>	<p>IIIIm7</p>
<p>I6 or VIIm7</p>	<p>#Idim7 (I Mix. #1)</p>	<p>IIIm9</p>	<p>V7b9/I har. minor</p>	<p>I6 or VIIm7</p>
<p>Ima9 add low 6</p>	<p>VI7#5 (I Mix. #1)</p>	<p>IIIm11</p>		
	<p>bIII7/I Dorian b2</p> <p>bIII Lydian dom..</p>		<p>bII7/ I Phry. b1</p> <p>bII Lydian dom.</p>	
	<p>Vm7b5/I Dor. b2</p> <p>bIII Lydian dom.</p>		<p>IVm7b5/ I Phr. b1.</p> <p>bII Lydian dom.</p>	
	<p>bIIIdim7/I half-whole dim.</p>		<p>IIIdim7/#1 half-whole dim.</p> <p>put "#1" of the key on "#1" on the diagram, using chord tones 2-4-b6-7</p>	

C form I7 type All scales are I Mixolydian unless noted otherwise.

I	VI	II	V	I
I7 	VIIm7 	IIIm7 	V7/I major 	I7
IIIIm7b5 	VI7 (I Mix. #1) 	IVma7 	IIdim7 / I har. minor 	IIIIm7b5
I6 or VIIm7 	#Idim7 (I Mix. #1) 	IIIm9 	V7b9/I har. minor 	I6 or VIIm7
I9 add low 6 	VI7#5 (I Mix. #1) 	IIIm11 		
	bIII7/I Dorian b2 	bIII7/bIII Lyd.d. 	bII7 / I Phry. b1 	bII Lydian dom.
	Vm7b5/I Dor. b2 	bIII Lydian dom. 	IVm7b5/ I Phr. b1. 	bII Lydian dom.
	bIIdim7/I half whole dim. 		IIdim7/#1 half-whole dim. 	<p>put "#1" of the key on "#1" on the diagram, using chord tones 2-4-b6-7</p>

A form Ima7 type All scales are I major unless noted otherwise.

I	VI	II	V	I
Ima7 	VIm7 	VIm11 	IIm7 	V7
Ima7 	IIIm7 	IVma7 	IIdim7 / I har. minor 	IIIm7
I6 or VIm7 	#Idim7 (I Mix. #1) 	IIm9 	V7b9/I har. minor 	I6 or VIm7
Ima9 add low 6 	VI7#5 (I Mix. #1) 	IIm11 	bII7/ I Phry. b1 	bII Lydian dom.
bIII7/I Dorian b2 	bIII Lydian dom. 	IVm7b5/ I Phr. b1 	bII Lydian dom. 	
Vm7b5/I Dor. b2 	bIII Lydian dom. 	IIdim7/#1 half-whole dim. 		

A form I7 type All scales are I Mixolydian unless noted otherwise.

I	VI	II	V	I
I7 	VIIm7 VIIm11 	IIIm7 	V7/I major 	I7
IIIIm7b5 	VI7 (I Mix. #1) VI7b9 (I Mix. #1) 	IVma7 	IIdim7 / I har. minor 	IIIIm7b5
I6 or VIIm7 	#Idim7 (I Mix. #1) 	IIIm9 	V7b9/I har. minor 	I6 or VIIm7
I9 add low 6 	VI7#5 (I Mix. #1) 	IIIm11 	bII7/ I Phry. b1 	bII Lydian dom.
	bIII7/I Dorian b2 	bIII7/bIII Lyd.d. 	IVm7b5/ I Phr. b1. 	bII Lydian dom.
	Vm7b5/I Dor. b2 	bIII Lydian dom. 	IVm7b5/ I Phr. b1. 	bII Lydian dom.
	bIIdim7/I h.w. dim. 		IIdim7/#1 half-whole dim. 	

G form Ima7 type All scales are I major unless noted otherwise.

<p>I</p> <p>Ima7</p>	<p>VI</p> <p>VIm7 VIm11</p>	<p>II</p> <p>IIm7</p>	<p>V</p> <p>V7</p>	<p>I</p> <p>Ima7</p>
<p>IIIIm7</p>	<p>VI7 (I Mix. #1) VI7b9 (I Mix. #1)</p>	<p>IVma7</p>	<p>IIdim7 / I har. minor</p>	<p>IIIIm7</p>
<p>I6 or VIm7</p>	<p>#Idim7 (I Mix. #1)</p>	<p>IIm9</p>	<p>V7b9/I har. minor</p>	<p>I6 or VIm7</p>
<p>Ima9 add low 6</p>	<p>VI7#5 (I Mix. #1)</p>	<p>IIm11</p>		
	<p>bIII7/I Dorian b2 bIII Lydian dom.</p>		<p>bII7 / I Phry. b1 bII Lydian dom.</p>	
	<p>Vm7b5/I Dor. b2 bIII Lydian dom.</p>		<p>IVm7b5/I Phr. b1. bII Lydian dom.</p>	
	<p>bIIdim7/I half-whole dim.</p>		<p>IIdim7/#1 half-whole dim.</p> <p>put "#1" of the key on "#1" on the diagram, using chord tones 2-4-b6-7</p>	

G form I7 type All scales are I Mixolydian unless noted otherwise.

I	VI	II	V	I
I7 	VIIm7 VIIm11 	IIIm7 	V7/I major 	I7
IIIIm7b5 	VI7 (I Mix. #1) VI7b9 (I Mix. #1) 	IVma7 	IIIdim7 / I har. minor 	IIIIm7b5
I6 or VIIm7 	#Idim7 (I Mix. #1) 	IIIm9 	V7b9/I har. minor 	I6 or VIIm7
I9 add low 6 	VI7#5 (I Mix. #1) 	IIIm11 		
	bIII7/I Dorian b2 bIII Lydian dom. 		bII7/ I Phry. b1 	bII Lydian dom.
	Vm7b5/I Dor. b2 bIII Lydian dom. 		IVm7b5/ I Phr. b1. 	bII Lydian dom.
	bIIIdim7/I half-whole dim. 		IIIdim7/#1 half-whole dim. <p>put "#1" of the key on "#1" on the diagram, using chord tones 2-4-b6-7</p>	

VII-III-VI-II-V-I-IV WITH SUBSTITUTES

(content forthcoming)

Bebop Phrases

- **Building IIm-V-I Phrases, Design the V**
- **Building IIm-V-I Phrases, Design the IIm**
- **I-VI-II-V Phrases**
- **Jazz Blues Phrases**
- **Four Dominants in Perfect Fourths Phrases**
- **Major II-V-I Phrases**
- **Minor II-V-I Phrases**
- **bII13#11 to I Phrases**

BUILDING II m V I PHRASES, DESIGN THE V

play the video for this entire “Design the V” section

Ascend from the Root of Ilm7, Design the V

Swing Eighths

$\text{♩} = 160$

Swing Eighthths

♩ = 160

1 2 3 4

Dm7 G7 Cmaj7 G7b9#9

5 6 7 8

Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

9 10 11 12

Dm7 G7 Cmaj7 G7#5

13 14 15 16

Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

Descend from the Root of Ilm7, Design the V, Design the V

17 Dm7 G7 Cmaj7 18 19 20 Dm7 G7 Cmaj7 21

10 8 10 10 9 7 9 10 8 10 10 7 7 10 8

22 Dm7 G7 Cmaj7 23 24 Dm7 G7 Cmaj7 25

10 8 10 10 7 9 10 6 7 10 8 10 7 9 8 10 6 9

26 Dm7 G7 Cmaj7 27 PC 28 Dm7 G7 Cmaj7 29 PC

10 8 10 6 10 8 7 10 9 7 10 7 8 10 10 7 8 9

30 Dm7 G7 Cmaj7 31 G7b9 32 Dm7 G7 Cmaj7 33

10 8 10 10 7 9 10 9 10 8 10 10 8 10 9 7 10 10

Ascend from the Flatted Third of IIm7, Design the V

Descend from the Flatted Third of IIm7, Design the V

Ascend from the Flatted Third of IIIm9 (minor nine) , Design the V

68 Cmaj7 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

Db9 no root Db9 no root

73 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

G7#5 G7b9#9

77 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

G7#5

81 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

G7b9

85 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

G7b9#9

90 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

G7b#5b9 Db9 no root

94 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

Db9 no root Db9#11 no root

98 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

Gaug add 9

Descend from the Ninth of IIIm9 (minor nine), Design the V

85 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

Db9 no root G7b9#9

90 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

G7b#5b9 Db9 no root

94 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

Db9 no root Db9#11 no root

98 Dm9 G7 Cmaj7 Dm9 G7 Cmaj7

Gaug add 9

Ascend from the Fifth of Ilm7, Design the V

102

Cmaj7 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

G13

T A B

103 10 13 12 13 10 12 10 13 11 12 10 9

Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

3 3

T A B

10 10 13 12 12 10 12 13 10 13 11 12 10 12 10 12

Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

3 3

T A B

7 10 7 10 8 9 6/7 10 7 10 8 9 9 10 8 7

Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

G7b9

T A B

7 10 7 10 8 9 7 10 8 7 10 8 7 10 8 7

Descend from the Fifth of Ilm7, Design the V

Ascend from the Flatted Seventh of IIm7, Design the V

This musical score is for a bebop phrase. It consists of four systems, each with a treble clef staff and a guitar staff. The key signature has one flat (Bb). The phrase starts at measure 136 and ends at measure 152. The chords are: Cmaj7, Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody is an ascending line starting on Bb4, moving through C5, D5, E5, F5, G5, A5, Bb5, and ending on C6. The guitar staff shows the fretting for the melody and the harmonic structure.

Descend from the Flatted Seventh of IIm7, Design the V

This musical score is for a bebop phrase. It consists of four systems, each with a treble clef staff and a guitar staff. The key signature has one flat (Bb). The phrase starts at measure 153 and ends at measure 169. The chords are: Cmaj7, Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody is a descending line starting on C6, moving through Bb5, A5, G5, F5, E5, D5, C5, and ending on Bb4. The guitar staff shows the fretting for the melody and the harmonic structure.

BUILDING IIm-V-I PHRASES, DESIGN THE IIm

play the video for this entire "Design the IIm" section

Design the IIm, Ascend from the Root of V7

Swing Eighthths

♩ = 160

This musical exercise is in 4/4 time with a tempo of 160 beats per minute. It consists of four measures, each with a specific chord: Dm7, G7, Cmaj7, and Dm7. The notation includes a treble clef and a key signature of one flat (Bb). The melody is written in eighth notes, and the bass line is written in eighth notes. The exercise is designed to be played on a guitar, with fingerings indicated by numbers 1-4 on the strings.

Design the IIm, Descend from the Root of V7

This musical exercise is in 4/4 time and consists of four measures, each with a specific chord: Cmaj7, Dm7, G7, and Cmaj7. The notation includes a treble clef and a key signature of one flat (Bb). The melody is written in eighth notes, and the bass line is written in eighth notes. The exercise is designed to be played on a guitar, with fingerings indicated by numbers 1-4 on the strings.

Design the IIIm, Ascend from the Third of V7

Chord progression: Cmaj7, Dm7, G7, Cmaj7, Dm7, G7, Cmaj7

Measure 34: Cmaj7 (T: 11, A: 12, B: 14)

Measure 35: Dm7 (T: 10, A: 10, B: 12)

Measure 36: G7 (T: 10, A: 13, B: 15)

Measure 37: Cmaj7 (T: 12, A: 13, B: 12)

Measure 38: Dm7 (T: 12, A: 10, B: 13)

Measure 39: G7 (T: 10, A: 10, B: 12)

Measure 40: Cmaj7 (T: 10, A: 7, B: 10)

Measure 41: Dm7 (T: 6, A: 7, B: 10)

Measure 42: G7 (T: 10, A: 10, B: 9)

Measure 43: Cmaj7 (T: 10, A: 7, B: 10)

Measure 44: Dm7 (T: 8, A: 8, B: 9)

Measure 45: G7 (T: 8, A: 6, B: 7)

Measure 46: Cmaj7 (T: 10, A: 7, B: 10)

Measure 47: Dm7 (T: 7, A: 8, B: 10)

Measure 48: G7 (T: 8, A: 5, B: 10)

Measure 49: Cmaj7 (T: 9, A: 7, B: 10)

Measure 50: Dm7 (T: 8, A: 10, B: 8)

Measure 51: G7 (T: 7, A: 10, B: 8)

Measure 52: Cmaj7 (T: 10, A: 7, B: 10)

Design the IIIm, Descend from the Third of V7

Chord progression: Cmaj7, Dm7, G7, Cmaj7, Dm7, G7, Cmaj7

Measure 53: Cmaj7 (T: 9, A: 8, B: 7)

Measure 54: Dm7 (T: 7, A: 10, B: 10)

Measure 55: G7 (T: 8, A: 7, B: 10)

Measure 56: Cmaj7 (T: 10, A: 7, B: 10)

Measure 57: Dm7 (T: 10, A: 12, B: 13)

Measure 58: G7 (T: 10, A: 10, B: 12)

Measure 59: Cmaj7 (T: 9, A: 12, B: 10)

Measure 60: Dm7 (T: 8, A: 7, B: 10)

Measure 61: G7 (T: 10, A: 8, B: 9)

Measure 62: Cmaj7 (T: 10, A: 7, B: 10)

Measure 63: Dm7 (T: 8, A: 10, B: 8)

Measure 64: G7 (T: 7, A: 10, B: 8)

Measure 65: Cmaj7 (T: 9, A: 10, B: 7)

Measure 66: Dm7 (T: 8, A: 10, B: 8)

Measure 67: G7 (T: 7, A: 10, B: 8)

Measure 68: Cmaj7 (T: 10, A: 7, B: 10)

Design the IIm, Ascend from the Third of V9

68 Cmaj7 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

73 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

77 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

81 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

This musical exercise consists of four systems, each with a treble clef staff and a guitar fretboard diagram below. The first system (measures 68-72) features a Cmaj7 chord at the start and end, with Dm7 and G7 in between. The second system (measures 73-76) also starts and ends with Cmaj7, with Dm7 and G7 in between. The third system (measures 77-80) starts and ends with Cmaj7, with Dm7 and G7 in between. The fourth system (measures 81-84) starts and ends with Cmaj7, with Dm7 and G7 in between. The fretboard diagrams show the ascending lines for the IIm chord (Dm7) and the V9 chord (G7) in C major, with fingerings indicated by numbers 1-4 and 7-10.

Design the IIm, Descend from the Ninth of V9

85 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

90 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

94 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

98 Dm7 G7 Cmaj7 Dm7 G7 Cmaj7

This musical exercise consists of four systems, each with a treble clef staff and a guitar fretboard diagram below. The first system (measures 85-89) features a Dm7 chord at the start and end, with G7 and Cmaj7 in between. The second system (measures 90-93) also starts and ends with Dm7, with G7 and Cmaj7 in between. The third system (measures 94-97) starts and ends with Dm7, with G7 and Cmaj7 in between. The fourth system (measures 98-101) starts and ends with Dm7, with G7 and Cmaj7 in between. The fretboard diagrams show the descending lines for the IIm chord (Dm7) and the V9 chord (G7) in C major, with fingerings indicated by numbers 1-4 and 7-10.

Design the IIm, Ascend from the Fifth of V7

Design the IIm, Descend from the Fifth of V7

Design the IIIm, Ascend from the Flatted Seventh of V7

This musical exercise is written for guitar in standard tuning. It consists of four systems of music, each with a treble clef staff and a bass staff. The key signature has one flat (Bb). The exercise is divided into measures 136 through 152.

System 1 (Measures 136-138): Chords: Cmaj7, Dm7, G7, Cmaj7. The melody starts on Bb4 and ascends stepwise to C5. The bass line starts on Bb1 and ascends stepwise to C2.

System 2 (Measures 139-141): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on C5 and ascends stepwise to D5. The bass line starts on C2 and ascends stepwise to D3.

System 3 (Measures 142-144): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on D5 and ascends stepwise to E5. The bass line starts on D3 and ascends stepwise to E3.

System 4 (Measures 145-147): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on E5 and ascends stepwise to F5. The bass line starts on E3 and ascends stepwise to F3.

System 5 (Measures 148-150): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on F5 and ascends stepwise to G5. The bass line starts on F3 and ascends stepwise to G3.

System 6 (Measures 151-152): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on G5 and ascends stepwise to A5. The bass line starts on G3 and ascends stepwise to A3.

Design the IIIm, Descend from the Flatted Seventh of V7

This musical exercise is written for guitar in standard tuning. It consists of four systems of music, each with a treble clef staff and a bass staff. The key signature has one flat (Bb). The exercise is divided into measures 153 through 169.

System 1 (Measures 153-155): Chords: Cmaj7, Dm7, G7, Cmaj7. The melody starts on A5 and descends stepwise to G5. The bass line starts on A3 and descends stepwise to G3.

System 2 (Measures 156-158): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on G5 and descends stepwise to F5. The bass line starts on G3 and descends stepwise to F3.

System 3 (Measures 159-161): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on F5 and descends stepwise to E5. The bass line starts on F3 and descends stepwise to E3.

System 4 (Measures 162-164): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on E5 and descends stepwise to D5. The bass line starts on E3 and descends stepwise to D3.

System 5 (Measures 165-167): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on D5 and descends stepwise to C5. The bass line starts on D3 and descends stepwise to C3.

System 6 (Measures 168-169): Chords: Dm7, G7, Cmaj7, Dm7, G7, Cmaj7. The melody starts on C5 and descends stepwise to Bb4. The bass line starts on C3 and descends stepwise to Bb2.

I-VI-II-V PHRASES

Swing Eighthths

♩ = 190

Fmaj7 Dm7 Gm7 C7 Fmaj7 Dm7 Gm7 C7 Fmaj7 Dm7 Gm7 C7 Fmaj7 Dm7 Gm7 C7
 1 2 3 4 5 6 7
 3 up a third vert. inv. of up a third around "A"

T							
A	121415	12	1412	15	15	12	1415
B	15						

Fmaj7 Dm7 Gm7 C7 Fmaj7 Dm7 Gm7 C7
 8 9 10 11 12 13 14 15
 3 Bdim7 3

T							
A	12	14	15	15	13	12	15
B							

Fmaj7 Dm7 Gm7 C7 Fmaj7 Dm7 Gm7 C7 Fmaj7 Dm7
 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
 up a third different parts of chords Bdim7 3

T	13	14					
A							
B	15	15					

Cmaj7 Am7 Dm7 G7 Cmaj7 Am7 Dm7 G7
 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
 3 3

T							
A							
B							

Cmaj7 Am7 Dm7 G7 Cmaj7 Am7 Dm7 G7
 22 23 24 25 26 27 28 29 30 31 32
 7 10 9 8 10 7 8 9 12 10

T							
A							
B							

Cmaj7 Am7 Dm7 G7 Cmaj7 Am7 Dm7 G7
 26 27 28 29 30 31 32
 3 3 3

T							
A							
B							

30 Cmaj7 Am7 Dm7 G7 Cmaj7 Am7 Dm7 G7 Cmaj7 Am7 Dm7 G7

31 32 33 34 35

15 13 12 12 12 13 12 14 12 14 14 15 14 13 14 13 14 15 12 12 16 15

36 Bbmaj7 Gm7 Cm7 F7 Bbmaj7 Gm7 Cm7 F7 Bbmaj7 Gm7 Cm7 F7

37 38 39 40 41

1 3 1 1 3 4 4 1 3 1 1 2 4 2 2 3 2 1 2 4 4 1 2 4 1 1 3 2 1

6 8 5 6 8 9 10 6 8 6 5 6 8 6 6 7 6 5 6 8 6 8 6 5 8 7 6

42 Bbmaj7 Gm7 Cm7 F7 Bbmaj7 Gm7 Cm7 F7

43 44 45

1 3 4 3 1 3 2 1 1 4 4 1 1 2 4 1 4 4 1 2 3

6 8 9 8 6 8 7 5 6 8 8 5 6 7 8 5 8 8 5 6 7

JAZZ BLUES PHRASES

FOUR DOMINANTS IN PERFECT FOURTHS PHRASES

MAJOR II-V-I PHRASES

MINOR II-V-I PHRASES

bII13#11 TO I PHRASES

Phrases Built with Core Melody, Cell Elaboration and Filler

- **Conceive The Comping and Melody Together**
- **Build Tonal Layers Based on Core Melody**
- **The Four Harmonic Families**
- **Building Layered Phrases**
- **One Octave Shape at a Time**
- **Tonal Layers and Target Tones**
- **Harmonic Clusters**
 - **Major Scale Line Structures** 1 2 3 4 5 6 7
- **Linear Voice Leading**
 - **Top Voice Ascending** first string second string

CONCEIVE THE COMPING AND MELODY TOGETHER

Before playing a cover song and improvising on it, you need to conceive the accompaniment (comping) and melody put together. You could simply strum or finger pick the chords and sing the melody or play an arrangement that puts the two together like a strummed melody or a jazz chord solo.

Next, work up a simple improvisation. It's usually good to start with minor and major pentatonic separately (if major pentatonic is appropriate), then work at combining them. It's common that your first tunes are blues-based. Use the I IV V major key blues guidelines in the I IV V Major Key Blues section below.

Step One: Comping and Rhythm

You can develop a comping part by memorizing comping rhythms and choosing one that seem appropriate. A good variety of comping rhythms is shown in the [Rhythmic Words And Comping Chapter](#), as well as other important aspects of rhythm.

Don't overlook the importance of playing with others and using rhythms the listener and other musicians expect. Study [Comping Strategies](#). You may also benefit from the [Keeping Time](#) chapter.

Memorize Primary [Rhythmic Words](#). Memorizing primary four-pulse and three pulse rhythmic words is very important for comping, melody and soloing. Each rhythmic word must be in your auditory memory and you must be able to play it as fast as your hands can move. See the Hearing Rhythmic Words section of [Rhythmic Words And Comping](#).

Step Two: Conceive the Melody

Read the melody and/or listen to it and sing it. If your source is a recording, listen to the recording and sing or play along with the melody.

If you read music and can get a copy of the sheet music that's great. Read it and listen to the recording. They may not match. Usually the recorded version is a better guide, so trust it. If you want to work on your reading, see the chapter [Speed Reading Pitch](#).

vocal songs

Get a copy of the lyrics and chords online and play the chords along with the recording. Sing with along with the recording separately, then while playing the chords. It's great to put the chords and melody together in your mind.

instrumental songs

Figure out the song by ear, if you can. Determine the key, according to which chord would seem to end the song in a traditional sense. In American pop music, including jazz, the bass part usually will give you the roots of the chords (the note each chord is named after is its root). If you can get tab or sheet music, that's a great method also. The more ways you learn a song, the better. Multiple input methods give you a better conception of the song.

Step Three: Putting the Melody and Chords Together

Whether you are playing the chords and singing or just playing instrumentally, find a way to represent the chords and melody at the same time. Sing the melody while strumming. Play a strummed melody, like *Here Comes The Sun*, where you incorporate the melody into your strumming. Work out an arrangement like a jazz chord solo where you play the melody and chords together. If the melody has breaks between the phrases, play the melody and strum chords in the breaks between phrases.

BUILD TONAL LAYERS BASED ON CORE MELODY

With core melody, you conceive and hear a simple basis of the melody comprised of one or two notes per bar. Simultaneously, you hear a melodic framework layer: an elaboration of the core melody using about one note per beat. Once you have the melodic framework in mind, you can start to elaborate it free form. You could memorize the melodic framework and elaborate it improvisationally in composing or performing.

Thirdly, your elaboration of the melodic framework can add notes to make two, three or four notes per beat, syncopation and theme and variation.

Fourth, pull out all the stops and go to full elaboration with ornamentation.

The concept of core melody and tonal layers in this course is similar to Heinrich Shenker's *Shenkerian Analysis*, where he analyzes pieces of music according to their most important notes being in the foreground (most apparent), next most important in the middle ground and least important in the background.

Prepare to Build the Layers

learn the chord progression

Learn the chord progression in numbers, as well as by letter names. Memorize it with a compelling rhythm you can imagine while improvising. Record it and play it back to study improving on it.⁶

learn to finger the chord progression in each area

Use the Triad, Pentatonic And Major Scale diagrams to construct chord fingerings for each chord in the progression. The chord tones are grey-backed numbers in bold.

improvise with a key pentatonic scale

First improvise with only the key pentatonic scale on the entire progression. Emphasize tones of the key scale that harmonize with the chords.

speak the chord roots, *while* you improvise

The root of each chord is the letter after which it is named. While you improvise, speak the letter for each chord root where the chord begins in time.

play an occasional arpeggio

Triad arpeggios are shown in the pentatonic diagrams on the top row of fingerings of major scale line structures on the following pages with the notes that are both bold and gray-backed. Ninth and seventh arpeggios are shown at the bottom of each of the following pages of major scale line structures.

Incorporate an occasional arpeggio into your improv, usually moving to the first arpeggio tone by scale step rather than by skip. While you ascend or descend the arpeggio it will usually cause skips, which is fine. Continue speaking the root numbers.

improvise with some pentatonic scales named after each chord

Primarily continue using the key pentatonic scale. Listeners like to ponder your melody as you play it, “buffering” phrases in their mind. In a sense, the listener composes your improv along with you, in your “collective” imagination. This is generally easier for the listener with *key scales*, those named after the key. Each section is usually in a single key and you should usually take care to make the use of scales in other keys occasional.

Learn the scale fingerings. In the rows of Triad, Pentatonic And Major Scale diagrams, each pentatonic scale is shown in grey-backed notes. Make some exception to the key pentatonic scale, also using scales on the second or fifth of the key. V scales can usually be played over IIm and over V. II minor scales can usually be played over IIm, IV and V.

Continue to speak the numbers of the chord roots while improvising. Sing what you play.

continue speaking the root numbers and play an occasional double stop

Arpeggios are shown in the pentatonic diagrams above with the notes that are both bold and gray-backed. Incorporate an occasional arpeggio into your improv. Continue speaking the root numbers.

The diagrams below show double stop structures for each chord. See Double Stops and Modal Double Stops By Triad Arc. While continuing to speak the chord root numbers while improvising, occasionally play a double stop figure to represent the current chord. Learn to integrate the double stops into your improvisation by segueing from the last pentatonic scale tone to a nearby tone (close in range of pitch) in the double stop figure.

C	Dm	Em	F	G	Am	Bdim
G	Am	Bm	C	D	Em	F#dim
D	Em	F#m	G	A	Bm	C#dim
A	Bm	C#m	D	E	F#m	G#dim
F	Gm	Am	Bb	C	Dm	Edim

Tonal Layer One: Core Melody

Duality tones are notes common to the current key scale and the current chord. The core melody uses one or two duality tones per bar. See [Core Melody Built with Duality Tones](#). Represent the chord tones by emphasizing the duality tones. Play the chord progression and hum or sing a melody that is very simple, two notes to the bar. That make a core melody. Once you establish a core melody, you can freely change its rhythm and elaborate it with the other layers.

Core melody, as defined in this chapter and course uses these four tonal layers:

- ✦ A simple elaboration of the melodic framework that uses one or more notes per beat and may use six to eight tone scales or elaborate the melodic framework with chromatics. Rhythmically, some syncopation is added
- ✦ A full elaboration with ornate decoration like mordents, turns and chromaticizing.

Tonal Layer Two: The Melodic Framework

Layer two, the melodic framework, elaborates the core melody using about one note per beat with scales or arpeggios of three to five notes. Audition the scale or arpeggios by singing and playing them and try to imagine a simple melody using them to elaborate the core melody.

pentatonic scales

If you have a strong blues, swing or rock background, use pentatonic scales. The second layer could also be a four or five-tone chord.

In this course, chords are often used to name pentatonic scales. See the next section, [Chord-Style Names for Pentatonic Scales](#). It's often useful to build two versions of the first layer, one based on major pentatonic and one on minor pentatonic. See the chapters [Pentatonic Scales and Octave Shapes](#), [Intro To Improvisation](#) and [Pentatonic Fingering](#).

A minor pentatonic basis suggests blues. I call it minor seventh eleven (m7/11). The fifth is commonly flatted, making minor seven eleven, flat five (m7/11b5). Also, the third is commonly natural, making dominant seven eleven, also called "seven eleven (7/11). With the dominant seven eleven scale, (7/11) the flatted third (enharmonically equal to sharp two) is used before the natural three.

A major pentatonic basis suggests swing or country music. A common variation is the minor 6/9 pentatonic scale which has only one modification to the major pentatonic scale: a flatted third. So, major 6/9 pentatonic is 1-2-3-5-6 and minor 6/9 pentatonic is 1-2-b3-5-6.

using arpeggios of four or five-note chords instead of pentatonic scales

Layer two could be chord tones, rather than pentatonic scale tones. Arpeggios are chords played one note at a time. Most pentatonic scales can be played as a chord by sustaining all the notes at once. Conversely, by playing a chord one note at a time (as an arpeggio), it becomes similar to a scale. Sixth and seventh chords have four notes each. While ninth chords, 6/9 chords, 7/11 chords and others have five notes each. See the chapter [All Scale-Tone Chords](#).

Tonal Layer Three: Simple Elaboration of the Melodic Framework

seven tone scales or large arpeggios

Once layers one and two have established the basic chord sound with the core melody and the melodic framework and given listeners a familiar context with the universally known pentatonic scales, the third layer can add the last few notes to make seven tone scales.

Not all styles of music use more than pentatonic scales (tonal layer two). Rock, blues and folk often only use pentatonic scales and don't use layer three. It is common that the vocal melodies in pop music use seven tone scales, while the guitar solos use only pentatonic scales.

Seven tone scales and large arpeggios can be used just as "filler" without any significant melodic purpose. It's better to often use seven tone scales and large arpeggios purposefully with melodic design. Explore the chapter [Melodic Cells](#) for design elements.

theme and variation

Theme and variation can be used in the third layer to elaborate the melodic framework. In studying theme and variation, you should learn to build a solo (or melody) with a simple basis of two, three or four notes, then create variations of it. This is covered in the chapters [Introduction to Improv](#), [Sections Built with Phrases](#) and [Theme and Variation](#).

simple syncopation

The simple elaboration of the melodic framework can introduce simple syncopation like syncopated eighth notes.

Tonal Layer Four: Full Elaboration of the Core Melody

One of the most significant improvisers in modern jazz is Charlie Parker. Charlie Parker's improvisation clearly uses core melody and melodic framework. He commonly superimposed a secondary chord progression (often through cadences) upon the original chord progression. He decorated arpeggios with scales and chromatics and bebop ornamentation. He usually played in swing, with much syncopation and rhythmic theme and variation.

The fourth layer can use melodically superimposed cadences. All of the layers can be ambiguous, with different versions simultaneously among different band members and different versions upon each instance of a chord progression. See the chapters [Melodically Superimposed Cadences](#) and [Scale Ambiguity](#).

complex rhythm

The full elaboration of the melodic framework can introduce complex syncopation (syncopated sixteenths and septuplets), anti-metric grouping and rhythmic displacement. See [Spontaneous Rhythmic Phrases](#).

BUILDING LAYERED PHRASES

See the chapters [Build Core Melody with Duality Tones, Tonal Themes and Schemes](#) and [Voice Leading](#).

Core Melody, Cell Elaboration, Filler

Phrases are build with core melody, elaborated with [melodic cells](#) and connected with “filler”. Filler is simply ascending or descending a scale or arpeggio or playing “stock” licks that don’t have any particular significance melodically.

Using Four Tonal Layers

While building the phrase with core melody, cell elaboration and filler, you’ll use different depths of arpeggios and scales. See the section [Build Four Tonal Layers](#).

Four Harmonic Families

The scales that make up the core melody, cell elaboration, filler and tonal layers are primarily derived from [The Four Harmonic Families](#) shown in that section of this chapter.

Base Your Melody on Theme and Variation

Establish the basis of your melody with minimalist themes of two, three or four notes, elaborating with rhythmic and harmonic theme and variation, as discussed earlier in [Step Three: Improv Layers One, Two and Three](#). See [Theme And Variation](#). Themes typically occur every two or four bars.

Target Tones

thinking in chunks

In putting together fast, complex phrases, we don’t think of every note. We recall phrases, scales, arpeggios and rhythms in groups of notes. We abstractly modify them with rhythmic and harmonic variation, using chromatics and chord substitution.

masterful improvisers conceive a simple basis: target tones

For the guitarist, this simple basis can be a graphic pattern of target tones on the fretboard. The visualization of target tones will be much easier once you understand [The Four Harmonic Families](#).

Chord substitution provides a lot of variability in playing on most chords in jazz-related styles. See [Substitution](#). Using an approach with a simple basis, you can trigger memories of scales, arpeggios and phrases, and use them to abstractly build longer phrases.

For each chord type you improvise on, you need to visualize where its tones lie on the fretboard.

playing a melodic cell on each target tone

Play a melodic cell on a each tone in a series of targets based on a harmonic family. Melodic cells are usually within the range of a fifth or less.

Play through the target tones in thirds, but also in perfect fifths, perfect fourths (quartal harmony on a harmonic family chord type), octaves, stepwise and chromatic. Melody is much more interesting with a diversity in the patterning of target tones.

Diversity if cell types is also important. Usually, don't repeat the same cell type on each target tone. Alternate between at least two or more types.

emphasize target tones with comper accents

In the solist's role, you need to have enough awareness as you are soloing that you can anticipate the most important accents the comper will play and emphasize the accents with target tones. See [Comping Strategies](#). Core melodic tones are those common to well-thought (and felt) key scales and preferred current chord tones. I also call them duality tones.

obscuring the beat

In a recent study, I've worked on obscuring the beat and chord to make fast passages more abstract and interesting. This causes us to be more capable of starting phrases on any part of the beat or bar. Likewise, predicting the comper (or soloist, depending on your role) requires the same capability.

Combine Melodic Cell Types

Practice sequences of each melodic cell type, so you can easily incorporate it into your improv. Melodic cells are often built on triads or thirds. Triads or thirds are usually part of larger chord. Learn to play the melodic cell on each triad on third part of the larger chord.

See [Melodic Cells](#).

THE FOUR HARMONIC FAMILIES

Chords are commonly referred to by type. Major or I type, Dorian minor or II type, and so on. Most chords can be thought of as part of one of four families: (1) minor fifteenth, (2) dominant thirteenth, (3) the Phrygian family (Phrygian, Phrygian, Phrygian major super Phrygian) and (4) the Lydian family (Lydian dominant, super Locrian and Dorian sharp four).

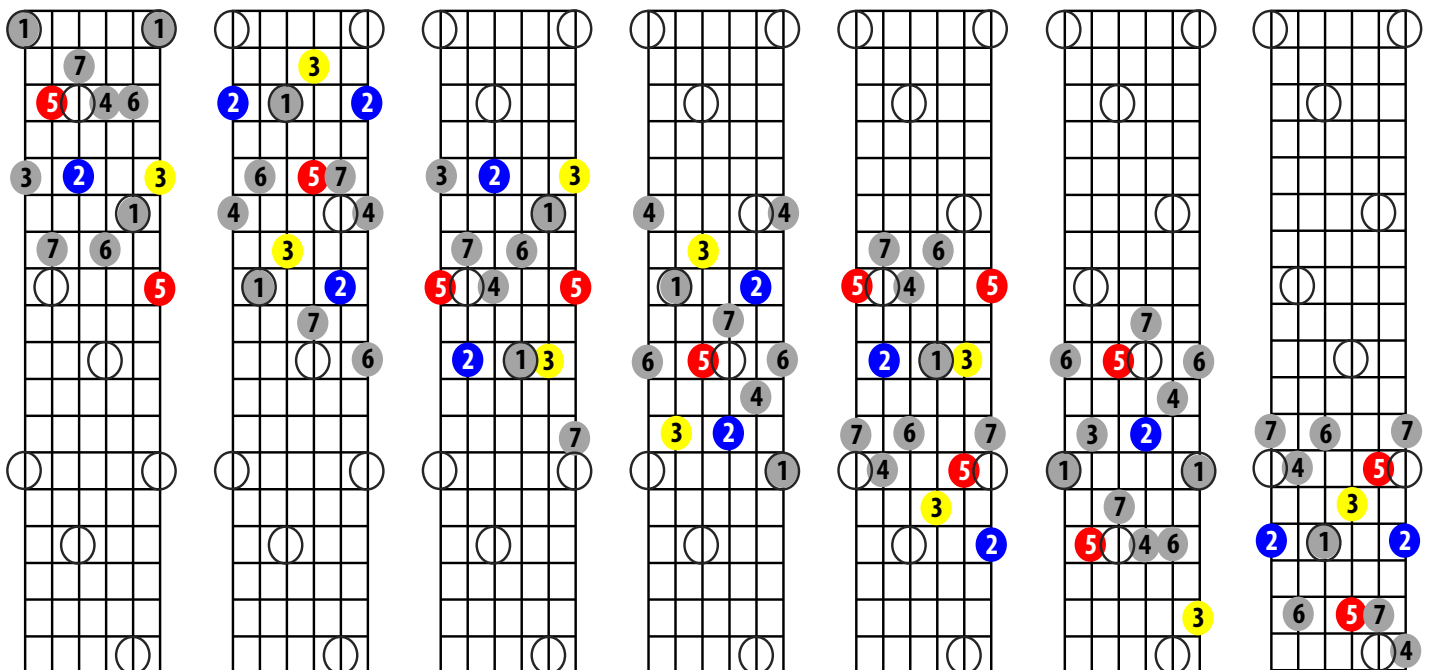
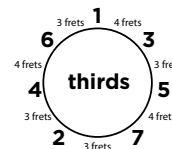
By practicing melodic cells on the two minor fifteenth arpeggio you develop the ability to improvise on five of the seven major scale-tone chord types. The V13 arpeggio covers four major scale-tone types, duplicating two of those in the IIm15 (IIIm7 and IIm7), but with different moods. These make up the most common families, the IIm15 and V13.

The last two of four families, Phrygian major and Lydian dominant are harmonic minor and melodic minor dominants and can enrich your playing while making it more effortless, if they are overviewed effectively (which is our goal). They are essential to the authentic jazz sound.

major scale target tones

These are numbered in terms of the parent scale. A V13 chord would ascend from “5” (root of V, red) to “3” (13 of V, yellow). IIm15 would ascend from “2” (root of II, blue) to a maximum “2” (“15” of II, blue).

Be careful to ascend in thirds:



The Two Minor Fifteenth Family

“II_m15” is a hypothetical chord name that implies all the tones of a major scale in thirds from “2”, through two octaves to “2” (2-4-6-1-3-5-7-2). The II_m15 family includes II_m13, IV_{ma}13#11, VI_m11, I_{ma}9 and III_m7. They are all part of II_m15. See [All Scale-Tone Chords](#) (which does not include II_m15, since it is hypothetical) for more types. On the same root as Dorian II_m13, Aeolian VI_m11 uses the same notes only through the eleventh, but since its Aeolian mode has a flat six.

“two” is the highest acceptable tone in all five chord types in the II_m15

This is really significant. We should have learned this right along with our seven and ninth arpeggios and modes. For every one of these five chord types (II_m7, IV_{ma}7, VI_m7, I_{ma}7, III_m7) the highest key scale tone in thirds that the common listener accepts is scale tone two.

For the key of C, for example a II minor chord is acceptable to the common ear as a minor fifteenth, where the highest note is the second octave above. The thirteenth serves as both a thirteenth chord tone and a “low six” in relation to the “15th” two octaves above the root. A “low six” functions as a lower scale tone to the root in the sense of a lower pentatonic scale tone, the sixth of a major pentatonic, for example.

VI_m and I type synonyms

Arpeggios rooted on scale tones six and one are very synonymous and are freely interchanged. Focusing on the six type is minor and darker in mood. Focusing on the one type is major and brighter in mood.

Synonyms include: VI_m7 = I₆, VI_m9 = I_{ma}7/6 and VI minor pentatonic (VI_m7/11) = I major pentatonic (I_{ma}6'9). Practice the VI_m11 arpeggio, its elaboration VI Aeolian and its subsets VI_m7, I_{ma}7 and III_m7 arpeggios all over the fretboard.

The three type provides upper harmonies for the six and one types, but cannot be extended beyond its seventh chord (to a ninth, for example) without producing an unacceptable chord (like a m7b9) or changing its type, like using a III_m9, which makes it a VI type.

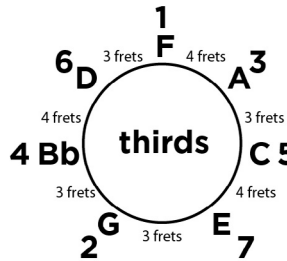
II_m and IV type synonyms

II_m13 and IV_{ma}13#11 have the same seven notes, the entire major scale. So, the chords built on scale tones two and four are freely interchanged. The two type is minor and moderately dark in mood, while the four type is major and produces a bright exotic mood (with the potential #4 or #11). The six type provides upper harmonies for the two and four types, and be extended to a VI_m11.

Synonyms include: II_m7 = IV₆, III_m9 = IV_{ma}7/6 and II minor pentatonic (II_m7/11) = IV major pentatonic (IV_{ma}6'9).

Practice the IIm13 arpeggio, its elaboration II Dorian and its subsets IIm7, IVma7 and VIm7 arpeggios all over the fretboard.

IIm15 fretboard illustrations



The highest note in each of these is the scale tone "2".

Beginning with IIm15 (IIm13 with "15", two octaves above the root), progressively remove the bottom note to get IVma13#11, VIm11, Ima9 and IIIIm7:

IIm15 (Gm15) = 24613572

IIm15 no root is IVma13#11 (Fma13#11) = 4613572

IVma13#11 no root is VIm11 (Dm11) = 613572

VIm11 no root is Ima9 (Cma9) = 13572

Ima9 no root is IIIIm7 (Em7) = 3572.

There are many synonyms, making substitute chords.

The synonyms are based on IIm13 and IVma13#11 (which have the same seven notes);

IVma13#11 no root and VIm11 (same notes); VIm11 no root and Ima9 (same notes);

Ima9 no root = IIIIm7.

Gm15 (IIm15)

Building Up From II Minor Seventh

Building Up From IV Major

Bbmaj7 **Bbmaj9** **Bbmaj9(#11)** **Bbmaj13(#11)**

1 3 5 7 1 3 5 7 9 1 3 5 7 9 #11 1 3 5 7 9 #11 13

2 2 #4 2 #4 6

T 10 10 13 13
A 12 10 10 12
B 13 13 13 13

IV Major With A "Low Six"

Bb6 **Bbma7/6** **Bbma9/6** **Bbmaj13(#11)/G**

6 1 3 5 6 1 3 5 6 1 3 5 7 9 6 1 3 5 7 9 #11 13

2 2 #4 6

This is the basis for swing blues melody,
such as Benny Goodman with Charlie Christian
or Motown sixth chord basslines.

T 10 10 13 13
A 12 10 10 12
B 10 13 10 13

Building Down From VI Minor Eleventh

VIIm7 **VIIm9** **VIIm11**

Dm7 **Dm9** **Dm11**

1 b3 5 b7 1 b3 5 b7 9 1 b3 5 b7 9 11

2 2 4

T 13 13 13
A 10 10 10
B 12 12 12

Bbmaj13(#11) **Gm13**

Dm11 **Dm11**

Don't play key "4" (the Bb note) in an arpeggio on Dm11. Don't play key low "2" (the G note) or "4" (the Bb note) in an arpeggio on Dm11.

T 12 12 15
A 10 10 13
B 13 13 13

Building Down From I Major Ninth

Ima9
Fmaj9

1 3 5 7 9 2

10 14 13 12 15

10 14 13 12

Dm11

Bbmaj13(#11)

Gm13

Fmaj9

Fmaj9

Fmaj9

Key "low 6" (the D note) can work as a sixth of F on an Fma7(9) arpeggio

don't play key "4" (the Bb note) in an arpeggio on Fma7(9)

Key "low 6" (the D note) can work as a sixth of F, but don't play (key) low "2" (G) nor "4" (Bb) in an arpeggio on Fma7(9)

12 10 14 13 12 15

12 10 14 13 12 15

10 13 12 10 13 12 15

Building Down From III Minor Seventh

Am7

1 b3 5 b7

14 13 12 15

Fmaj9

Dm11

Bbmaj13(#11)

Gm15

Am7

Am7

Am7

Am7

2 4

10 14 13 12 15

12 10 14 13 12 15

13 12 10 14 13 12 15

10 13 12 10 14 13 12 15

The Five Thirteenth Family

V13 implies all the tones of a major scale in thirds from “5” through “3” (5-7-2-4-6-1-3). The V15 family includes IIIIm7, V13, VIIIm11b9b5, IIm7. They are all part of V15. See [All Scale-Tone Chords](#).

“three” is the highest acceptable tone for V and VII types

In this family, the highest acceptable tone for the V13 and VII 11b9b5 arpeggios is major scale tone “3”. IIIIm7 is included in the family because of its synonyms with V type chords (there are IIIIm and V type chords that have the same notes, named after III or V).

IIm and IV type synonyms

Synonyms of IIIIm and V types include: IIIIm7 = V6 and III minor pentatonic (IIIIm7/11) = V major pentatonic (Vma6'9). The V7 is a funky chord, a hybrid of a bright major triad (5-7-2 of its parent scale) and a very dark diminished triad (7-2-4 of its parent). The IIIIm7 chord is dark in mood, especially when the tones a half step above its root and fifth are used. The mode on scale tone III is Phrygian, which is middle-eastern and Spanish by nature.

Practice the V13 arpeggio, its elaboration V Mixolydian and its subsets IIIIm7, V7 and VIIIm7b5 arpeggios all over the fretboard.

the five thirteen relationship to harmonic minor

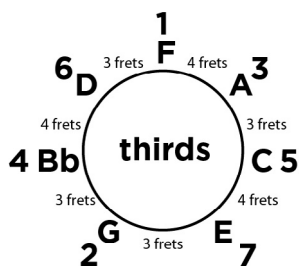
When the parent scale is major sharp five, the “#5” tone can function as “b6”, making the VII chord a diminished seventh. VII dim7 - II dim7 = IV dim7 = bVI dim7.

For use on VII type chords (minor II type chords, where VIm is being established as the key), practice VIIIm11b5b9. For use on III dominant type chords (V chords, when VIm is being established as the key), practice VII dim7 arpeggios.

VIIIm11b9b5 is a useful arpeggio but not an acceptable chord

The seventh chords built on major scale tones seven, the VIIIm11b5b9, is not an accepted chord, but it can function as an arpeggio. It is especially effective before a III7 type (III dominant seventh, with a major third). VIIIm11b5b9 = V13 no root.

V13 fretboard illustrations



The highest note in each of these is the scale tone "3".

Beginning with V13, progressively remove the bottom note to get VIIIm11b5b9, IIm9, and IVma7:

V13 (C13) = 5724613

V13 no root is VII(E)m11b5b9 = 7-2-4-6-1-3

You won't see VIIIm11b5b9 used as a chord, but it is usable as an arpeggio.

VIIIm11b5b9 no root is IIm9 (Gm9) = 2--4-6-1-3

IIm9 no root is IVma7 (Bbma7) = 4613

There are many synonyms, making substitute chords.

The synonyms are based on V13 no root and VIIIm11b5b9 (which have the same notes); Gm9 and Bbma7/6 (same notes).

C13

Building up from V7

V7 C7 V9 C9 V11 C11 V13 C7

Building up from VIIIm7b5

Em7(b5) Em7(b9) Em11(b9)

1 b3 b5 b7 1 b3 b5 b7 b9 b2 1 b3 b5 b7 b9 11 b2 4

don't play key "5" (the C note) in an arpeggio on Em7b5. DON'T USE THIS ONE BY ITSELF! It needs the 11 to sound well. See the next one Don't ascend only to key b9 (F), go to the 11 (A).

TAB: 12 10 13 12 12 10 13 12 10 12 10 13 12 10 10

Building up from VIIIm11b5b9

Em11(b9) C13

1 b3 b5 b7 b9 11 b2 4 1 3 5 b7 9 11 13 2 4 6

TAB: 12 10 13 12 10 10 8 12 10 13 12 10 10

Building up from IIIm7

Gm7/6 Gm9

6 1 b3 5 b7 1 3 5 7 9 2

TAB: 12 10 13 12 10

Building down from IIIm7

Gm7/6

6 1 b3 5 b7

TAB: 12 10 13 12 10

Harmonic Family Exercises

Cmaj13

1 2 3 4

5 Cmaj13

5 6 7 8

9 Cmaj13

9 10 11 12

13 Cmaj13

13 14 15 16

17 ^{8va}

17 18 19 20

21 Dm¹³

Tablature for exercise 21:

T	.	3	7	5	6	3	3	5	5	2	3	3	7	5	6	3	3	5	5	2	3	.
A	.	5	3	2	5	5	3	5	5	2	3	3	2	5	5	3	2	5	5	2	3	.
B	.	5	3	2	5	5	3	5	5	2	3	3	2	5	5	3	2	5	5	2	3	.

25 Dm¹³

Tablature for exercise 25:

T	.	5	8	7	5	6	7	8	5	5	7	5	6	7	8	5	5	7	8	5	5	7	.
A	.	5	8	7	5	6	7	8	5	5	7	5	6	7	8	5	5	7	8	5	5	7	.
B	.	5	8	7	5	6	7	8	5	5	7	5	6	7	8	5	5	7	8	5	5	7	.

29 Dm¹³

Tablature for exercise 29:

T	.	7	8	7	10	10	7	8	9	10	7	8	9	10	10	7	8	9	10	7	8	.
A	.	7	8	7	10	10	7	8	9	10	7	8	9	10	10	7	8	9	10	7	8	.
B	.	7	8	7	10	10	7	8	9	10	7	8	9	10	10	7	8	9	10	7	8	.

33 Dm¹³

Tablature for exercise 33:

T	.	9	12	12	10	10	12	12	9	10	12	10	9	12	12	10	10	12	12	9	10	.
A	.	9	12	12	10	10	12	12	9	10	12	10	9	12	12	10	10	12	12	9	10	.
B	.	9	12	12	10	10	12	12	9	10	12	10	9	12	12	10	10	12	12	9	10	.

37 Dm¹³

Tablature for exercise 37:

T	.	12	12	14	15	12	12	14	15	12	12	14	15	12	12	14	15	12	12	14	15	.
A	.	12	12	14	15	12	12	14	15	12	12	14	15	12	12	14	15	12	12	14	15	.
B	.	12	12	14	15	12	12	14	15	12	12	14	15	12	12	14	15	12	12	14	15	.

41 G¹³

T A B

45 G¹³

T A B

49 G¹³

T A B

53 G¹³

T A B

57 G¹³

T A B

61 Fmaj13(#11)

65 Fmaj13(#11)

69 Fmaj13(#11)

73 Fmaj13(#11)

77 Fmaj13(#11)

81 F13(#11) the target root is down a half step from this root

81 F13(#11) the target root is down a half step from this root

85 F13(#11)

85 F13(#11)

89 F13(#11)

89 F13(#11)

93 F13(#11)

93 F13(#11)

97 F13(#11)

97 F13(#11)

The Phrygian Family

Phrygian minor

Phrygian major (Phrygian dominant)

The III7b9 and III augmented arpeggios are the basis of the Phrygian major family. When the key is established on VIIm, III7b9 and III augmented become V7b9 and V augmented. Practice them throughout the fretboard.

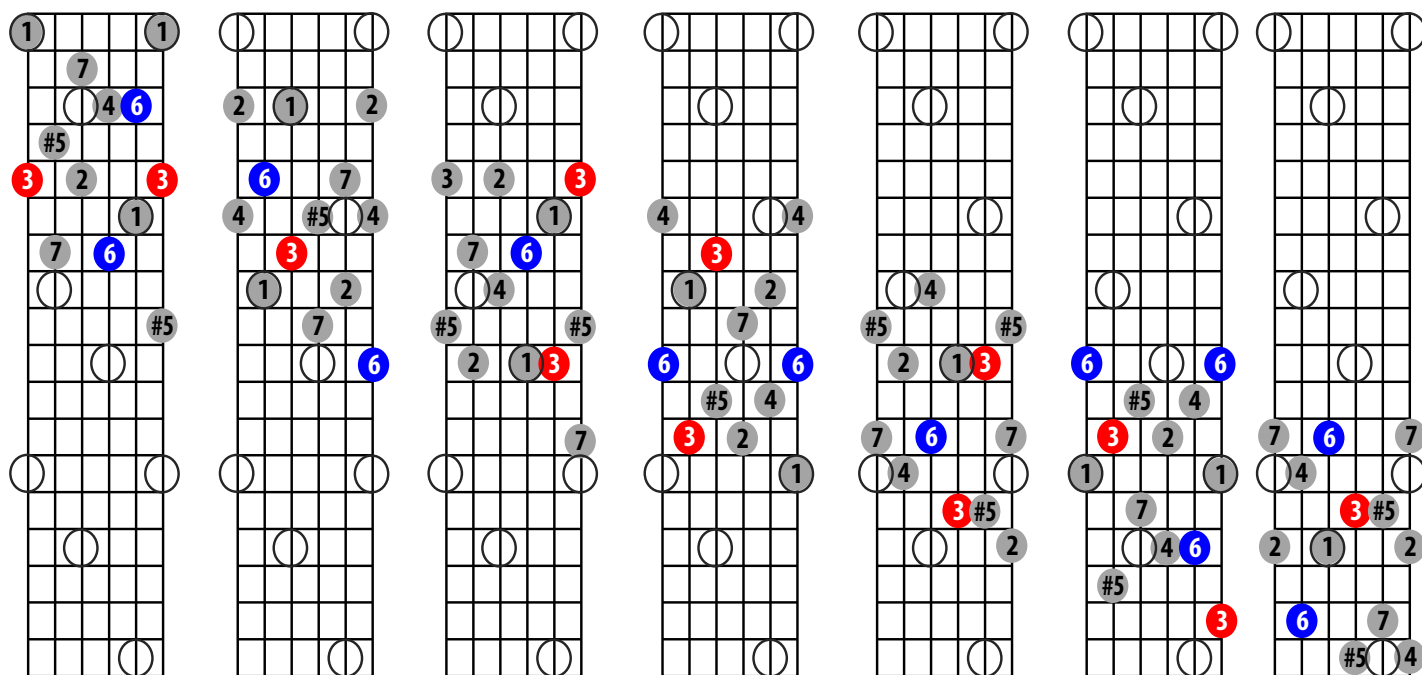
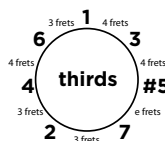
Phrygian major and Lydian dominant are modes representing altered dominant chords built on the fifth of the target chord.

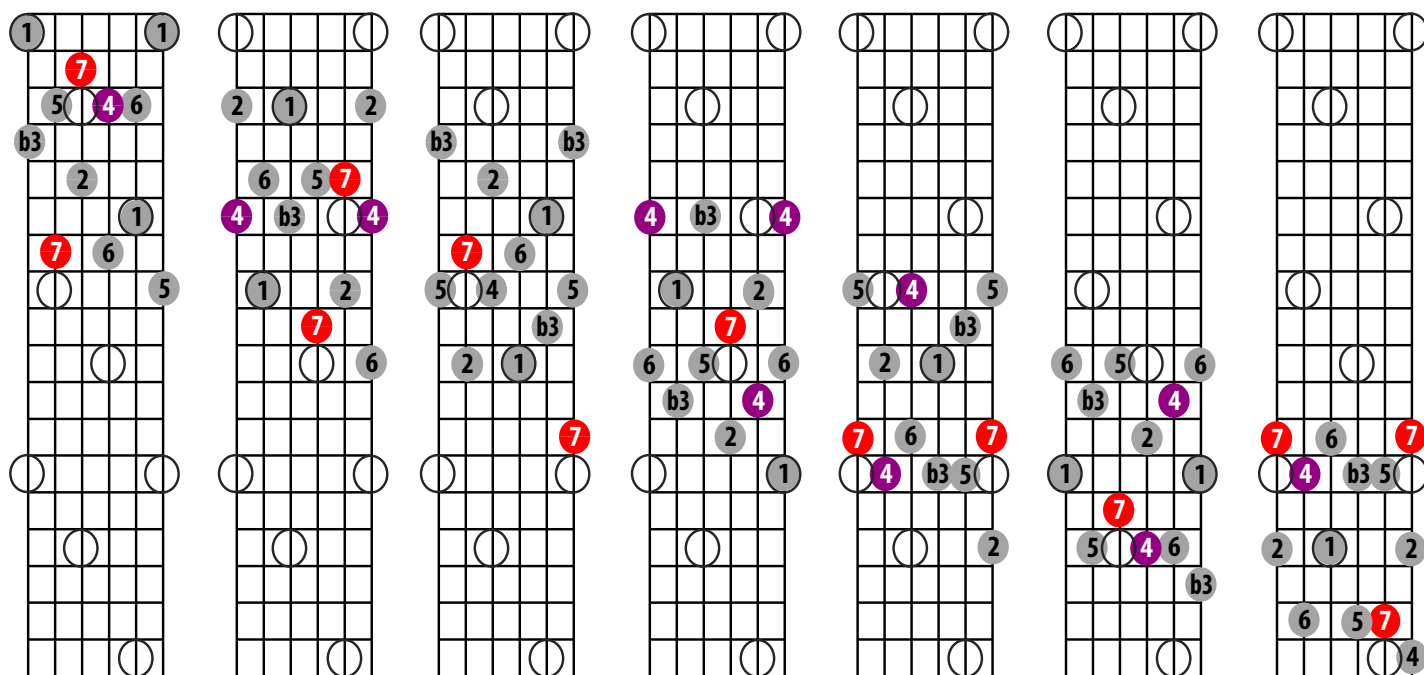
See [Modes Of Four Heptatonic Scales](#) and [Harmonic Minor Cadences](#).

major sharp five makes III Phrygian major

The red “3” is the V of the blue “6” the harmonic minor tone center.

Be careful to ascend in thirds:





super Locrian

Super Locrian is Locrian mode with a flatted fourth that can proxy as (act as) a major third. It can be harmonized as a “Swiss Army seventh chord”: a dominant seventh chord with sharp and flat five and with sharp and flat nine. The scale ascends from its tone center in a half-whole-half step sequence (1-b2-b3-3), followed by five notes in whole steps up to the next octave tone center (3-b5-b6-b7-1)

Dorian sharp four

Dorian sharp four is equal to Lydian dominant with flat three. It is mode II of major sharp five and is mode IV of harmonic minor. Dorian sharp four can be used as a darkened version when Lydian dominant is a key scale. It can also be combined with Lydian dominant by generally ascending from to flat three with Dorian sharp four and generally descending from one to natural three with Lydian dominant.

Harmonic Family Solo Studies

two-note minimalist theme on 1 and 5

Swing Eighths

System 1: F7, Bb7, F7, Cm7, F7

System 2: Bb, Bb7, F7, Em7(b5), Am7, D7

System 3: Gm7, C7, F7, Gm7, C7

two-note minimalist theme on 6 and 1

Swing Eighth

First system of musical notation for the "two-note minimalist theme on 6 and 1" in Swing Eighth style. The system includes a treble clef staff with a key signature of one flat (Bb) and a 2/4 time signature. The melody is written in eighth notes, with a 3/8 note triplet in the final measure. The bass staff shows the fretboard positions for the melody, with fingerings indicated by numbers 1-10. Chord symbols above the staff are F7, Bb7, F7, Cm7, and F7.

Second system of musical notation. The treble staff continues the melody with a 3/8 note triplet in the final measure. The bass staff shows the fretboard positions for the melody, with fingerings indicated by numbers 1-10. Chord symbols above the staff are Bb7, Bb7, F7, Em7(b5), Am7, and D7.

Third system of musical notation. The treble staff continues the melody with a 3/8 note triplet in the final measure. The bass staff shows the fretboard positions for the melody, with fingerings indicated by numbers 1-10. Chord symbols above the staff are Gm7, C7, F7, D7, Gm7, and C7.

Improv on Blues In F with Cm13 and F13

Playing over jazz blues in F, such as “12-7362514 in F layer 1 blues” in All Favored ireal

Practice Cm15 with C Dorian (Bb major, tone center “2”) and F13 with F Mixolydian (Bb major, tone center “5”) and use them throughout with two important changes: in bars 2, 5 and 6 use F Mixolydian with b3 (“Ab”); in bars 9, 10 and 12 use C Dorian with a natural third.

use a simple basis

Think in C Dorian (resolving to F), F Mixolydian, F Mixolydian with a b3 (F Dorian) or F Mixolydian with a natural 7 (F major). That way, you are primarily thinking C Dorian or F Mixolydian.

F Mixolydian with b3

Bars 1-4, 7-8 and 11 are primarily F7. Generally, use parts of Cm13 resolving to F7 or F Mixolydian.

In bars 2, 5 and 6, be sure to flat the “A” note, which is the third of F. On the harmonic family charts, F is “5”, so flattening A would be b7. Think F Mixolydian with “Ab’s”, making F Dorian. Since the parent scale is Bb major, flattening the seventh would make Bb Mixolydian, but it is probably better to think of it as F Dorian, so you’re thinking of fewer scales.

Treat B dim 7 largely like Bb7, thinking of it as a chromatic connecting chord in the accompaniment that you are not representing.

F Mixolydian with optional F#

Treat bars 7, 8 and 11 as F7, or use any of the following options. nGenerally ignore the Em7b5 chord, thinking of it as a connecting chord in the accompaniment that you are not representing. The Am7 will sound as Am7b5 if you use F13 and F Mixolydian over it, since Am7b5 is part of F13 and F Mixolydian. D7 will sound as Dm7 = F6, unless you want to sharp the F note, making F Mixolydian sharp 1.

C Dorian with natural three

Bars 9, 10 and 13 can be thought of as C Dorian with a natural third (“E” natural). This sounds the C7 chord, the more important of the two (Gm7 and C7).

Learn Melodic Cell Types Well, Learn to Abstractly Combine Them

On each tone of a harmonic family arpeggio (see major scale harmonic family fingering.pdf), practice all one melodic cell type, then (separately) practice another melodic cell type. Then alternate between the two. After practicing cell types separately and alternating in pairs, alternate between three types. Then free associate between three or more melodic cell types and abstractly modify them.

Begin with these two types, each separately first

1235 and 1345 from each chord tone of a ninth: on a triad built on its root, third and fifth.

triads with two chromatics below each chord tone

Then play 1235 and 1235 on triads in perfect fourths, emphasizing the triads that are part of a larger chord version of the current chord.

Take your time with each melodic cell type. First learn it in a familiar form, like E form. One fingering type at a time, learn the fingerings for a cell type all over the fretboard, with the little finger on the root (sometimes substituted with the ring finger), a middle finger on the root (middle or ring fingers) or with the index finger on the root.

ONE OCTAVE SHAPE AT A TIME

Target Chords and Setup Chords

A *target chord* is preceded by one or more chords that lead to it in a familiar fashion, establishing a temporary or permanent sense of key on the target chord. A *setup chord* is the chord played immediately before the target chord, that leads to and resolves on the target chord.

Here is a table showing the keys of target chords and setup chords. Remember, target chords have a major or minor basis and setup chords can be on V or bII in the key of a target chord.

target chord	C	C#	D	Eb	E	F	F#	G	G#	A	Bb	B
setup on V	G	G#	A	Bb	B	C	C#	D	D#	E	F	
setup on bII												
	Db	D	Eb	E	F	Gb	G	Ab	A	Bb	B	C

I avoided double flats for the setups on bII. If your target chord is C# minor, no problem. The bII would be “D”. In major, Db major is the more common version of the enharmonic equivalents C# and Db. In Db major the bII would be Ebb (E double flat), an awkward note to think. G# works fine as a minor key target, with a “A” as bII. G# major is only a hypothetical key that would have an F## (F double sharp). G#’s bII would be A, but there’s that annoying F##, making the scale pretty unusable.

Take Your Time

Fleuency in this type of improvisation takes a while. You need to memorize melodic structures involving arepeggio subsets of harmonic minor and melodic minor scales that have complex relationships to the key of the target chord.

start with the E form octave shape of the target chord

To play a setup chord structure to precede a target chord in the any particular octave form, the root of the setup chord will *not* be the same note as the target chord (of course). The root of the setup chord will be on the V or bII of the target chord. If it is on the bII of the target chord, the root of the setup chord will usually be in the same octave shape as the target chord.

TONAL LAYERS AND TARGET TONES

Tonal Layers

From the tonal perspective (in regard to the notes played), music is conceived by both the listener and improviser in a multi-dimensional fashion. There are two main layers: the key layer and the chord layer.

In the key layer, the key is depicted by constructing melodies and other musical parts primarily with scales named after the key. Chords progress toward the tonic chord (the chord whose root names the key) through tension and release and other compositional devices that provide the expectation that the song will end on the tonic chord.

This Chapter Focuses on the Fretboard

We are conceiving multiple layers of music such as one chord progression superimposed over another (see *Melodically Superimposed Cadences*) or a chord being a subset of a scale. The context in this chapter is the fretboard. We are trying to visualize the multiple layers of music on the fretboard.

Target Tones

As the improviser, *you* define key scale types for the key layer and *you* define the chord types for the chord layer. *Target tones* are those notes common to the current key scale and the current chord. They are the tonal core of your melody. It is best to practice each key scale and the arpeggio for the chord as you depict it in the chord layer. Then, the most important thing you can do in improv development is to practice the notes common to both, the target tones.

In the chord layer, the melody resonates each chord during its period, but without losing reference to the key. Some of the best tones to use melodically are those that are in both the current chord and the tonic chord. The current chord can be represented by notes that are in it or pleasing added harmonies to the chord, such as adding a sixth or seventh to a triad (the triad would typically have the numbered tones “1”, “3”, “5”).

Multiple Chord Layers

Commonly, the chord type depicted by the accompaniment players is not exactly the same as the chord type depicted in the melody. The comping (accompaniment) chord layers may have more or fewer chords per period than the melodic (improv) chord layer. During Dm7 and G7 in the comping chord layer, the improv chord layer may depict G7sus.4 and G7, respectively. Or, during G7 in the comping

chord layer, the improv chord layer may depict Dm7 and G7, or the improv chord layer may depict Dm7 and Db7 (a [flat five substitute](#) for G7).

There may be multiple accompanists, each producing a slightly different chord layer. Chords can be conceived in families, where multiple versions of chords can be compatible. There also may be multiple improvisers (simultaneously), where they also produce multiple melodic chord layers.

The comping and improv chord layers will have the same primary chords, but may connect them in different ways. Listeners have become very flexible in this manner, since so much has been done in jazz and pop (especially since the sixties, with influences like Lennon and McCartney).

Chord Tone Targeting Procedure

Generally move by scale step, accenting current arpeggio tones every four to six notes on the beat, such as eighth notes accenting on beats one and three in 4/4, on the first beat in 3/4 or on the first beat in 6/8.

A target tone is the first note at the beginning of a chord, commonly on the first beat. A setup tone is the last note before a target. A scalar setup is a consecutive series of two or more scale tones before a target tone. The last setup tone is ideally an upper or lower scale-tone neighbor of the target tone. If the last setup tone is a chord tone of the same chord as the target tone, it doesn't have to be a neighbor tone of the target, but you usually want to move to the target with a small interval.

solutions where the target is not a step away:

- ✦ skip to a chord tone of the target tone's chord
- ✦ change the setup tone by a skip to a neighbor of the target tone

solutions where the target and the setup are the same note:

- ✦ change the last setup tone to a neighboring tone.
- ✦ shorten the time value of the last setup tone and insert a neighbor of the target after it.
- ✦ trade the last two setup tones.
- ✦ insert a chromatic

HARMONIC CLUSTERS

Core melodic tones are those common to the chord and scales being used for improvisation. I call them *duality tones*, since they are common to two things: the current chord and the current scale. You can read further on this subject in [Tonal Themes And Schemes](#).

triad arcs

Looking at the core melodic tones in an area of the fretboard with the clusters of scale tones around them can be very powerful in developing your improvising. For example, focus on three strings of one of the arcs shown on the following pages of major scale line structures. Determine which major scale the chord progression you are working on uses and determine the number of the scale step on which the chord is based. Emphasize the tones of the current chord and use the surrounding notes as neighboring tones.

Triads as a Harmonic or Melodic Basis

Triads can be a structural basis to your comping or soloing. See Chord-Naming Conventions/[Triads](#) and [Thirds](#). During a single chord, use any of the seven triads in its [parent scale](#), emphasizing those in the current chord, de-emphasizing ones not in the current chord and creating tonal and stylistic environments for any that you dwell on.

The parent scale can be substituted with one that darkens the mood by chromatically lowering major or perfect intervals, such as Dorian flattening the third of Mixolydian. This is the basis of the American blues harmonic/emotive expression.

Where it won't cause too much dissonance, the opposite can be done, the mood can be brightened by using chromatically raised versions of notes in the parent scale, such as Mixolydian for Dorian to brighten the mood. Such cases, make the accompaniment seem to be darkening notes, where in fact, it was the melody that raised notes.

Secondary dominants change minor chords to major or dominant or change major, major sixth or major seventh chords to dominant seventh chords, so they will progress more strongly to the chord they precede. See [Secondary Dominants](#). As dominant sevenths, they will more strongly progress to chords rooted a perfect fourth higher. For example, II^{Im}, III^{Im} and VI^{Im} chords are changed to dominant seventh with a major triad basis, to respectively move. They are typically dominant sevenths, with a major triad basis.

One, two or all three of the notes in the triad can move up or down the parent scale:

one moving voice

[Double Stops And Pedal Steel Bends](#)

[Voice Leading](#)

[Triad Bass Harmonization](#)

[Jazz Bass Harmonization](#)

two moving voices [Pedal Point Thirds](#)

three moving voices

[VIIm Vm Triads With Pedal Point “1”](#)

[More Triads With Pedal Point](#)

[Pedal Point Triads Of Four Heptatonic Scales](#)

modal triad improv and cluster playing

Double Stops and “Triple Stops”

Double stops are the most common use of two or three notes (technically “triple stops”, but usually also called double stops) in improvisational styles. See the separate document on the subject: [Double Stops](#).

Secondary Roots

Chords used in jazz usually contain four or more notes and are typically built with every other note of a seven tone (heptatonic) scale. The same cycle of tones, numbered 1-3-5-6-2-4-6-1-3, etc., is used for any step of the scale to build a chord.

With seventh chords, using four notes in that cycle, a Ima7 chord is 1-3-5-7, a IIIm7 chord is 2-4-6-1, a IIIIm7 chord is 3-5-7-2, and so on.

Larger ninth chords use five notes in the cycle. Ima9 is 1-3-5-7-2, IIIm9 is 2-4-6-1-3, and so on. Ninth chords are only acceptable built on steps I, II, IV, V and VI of the major scale. Those on III and VII are currently considered to have an unacceptable dissonance. Eleventh chords have six notes, constructed in the same every other note pattern. All currently accepted chords can be studied in [All Scale-Tone Chords](#).

secondary roots on the third, fifth and seventh

Any of these chords of four notes or more have subsets. A ninth chord built on step I is Ima9 and contains 1-3-5-7-2. 1-3-5 is a I major triad. 3-5-7 is a III minor triad. 5-7-2 is a V major triad.

Rarely, a secondary root can occur on the seventh. It happens on a suspended thirteenth chord. Bb major seventh (Bb-D-F-A) is the upper part of a C13 sus. 4 chord (C-G-Bb-D-F-A).

secondary roots on the sixth

A sixth chord is acceptable on steps I, II, IV and V of the major scale. In each case, the chord is a triad with an added scale tone two steps down from the root. I6, for example is scale tones 1-3-5-6. On the sixth of that chord, a subset triad exists, which is 6-1-3 and is the same as a VIIm triad. Likewise, a VII diminished triad is built on the sixth of IIIm6, a IIIm on the sixth of IV6 and a IIIIm on the sixth of V6.

Read more on this subject in [Substitution](#).

Harmonic Clusters, Conceiving Seven or More Notes at a Time

Few guitar players use three or more notes at a time in free improvisation, although it is common in jazz piano improv. It doesn't have to be that way.

Stick with each major scale line until you know the major scale fingering well enough to conceive seven or more notes at a time by working a while on three strings until you can visualize all of the notes on those three strings *at once*, not just as a scale. This is easier to visualize on the piano, but we can learn it, too.

Major Scale Line 1 Structures

Triad, Pentatonic And Major Scale

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}

Triad Arcs

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}

Ninth And Seventh Arpeggios

I ^{ma} 9	II ^m 9	III ^m 7	IV ^{ma} 9	V9	VI ^m 9	VII ^m 7b5

Major Scale Line 2 Structures

Triad, Pentatonic And Major Scale

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}

Triad Arcs

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}

Ninth And Seventh Arpeggios

I ^{ma} 9	II ^m 9	III ^m 7	IV ^{ma} 9	V9	VI ^m 9	VII ^m 7b5

Major Scale Line 3 Structures

Triad, Pentatonic And Major Scale

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}
1 1 1 1 1 1	1 1 1 1 1	1 4 b7 b3 5 1	7 3 6 2 #4 7	1 1 1 1 1 1	5 1 4 b7 2 5	4 b7 b3 b6 1 4
2 3 3 3 2 2	2 3 2 1 1	b2 b6 b2	1 5 1	2 2 2 2	b6 b3 b6	b5 b2 b5
3 3 3 3 4 4	3 2 2 3 3	5 1 4	#4 7 3	3 3 3	2 5 1	1 4 b7
4 4 4 4 4 4	4 4 3 4 4	b3 b6 b2 b7 b3	2 5 1 6 2	4 4 4 4 4	b7 b3 b6 4 b7	b6 b2 b5 b3 b6
	4 4					
	4 4					

Triad Arcs

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}
4 5 1	4 b7 b3 5 1	4 b7 5	2 5	2 5 3		b5
7 3		b2 b3 b6	#4 7	4 b7 1 4	b7 b3	4 b7 b3 1
2 5 1 4 6 2	2 5 1 4 6 2	b7 b3 6 b2 4 b7	2 5 1 3 6	5 1 4 b7 2 5	4 b3 b6 1 4	b2 b5 b6 b2
3 6 2 5 7 3	b3 b7 b3	1 4 b7 b3 5 1	7 3 6 2 #4 7	6 2 5 1 3 6	5 1 4 b7 2 5	4 b7 b3 b6 1 4
4 1 4	4 b7 b3 1 4	b2 b6 b2	1 5 1	b7 4 b7	b6 b3 b6	b5 b2 b5
7 3 6	6 2 5	5 1 4	#4 7 3	3 6 2	2 5 1	1 4 b7
5 1 4 2 5	4 b7 b3 1 4	b3 b2 b7 b3	2 5 1 6 2	1 4 b7 5 1	b7 b3 b6 4 b7	b6 b2 b5 b3
6 2 5 1 3 6	5 1 4 b7 2 5	4 b7 b3 b6 1 4	#4	2 5 1	1 4 b7 b3 5 1	b7 b3 1
7 3 6 2	6 2 5 1 6	5 1 4	3 6 5 7 3	3	2 5 1	1
1 4	b7 b3 4	5 1 4	4 1 4		b3	
	6 2		7 3 6			
	1 4		5 1 2			

Ninth And Seventh Arpeggios

I ^{ma} 9	II ^m 9	III ^m 7	IV ^{ma} 9	V9	VI ^m 9	VII ^m 7b5
1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1 1	1 1 1 1 1	1 1 1 1 1	1 1 1 1 1 1
2 3 3 3 2 2	2 3 3 3 2 2	2 3 3 3 2 2	2 3 3 3 2 2	2 3 3 3 1 1	2 3 3 3 2 2	2 3 3 3 2 2
3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3	3 3 3 3
4 4 4 4 4 4	4 4 4 4 4 4	4 4 4 4 4 4	4 4 4 4 4 4	4 4 4 4 3 3	4 4 4 4 4 4	4 4 4 4 4 4
				4 4		
				4 4		

Major Scale Line 4 Structures

Triad, Pentatonic And Major Scale

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}
4 7 3 6 5 (1) 4 2 5 6 2 5 (1) 3 6 4 7	b3 6 2 5 4 b7 b3 (1) 4 6 5 (1) 4 b7 2 5 b3	b2 5 (1) 4 b3 b6 b2 b7 b3 5 4 b7 b3 b6 (1) 4	#4 7 3 2 5 (1) 6 2 #4 3 6 2 5 7 3 (1) #4	b7 3 6 2 (1) 4 b7 5 (1) 3 2 5 (1) 4 6 2 b7	b6 2 5 (1) b7 b3 b6 4 b7 (1) 4 b7 b3 5 (1) b6	b5 (1) 4 b7 b6 b2 b5 b3 b6 (1) b7 b3 b6 b2 4 b7

Triad Arcs

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}
4 7 3 (5) 1 2 5 (1) 4 6 2 3 6 2 5 7 3 4 7 3 6 5 (1) 4 2 5 6 2 5 (1) 3 6 4 7 3 6 2 (1) 4	4 b7 b3 5 (1) 2 5 (1) 4 6 2 b3 6 2 5 4 b7 b3 (1) 4 6 5 (1) 4 b7 2 5 b3 6 2 5 (1) 6 b7 b3 (1) 4 6 2 (1) 4	4 b7 5 b2 b3 b6 5 (1) b7 b3 6 b2 4 b7 (1) 4 b7 b3 5 (1) b2 5 (1) 4 b3 b2 b7 b3 5 4 b7 b3 b6 (1) 4 b2 5 (1) 4	2 5 #4 7 3 2 5 (1) 3 6 7 3 6 2 #4 7 (1) #4 7 3 2 5 (1) 6 2 #4 3 6 5 7 3 4 7 3 6 (1) 4 5 (1) 2	4 b7 2 5 2 5 (1) 3 6 b7 3 6 2 (1) 4 b7 5 (1) 3 2 5 (1) 4 6 2 b7 3 2 5 3 4 b7 (1) 4 3 6 5 (1) 4 2	b7 b3 2 5 4 b3 b6 (1) 4 5 (1) 4 b7 2 5 b6 2 5 (1) b7 b3 b6 4 b7 (1) 4 b7 b3 5 (1) b3 2 5 (1) b3	b2 b5 b7 b3 4 b7 b3 b6 (1) 4 b5 (1) 4 b7 b6 b2 b5 b3 b6 (1) b7 b3 b6 b2 4 b7 b5 (1) 4 b7 b3 b2 b5 (1) b3

Ninth And Seventh Arpeggios

I ^{ma} 9	II ^m 9	III ^m 7	IV ^{ma} 9	V9	VI ^m 9	VII ^m 7b5
1 1 1 1 2 2 2 1 1 2 4 4 3 3 3 3 4	(1) 1 1 1 2 2 2 (1) 1 2 4 4 4 3 3 3 4	1 1 (1) 1 2 2 1 1 2 2 4 4 3 3 3 3 4	(1) 1 1 1 2 2 2 1 1 2 4 4 4 3 3 3 4	(1) 1 1 1 2 2 2 1 1 2 4 4 3 3 3 3 4	1 1 1 1 2 2 2 1 1 3 4 4 4 3 3 3 4	(1) 1 1 1 2 2 2 (1) 1 2 4 4 4 3 3 3 4

Major Scale Line 5 Structures

Triad, Pentatonic And Major Scale

Diagram showing the Triad, Pentatonic, and Major Scale structures for seven chords: I, II^m, III^m, IV, V, VI^m, and VII^{dim}. Each structure is represented by a 5-line staff with notes and fingerings indicated.

I: Notes 4, 7, 3, 6, 5, 1, 4, 2, 5, 6, 2, 5, 1, 3, 6, 4, 7.

II^m: Notes b3, 6, 2, 5, 4, b7, b3, 1, 4, 5, 1, 4, b7, 2, 5.

III^m: Notes b2, 5, 1, 4, b3, b6, b2, b7, b3, 4, b7, b3, b6, 1, 4, 5, 1, 4, b7, 2, 5.

IV: Notes #4, 7, 3, 2, 5, 1, 6, 2, #4, 3, 6, 2, 5, 7, 3, 1, #4.

V: Notes b7, 3, 6, 2, 1, 4, b7, 5, 1, 2, 5, 1, 4, 6, 2, 2, 5, 1, 4, 6, 2, b7.

VI^m: Notes b6, 2, 5, 1, b7, b3, b6, 4, b7, 1, 4, b7, b3, 5, 1, b6.

VII^{dim}: Notes b5, 1, 4, b7, b6, b2, b5, b3, b6, b7, b3, b6, b2, 4, b7.

Triad Arcs

Diagram showing the Triad Arcs for seven chords: I, II^m, III^m, IV, V, VI^m, and VII^{dim}. Each structure is represented by a 5-line staff with notes and fingerings indicated.

I: Notes 4, 2, 5, 7, 3, 1, 4, 5, 1, 4, 2, 5, 6, 2, 5, 1, 3, 6, 1, 4, 5, 1, 4, 7, 3, 6, 2, 7, 1, 4, 5, 1, 1, 4, 5, 1, 2, 5, 1, 3.

II^m: Notes 4, b7, b3, 1, 4, 2, 5, b3, 5, 1, 4, b7, 2, 5, b3, 6, 2, 5, 1, 6, b7, b3, 4, b7, 1, 4, b7, b3, 5, 1, 1, 4, b7, b3, 5, 1, b3.

III^m: Notes b2, 4, b7, b3, 5, 1, 5, 1, 4, b6, b2, b3, b6, b2, b7, b3, 4, b7, b3, b6, 1, 4, 5, 1, b7, 5, b6, b2, b3, b6, 5, 1, 5, 1, b7, b3, b6, b2, 4, 1, 4.

IV: Notes #4, 7, 3, 5, 1, 2, 5, 1, 6, 2, 3, 6, 2, 5, 3, 1, #4, 7, 3, 6, #4, 5, 1, 2, 5, #4, 7, 6, 2, 5, 1, 3, 6, #4, 7, 3, 6, 2, 7, 1.

V: Notes 4, b7, 2, 5, 2, 5, 1, 3, 6, b7, 3, 6, 2, 1, 4, b7, 5, 1, 1, 4, b7, 5, 1, 2, 5, 1, 4, 6, 2, 3, 2, 5, 3, 3, 2, 5, 3, 4, b7, 1, 4, 5, 1, 4, 2, 5, 1, 4, 2.

VI^m: Notes 4, b7, 2, 5, 4, b7, 2, 5, b3, b6, 2, 5, 1, b7, b3, 6, 4, b7, 1, 4, b7, b3, 5, 1, b3, b6, b7, b3, 2, 5, 1, 4, 2, b3, b6, b7, b3, 4, b7, b3, b6, 1, 4, 5, 1.

VII^{dim}: Notes b2, b5, b7, b3, 4, b7, b3, b6, 1, 4, b5, b5, b2, b5, b3, b6, b6, b2, b5, b3, b6, b7, b3, b6, b2, 4, b7, b5, 1, 4, b7, b3, b2, b5, 1, b3.

Ninth And Seventh Arpeggios

Diagram showing the Ninth and Seventh Arpeggios for seven chords: I^{ma9}, II^{m9}, III^{m7}, IV^{ma9}, V⁹, VI^{m9}, and VII^{m7b5}. Each structure is represented by a 5-line staff with notes and fingerings indicated.

I^{ma9}: Notes 1, 1, 1, 1, 2, 2, 2, 1, 1, 4, 4, 3, 3, 3, 3, 4.

II^{m9}: Notes 1, 1, 1, 1, 2, 2, 2, 1, 1, 4, 4, 4, 3, 3, 3, 4.

III^{m7}: Notes 1, 1, 1, 1, 2, 2, 2, 1, 1, 4, 4, 3, 3, 3, 3, 4.

IV^{ma9}: Notes 1, 1, 1, 1, 2, 2, 2, 1, 1, 4, 4, 4, 3, 3, 3, 4.

V⁹: Notes 1, 1, 1, 1, 2, 2, 2, 1, 1, 4, 4, 3, 3, 3, 3, 4.

VI^{m9}: Notes 1, 1, 1, 1, 2, 2, 2, 1, 1, 4, 4, 4, 3, 3, 3, 4.

VII^{m7b5}: Notes 1, 1, 1, 1, 2, 2, 2, 1, 1, 4, 4, 4, 3, 3, 3, 4.

Major Scale Line 6 Structures

Triad, Pentatonic And Major Scale

<i>I</i>	<i>II^m</i>	<i>III^m</i>	<i>IV</i>	<i>V</i>	<i>VI^m</i>	<i>VII^{dim}</i>

Triad Arcs

<i>I</i>	<i>II^m</i>	<i>III^m</i>	<i>IV</i>	<i>V</i>	<i>VI^m</i>	<i>VII^{dim}</i>

Ninth And Seventh Arpeggios

<i>I^{ma9}</i>	<i>II^{m9}</i>	<i>III^{m7}</i>	<i>IV^{ma9}</i>	<i>V9</i>	<i>VI^{m9}</i>	<i>VII^{m7b5}</i>

Major Scale Line 7 Structures

Triad, Pentatonic And Major Scale

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}
7 3 6 2 7 1 4 5 1 2 5 1 4 6 2	6 2 5 1 6 b7 b3 4 b7 1 4 b7 b3 5 1	5 1 4 b7 5 b6 b2 b3 b6 b7 b3 b6 b2 4 b7	#4 7 3 6 #4 5 1 2 5 6 2 5 1 3 6	3 6 2 5 3 4 b7 1 4 5 1 4 b7 2 5	2 5 1 4 2 b3 b6 b7 b3 4 b7 b3 b6 1 4	1 4 b7 b3 1 b2 b5 b6 b2 b3 b6 b2 b5 b7 b3

Triad Arcs

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim}
4 2 5 2 5 1 3 6 7 3 6 2 7 1 4 5 1 2 5 1 4 6 2 3 6 2 5 7 3 4 1 4 5 1 4 6 2	4 b7 5 b7 b 4 b7 6 2 5 1 6 b7 b 4 b7 1 4 b7 b 5 1 2 5 1 4 6 2 b b7 b 4 b7 b 1 4 5 1 4 2	b2 b7 b3 4 b7 b3 b6 1 4 5 1 4 b7 5 b6 b2 b3 b6 b7 b3 b6 b2 4 b7 1 4 b7 b3 5 1 b2 b3 b3	2 5 7 3 #4 7 3 6 #4 5 1 2 5 6 2 5 1 3 6 7 3 6 2 #4 7 1 5 1 #4 7 3 2 5 1 3	4 b7 5 1 2 5 1 6 2 3 6 2 5 3 4 b7 1 4 5 1 4 b7 2 5 2 5 1 3 6 b7 4 3 6 2 1	4 b7 b3 5 1 b6 b7 b3 2 5 1 4 2 b3 b6 b7 b3 4 b7 b3 b6 1 4 5 1 4 b7 2 5 b6 b3 b6 2 5 1 b7 b3 b6 4 1 4 2 1	b2 b5 4 b7 b2 b5 b3 b6 1 4 b7 b7 b3 6 b2 4 b7 b5 1 4 b7 b3 1 b2 b5 b6 b2 1 4 b3 b6 b2 b5 b7 b3 4 b7 b3 b6 1 4 b5 b2 1 4

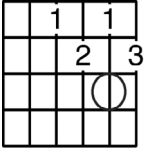
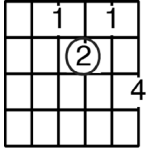
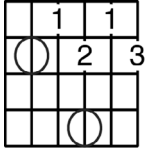
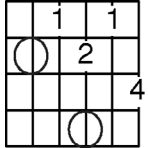
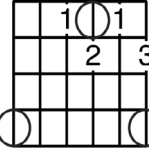
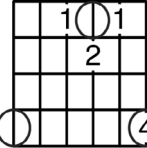
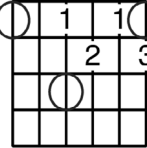
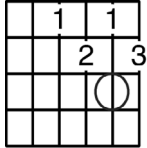
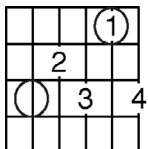
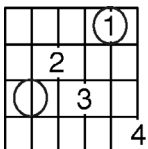
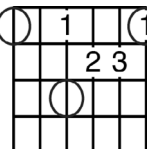
Ninth And Seventh Arpeggios

I ^{ma} 9	II ^m 9	III ^m 7	IV ^{ma} 9	V9	VI ^m 9	VII ^m 7b5
1 1 1 1 2 2 2 2 3 3 4 4 4 4 4 4	1 1 1 1 2 2 1 1 3 3 4 4 4 3 3 4 4 4	1 1 1 1 2 2 2 2 3 3 4 4 4 4 4 4	1 1 1 1 2 2 1 1 2 2 4 4 3 3 3 4 4	1 1 1 1 2 2 2 2 3 3 4 4 4 4 4 4	1 1 1 1 2 2 2 2 3 3 4 4 4 4 4 4	1 1 1 1 2 2 2 2 3 3 4 4 4 4 4 4

LINEAR VOICE LEADING

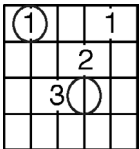
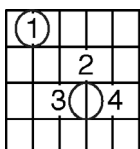
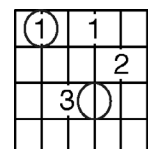
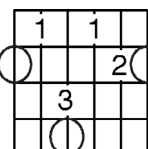
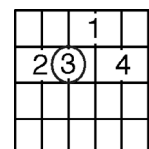
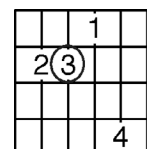
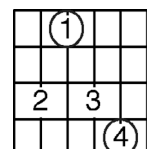
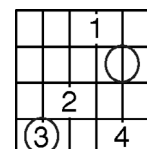
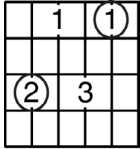
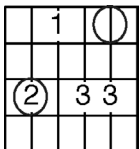
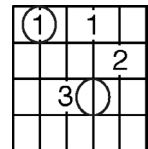
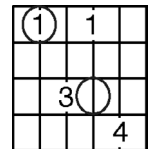
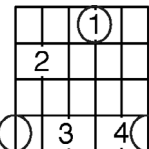
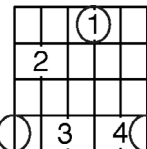
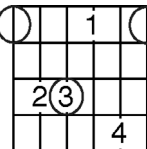
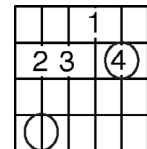
Top Voice C Major Scale Ascending the First String

5 Ima7 Cma7	6 I6 C6	7 Ima7 Cma7/6	1 I6 C6	2 Ima9 Cma9	3 Ima7 Cma7	4 IIIm Dm	5 Ima7 Cma7
5 7 3 5	5 1 3 6	1 3 6 7	1 3 6 1	1 5 7 2	1 5 7 3	b3 5 1 b3	5 7 3 5
IIIm11 Dm11	IIIm7 Dm7	IIIm6 Dm6	IIIm7 Dm7	IIIm7 Dm7	IIIm9 Dm9	IIIm7 Dm7	IIIm11 Dm11
b3 b7 1 4	b3 b7 1 5	5 1 b3 6	5 1 b3 b7	b7 b3 5 1	b7 b3 5 2	1 5 b7 b3	1 5 b7 4
IVma9 Fma9	IVma9 Fma7	IVma7#11 Fma7#11	IVma7 Fma7	IV6 F6	IVma7 Fma7	IV6 F6	IVma9 Fma9
1 5 7 2	1 5 7 3	5 7 3 #4	5 7 3 5	5 1 3 6	5 1 3 7	1 3 6 1	1 5 7 2
V7 G7	V9 G9	V7 G7	V7sus.4 G7sus4	V9 G9	V13 G13	V9 G9	V6 G6
b7 3 5 1	b7 3 5 2	1 5 b7 3	1 5 b7 4	3 b7 2 5	3 b7 2 6	5 2 3 b7	5 2 3 1
VIIm7 Am7	VIIm7 Am7	VIIm9 Am9	VIIm7 Am7	VIIm11 Am11	VIIm9 Am9	IIIm7 Dm7	VIIm7 VIIm7
b7 b3 5 b7	b7 b3 5 1	1 5 b7 2	1 5 b7 b3	b3 b7 2 4	b3 b7 2 5	1 5 b7 b3	5 1 b3 b7

#5	6	7	1	2	3	4	#5
III7b9 E7b9	VIIIm7b5 Bm7b5	III7b9 E7b9	III7#5b9 E7#5b9	III7b9 E7b9	III7b9 E7b9	III7b9 E7b9	III7b9 E7b9
							
b2 5 b7 3	b5 1 b3 b7	3 b7 b2 5	3 b7 b2 #5	5 b2 3 b7	5 b2 3 1	b7 3 5 b2	b2 5 b7 3
		III7 E7	III7#5 E7#5		III7#5 E7#5		
							
		3 b7 1 5	3 b7 1 #5		b7 3 #5 1		

v

Top Voice C Major Scale Ascending the Second String

2	3	4	5	6	7	1	2
Ima9 Cma9	Ima7 Cma7	IIm7 Dm7	Ima7 Cma7	I6 C6	Ima7 Cma7	I6 C6	Iadd9 Cadd9
							
1 5 7 2	1 5 7 3	1 5 b7 b3	3 7 2 5	5 1 3 6	5 1 3 7	6 1 5 1	1 3 5 2
		IIm7 Dm7	IIm11 Dm11	IIm7 Dm7	IIIm7 Em7	IIm7 Dm7	IIm7 Dm7
							
1 b3 b5 1	1 b3 b7 2	1 5 b7 b3	1 5 b7 4	b3 b7 1 5	b3 b7 1 5	5 1 b3 b7	b7 b3 5 1

IV6 F6	IVma7 Fma7	IV6 F6	IVma9 Fma9	IVma7 Fma7	IV6/#11 F6#11	IV6 F6	IV6 F6
V9 G9	V13 G13	V7 G7	V13 G13	V9 G9	V7 G7	V7sus.4 G7sus.4	IV6 G9
VIm11 Am11	VIm7 Am7	IIm7 Dm7	VIm7 Am7	VIm7 Am7	VIm9 Am9	VIm7 Am7	Am11 Am11
2	3	4	#5	6	7	1	2
III7b9 E7b9	IIm7/11b5 Bm7/11b5	III7b9 E7b9	III7b9 E7b9	VIIIm7b5 Bm7b5	III7b9 E7b9	III7#5b9 E7#5b9	III7b9 E7b9
5 b2 3 b7	1 b5 b7 4	b7 3 5 b2	b2 5 b7 3	b5 1 b3 b7	3 b7 b2 5	3 b7 b2 #5	5 b2 3 b7
	III7 E7	III7b9 E7b9					
	1 3 b7 1	1 3 b7 b2					

Core Melody with Baroque-Bebop Ornamentation

- **Scale-Based Versus Arpeggio-Based Melody**
- **Bebop Ornamentation Slurring Rules**
- **Bebop Rhythmic Interpretation**
- **De-Constructing Solos into Five Steps**
- **Core Melody Evolving to Elaborated Melody**
- **Core Melody**
 - **II-V-I Core Melody**
 - **Major I-VI-II-V Core Melody**
 - **Minor Im-VI7-IIIm7b5-V7 Core Melody**
- **Voice Leading Core Melody**
 - **Voice Leading Roots-In-Fourths Chord Progression**
 - **Major and Minor II-V-I Core Melody Exercises with Full Elaboration**
 - **I-VI-II-V Top Voice Table**
 - **Major and Minor I-VI-II-V Core Melody Exercises with Full Elaboration**
 - **I-VI-II-V Two-Beat-Per Chord Song Studies**
 - **Voice Leading Stepwise Roots Chord Progression**
- **Steps to Elaborate a Core Melody**
- **Melodic Examples**

SCALE-BASED VERSUS ARPEGGIO-BASED MELODY

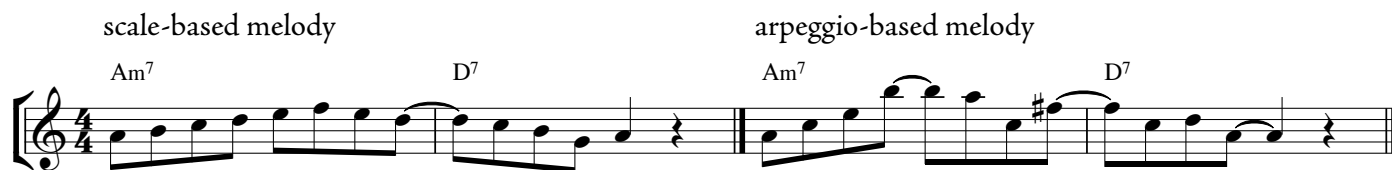
Vocal melody is usually based on scales, emphasizing chord tones. Instrumental melody may also be based on scales, but is more often based on arpeggios, while vocal melody in rock, folk, blues, and jazz (especially standards) is usually scale-based. Improvised solos in bebop and modern jazz, in blues and rock, in folk music are usually based on arpeggios. There are many exceptions, including fiddle tunes in bluegrass music and speed metal which are usually scale-based. The approach in practicing would be different for scale-based versus arpeggio based melody.

This chapter addresses arpeggio-based melody.

Practicing Scale-Based Melody

the melodic line

Melodic cells, the building blocks of melody can be based on either scales or arpeggios, as stated above. Scale-based melody tends to create a smoother melodic line with smaller intervals. Arpeggio-based melody typically uses larger intervals, since arpeggios are typically built by with every-other tone of a heptatonic (seven-tone) scale. The skips that often occur in arpeggio-based melody create a more jagged melodic line.



In practicing scale-based melody, you construct a melody line on a timeline with theme and variation based on scalar melodic cells. In the [Melodic Cells](#) chapter (see [Melodic Cells Types](#)), the arpeggio-based cells in the “[Linear Scales and Arpeggios](#)” section can be used with theme and variation as shown in “[Theme and Variation Cells](#)”. The rest of the melodic cells shown in [Melodic Cell Types](#) are scale-based.

pentatonic melody in rock and blues

Pentatonic melody in rock and blues could be interpreted as either scale-based or arpeggio-based. You could say those genres are “lick-based”. “Licks” tend to be more arpeggio based and usually use much slurring. Three perspectives to conceive pentatonic scales are:

1. Heptatonic scales (7-tone scales like the major scale) with two notes omitted. Major pentatonic is a major scale or Mixolydian mode with its fourth and seventh step omitted. Minor pentatonic is Aeolian, Dorian or Phrygian mode with its second and sixth step omitted.
2. Triads with two notes added. The common minor pentatonic is a minor arpeggio adding "4" and "b7". The common major pentatonic is a major arpeggio adding "2" and "6".
3. Sustaining all the notes of a pentatonic scale at once makes a chord sound. I use chord names to identify pentatonic scales, such as major 6/9 for major pentatonic and minor 7/11 for minor pentatonic.

C major scale with tones numbered below

C major pentatonic, by omitting "4" and "7"

Two musical staves are shown. The first staff is in 4/4 time and contains the C major scale (C-D-E-F-G-A-B-A-G-F-E-D-C) with fingerings 1-2-3-4-5-6-7-1 and 7-6-5-4-3-2-1. The second staff is in 3/4 time and contains the C major pentatonic scale (C-D-E-G-A-G-F-E-D-C) with fingerings 1-2-3-5-6-1 and 6-5-3-2-1. Below each staff are guitar fretboard diagrams for the Tenor (T), Alto (A), and Bass (B) positions, showing the corresponding fret numbers for each note.

C major arepggio with tones numbered below

C major pentatonic, by adding "2" and "6"

Two musical staves are shown. The first staff is in 4/4 time and contains the C major arpeggio (C-E-G-A-G-E-C) with fingerings 1-3-5-1 and 5-3-1. The second staff is in 3/4 time and contains the C major pentatonic scale (C-D-E-G-A-G-F-E-D-C) with fingerings 1-2-3-5-6-1 and 6-5-3-2-1. Below each staff are guitar fretboard diagrams for the Tenor (T), Alto (A), and Bass (B) positions, showing the corresponding fret numbers for each note.

A minor arepggio with tones numbered below

A minor pentatonic, by adding "4" and "b7"

Two musical staves are shown. The first staff is in 4/4 time and contains the A minor arpeggio (A-C-E-G-F-A) with fingerings 1-b3-5-1 and 1-5-b3. The second staff is in 3/4 time and contains the A minor pentatonic scale (A-B-C-E-G-F-E-D-C) with fingerings 1-b3-4-5-b7-1 and b7-5-4-b3-1. Below each staff are guitar fretboard diagrams for the Tenor (T), Alto (A), and Bass (B) positions, showing the corresponding fret numbers for each note.

Am7/11 chord

Am7/11 scale with tones numbered below

Two musical staves are shown. The first staff is in 4/4 time and contains the Am7/11 chord (A-C-E-G-F-A) with the instruction "1-b3-4-5-b7 played together". The second staff is in 3/4 time and contains the Am7/11 scale (A-B-C-E-G-F-E-D-C) with fingerings 1-b3-4-5-b7. Below each staff are guitar fretboard diagrams for the Tenor (T), Alto (A), and Bass (B) positions, showing the corresponding fret numbers for each note.

(possible to play, but be careful!)

practice the six directional types of linear turnarounds

turnaround-based melody in bebop

Every great bebop improviser must have practiced turnarounds in their early development. The structure of their melody shows a turnaround basis. The concept and practice shown in this chapter can give you an ability to improvise in bebop style.

Study this chapter thoroughly. Learn to build your own turnarounds, as described in Modal II-V-I Turnarounds/Building Your Own Turnarounds/[Constructing Four-Note Turnarounds with Two Arpeggios](#). [Practice the Slurring Options](#). Study the [De-Constructing Solos into Five Steps](#) section.

Study [Core Melody Evolving to Elaborated Melody](#). Then start building your own core melody, using the ornamentation and pushes you've learned in [Practice the Slurring Options](#).

BEBOP ORNAMENTATION SLURRING RULES

The Listener's Perspective

Ornamentation typically places notes above and below chord tones, usually slurring most or all of the notes. The listener doesn't particularly care if your ornamentation goes above a note or below a note, so guitarists should take advantage and play the easier slurs. You can practice your scale fingerings with sidesteps (temporary changes to an adjacent fingering position) to accommodate ornaments going both up and down in pitch, but it won't necessarily be appreciated by most listeners. The studies in this section take advantage of slurs that are easier to perform technically on guitar and sound just as well to the listener.

Mordents and Turns

This chapter will use the baroque mordent and turn ornamentations. The terms upper mordent, lower mordent, are used in theory and analysis of the Baroque period of classical music (1700-1850). In this study, we will use versions of mordents and turns that are widely used in jazz. Charlie Parker, Cannonball Adderley, John Coltrane, Art Tatum, Chick Corea and most of the advanced improvisers from the bebop period (1944-early fifties) and later use these ornaments. They didn't necessarily study the classical ornaments, although in John Coltrane's middle period, he studied massive volumes of musical resources, Miles Davis studied at Julliard and Cannonball Adderley studied at Florida A&M. Instead, the ornamentation they carried on from earlier jazz traditions embodied elements of Baroque ornamentation. Harmonically and structurally, jazz draws heavily from classical music.

upper mordent and lower mordent

With the upper mordent, you play the featured note, its upper neighbor and return to the featured note. The lower mordent moves from the featured note to its lower neighbor and returns to the note. The upper or lower neighbor may be in a heptatonic (seven-tone) scale like the major scale or can be in a pentatonic (five-tone) scale.

The rhythms may vary, but mordents commonly occur within one beat. The notes are usually slurred, on guitar most commonly with hammer-ons and pull-offs.

upper and lower mordent example (click to play)

Swing Eighths an upper mordent in a heptatonic scale an upper mordent in a pentatonic scale a lower mordent in a heptatonic scale a lower mordent in a pentatonic scale

♩ = 95 Em⁷(b5) A⁷(#5) 2 Dm⁷ 3 Em⁷(b5) A⁷(#5) 4 Dm⁷

4 2 1 1 3 1 3 2 1 4 1 3 1 2 1 2 2 1 4 3 1 3 1 3

TAB: 13 11 9 10 12 10 11 10 13 10 12 10 9 7 9 10 8 11 10 8 10 8 10

upper turn and lower turn

There are many versions of turns. We will use what I call an upper turn and a lower turn. Both use scalar encircling. Traditionally, the turns that begin by ascending from the main note on which they begin are called “turns”. The versions of turns that begin by descending from the main note on which they begin are called “inverted turns”.

The rhythms used on turns may vary, but turns usually occur within one to two beats. The notes are usually slurred, on guitar most commonly with hammer-ons and pull-offs. Due the mechanics of the guitar, each turn with all hammer-on and pull-off slurs must be on a single string, beginning with the featured note as the middle of three notes on the same string.

upper and lower turn example (click to play video)

Swing Eighths an upper turn in a heptatonic scale an upper turn in a pentatonic scale a lower turn in a heptatonic scale a lower turn in a pentatonic scale

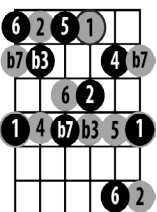
♩ = 95 Em⁷(b5) A⁷(#5) 2 Dm⁷ 3 Em⁷(b5) A⁷(#5) 4 Dm⁷

1 4 2 2 4 2 1 2 3 2 3 2 1 3 2 1 2 4 3 2 1 3 2 1 2 3 2 1 3

TAB: 8 11 9 10 12 10 9 10 11 10 11 10 8 10 10 9 10 12 10 10 8 11 10 8 10 11 8 10

fingering mordents

There are usually three tones of a seven-tone scale like the major scale on each string. Use an upper mordent for the lower-pitch note (head side). Use a lower mordet for the upper-pitched note (body side). Use an upper mordent, lower mordent, upper turn or lower turn on the middle note.



5 Cm7

6

7 starting on the beat

8

head body middle head body

6 6 6 6 6

head: body: middle: middle: head:
upper lower lower upper upper
mordent mordent mordent mordent mordent

play 4 times

9

10 as pickups

11

12

6 6 6 6 6

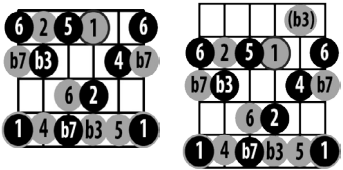
head: body: middle: middle: head:
upper lower lower upper lower
mordent mordent mordent mordent mordent

middle: middle:
upper lower
turn turn

play 4 times

fingering turns

Seven-tone scales (like major or Dorian) often have only two notes on one of the strings, as on the diagram at the left below. That wouldn't provide a "middle" note on that string. When this occurs, you can add a note on the head side of the fingering, as shown with the "b3" on the second string in the second diagram from the left below. Use the BLACK notes below as a Cm13 arpeggio.



13 Cm13

14

15

16

6 6 6 6 6

middle: middle:
upper lower
turn turn

play 4 times

BEBOP RHYTHMIC INTERPRETATION

Retaining the Swing

Swing eighths divide the beat into two parts of unequal value with the last part shorter. We typically think of this as two-thirds of a beat for the first note and one third for the last part. But, this is interpretive. The first part may be anywhere from around 55% to 75%, which the remainder left for the last part. Swing sixteenths do the same thing with two quarter beats, making the first quarter (of each pair of sixteenths) longer and the last part shorter.

Bebop is most always played with eighth swing at fast tempos (over 180 beats per minute) or with sixteenth swing at slower tempos (below 180 BPM). When rhythms are elaborated by playing three notes in place of the first part of the beat, the division of the beat such be that the three notes in the first part of the beat take the same period of time as a single note would. In each of the two examples below, there are two regions of notes enclosed in brackets. In each case, you should be able to imagine the first bracketed example played while the second bracketed example is played, with the first and last notes of the bracketed example played at the same place in time.

retaining the swing with swing eighths or swing sixteenths - [click to play the video](#)

♩ = 150
Swing Eighths

♩ = 85
Swing Sixteenths

Swing and Mordent Exercises

[click to play a video for this page](#)

$\text{♩} = 120$

play 3 times play 4 times play 4 times

A minor arpeggio A minor pentatonic add 2

$\text{♩} = 80$

play 3 times play 3 times play 3 times

A minor arpeggio A minor pentatonic with flat five chromatic

the swing eighths pairs in bars 11 through 13 below are precisely $\frac{2}{3}$ of a beat and $\frac{1}{3}$ of a beat

The drum side stick in playing three notes per beat, so the swing eighth pairs play with the first and third side stick notes on each beat.

swing eighths (written out) swing eighths (written out)

play 3 times play 3 times play 4 times

four rhythmic ways to begin a beat with a mordent

the four notes on each beat are of equal time value

$\text{♩} = 90$ $\text{♩} = 130$ $\text{♩} = 170$

count the divisions of each beat "1-and-2-3", with 1-2-3 equally spaced

$\text{♩} = 90$ $\text{♩} = 130$ $\text{♩} = 170$

copy by ear, since the math is $\frac{2}{9} + \frac{2}{9} + \frac{2}{9} + \frac{1}{3}$ beat!

Swing Eighths $\text{♩} = 90$ $\text{♩} = 130$ $\text{♩} = 170$

count "1-2-3-4-5" on each beat, playing the notes on "1-2-3-4"

$\text{♩} = 90$ $\text{♩} = 130$ $\text{♩} = 170$

Exaggerating Sixteenth Triplet Beginning Swing Eighths

Read Retaining the Swing, above, first. At faster tempos, the three notes played in the first part of the beat (as in beat three of the third bar above, play longer durations of the three notes in the beginning of the beat and a shorter duration of the note in the last part of the beat to sound like swing to human perception. Here are some analogies:

- to make a single line of type look centered on a page, it needs to be a little high
- to make very high pitches sound in tune, they need to be a little sharp
- to make very low pitches sound in tune, they need to be a little flat
- to right a wrong you've committed to a friend, you have to go a little farther than fair

Similarly, swing at faster tempos needs to have the later of the two divisions of the beat exaggeratedly short for the rhythm to sound right. At around 200 beats per minute, the figure you see below in bar two below sounds better. The rhythm is almost always written as in bar two. Bars three and four are alternate ways to write bar two, but the sound of the rhythm and the math is the same.

At 150 beats per minute the version in bar six sounds better. The last note in bar two is one third of a beat (33.33 percent) while the last note in bar six is 40 percent of a beat. The shorter one-third of a beat value in bar two at the faster 200 BPM tempo *sounds* perceptually like what is written, while to have the same perception at 150 BPM it is better to play it as written in bar six.

At extremely fast tempos, the four notes are performed as sixteenths, as shown in bar eight. Notice with the last staff that it is particularly of concern at extremely fast or extremely slow tempos. The part in the lower staff of each system serves as a metronome.

exaggerating sixteenth triplet durations where they begin swing eighths - [click to play video](#)

The image displays musical notation for a phrase in 4/4 time, focusing on the first two beats. The notation is presented in three systems, each with a tempo and a metronome click track below.

- System 1:** Tempo $\text{♩} = 200$ Swing Eighths. It shows three variations of the first two beats:
 - Bar 2: "appropriate at this tempo" (marked with a 3).
 - Bar 3: "alternate notation for bar 2" (marked with a 3).
 - Bar 4: "alternate notation for bar 2" (marked with a 9).
- System 2:** Tempo $\text{♩} = 150$. It shows two variations:
 - Bar 6: "appropriate at this tempo" (marked with a 5).
 - Bar 8: "appropriate at this tempo" (marked with a 5).
- System 3:** Tempo $\text{♩} = 80$. It shows two variations:
 - Bar 9: "too even-sounding: needs swing" (marked with a 3).
 - Bar 10: "appropriate at this tempo" (marked with a 3).
- System 4:** Tempo $\text{♩} = 150$. It shows two variations:
 - Bar 11: "appropriate at this tempo" (marked with a 5).
 - Bar 12: "too fast to hear the rhythm" (marked with a 3).

Additional tempo markings are present above some staves: $\text{♩} = 290$ above bar 7, $\text{♩} = 200$ above bar 11, and $\text{♩} = 290$ above bar 12. A note above bar 10 states: "contradicting the rules is problematic at extreme tempos".

DE-CONSTRUCTING SOLOS INTO FIVE STEPS

Reverse-Constructing Melody to Find the Core Melody

Complex, highly-decorated improvisational solos can be broken down to simple core melody, identifying the elaborations along the way. We'll do that in five steps. They are numbered in reverse order ("5" through "1") to imply that after de-constructing a few solos, you can start to build your own in the reverse order. You should conceive steps 4, 3, 2 and 1 together, interpreting how the interpretation of each bar is related from step 4 to 3 to 2 to 1.

The typical model would be one chord per bar. Even if the original chords were not one chord per bar, they can be abbreviated or elaborated to be one chord per bar. See ["Abbreviating and Elaborating Chord Progression"](#).

5. **Full Elaboration with Ornamentation and Syncopation.** Learn the original improvised solo well enough to play through it slowly or somehow think through it note by note. Sometimes a complex head (main melody) to a song will work for this purpose like Charlie Parker's Confirmation.
4. **Three or Four Core Melody Tones Per Chord.** Remove the decoration and the syncopation from the full elaboration and conceive version of the melody in three or four notes. Look particularly for chord tones. Especially make sure the first core melody tone is a chord tone. Try to hear and see (on the music notation and/or the fretboard) the theme and variation and the graphic design of the melody. Conceive the graphic design on the fretboard and in its written form. Even if you don't read music, you can conceive the melody as a line drawn from left to right on a timeline, ascending to raise pitch and descending to lower pitch.
3. **Two Core Melody Tones Per Chord.** Omit one or two core melody tones to leave the most important ones. Make sure the first of these two notes is a chord tone and prefer that the second tone is a chord tone or has a purpose in [voice leading](#) to the first tone of the next chord.
2. **One Core Melody Tone Per Chord.** Simply omit the second core melody tone to leave one note per chord, which must be a chord tone of the current chord.
1. **Core Melody Triad (or quadrad):** Choose a group of three notes, close together in pitch that include the one core melody tone you determined above. They should be [duality tones](#), notes common to the current scale and the current chord. Once you get a sense of the [voice leading](#) of the core melody, you can choose a region of three chord tones, close together in pitch and usually including many or all of the notes of the two-note, three-note or four-note versions of the core melody. .

CORE MELODY EVOLVING TO ELABORATED MELODY

Core Melody to Full Elaboration in Five Steps (click to play video)

♩ = 100

1. Core Melody Triad

2. One Core Melody Tone Per Chord

3. Two Core Melody Tones Per Chord

4. Three or Four Core Melody Tones Per Chord

simple elaboration 1

simple elaboration 2

5. Full Elaboration with Ornamentation and Syncopation

full elaboration 1 (see simple elaboration 1)

full elaboration 2 (see simple elaboration 2)

Be Flexible with Each of the Five Steps

Initially decide on what you want for each of the five steps. Feel free to go back and make changes to create a better core melody, better theme and variation and a better full elaboration. Generally, you should go in order from steps one through five, but follow your inspiration. You may have a good idea about any one of the five steps and then generate the other steps from it.

1. Core Melody Triad (or Quadrad)

In arpeggio-based music, the melody is derivative of turnarounds. Decide on the three notes (sometimes four notes, a quadrad) to feature for each chord, usually close together so as to have a “cluster” of chord tones to choose from. Three notes usually provide a good focus and good [voice leading](#) from one chord to the next. Sustain the chosen notes through each chord, commonly four beats each chord. If the chords are less than four beats in duration, you can abbreviate the chord progression to think one chord per bar. Likewise, if the duration of each chord is over a bar, you can elaborate the progression to make it one chord per bar. See [“Abbreviating and Elaborating Chord Progression”](#).

Once you decide on the core melody triad for each of a few consecutive chords, play them in succession, if you can. If they are too close together in pitch, you may have to play them on a piano or arpeggiate them and imagine them played together.

2. One Core Melody Tone Per Chord

If there is only one core melody tone during a chord, it must be a tone of that chord. One core melody tone per chord is essential when the chord changes are fast, such as one beat per chord at any tempo or two beats per chord at a very fast tempo.

3. Two Core Melody Tones Per Chord

When there are two core melody tones during a chord, the first tone must be in the chord. The second tone can be in the chord, or may be a neighboring or passing tone to the core melody tone that begins the next chord.

4. Three or Four Core Melody Tones Per Chord

By using three or four core melody tones per chord, the core melody begins to assume a design. The notes may ascend or ascend and descend, etc. The first core melody tone is a chord tone. If there are four core melody tones, the first and third core melody tones are usually chord tones.

5. Full Elaboration with Ornamentation and Syncopation

Finally, decorate the step 4 (above) of the core melody with Baroque-bebop ornamentation and pushes. See [Elaboration of Core Melody With Pushes](#), [Practice the Slurring Options](#) and [Add Baroque-Bebop Ornamentation](#).

CORE MELODY

II-V-I Core Melody

four notes per chord

1-2-3-5 fragment pattern, resolve down

stepwise

1-2-3-5 fragment pattern, resolve down

stepwise

two notes per chord

1-2-3-5, end with scalar encircling

pairs of thirds (1-3 fragment pattern)

stepwise

end with scalar encircling

one note per chord

third, step

step, fourth

stepwise

scalar encircling

step, third

Applying the II-V-I Core Melodies

The core melodies must be transposed to the chord scale for each chord. They must be transposed to the key of the chord root and use an appropriate scale. Here is an example for the chord progression to Alone Together:

two note per chord core melody

♩ = 100

1-2-3-5, end with scalar encircling pairs of thirds (1-3 fragment pattern)

Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷

root third fifth seventh

T
A
B

7 8 5 8 7 5 8 7 6 7 8 7 6 5 6 7 6 5 8 5

stepwise end with scalar encircling

Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷

root third fifth seventh

T
A
B

5 7 6 8 7 8 6 5 6 7 6 5 8 5 6 10 9 6 8 5

the Alone Together chord progression (the A section)

Dm Em⁷(b5) A⁷(b9) Dm Em⁷(b5) A⁷(b9) Dm Am⁷(b5) D⁷(b9) Gm⁷

G¹³(b9)/A^b Gm⁷ C⁷ F⁺maj⁷ F⁺ Em⁷(b5) A⁷(b9) Dmaj⁷

9 10 11 12 13 14

the Em7b5-A7b9-Dm7 cadence

1-2-3-5, end with scalar encircling pairs of thirds (1-3 fragment pattern)

Em⁷(b5) A⁷(b9) Dm⁷ Em⁷(b5) A⁷(b9) Dm⁷ Em⁷(b5) A⁷(b9) Dm⁷ Em⁷(b5) A⁷(b9) Dm⁷

root third fifth seventh

T
A
B

7 8 5 8 7 5 8 7 6 7 8 7 6 5 6 7 6 5 8 5

stepwise end with scalar encircling

Em⁷(b5) A⁷(b9) Dm⁷ Em⁷(b5) A⁷(b9) Dm⁷ Em⁷(b5) A⁷(b9) Dm⁷ Em⁷(b5) A⁷(b9) Dm⁷

root third fifth seventh

T
A
B

5 7 6 8 7 8 6 5 6 7 6 5 8 5 6 10 9 6 8 5

the Am7b5-D7b9-Gm7 cadence

1-2-3-5, end with scalar encircling pairs of thirds (1-3 fragment pattern)

Am7(b5) D7(b9) Gm7 Am7(b5) D7(b9) Gm7 Am7(b5) D7(b9) Gm7 Am7(b5) D7(b9) Gm7

root third fifth seventh

TAB

7 8 5 8 7 5 8 7 7 8 8 8 7 5 6 5 8 7 5 7

stepwise end with scalar encircling

Am7(b5) D7(b9) Gm7 Am7(b5) D7(b9) Gm7 Am7(b5) D7(b9) Gm7 Am7(b5) D7(b9) Gm7

root third fifth seventh

TAB

5 8 7 8 7 8 6 5 7 8 8 7 5 7 8 8 7 8 5 7

the Gm7-C7-Fmaj7 cadence

1-2-3-5, end with scalar encircling pairs of thirds (1-3 fragment pattern)

Gm7 C7 Fmaj7 Gm7 C7 Fmaj7 Gm7 C7 Fmaj7 Gm7 C7 Fmaj7

root third fifth seventh

TAB

5 7 8 7 5 8 7 5 5 6 7 6 5 8 5 6 5 8 6 8

stepwise end with scalar encircling

Gm7 C7 Fmaj7 Gm7 C7 Fmaj7 Gm7 C7 Fmaj7 Gm7 C7 Fmaj7

root third fifth seventh

TAB

8 6 5 7 5 6 5 8 5 6 10 8 6 8 5 13 12 10 6 8

the Em7-A7-Dmaj7 cadence

1-2-3-5, end with scalar encircling pairs of thirds (1-3 fragment pattern)

Em7 A7 Dmaj7 Em7 A7 Dmaj7 Em7 A7 Dmaj7 Em7 A7 Dmaj7

root third fifth seventh

T
A
B

stepwise end with scalar encircling

Em7 A7 Dmaj7 Em7 A7 Dmaj7 Em7 A7 Dmaj7 Em7 A7 Dmaj7

root third fifth seventh

T
A
B

Major I-VI-II-V Core Melody

major I-VI-II-V core melody, one note per chord - E form

1 C#07 D#9 Cmaj7 A7 Dm7 G7 Cmaj7 C#07 D#9 Cmaj7 A7 Dm7 G7 Cmaj7 C#07 D#9 Cmaj7 A7 Dm7 G7 Cmaj7 C#07 D#9 Cmaj7 A7 Dm7 G7(b9)Cmaj7

9 Eb9 Db9 Cmaj7 A7(b9) Dm7 G7(b9)Cmaj7 Eb9 Db9 Cmaj7 A7(b9) Dm7 G7(b9)Cmaj7 Eb9 Db9 Cmaj7 A7(b9) Dm7 G7(b9)Cmaj7 Eb9 Db9 Cmaj7 A7(b9) Dm7 G7(b9)Cmaj7

17 Am7 Eb9 Dm9 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7(b9)Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7

25 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Eb13b9#9#11 Db13b9#9#11 Cmaj7 A7 Dm7 G7 Cmaj7

33 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7

41 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7(b9)Cmaj7

major I-VI-II-V core melody, one note per chord - C form

8va-----
C#o7 D#9 C#o7 D#9 C#o7 D#9 C#o7 D#9 D#9
1 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7(b9)Cmaj7

T 13 14 15 11 12
A
B

8va-----
Eb9 Db9 Eb9 Db9 Eb9 Db9 Eb9 Db9 Eb9 Db9
9 Cmaj7 A7(b9) Dm7 G7(b9)Cmaj7 Cmaj7 A7(b9) Dm7 G7(b9)Cmaj7 Cmaj7 A7(b9) Dm7 G7(b9)Cmaj7 Cmaj7 A7(b9) Dm7 G7(b9)Cmaj7

T 13 15 14 13 12
A
B

8va-----
Am7 Eb9 Dm9 Db9
17 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7(b9)Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7

T 12 11 15 14 13
A
B

8va-----
Eb13b9#9#11 Db13b9#9#11
25 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7

T 12 14 13 15 13
A
B

8va-----
33 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7

T 12 15 14 12 13
A
B

8va-----
41 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7(b9)Cmaj7

T 15 12 13 13 12
A
B

Chord progressions: Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁺ Cm⁷ Dm⁷(b5) G⁷ Cm⁷ Cm⁷ Dm⁷(b5) G⁷ Cm⁷ Cm⁷ Dm⁷(b5) G⁷ Cm⁷ Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁺ Cm⁷ Dm⁷(b5) G⁷ Cm⁷

21 22 23 24 25 26

T 8 11 9 7 8 8 8 7 9 10 8 8 10 7 10

A

B

Chord progressions: Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁺ Cm⁷ Dm⁷(b5) G⁷ Cm⁷ Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁺ Cm⁷ Dm⁷(b5) G⁷ Cm⁷

27 28 29 30

T 8 8 7 10 8 8 8 10 11 10

A

B

Im-VI7-IIIm7b5-V7 core melody, one note per chord - A form

♩ = 160 Chord progressions: Cm⁷ A⁷(b9) Dm⁷(b5) G⁺ Eb¹³(#11) Ab¹³(#11) Cm⁷ A⁷(b9) Dm⁷(b5) G⁺ Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁷(#5) Cm⁷ Dm⁷(b5) G⁷ Cm⁷ Cm⁷ Dm⁷(b5) G⁷ Cm⁷ Cm⁷ Dm⁷(b5) G⁷ Cm⁷

1 2 3 4 5 6

T 5 6 3 4 5 5 3 6 5 5 5 3 6 3 5

A

B

Chord progressions: Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁺ Cm⁷ Dm⁷(b5) G⁷ Cm⁷ Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁺ Cm⁷ Dm⁷(b5) G⁷ Cm⁷ Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁺ Cm⁷ Dm⁷(b5) G⁷ Cm⁷

7 8 9 10

T 5 4 6 4 3 5 4 3 6 3 5 4 3 3 8

A

B

Chord progressions: Cm⁷ Eb⁷(#11) Dm⁷(b5) G⁷(#5) Cm⁷ Dm⁷(b5) G⁷ Cm⁷

9 10

T 5 5 3 4 5

A

B

Cm⁷ A⁷(b⁹) Dm⁷(b⁵) G⁺ Cm⁷ A⁷(b⁹) Dm⁷(b⁵) G⁺ Cm⁷ A⁷(b⁹) Dm⁷(b⁵) G⁷(b⁹)
 Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷ Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷ Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷

Cm⁷ E^b13(#11) A⁷(b⁹) Dm⁷(b⁵) G⁷(b⁹) Cm⁷ E^b13(#11) A⁷(b⁹) Dm⁷(b⁵) G⁷(b⁹) Cm⁷
 Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷ Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷

Cm⁷ E^b7(#11) Dm⁷(b⁵) G⁺ Cm⁷ E^b7(#11) Dm⁷(b⁵) G⁺ Cm⁷ E^b7(#11) Dm⁷(b⁵) G⁺
 Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷ Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷ Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷

Cm⁷ E^b7(#11) Dm⁷(b⁵) G⁺ Cm⁷ E^b7(#11) Dm⁷(b⁵) G⁺
 Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷ Cm⁷ Dm⁷(b⁵) G⁷ Cm⁷

Im-VI7-IIIm7b5-V7 Core Melody in Turnarounds

Swing Eighthths

♩ = 160

Chord progression: Cm7 A7(b9) Dm7(b5) G7(b9) Cm7 A7(b9) Dm7(b5) G7(b9)

Chord progression: Cm7 A7(b9) Dm7(b5) G7(b9) Cm7 A7(b9) Dm7(b5) G7(b9) Cm7

Chord progression: Cm7 A7(b9) Dm7(b5) G7(b9) Cm7

VOICE LEADING CORE MELODY

Voice Leading Roots-In-Fourths Chord Progression

one note per chord

1. **Ascending core tones:** A core tone root can be retained by playing it again or sustaining it to become the fifth of the next chord. A root it can go up a fourth to become the root of the next chord. A core tone third, fifth or seventh can resolve up a step. A third can be sustained to become the seventh of the next chord.
2. **Descending core tones:** Making a downward sequence of thirds, descend four chords with core tones respectively root-third-fifth-seventh (the root of the first chord, the third of the second chord, the fifth of the third chord and the seventh of the fourth chord). You can also make any part of this four-chord sequence with any part of "root-third-fifth-seventh. The seventh must resolve up or down a scale tone.

two notes per chord

1. **Ascending core tones for each pair of chords:** From the root of the first chord, ascend 1-2-3-5, resolving up or down to the nearest core tone. From the third, fifth or seventh, use a 1-3 fragment (a third) on each chord and another 1-3 fragment a step higher on the next chord, end resolving to the nearest chord tone. When the last core tone previous to resolution is the third of the current chord, it can retain or resolve up a scale tone.
2. **Descending core tones for each chord:** Descend stepwise when the first of the two core tones is the root, third or fifth. When the first of the two core tones is the seventh or ninth, descend stepwise from it and retain it or descend a third from the first core tone to the second core tone and resolve up or down to the nearest chord tone.

four notes per chord

1. **Ascend on each chord** with a 1-2-3-5 fragment pattern from the core tone root, third, fifth or seventh or ninth (if the ninth is a useable chord tone) and resolve down a scale tone to the same relative core tone of the next chord as the first tone of the previous chord.
2. **Ascend on each chord** with a 1-2-3-5 fragment pattern from the core tone root, third, fifth or seventh or ninth (if the ninth is a useable chord tone) and retain the fourth note by playing it again or sustaining it. It will become the same relative core tone of the next chord. If the first of four notes played on the first chord started on the root, the first of four notes on the second chord will also be the root. The same duplication would occur if the first note on the first chord were its third, fifth, seventh or ninth.

3. **Ascend on each chord** with a 1-2-3-5 fragment pattern from the core tone root, third or fifth and resolve up a scale tone to become the first note of the next chord.
4. **Descend on each chord** with four descending scale tones and descend down to the root of the next chord. When the first core tone on the first chord is a root, third, fifth or seventh, you can descend four scale tones on the first chord and resolve up a scale tone to the core tone beginning the next chord.

Major and Minor II-V-I Core Melody Exercises with Full Elaboration

minor II-V-I core melody, two-note-per-chord exercise - [play video](#)

♩ = 160

Swing Eighth

2-b3-4-b6-5: stepwise, end with scalar encircling

4-b6-5-7-1: two pairs of thirds

Chords: Cm7, Dm7(b5), Ab7, G7, Cm7

core melody: 2 b3 4 b6 5

pairs of fourths in dim. scale

core melody: 4

Chords: Ab7, Dm7(b5), G7, Cm7

b6-1-7-2-1: two pairs of thirds

chromatic scale

Chords: Dm7(b5), Ab7, G7, Cm7

core: b6 1 7 2 1

1-b3-2-4-b3: two pairs of thirds

Straight Eighths

Swing Eighth

Chords: Dm7(b5), G7, Cm7

core: 1 b3 2 1 b3

core melody: 2

4-b3-2-7-1: stepwise descending, ending with scalar encircling

Chords: Dm7(b5), G7, Cm7

1 7 b6 b3 upper turn

core melody:

Chords: Dm7(b5), G7, Cm7

4 b3 2 7 1

**b6-5-4-2-b3: stepwise descending,
ending with scalar encircling**

**1-b7-b6-4-5: stepwise descending,
ending with scalar encircling**

24

25

26

27

28

core: b6 5 4 2 b3

dim. w/h scale

core melody:

8 8 9 11 9 8 9 8 8 10 8 9 8 10 7 9 11 9 8 7 8 7 10 7 10 8 10 10 11 8 9 10 7 8 10 11 9

29

30

31

32

core: 1 b7 b6 4 5

10 8 10 9 8 11 11 8 9 9 10 9 8 11 13 10 11 8 10 9 11

I-VI-II-V Top Voice Table

	ascend	descend
chromatic	series: 1-#1-2-#2-3, 1-#1-2-b3-1, 3-4-#4-5-1, 5-#5-6-b7-1 2-#2-3-4-3, b3-3-4--5-1, b7-7-1-#1-2	series: 1-7-b7-6-5, 3-b3-2-b2-1, 5-b5-4-3-2 1-b7-6-b6-5, 2-b2-1-7-1, 5-4-3-b3-3, 6-b6-5-4-3, b7-6-b6-5-3, 7-b7-6-b6-5
linear 7-tone	1-2-3-4-5, 3-4-5-6-5-, 5-6-1-2-1	1-7-6-5-1, 3-2-1-7-1, 5-4-3-2-1 7-6-5-4-3
non-linear 7-tone	1-3-2-4-3 3-4-5-6-5, 3-4-5-b6-5, b3-4-5-b6-5 5-b7-6-2-1, 5-6-7-6-7	1-b7-6-5-1(3) b3-b2-1-7-1 5-4-3-2-1, 5-4-b3-2-1(b3)
scalar encircling	1 3 2 7 1; 3 5 4 2 3; 5 b7 6 4 5	1-5-6-4-5, 3-7-1-6-5, 5-2-3-7-1
linear min. pent.	1-b3-4-5-1, b3-4-5-b7-1, 5-b7-1-b3-5	1-b7-5-4-b3, b3-1-b7-5-b3, 5-4-b3-1-5
linear maj. pent.	1-2-3-5-1, 3-5-6-1-3, 5-6-1-2-3	1-6-5-3-5, 3-2-1-6-5, 5-3-2-1-5
non-linear minor pentatonic	series: 1-b3-4-b3-1, b3454b3, 5b71b71 series: 1b31b71, b34b31b3, 5b7545 series: 154b31, b3b754b3, 5b31b75 major 1-5-4-b3-1, minor 1-5-4-b3-1 b3-4-5-b7-5(1) 5-6-1-6-1, 5-6-1-2-3, major 5-b7-1-b3-1, minor 5-b7-1-b3-1	series: 1b75b71, b31b71b3, 54b345 series: 1b71b31, b31b34b3, 545b75 series: 145b71, b35b71b3, 51b345 1-b7-5-b7-1, 1-6-5-3-5 5-3-2-3-5
non-linear major pentatonic	series: 12161, 35313, 56535 series: 12321, 35653, 56165 series: 15321, 31653, 52165	series: 16121, 32353, 53532 series: 16535, 32161, 53212 series: 13561, 36123, 51235
paired thirds bullets ("•") are scale steps instead of thirds	1-3-2-4-5, 1-b3-2-4-5 3-5-2-4-b3, b3-5-2-4-b3, 3-5-4-6-5 5-b7-6-#1-2, 5-b7-b6-7-1	1-6-2-7-1 3-1-2-7-1, b3-1-2-7-1 3-1-4-2-1(3), b3-1-4-2-1(b3) 5-3-4-2-1(3), 5-b7-b6-7-1
fourth and fifth intervals	1-5-4-7-1 3-b7-4-7-1 5-#1-6-#2-3, 5-#1-b6-2-b3	1-5-4-7-1 3-b7-4-7-1 5-#1-4-7-1
tertian arpeggio	1-3-5-7-1 (Ima7) 5-b7-2-4-3 (Vm7)	1-6-4-2-1(3) (IIIm7), 1-6-4-2-1(b3) (IIIm7) 3-#1-6-4-3 (IIIIma7#5) 5-3-1-6-5 (VIIm7), 5-3-1-b6-5 (bVIIma7#5)
common tone or pivot tone	for all (major, minor, ascend, descend): use a tone of the parent scale major pentatonic or the parent scale minor pentatonic	

substitute chords implied by the numbered tones on the table above:

second note ascending:	#1 is VI7(13#11), b3 is bIII7(13#11) or VI7b5(13#11)
second note descending:	b2 is VI7b9, 4 is VI7#5, b7 is VI7b9
third note ascending:	b3 is II7b9, #4 or b5 is II7 or bVI7(13#11), 5 is m11 or m7/11b5
fourth note ascending:	b2 is bII7(13#11) or V7b5, #2 is V7#9, b6 is V7b9
fourth note descending:	b3 is Vaug. (V7#5) or bII7(13#11), b6 is V7b9 or V13b9
fifth note:	2 is Ima9, I7, Ima9, I9

Major and Minor I-VI-II-V Core Melody Exercises with Full Elaboration

major 1-VI-II-V, chromatic: 1-#1-2-#2-3 - [click to play video, I-VI-II-V table](#)

♩ = 150

Swing Eighths

Cmaj7 A7(b9) Dm7 G7(#5) Cmaj7 Cmaj7 A7(b9) Dm7 G+ Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7

1 2 3 4 5 6 7 8 9

10 11 12 13 14 15 16 17 18 19 20 21

C6 A7(b9) Dm7 G7(#5) C6 A7(b9) Dm7 G7(#5) Cmaj7 A7 Dm7 G7 Cmaj7

10 11 12 13 14 15 16 17 18 19 20 21

C6 A7(b9) Dm7 G7(#5) C7 A7(b9) Dm7 G7(#5) Cmaj7 A7 Dm7 G7 Cmaj7

16 17 18 19 20 21

minor I-VI-II-V chromatic: 1-#1-2-b3-1 - [click to play video, I-VI-II-V table](#)

Notice that bars 16-21 are a very similar minor version of 16-21 in the major example above.

♩ = 150

Swing Eighths

Chord progression: Cm7 A7(b9) Dm7(b5) G7 Cm7 Cm7 A7(b9) Dm7(b5) G+ Cm7 Cm7 A7(b9) Dm7(b5) G7(♯9) Cm7

Chord progression: Cm7 Dm7(b5) G7 Cm7 Cm7 Dm7(b5) G7 Cm7 Cm7 Dm7(b5) G7 Cm7

Chord progression: Cm7 A7(b9) Dm7(b5) G+ Cm7 Cm7 Dm7(b5) G+ Cm7 Cm7 Dm7(b5) G7 Cm7

Chord progression: Cm7 A7(b9) Dm7(b5) G+ Cm7 Cm7 A7(b9) Dm7(b5) G+ Cm7

major I-VI-II-V, chromatic: 1-b7-6-b6-5 - [click to play video, I-VI-II-V table](#)

♩ = 150
Swing Eighthths

Chords: C⁶ A^{7(b9)} Dm⁷ G^{7(#9)} C⁷ C⁶ A^{7(b9)} Dm⁷ D^b7 Cmaj⁷ C A^{7(b9)} Dm⁷ D^b7(b⁹) Cmaj⁷

Chords: C⁶ A⁷ Dm⁷ G⁷ C⁷ C⁷ A^{7(b9)} Dm⁷ G⁷ C⁶ C⁷ A^{7(b9)} Dm⁷ G⁷ C⁶

Chords: C⁶ A^{7(b9)} Dm⁷ D^b13(#11) C C⁶ A^{7(b9)} Dm¹¹ D^b13(#11) C⁶

Chords: Dm⁷ D^b7 C⁶ A⁷ Dm⁷ G⁷ C⁶ A⁷ Dm⁷ G⁷ C⁶ A^{7(b9)} Dm¹¹ D^b13(#11) C⁶

Chords: Dm⁷ D^b7 C⁶ A⁷ Dm⁷ G⁷ C⁶ A⁷ Dm⁷ G⁷ C⁶ A^{7(b9)} Dm¹¹ D^b13(#11) C⁶

Core tones: 1 3 b7 6 b6 5 fingers: 1 3 1 2 3 4 3 1 3 1 4 2 4 1 1 2 2 1 2 1 2 1 4 3 1 1 2 3 3

major I-VI-II-V, chromatic: 3-b3-2-b2-1 - [click to play video, I-VI-II-V table](#)

♩ = 150
Swing Eighthths

Chords: C⁶ E^b13 Dm⁷ G^{7(#9)} C⁶ C⁶ E^b13 Dm⁷ G^{7(#9)} C⁶

Chords: C A⁷ Dm⁷ G⁷ C C A⁷ Dm⁷ G⁷ C

Chords: C⁶ E^b13 Dm⁷ G^{7(#9)} C⁶ C⁶ E^b13 Dm⁷ G^{7(#9)} C⁶

Chords: Dm⁷ G^{7(#9)} C⁶ E^b13(#11) Dm⁷ G^{7(#9)} C⁶ A^{7(b9)} Dm⁷ G^{7(#9)} C⁶ E^b13 Dm⁷ G^{7(#9)} C⁶

Chords: Dm⁷ G⁷ C⁶ A⁷ Dm⁷ G⁷ C⁶ A⁷ Dm⁷ G⁷ C⁶ A⁷ Dm⁷ G⁷ C⁶

Core tones: 1 b3 2 b2 1 core tones: 1 b3 2 b2 1

Top voice version only. Core melody in bass isn't practical.

major I-VI-II-V, pentatonic: 1-b3-4-b3-1 - [click to play video](#), [I-VI-II-V table](#)

♩ = 150
Swing Eighths

Chords: Cmaj7 Eb7 Dm7 G7(#9) Cmaj7 Cmaj7 Eb7 Dm7 G7(#9) C6 Cmaj7 Eb9 Dm7 G+ Cmaj7 Cmaj7 A7(b9) Dm7 G7 Cmaj7 Cmaj7 A7(b9) Dm7 G7 Cmaj7

Chords: Cmaj7 Eb7 Dm7 G7(#9) Cmaj7 C7 Eb13 Dm7 G7(#9) Cmaj7 Cmaj7 A7(b9) Dm7 G7 Cmaj7

Chords: Dm7 G7 Cmaj7 Eb7 Dm7 G7(#9) Cmaj7 Cmaj7 A7(b9) Dm7 G7 Cmaj7 Eb7 Dm7 G7(#9) Cmaj7

Chords: Dm7 G7 Cmaj7 Eb7 Dm7 G7(#9) Cmaj7 Cmaj7 A7(b9) Dm7 G7 Cmaj7

core tones: 1 b3 4 b3 1 core tones: 1 b3 4 b3 1

C minor pent.

minor I-VI-II-V, pentatonic: 1-b3-4-b3-1 - [click to play video](#), [I-VI-II-V table](#)

♩ = 150
Swing Eighths

Chords: Cm7 A7(b9) Dm7(b5) G7(#9) Cm7 Cm7 Eb7 Dm7(b5) G7(#9) Cm7 Cm7 Eb7 Dm7(b5) G7(#9) Cm7 Eb7 Dm7(b5) G7(#9) Cm7

Chords: Cm7 A7(b9) Dm7(b5) G7(#9) Cm7 Cm7 Eb7 Dm7(b5) G7(#9) Cm7 Eb7 Dm7(b5) G7(#9) Cm7

Chords: Dm7(b5) G7(b9) Cm7 Eb7 Dm7(b5) G7(b9) Cm7 Eb7 Dm7(b5) G7(b9) Cm7 Eb7 Dm7(b5) G7(b9) Cm7

Chords: Dm7(b5) G7(b9) Cm7 Eb7 Dm7(b5) G7(b9) Cm7 Eb7 Dm7(b5) G7(b9) Cm7

core tones: 1 b3 4 b3 1 core tones: 1 b3 4 b3 1

♩ = 150

Swing Eighths

Cmaj7 A7(b9) Dm7 G7(#5) Cmaj7 C A7(#5) Dm7 G13 C9/ Cmaj7 A7(#5) Dm7 G9(#5) C9/ Cmaj7 A7 Dm7 G7 Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7

1 2 3 4 5 6 7 8 9

10 11 12 13 14 15

16 17 18 19 20 21

T
A
B

3 5 3 5 8 5 8 5 8 7

Cmaj7 A7(#5) Dm7 G7(#5) C C6 A7(b9) Dm7 G7(#5) Cmaj7 Cmaj7 A7 Dm7 G7 Cmaj7 A7 Dm7 G7 Cmaj7

10 11 12 13 14 15 16 17 18 19 20 21

T
A
B

9 8 11 7 11 10 8 10 7 10 7 9 7 10 10 8 9 10 7 10 7 9 10

10 10 10 7 10 9 10 9 11 10 10 8 7 7 10 9 10 10 8 9 10 10 11 7 8 10 10 7 9 10 8

♩ = 150

Swing Eighthths

Chords: Cmaj7, A7(b9), Dm7, G7(#5), Cmaj7, C, A7(#5), Dm7, G13, Cmaj7, Cmaj7, A7(b9), Dm7, G9, Cmaj7, Cmaj7, A7, Dm7, G7, Cmaj7, A7(b9), Dm7, G7, Cmaj7, A7.

Measure numbers: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23.

Core tones: 5, 6, 1, 2, 3, 5, 6, 1, 2, 3.

major I-VI-II-V, pentatonic: 5-b7-1-b3-1 - click to play video, [I-VI-II-V table](#)

minor I-VI-II-V, pentatonic: 5-b7-1-b3-1 - click to play video, [I-VI-II-V table](#)

♩ = 150
Swing Eighthths

Chords and Fingerings (Measures 1-9):

- Measure 1: Cm7 (Fingerings: 8, 11)
- Measure 2: A7(b9) (Fingerings: 8, 11)
- Measure 3: Dm7(b5) (Fingerings: 8, 11)
- Measure 4: G7(#5) (Fingerings: 8, 11)
- Measure 5: Cm7 (Fingerings: 8, 11)
- Measure 6: Cm7 (Fingerings: 8, 11)
- Measure 7: A7(b9) (Fingerings: 8, 11)
- Measure 8: Dm7(b5) (Fingerings: 8, 11)
- Measure 9: G7(#5) (Fingerings: 8, 11)

Chords and Fingerings (Measures 10-15):

- Measure 10: Cm7 (Fingerings: 8, 11)
- Measure 11: A7(b9) (Fingerings: 8, 11)
- Measure 12: Dm7(b5) (Fingerings: 8, 11)
- Measure 13: G7(#5) (Fingerings: 8, 11)
- Measure 14: Cm7 (Fingerings: 8, 11)
- Measure 15: Cm7 (Fingerings: 8, 11)

Chords and Fingerings (Measures 16-24):

- Measure 16: Cm7 (Fingerings: 8, 11)
- Measure 17: A7(b9) (Fingerings: 8, 11)
- Measure 18: Dm7(b5) (Fingerings: 8, 11)
- Measure 19: G7(#5) (Fingerings: 8, 11)
- Measure 20: Cm7 (Fingerings: 8, 11)
- Measure 21: Cm7 (Fingerings: 8, 11)
- Measure 22: A7(b9) (Fingerings: 8, 11)
- Measure 23: Dm7(b5) (Fingerings: 8, 11)
- Measure 24: G7(#5) (Fingerings: 8, 11)

major 1-VI-II-V, pentatonic: 1-b7-5-b7-1 - [click to play, I-VI-II-V table](#)

♩ = 150
Swing Eighthths

Chords: C⁶ A^{7(b9)} Dm¹¹ G^{7(#9)} C⁷ C⁶ A^{7(b9)} **Dm¹** D^b13 C⁶
C⁶ A⁷ Dm⁷ G⁷ C⁷ C⁷ Dm⁷ G⁷ C⁶

Top voice version only. Core melody in bass isn't practical.

Chords: C⁶ A^{7(b9)} Dm¹¹ D^b13(#11) C⁶ C⁶ A^{7(b9)} Dm¹¹ D^b13(#11) C⁶
C⁶ A⁷ Dm⁷ G⁷ C⁶ C⁶ A⁷ Dm⁷ G⁷ C⁶

Chords: G⁷ C⁶ C⁶ A⁷ Dm⁷ G⁷ C⁶ A⁷ Dm⁷ G⁷ C⁶ A^{7(b9)} Dm¹¹ D^b13(#11) C⁶
C⁶ A⁷ Dm⁷ G⁷ C⁶ A⁷ Dm⁷ G⁷ C⁶

core tones: 1 b7 5 b7 1 core tones: 1 b7 5 b7 1

minor 1-VI-II-V, pentatonic: 1-b7-5-b7-1 - [click to play, I-VI-II-V table](#)

♩ = 150
Swing Eighthths

Chords: Cm⁷ A^{7(b9)} Dm^{7(b5)} G^{7(#9)} Cm⁷ Cm⁷ A^{7(b9)} Dm^{7(b5)} G⁷ Cm⁷
Cm⁷ A^{7(b9)} Dm^{7(b5)} G⁷ Cm⁷ Cm⁷ A^{7(b9)} Dm^{7(b5)} G⁷ Cm⁷

Top voice version only. Core melody in bass isn't practical.

Chords: Cm⁷ A^{7(b9)} Dm^{7(b5)} G^{7(#9)} Cm⁷ Cm⁷ A^{7(b9)} Dm^{7(b5)} G⁷ Cm⁷
Cm⁷ A^{7(b9)} Dm^{7(b5)} G⁷ Cm⁷ Cm⁷ A^{7(b9)} Dm^{7(b5)} G⁷ Cm⁷

Chords: Cm⁷ A^{7(b9)} Dm^{7(b5)} G^{7(b9)} Cm⁷ Cm⁷ A^{7(b9)} Dm^{7(b5)} G^{7(#9)} Cm⁷
Cm⁷ A^{7(b9)} Dm^{7(b5)} G⁷ Cm⁷ Cm⁷ A^{7(b9)} Dm^{7(b5)} G⁷ Cm⁷

1 b7 5 b7 1 1 b7 5 b7 1

minor I-VI-II-V, 7-tone: b3-4-5-b6-5 - [click to play, I-VI-II-V table](#)

♩ = 150
Swing Eighths

Chord progressions (above staff):
 System 1: Cm7, Cm7/Bb A7, Dm7(b5), G7, Cm7, Cm7, Cm7/Bb A7(♯5), Dm7/11b5, G7(b9), Cm7.
 System 2: Cm7, Cm7, Cm7/Bb A7, A♭maj7, Dm7(b5), G7(b9), G7, Cm7, Cm7, Cm7/Bb A7, A♭maj7, Dm7(b5), G7(b9), G7, Cm7.
 System 3: Cm7, Cm7, A7, A♭maj7, Dm7(b5), G7(b9), G7, Cm7, Cm7, 8va Cm7, Cm7/Bb A7, A♭maj7, Dm7(b5), G7(b9), G7, Cm7, Cm7.

Fingerings (below staff):
 System 1: b3, 4, 5, b6, 5.
 System 2: 4, 5, 3, 6, 5, 3, 5, 3, 4, 5, 6, 6, 3, 4, 5, 5, 6, 4, 3, 5, 6, 6, 5, 3, 3, 4, 3, 6, 3, 4, 3, 6, 3.
 System 3: 6, 8, 5, 8, 5, 6, 5, 7, 6, 4, 7, 7, 8, 5, 11, 13, 13, 14, 15, 13, 15, 16, 15, 16, 13, 15, 15, 15.

I-VI-II-V Two-Beat-Per Chord Song Studies

See the [I-VI-II-V Top Voice Table](#).

The chord progression to I Got Rhythm by George Gershwin has become the most common four-chord progression in jazz, with the nickname “rhythm changes. Half of the doo-wop songs from the thirties through fifties use rhythm changes.

Rhythm changes were used in countless jazz compositions, with a new melody. Such a composition is called a “contrafact”. Since you cannot copyright a chord progression, the contrafact songs are legal. View the list of jazz contrafacts on Wikipedia on a computer and you can click on the “original song” column header to sort by song and scroll down to find over 50 songs based on I Got Rhythm.

https://en.wikipedia.org/wiki/List_of_jazz_contrafacts

Starting at bar 35 in Rhythm Changes, there are labels above the music notation, such “1-#1-2-#2. These refer to core melody tones in relation to the Bb major key scale tones that are the basis of the melody. “1” is “Bb”, “#1” is “B” and “2” is C, etc. In the Rhythm Changes study, all of the core melody sequences are chromatic, each sequence forming four consecutive frets on the guitar. The continuous numbers in varied orders of 1-2-3-4 are fretting hand finger numbers, where the index finger is “1”. Starting at bar 103 in Rhythm Changes, core melody sequences above the music notation, such “1-b3-4-b3-1 are pentatonic melody sequences, a popular choice in bebop and jazz blues.

I Got Rhythm (chromatic and pentatonic series) - [click to play](#)

Swing Eighthths
♩ = 200

Chord progression: Bbmaj7 Gm7 Cm7 F7 Bbmaj7 Gm7 Cm7 F7

Chord progression: Bbmaj7 Bb9/D Eb9 Eo7 Dm7 Gm7 Cm7 F9 Bbmaj7

Chord progression: Bbmaj7 Gm7 Cm7 F7 Bbmaj7 Gm7 Cm7 F7

$B\flat$ maj7 $B\flat^9/D$ $E\flat^9$ $E^{\circ 7}$ Dm^7 Gm^7 Cm^7 F^9 $B\flat$ maj7

13
 1 2 1 1 3 1 2 1 3 3 1 3 4 3 1 1 2 3 2 3 2 1 4 1 3 1 4 4
 T 6 7 6 6 8 6 7 6 8 8 6 8 9 8 6 8 9 10 9 10 9 8 11 8 10 8 11 11
 A
 B

$A^{\flat}m^7$ D^7 G^7

17
 1 2 4 1 2 1 3 1 1 1 4 1 3 2 1 1 4 4 1 4 1 1 3 2 1 1
 T 12 10 9 12 10 9 12 9 10 10 13 10 12 11 10 10 13 13 10 13 10 10 12 11 10 9
 A
 B

Gm^7 C^7 F^7

21
 1 4 3 1 1 3 2 1 4 1 4 1 1 4 1 1 2 3 1 3 3 3 1 1
 T 10 13 12 10 10 12 11 13 10 15 12 13 16 13 13 14 15 13 15 15 15 13 12
 A
 B

$B\flat$ maj7 Gm^7 Cm^7 F^7 $B\flat$ maj7 Gm^7 Cm^7 F^7

25
 1 2 1 1 3 3 1 2 3 4 4 3 3 3 1 1 1 3 1 1 4 3 3 1 3
 T 6 7 6 6 8 11 11 9 10 11 12 13 9 11 9 11 9 9 10 8 8 11 10 10 8 10
 A
 B

$B\flat$ maj7 $B\flat^9/D$ $E\flat^9$ $E^{\circ 7}$ Dm^7 Gm^7 Cm^7 F^9 $B\flat$ maj7 $B\flat$ maj7 Gm^7 Cm^7 F^7

29
 4 1 2 1 4 4 1 2 1 3 3 1 3 1 4 4 1 3 1 3 1 2 1 1 2 1
 T 10 6 8 6 10 10 6 8 11 11 9 11 9 12 12 9 11 13 11 14 13 11 12 11 11 12 11
 A
 B

1-#1-2-#2 3-b2-1-7

$B\flat$ maj7 Gm^7 Cm^7 F^7 $B\flat$ maj7 Gm^7 Cm^7 F^7

35
 1 4 1 3 2 1 4 2 3 1 3 3 1 3 1 3 4 1 4 3 2 4 2 3 1 3 3 1 1 2 2
 (1) (#1) (2) (#2) (3)-not chromatic-(b2) (1) (7)
 T 6 9 6 8 7 6 9 7 8 6 8 8 6 8 6 9 10 6 9 8 7 9 6 7 6 8 8 5 6 6
 A
 B

39 $B\flat$ maj7 $B\flat^9/D$ $E\flat^9$ $E\circ^7$ Dm^7 G^9 Cm^7 F^9 $B\flat$ maj7

2 3 4 1 4 3 2 4 1 1 3 1 3 1 2 1 4 2 3 3 1 2 3 3

7 8 9 6 9 8 7 9 6 6 8 5 7 6 7 9 7 8 8 5 7 8 8

43 3-4-#4-5 $B\flat$ maj7 Gm^7 Cm^7 F^7 5-#5-6-b7 $B\flat$ maj7 Gm^7 Cm^7 F^7

2 1 2 1 3 2 3 3 4 3 4 3 1 3 4 2 3 1 2 1 2 3 1 4 3 3 1 3 4 3 2

(3) (4) (#4) (5) (5) (5#) (6) (b7)

7 6 7 6 8 7 8 8 9 8 9 8 6 8 9 7 8 5 7 6 7 8 6 9 8 5 8 9 8 7

47 $B\flat$ maj7 $B\flat^9/D$ $E\flat^9$ $E\circ^7$ Dm^7 G^9 Cm^7 F^9 $B\flat$ maj7

3 4 3 2 1 2 3 1 4 1 3 4 1 1 4 4 4 1 3 1 2 1 4 2 3 1

10 11 10 9 8 9 6 7 9 6 8 9 10 10 13 13 15 11 13 10 11 10 13 11 12 10

51 $A\flat m^7$ D^9 G^7

3 2 1 3 4 3 2 1 3 2 1 4 3 2 1 4 4 1 2 3 1 4 2 1 2

7 6 5 7 8 7 6 5 7 5 9 7 7 6 5 8 9 6 7 8 6 9 7 8 9

55 Gm^7 G^7 F^7

3 1 3 1 2 4 4 2 4 3 4 2 1 3 3 2 1 1 2 1 1

10 8 10 7 8 10 10 8 10 9 10 8 7 6 6 7 8 6 2 10 8 9

59 1-#1-2-#2 $B\flat$ maj7 Gm^7 Cm^7 F^7 (3-b2-1-7) $B\flat$ maj7 Gm^7 Cm^7 F^7

1 4 1 3 2 1 4 2 3 1 3 3 1 3 1 3 4 1 4 3 2 4 2 3 1 3 3 1 1 2 2

(1) (#1) (2) (#2) (3)-not chromatic- (b2) (1) (7)

6 9 6 8 7 6 9 7 8 6 8 8 6 8 6 9 10 6 9 8 7 9 6 7 6 8 8 5 6 6

63 $B\flat$ maj7 $B\flat^9/D$ $E\flat^9$ $E\circ^7$ Dm^7 G^9 Cm^7 F^9 $B\flat$ maj7 $B\flat$ maj7 Gm^7 Cm^7 F^7

2 3 4 1 4 3 2 4 1 1 3 1 3 1 2 1 4 2 3 3 1 2 3 3

T 7 8 9 6 9 8 7 6 6 8 5 7 5 9 7 8 8 5 7 8 8

A B

1-7-b7-6 $B\flat$ maj7 Gm^7 Cm^7 F^7 3-b3-2-b2 $B\flat$ maj7 Gm^7 Cm^7 F^7

1 3 3 1 4 2 1 3 4 1 3 3 2 1 3 1 1 3 1 2 4 1 3 4

(1) (7) (b7) (6) (3) (b3) (2) (b2)

T 6 8 8 6 10 7 6 9 9 8 8 7 6 6 6 5 6 8 4 7 8

A B

73 $B\flat$ maj7 $B\flat^9/D$ $E\flat^9$ $E\circ^7$ Dm^7 G^9 Cm^7 F^9 $B\flat$ maj7

3 4 1 1 2 1 4 3 2 1 4 1 4 1 4 3 2 2 1 3 3

T 8 9 5 6 7 6 9 8 8 7 6 9 6 9 8 7 7 6 8 8

A B

5-b5-4-3 $B\flat$ maj7 Gm^7 Cm^7 F^7 $B\flat$ maj7 Gm^7 Cm^7 F^7

1 3 2 3 4 4 1 3 3 1 4 1 3 3 2 2 1 2 4 1 4 1 2 3 2 3 4 1 4 2

(5) (b5) (4) (3)

T 6 8 7 8 9 9 5 8 8 5 8 5 7 7 6 7 6 7 9 6 9 6 7 8 7 8 9 5 8 6

A B

$B\flat$ maj7 $B\flat^9/D$ $E\flat^9$ $E\circ^7$ Dm^7 G^9 Cm^7 F^9 $B\flat$ maj7

4 4 2 1 1 2 3 1 3 3 1 4 4 1 1 3 2 3 4 1 2 3 4 3 3 1 2 4

T 13 13 11 10 9 10 7 8 8 6 10 9 6 8 10 9 10 11 13 9 10 11 10 10 7 8 10

A B

85 A_m^7 D^9 G^7

3 2 1 3 4 3 2 1 3 2 1 4 3 2 1 4 4 1 2 3 1 4 2 1 2

T 7 6 5 7 8 7 6 5 7 5 7 7 6 5 8 9 6 7 8 6 9 7 8 9

A B

The image displays three systems of musical notation for piano, each consisting of a treble staff and a bass staff. The notation includes chords, melodic lines, and fingerings.

System 1:

- Chords: Gm^7 , C^7 , F^7
- Fingerings: 3 1 3 1 2 4 4 2, 4 3 4 2 1 3, 3 2 1 1, 2 1 1
- Bass Staff: 10 8, 10 7 8 10 10 8, 10 9 10 8 7 6, 6 7 8 2, 10 9

System 2:

- Chords: $b7-6-b6-5$, $Bbmaj^7$, Gm^7 , Cm^7 , F^7 , $Bbmaj^7$, Gm^7 , Cm^7 , F^7
- Fingerings: 4 2 1 2 3 2, 2 3 1 3 2 1, 1 3 1 3 1 4, 1 2 1 2 1 4, 1 4 3 1, 2 1 4 2
- Bass Staff: 9 7 6 7 8, 7 8 5 8 7, 8 6 8 6 9 6 7 5 6 5 8, 5 8 7 9 6 5 8 6

System 3:

- Chords: $Bbmaj^7$, Bb^9/D , Eb^9 , $E^{\circ 7}$, Dm^7 , G^9 , Cm^7 , F^9 , $Bbmaj^7$
- Fingerings: 2 1 3 1 1 1, 4 2 1 4, 4 1 1 4 3 4, 1 4
- Bass Staff: 7 8 6 6 5, 5 6 9 8, 10 8 7 11 10 11 8 6

Mean to Me one note per chord

(minor pentatonic series 1-b3-4-b3-1, 1-b7-5-b7-1 & 1-b3-1-b7-1) - [click to play](#)

Swing Eighth

♩ = 175

Chords: F⁶, Dm⁷, G⁷, C⁷, F⁶ (1-b3-4-b3-1), F⁶ (1-b7-5-b7-1), Gm⁷, C⁷, F⁶ (b3-4-5-4-b3), Cm⁷, F⁷, Bbmaj⁷, Eb⁷

5-b7-1-b7-1: Am⁷, D7(b9), Gm⁷, C⁷, F⁶, Dm⁷, G⁷, C⁹

1-b7-5-b7-1: Fmaj⁷, F⁶ (1-b7-5-b7-1), Gm⁷, C⁷, F⁶ (b3-1-b7-1-b3), Cm⁷, F⁷, Bbmaj⁷, Eb⁷

b3-1-b7-1-b3: Am⁷, D7(b9), Gm⁷, C⁷, F⁶ (5-4-b3-4-5), Dm⁷, F⁶, Cm⁷, F⁷

Bbmaj⁶, Cm⁷, F⁷, Bbmaj⁶, Eb⁷, D7

Gm⁷, Eb⁷, D7, G⁷, C⁷

1-b3-1-b7-1 b3-4-b3-1-b3

Fmaj7 F#o7 Gm7 C7 F6 Cm7 F7 Bbmaj7 Eb7

5-b7-5-4-5

Am7 D7(b9) Gm7 C7 F6 F6 Dm7 G7 C9 F6 C7(#5) F6

Ain't Misbehavin' one note per chord

(major pentatonic series 1-6-1-2-1, 1-2-1-6-1, 1-6-5-3-5) - [click to play](#)

Swing Eighths

♩ = 132

16121

C6 A7 Dm7 G7 C6 A7 Dm7 G7 Cmaj7 C9/E F6 Fm6

32353

C6/E A7 Dm7 G7 53565

Em7 A7 Dm7 G9

12161

C6 Dm7 G7 C6 C7/E F6 Fm6

35323 C⁶/E A⁷ Dm⁷ G⁷ 5b6535 C⁶ Fm⁶ C⁶ E⁷

8va

15

12 12 13 12 17 15 10 14 12 13 12 13 12 16 15 12 15 17 15 13 15 16 15 13 15 12 13 12 16 12 13 14 15

19 Am⁷ F⁷ D⁷ A⁷

5 7 5 5 8 5 5 7 8 6 7 7 8 7 5 4 7 5 5 4 7 4 5 5 4 8 6 7 5 6 10 5 7

23 G⁶ E⁷ Am⁷ D⁷ G⁶ A⁷ D⁷ G⁷

5 4 7 5 6 5 8 7 5 5 8 7 5 5 7 4 7 8 7 5 7 6 5 4 5 5 4 3 3 4 5 5 4 3 3 3 3

27 16535 C⁶ A⁷ Dm⁷ G⁷ Cmaj⁷ C⁹/E F⁶ Fm⁶

8 10 8 10 8 7 10 9 10 8 10 10 12 10 10 8 8 9 8 8 9 10 8 10 11 8 10 9 8 10

31 32161 C⁶/E A⁷ Dm⁷ G⁷ 53212 Em⁷ A⁷ Dm⁷ G⁹ Em⁷ A⁷ Dm⁷ G⁹ C⁶

32161 53212

9 10 9 7 9 7 9 7 5 7 7 5 5 7 7 5 8 6 8 6 5 6 5 8 7 5 7 5 7 5 8 6 8 6 5 6 5 8 7 5 7 5 7 5

Voice Leading Stepwise Roots Chord Progression

stepwise roots with contrary motion top voice - [click to play](#)

♩ = 75

1

Gmaj7 Am7 Bm7 C6 D7(sus4) Em9 F#m7(b5) Gmaj7

5

Gmaj7 F#m7(b5) Em7 D7(sus4) Cmaj7 Bm7 Am7 D7 G

T
A
B

10 9 11 8 10 8 7 8 7 10 8 7 7 7 10 8 10 8 7 8 7 5 7 8 7 5 7 7 7 5 3 5 3 4 3

4 5 3 7 5 3 5 3 5 5 7 5 7 5 8 7 8 7 5 7 5 2 3 5 7 5 8 7 8 7 5 7

STEPS TO ELABORATE CORE MELODY

Ornamenting a Core Melody Quarter Note

this example is on the second note on the first chord with two notes per chord

♩ = 100

original upper mordent starting before the beat lower mordent starting before the beat

Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷

upper mordent starting on the beat upper mordent starting on the beat

Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷

upper turn lower turn

Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷

ascending linear scale descending linear scale

Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷

one lower chromatic two lower chromatics three lower chromatics

Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷ Dm⁷ G⁷ Cmaj⁷

Core Melody with Simple Elaboration

core melody chord tones

A single core melody tone is always a chord tone. If there are two core melody tones, the second tone may be a chord tone or a non-chordal tone. Non-chordal tones should have a purpose, most commonly as a neighboring tone or a passing tone.

stepwise neighboring tone

A stepwise neighboring tone move one scale tone above or below the previous core melody tone, then returns to the same core melody tone with the following note.

skip to a neighboring tone

You may approach a neighboring tone by a skip, then resolve to a chord tone by a scale step.

passing tone

A passing tone moves by scale step between one core melody chord tone and another.

Core Melody Scale Options

Thoroughly study the chapters [Modal II-V-I Cadences](#) and [Recognizing Scale-Tone Chords](#).

major II-V-I cadences

When the cadence uses chords built on II-V-I of a major scale (Dm7-G7-Cma7 is II-V-I of C major), the scale should be I major. To darken, the scale could be I Mixolydian (C Mixolydian) on the I chord or I Mixolydian throughout the II-V-I cadence.

I harmonic minor (C harmonic minor for II-V-I in C) is often used during the II-V part of a major II-V-I cadence (making Dm7b5-G7b9-Cma7), mimicking the II-V part of a II-V-I cadence,

minor II-V-I cadences

When the cadence uses chords built on VII-III-VI of a parent major scale (Bm7b5-E7b9-Am7 is VII-III-VI of C major), the key scale chords would be IIm7b5-V7(#5, b9)-Im7 (the sharp five and flat nine are options on the V).

The key scale would usually be I harmonic minor on the II-V and I Aeolian on the I chord. If the I chord is the I minor triad, harmonic minor is an option during the Im chord. harmonic minor can be used during Im7 if care is taken to not sustain or otherwise over emphasize the conflicting natural seven of I harmonic minor against the flat seven of the Im7 chord.

secondary dominants

To setup a target chord, the chord immediately before it is often played as a dominant chord with a major third and flatted seventh, if it does not already have those tones. Any IIm7, IIIm7 or VIm7 can be altered to a dominant chord by making the third natural in using it before a chord root up a fourth.

In the key of C, Dm7-G7 can be changed to D7-G7, using D Mixolydian (C Lydian parent scale) and G Mixolydian, respectively.

In the key of C, Em7-Am7 can be changed to E7-Am7, using E Phrygian dominant (C major sharp five parent scale, also called A harmonic minor) and A Aeolian, respectively.

In the key of C, Am7-Em7 can be changed to A7-Em7, using A Aeolian dominant (C major sharp one parent scale, also called A harmonic major) and E Phrygian, respectively.

superimposing cadences and substitution

Study the chapters [Melodically Superimposed Cadences](#) and [Substitution](#).

Six Directional Types of Eighth-Note Turnarounds

Turnarounds are traditionally linear, meaning each arpeggio is ascended or descended. They are shown below in that manner. Turnarounds can also be played non-linearly, skipped around each arpeggio, changing direction from note to note as desired.

♩ = 120

Swing Eighths

linear turnaround, up-down
Cm⁷ 2 F⁷ 3 Cm⁷ 4 F⁷

TAB: 5 8 8 6 | 5 6 8 5 || 6 8 8 5 | 8 6 5

linear turnaround, up-up
5 Cm⁷ 6 F⁷ 7 Cm⁷ 8 F⁷

TAB: 5 8 8 6 | 5 8 6 5 || 6 8 8 5 | 5 6 8 5

linear turnaround - up, continue up
9 Cm⁷ 10 F⁷ 11 Cm⁷ 12 F⁷

TAB: 8 6 5 8 | 5 8 6 5 || 6 8 8 5 | 7 8 6

Slurring Options for Eighth-Note Turnarounds

one set of turnarounds for each lowest note of the first chord (four sets)

All of the arpeggios are seventh chords played one note at a time, ascending or descending in order of pitch. The titles for the sets end, in order, with “root position”, “first inversion”, “second inversion” and “third inversion”. In order of pitch, the four notes of a seventh chord ascend root, third, fifth and seventh. For Cm7, those notes are respectively C-Eb-G-Bb. See [Constructing Scale-Tone Seventh Chords](#).

There are four sets of seven turnarounds in this section. One set has the lowest tone of the first chord as the root (root position). Another has the lowest tone of the first chord as the third (first inversion). Another has the lowest tone of the first chord as the fifth (second inversion). The last set has the lowest tone of the first chord as the seventh (third inversion).

These exercises have a very regular form, which is described below. You can learn the form of the exercises to the point where you don't need to read them. Only the two most common directional forms of turnarounds are shown here, “down-up” and “up-down”. See [Practice The Six Directional Types of Turnarounds](#).

turnarounds on Autumn Leaves- 28 exercises: seven exercises for each of four inversions

root in bass: II-V, V-I, I-IV, IV-VII, VII-III, III-VI

third in bass: II-V, V-I, I-IV, IV-VII, VII-III, III-VI

fifth in bass: II-V, V-I, I-IV, IV-VII, VII-III, III-VI

seventh in bass: II-V, V-I, I-IV, IV-VII, VII-III, III-VI

The four notes of any seventh chord can be identified with the numbers 1, 3, 5 and 7. Chords may have altered thirds, fifth or sevenths, such as “b3” (flat three), “#5” (sharp five) or “b7” (flat seven), but generically still used the numbers 1, 3, 5 and 7. The root of a chord is the note after which it is named.

If the arpeggio ascends from its root or descends down to its root, it is said to be in “root position”. If the lowest pitch an arpeggio ascends up from or descends down to is its third, it is in “first inversion”. With the fifth as lowest pitch an arpeggio ascends up from or descends down to, its “second inversion”. With the seventh as lowest pitch an arpeggio ascends up from or descends down to, its “third inversion”.

The chord progression in this exercise shows the most common root movement in modern music, roots ascending in fourths. See [Scale-Tone Seventh Chord Progression/Perfect Fourth Cadences](#). The seven-chord progression with root movement in fourths used here occurs in Autumn Leaves, shown in G minor. It is Cm7-F7-Bbma7-Ebma7-Am7b5-D7-Gm7 (changes to G7 just before returning to Cm7)-Cm7. In Roman numerals, the chord progression is II-V-I-IV-VII-III-VI.

Ebma7 to Am7b5 (IV to VII of Bb major) has a root movement of an augmented fourth and is the point when the cycle of perfect fourths shown in [Perfect Fourth Cadences](#) starts over. The seven pages

for each inversion are Cm7-F7, F7-Bbma7, Bbma7-Ebma7, Ebma7-Am7b5, Am7b5-D7, D7-Gm7 and G7-Cm7.

rhythmic considerations

In swing eighths, the first note on a beat is typically two thirds of a beat and the second note is one third of a beat. Placing three notes during the last third of the beat at a fast tempo over 150 beats per minute can be very challenging and sometimes impractical. So, the last two bars of the second and fourth staves Neighboring tones are scale tones immediately above or below chord tones. Passing tones are between two chord tones, usually a third apart, such as a “D” note between “C” and Eb” in a Bb major scale (Bb-C-D-Eb-F-G-A-Bb).

Swing rhythm is variable and the first eighth note on a beat can range from 51 to 75% of a beat, with the second eighth note getting the remainder of 49 to 25%, respectively.

the structure on the top and the bottom halves of each Autumn Leaves turnaround page

On each page in “[turnarounds on Autumn Leaves](#)”, the top three staves show “up-down” turnarounds. The bottom three staves on each page show “down-up” turnarounds.

the structure on the first and fourth staves of each page

On the first and fourth staves of each “[turnarounds on Autumn Leaves](#)” page, the turnaround is first played with no ornamentation, then with ornamentation to the first note using a pickup of the last two notes of a triplet before the third beat.

turnarounds on the first staff

Swing Eighthths $\text{♩} = 160$ II-V Cm7 F7 Cm7 F7

1 b3 5 b7 3 1 b7 5

T A B

turnarounds on the fourth staff

25 Cm7 26 F7 27 Cm7 28 F7 29 Cm7 30 F7

T A B

the structure on the second through sixth staves of each page

On the second through staves of each “[turnarounds on Autumn Leaves](#)” page, the ornamentation changes every two bars, as follows:

- ✦ bars 7 and 25 put the ornamentation on the beginning of the third beat
- ✦ bars 9 and 27 put the ornamentation on the end of the third beat
- ✦ bars 11 and 29 show a modified, easier version at the end of the third beat, with two notes instead of three that involve a neighboring tone or passing tone.
- ✦ bars 13 and 31 put the ornamentation on the beginning of the fourth beat
- ✦ bars 15 and 33 put the ornamentation on the end of the fourth beat
- ✦ bars 17 and 35 show a modified, easier version at the end of the third beat, with two notes instead of three that involve a neighboring tone or passing tone.

Turnarounds on Autumn Leaves - root position

2

1 V-I 2 3 F⁷ 4 B^bmaj⁷ 5 F⁷ 6 B^bmaj⁷

1 3 5 b7 3 1 7 5

7 F⁷ 8 B^bmaj⁷ 9 F⁷ 10 B^bmaj⁷ 11 F⁷ 12 B^bmaj⁷

13 F⁷ 14 B^bmaj⁷ 15 F⁷ 16 B^bmaj⁷ 17 F⁷ 18 B^bmaj⁷

ET (eascape tone)

19 20 21 F⁷ 22 B^bmaj⁷ 23 F⁷ 24 B^bmaj⁷

b7 5 3 1 (5) 7 1 3

25 F⁷ 26 B^bmaj⁷ 27 F⁷ 28 B^bmaj⁷ 29 F⁷ 30 B^bmaj⁷

31 F⁷ 32 B^bmaj⁷ 33 F⁷ 34 B^bmaj⁷ 35 F⁷ 36 B^bmaj⁷

TAB

Turnarounds on Autumn Leaves - root position

3

The musical score is written for guitar, featuring a treble clef and a key signature of two flats (Bb and Eb). The piece consists of 36 measures, organized into six systems of two staves each. The top staff contains the melodic line with various ornaments (trills, triplets, sixteenth-note runs) and articulation marks. The bottom staff contains the bass line with fingerings (numbers 1-5) and chord symbols (Bbmaj7, Ebmaj7). The score includes a variety of musical notations such as slurs, ties, and dynamic markings. The piece concludes with a double bar line at measure 36.

Measures 1-6: I-IV, Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7. Fingerings: 1 3 5 7, 3 1 7 5. Bass line: 8 7 6 5, 8 8 7 8, 8 7 8 7 6 5, 8 8 7 8.

Measures 7-12: Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7. Bass line: 8 7 8 7 6 5, 8 8 7 8, 8 7 5 7 6 5, 8 8 7 8, 8 7 8 6 5, 8 8 7 8.

Measures 13-18: Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7. Bass line: 8 7 6 8 6 5, 8 8 7 8, 8 7 6 5 6 5, 8 8 7 8, 8 7 6 6 5, 8 8 7 8. ET (escape tone) at measure 18.

Measures 19-24: Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7. Bass line: 5 6 7 8, 7 8 8, 5 6 5 6 7 8, 7 8 8.

Measures 25-30: Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7. Bass line: 5 6 5 6 7 8, 7 8 8, 5 6 8 6 7 8, 7 8 8, 5 8 6 7 8, 7 8 8.

Measures 31-36: Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7, Bbmaj7, Ebmaj7. Bass line: 5 6 7 5 7 8, 7 8 8, 5 6 7 8 7 8, 8 7 8 8, 5 6 7 8 7, 8 7 8 8.

Turnarounds on Autumn Leaves - root position

4

The musical score is written for a single melodic line in B-flat major (two flats) and a tenor/bass line. The key signature is B-flat major. The score consists of 36 measures, divided into six systems of six measures each. The melodic line features various ornaments, including triplets and sixteenth-note runs. The tenor/bass line provides harmonic support with chords and fingerings.

System 1 (Measures 1-6):

- Measure 1: IV-VII (written in a box)
- Measure 2: Rest
- Measure 3: E \flat maj7
- Measure 4: Am7(b5)
- Measure 5: E \flat maj7
- Measure 6: Am7(b5)

System 2 (Measures 7-12):

- Measure 7: E \flat maj7
- Measure 8: Am7(b5)
- Measure 9: E \flat maj7
- Measure 10: Am7(b5)
- Measure 11: E \flat maj7
- Measure 12: Am7(b5)

System 3 (Measures 13-18):

- Measure 13: E \flat maj7
- Measure 14: Am7(b5)
- Measure 15: E \flat maj7
- Measure 16: Am7(b5)
- Measure 17: E \flat maj7
- Measure 18: Am7(b5) with ET (eascape tone) marking

System 4 (Measures 19-24):

- Measure 19: Rest
- Measure 20: Rest
- Measure 21: E \flat maj7
- Measure 22: Am7(b5)
- Measure 23: E \flat maj7
- Measure 24: Am7(b5)

System 5 (Measures 25-30):

- Measure 25: E \flat maj7
- Measure 26: Am7(b5)
- Measure 27: E \flat maj7
- Measure 28: Am7(b5)
- Measure 29: E \flat maj7
- Measure 30: Am7(b5)

System 6 (Measures 31-36):

- Measure 31: E \flat maj7
- Measure 32: Am7(b5)
- Measure 33: E \flat maj7
- Measure 34: Am7(b5)
- Measure 35: E \flat maj7
- Measure 36: Am7(b5)

The tenor/bass line includes fingerings (1-7) and chord symbols (T, A, B) for each measure.

Turnarounds on Autumn Leaves - root position

5

1 VII-III 2 3 Am⁷(b⁵) 4 D⁷ 5 Am⁷(b⁵) 6 D⁷

1 b3 b5 b7 b3 1 b7 b5

7 Am⁷(b⁵) 8 D⁷ 9 Am⁷(b⁵) 10 D⁷ 11 Am⁷(b⁵) 12 D⁷

13 Am⁷(b⁵) 14 D⁷ 15 Am⁷(b⁵) 16 D⁷ 17 Am⁷(b⁵) 18 D⁷

ET (eascape tone)

19 20 21 Am⁷(b⁵) 22 D⁷ 23 Am⁷(b⁵) 24 D⁷

b7 b5 b3 1 (5) b7 1 3

25 Am⁷(b⁵) 26 D⁷ 27 Am⁷(b⁵) 28 D⁷ 29 Am⁷(b⁵) 30 D⁷

31 Am⁷(b⁵) 32 D⁷ 33 Am⁷(b⁵) 34 D⁷ 35 Am⁷(b⁵) 36 D⁷

TAB

Turnarounds on Autumn Leaves - root position

6

III-VI

III uses Phrygian dominant

1 3 5 b7 b3 1 b7 5

ET (eascape tone)

7 5 3 1 (b5) b7 1 b

Turnarounds on Autumn Leaves - root position

7

1 VI-II 2 3 G⁷ 4 Cm⁷ 5 G⁷ 6 Cm⁷

VI uses Aeolian dominant 1 3 5 b7 b3 1 b7 b5

7 G⁷ 8 Cm⁷ 9 G⁷ 10 Cm⁷ 11 G⁷ 12 Cm⁷

13 G⁷ 14 15 G⁷ 16 Cm⁷ 17 G⁷ 18 Cm⁷ ET (eascape tone)

19 G⁷ 20 21 G⁷ 22 Cm⁷ 23 G⁷ 24 Cm⁷

b7 5 3 1 (5) b7 1 3

25 G⁷ 26 27 G⁷ 28 Cm⁷ 29 G⁷ 30 Cm⁷

31 G⁷ 32 33 G⁷ 34 Cm⁷ 35 G⁷ 36 Cm⁷

TAB

5 4 7 6 8 5 8 5 5 5 4 7 6 8 5 8 5

5 7 5 4 7 6 8 5 8 5 5 9 7 6 8 5 8 5 5 4 5 7 6 8 5 8 5

5 9 7 5 7 6 8 5 8 5 5 9 7 6 8 6 8 5 8 5 5 8 7 6 7 8 5 8 5

6 7 9 5 8 5 8 6 8 6 7 9 5 8 5 8

6 8 6 7 9 5 8 5 8 6 7 8 7 9 5 8 5 8 6 8 7 9 5 8 5 8

6 7 9 7 9 5 8 5 8 6 7 9 5 7 5 8 5 8 6 7 4 5 7 5 8 5 8

turnarounds on Autumn Leaves, lowest note of first chord: third - [click to play](#)

The first chord of each turnaround more often uses a ninth arpeggio from its third through ninth (3-5-7-9), since it usually sounds better than tones 3-5-7-1.

Swing Eighth

$\text{♩} = 160$

2 II-V 3 Cm⁷ 4 F⁷ 5 Cm⁷ 6 F⁷

b3 5 b7 2 (5) 3 1 b7

7 Cm⁷ 8 F⁷ 9 Cm⁷ 10 F⁷ 11 Cm⁷ 12 F⁷

13 Cm⁷ 14 F⁷ 15 Cm⁷ 16 F⁷ 17 Cm⁷ 18 F⁷

19 20 21 Cm⁷ 22 F⁷ 23 Cm⁷ 24 F⁷

1 b7 5 b3 (b7) 1 3 5

25 Cm⁷ 26 F⁷ 27 Cm⁷ 28 F⁷ 29 Cm⁷ 30 F⁷

31 Cm⁷ 32 F⁷ 33 Cm⁷ 34 F⁷ 35 Cm⁷ 36 F⁷

Turnarounds on Autumn Leaves - first inversion

2

1 V-I 2 3 F⁷ 4 B^bmaj⁷ 5 F⁷ 6 B^bmaj⁷

3 5 b7 2 5 3 1 5

7 5 8 8 6 7 8 8 7 8 7 5 7 5 8 8 6 7 8 7 5 7 8

7 F⁷ 8 B^bmaj⁷ 9 F⁷ 10 B^bmaj⁷ 11 F⁷ 12 B^bmaj⁷

7 5 7 5 8 6 7 8 8 7 5 7 5 8 6 8 6 6 6 6 7 5 7 8 6 7 8 7 5 7 8

13 F⁷ 14 B^bmaj⁷ 15 F⁷ 16 B^bmaj⁷ 17 F⁷ 18 B^bmaj⁷

7 5 8 7 8 8 6 7 8 8 7 5 8 8 6 8 7 8 7 8 7 5 8 8 6 8 6 7 8 8

19 20 21 F⁷ 22 B^bmaj⁷ 23 F⁷ 24 B^bmaj⁷

b7 5 3 1 (5) 7 1 3

8 5 7 8 7 8 7 8 7 8 7 8 7 8 7 8

25 F⁷ 26 B^bmaj⁷ 27 F⁷ 28 B^bmaj⁷ 29 F⁷ 30 B^bmaj⁷

8 7 8 5 7 8 7 8 7 8 5 7 5 7 8 7 8 7 8 7 5 7 8 7 8 7

31 F⁷ 32 B^bmaj⁷ 33 F⁷ 34 B^bmaj⁷ 35 F⁷ 36 B^bmaj⁷

8 5 7 8 7 8 7 8 7 8 5 7 8 6 8 7 8 7 8 5 7 8 6 8 8 7 8 7

Turnarounds on Autumn Leaves - first inversion

3

The musical score is written for a single melodic line in B-flat major, with a tenor and bass line (T/B) for improvisation. The key signature has two flats (B-flat and E-flat). The score consists of 36 measures, divided into six systems of six measures each. The first measure is marked with a box containing 'I-IV'. The second measure is marked with a '2'. The third measure is marked with '3 Bbmaj7'. The fourth measure is marked with '4 Ebmaj7'. The fifth measure is marked with '5 Bbmaj7' and a '3' above the staff. The sixth measure is marked with '6 Ebmaj7'. The seventh measure is marked with '7 Bbmaj7'. The eighth measure is marked with '8 Ebmaj7'. The ninth measure is marked with '9 Bbmaj7'. The tenth measure is marked with '10 Ebmaj7'. The eleventh measure is marked with '11 Bbmaj7'. The twelfth measure is marked with '12 Ebmaj7'. The thirteenth measure is marked with '13 Bbmaj7'. The fourteenth measure is marked with '14 Ebmaj7'. The fifteenth measure is marked with '15 Bbmaj7'. The sixteenth measure is marked with '16 Ebmaj7'. The seventeenth measure is marked with '17 Bbmaj7'. The eighteenth measure is marked with '18 Ebmaj7'. The nineteenth measure is marked with '19'. The twentieth measure is marked with '20'. The twenty-first measure is marked with '21 Bbmaj7'. The twenty-second measure is marked with '22 Ebmaj7'. The twenty-third measure is marked with '23 Bbmaj7'. The twenty-four measure is marked with '24 Ebmaj7'. The twenty-fifth measure is marked with '25 Bbmaj7'. The twenty-six measure is marked with '26 Ebmaj7'. The twenty-seventh measure is marked with '27 Bbmaj7'. The twenty-eighth measure is marked with '28 Ebmaj7'. The twenty-ninth measure is marked with '29 Bbmaj7'. The thirtieth measure is marked with '30 Ebmaj7'. The thirty-first measure is marked with '31 Bbmaj7'. The thirty-second measure is marked with '32 Ebmaj7'. The thirty-third measure is marked with '33 Bbmaj7'. The thirty-four measure is marked with '34 Ebmaj7'. The thirty-fifth measure is marked with '35 Bbmaj7'. The thirty-six measure is marked with '36 Ebmaj7'. The score includes various musical notations such as eighth notes, quarter notes, half notes, and full notes, as well as slurs, ties, and ornaments. The T/B line includes various musical notations such as eighth notes, quarter notes, half notes, and full notes, as well as slurs, ties, and ornaments.

4

Turnarounds on Autumn Leaves - first inversion

The musical score is written for a single melodic line in B-flat major (two flats) and a bass line. The key signature has two flats (B-flat and E-flat). The score consists of 36 measures, grouped into six systems of six measures each. The first measure of the first system is marked with a box containing 'IV-VII'. The notes in the first system are: 1. B-flat (quarter), 2. rest, 3. E-flat (quarter), 4. A (quarter), 5. B-flat (quarter), 6. A (quarter). The notes in the second system are: 7. B-flat (quarter), 8. A (quarter), 9. E-flat (quarter), 10. A (quarter), 11. B-flat (quarter), 12. A (quarter). The notes in the third system are: 13. B-flat (quarter), 14. A (quarter), 15. E-flat (quarter), 16. A (quarter), 17. B-flat (quarter), 18. A (quarter). The notes in the fourth system are: 19. B-flat (quarter), 20. rest, 21. E-flat (quarter), 22. A (quarter), 23. B-flat (quarter), 24. A (quarter). The notes in the fifth system are: 25. B-flat (quarter), 26. A (quarter), 27. E-flat (quarter), 28. A (quarter), 29. B-flat (quarter), 30. A (quarter). The notes in the sixth system are: 31. B-flat (quarter), 32. A (quarter), 33. E-flat (quarter), 34. A (quarter), 35. B-flat (quarter), 36. A (quarter). The bass line consists of eighth and quarter notes, often beamed together in groups of three or six. The first system's bass line is: 1. B-flat, 2. rest, 3. E-flat, 4. A, 5. B-flat, 6. A. The second system's bass line is: 7. B-flat, 8. A, 9. E-flat, 10. A, 11. B-flat, 12. A. The third system's bass line is: 13. B-flat, 14. A, 15. E-flat, 16. A, 17. B-flat, 18. A. The fourth system's bass line is: 19. B-flat, 20. rest, 21. E-flat, 22. A, 23. B-flat, 24. A. The fifth system's bass line is: 25. B-flat, 26. A, 27. E-flat, 28. A, 29. B-flat, 30. A. The sixth system's bass line is: 31. B-flat, 32. A, 33. E-flat, 34. A, 35. B-flat, 36. A. The score includes various musical notations such as slurs, ties, and fingerings (e.g., 1 3 5 7, b3 1 b7 b5, 6 5 8 7, 5 7 5 6, 6 5 6 5 8 7, 5 7 5 6, 6 5 7 5 8 7, 5 7 5 6, 6 5 7 8 7, 5 7 5 6, 6 5 8 7 5 7, 5 7 5 6, 6 5 8 7 5 7, 5 7 5 6, 7 5 3 1 (b5) b7 1 b3, 7 8 5 6, 5 7 5, 7 5 7 8 5 6, 5 7 5, 7 5 7 8 5 6, 5 7 5, 7 5 3 5 6, 5 7 5, 7 8 5 7 5 6, 5 7 5, 7 8 5 6 5 6, 5 7 5, 7 8 5 6 5, 6 5 7 5).

5

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Turnarounds on Autumn Leaves - first inversion

Turnarounds on Autumn Leaves - first inversion

1 III-VI 2 3 D⁷ 4 Gm⁷ 5 D⁷ 6 Gm⁷

1 3 5 b7 b3 1 b7 5

7 6 5 8 6 8 6 7 7 5 7 6 5 8 6 8 6 7

7 D⁷ 8 Gm⁷ 9 D⁷ 10 Gm⁷ 11 D⁷ 12 Gm⁷

7 5 7 6 5 8 6 8 6 7 7 6 8 6 5 8 6 8 6 7

13 D⁷ 14 Gm⁷ 15 D⁷ 16 Gm⁷ 17 D⁷ 18 Gm⁷

7 6 5 6 5 8 6 8 6 7 7 6 5 8 6 8 6 8 6 8 6 8 6 8 6 7

19 20 21 D⁷ 22 Gm⁷ 23 D⁷ 24 Gm⁷

b7 5 3 1 (5) b7 1 b3

8 5 6 7 6 8 6 8 6 8 5 6 7 6 8 6

25 D⁷ 26 Gm⁷ 27 D⁷ 28 Gm⁷ 29 D⁷ 30 Gm⁷

8 6 8 5 6 7 6 8 6 8 5 6 5 6 7 6 8 6 8 5 8 6 7 6 8 6

31 D⁷ 32 Gm⁷ 33 D⁷ 34 Gm⁷ 35 D⁷ 36 Gm⁷

8 5 6 8 6 7 6 8 6 8 5 6 7 5 7 6 8 6 8 5 6 7 5 7 6 8 6

Turnarounds on Autumn Leaves - first inversion

7

1 VI-II 2 3 G⁷ 4 Cm⁷ 5 G⁷ 6 Cm⁷

1 3 5 b7 b3 1 b7 b5

7 G⁷ 8 Cm⁷ 9 G⁷ 10 Cm⁷ 11 G⁷ 12 Cm⁷

13 G⁷ 14 15 G⁷ 16 Cm⁷ 17 G⁷ 18 Cm⁷

19 G⁷ 20 21 G⁷ 22 Cm⁷ 23 G⁷ 24 Cm⁷

b7 5 3 1 (5) b7 1 3

25 G⁷ 26 27 G⁷ 28 Cm⁷ 29 G⁷ 30 Cm⁷

31 G⁷ 32 33 G⁷ 34 Cm⁷ 35 G⁷ 36 Cm⁷

6 7 9 7 9 5 8 5 8 6 7 9 5 7 5 8 5 8 6 7 9 5 7 5 8 5 8

The musical score is written for a single melodic line in G minor, featuring a series of 36 measures. The notation includes a treble clef, a key signature of two flats (Bb and Eb), and a common time signature. The melody is composed of eighth and quarter notes, often grouped in triplets or pairs. Chord symbols (G⁷, Cm⁷, VI-II) are placed above the staff to indicate the harmonic context. Fingering numbers (1-5) are written below the notes to guide the performer. The score is divided into six systems, each containing six measures. The first system begins with a 'VI-II' chord symbol. The second system includes a specific fingering sequence: 1 3 5 b7 b3 1 b7 b5. The third system includes a triplet of eighth notes. The fourth system includes a triplet of eighth notes. The fifth system includes a triplet of eighth notes. The sixth system includes a triplet of eighth notes. The score concludes with a double bar line.

eighth-note turnarounds on Autumn Leaves, lowest note of first chord: fifth

eighth-note turnarounds on Autumn Leaves, lowest note of first chord: seventh

Core Melody Elaboration with Theme and Variation

More often you should use theme and variation in core melody. It helps the listener to predict and understand your melody. Recall audio memories to inspire you with ideas for your parts. Establish a theme, then repeat it with variation.

Elaboration of Core Melody with Pushes

Non-Linear Turnarounds

The notes of each arpeggio in a turnaround can change direction from note to note, making the playing of the arpeggio non-linear. Though this may be more difficult for the listener to follow, it is often more interesting for the listener, more provocative.

1-3 (fifths), 123 and 1234 fragment patterns

more random non-linear choices of arpeggio tones

MELODIC EXAMPLES

Autumn Leaves improv - core melody

Autumn Leaves improv - full elaboration **120 BPM, 90 BPM**, (click to play video)

The musical score is written for guitar, featuring a treble clef and a key signature of one flat (Bb). The tempo is 120 BPM and 90 BPM. The score is divided into five systems, each containing two staves (Treble and Bass) and a line of fingerings. The measures are numbered 1 through 25. The chords are: 1 Gm7, 2 Cm7, 3 F7, 4 Bbmaj7, 5 Ebmaj7, 6 Am7(b5), 7 D7, 8 Gm7, 10 Cm7, 11 F7, 12 Bbmaj7, 13 Ebmaj7, 14 Am7(b5), 15 D7, 16 Gm7, 18 Am7(b5), 19 D7, 20 Gm7, 22 Cm7, 23 F7, 24 Bbmaj7, 25 Ebmaj7. The fingerings are written below the notes, and the bass staff shows the corresponding fret positions.

1 Gm7 2 Cm7 3 F7 4 Bbmaj7 5 Ebmaj7

6 Am7(b5) 7 D7 8 Gm7 9

10 Cm7 11 F7 12 Bbmaj7 13 Ebmaj7

14 Am7(b5) 15 D7 16 Gm7 17

18 Am7(b5) 19 D7 20 Gm7 21

22 Cm7 23 F7 24 Bbmaj7 25 Ebmaj7

26 *Am7(b5)* 27 *D7* 28 *Gm7* 29 30 *Am7(b5)* 31 *D7* 32 *Gm7* 33

3 1 3 4 3 1 4 3 4 3 4 1 4 1 3 4 3 3 2 4

7 5 7 8 7 5 8 7 8 4 8 5 7 8 7 7 6 8 3 5 6 8 5 6 5 6 5 8 5 6 8 5 7 8 5 7

2 3 2 3 2 3 2 3 3 1 1 2 1 2 1 4 3 2 4 3 4 1 2

7 8 7 8 7 7 7 8 8 6 5 6 5 6 5 8 7 6 8 7 8 4 5

Autumn Leaves improv - four stages of core melody

1. core melody triad 2 *Cm7* 3 *F7* 4 *Bbmaj7* 5 *Ebmaj7*

Eb major triad C minor triad Bb major triad G minor triad

2. two-note-per-chord core melody *Gm7* *Cm7* *F7* *Bbmaj7* *Ebmaj7*

8 8 5 8 6 7 8 8

3. four-note-per-chord core melody *Gm7* *Cm7* *F7* *Bbmaj7* *Ebmaj7*

8 6 8 7 5 7 8 8 6 7 5 8 8 7 8 5

4. full elaboration with ornamentation and syncopation *Gm7* *Cm7* *F7* *Bbmaj7* *Ebmaj7*

1 4 3 1 2 1 3 1 2 3 2 1 3 1 3 2 3 2 3 1 2 3 4 3 1 3 1 3 2 1 1 2 1 3 2 3 2 1 3 3 2 3 2 1 2 1 4 1

5 9 8 6 7 5 8 5 7 8 7 6 8 6 8 7 8 7 8 5 6 8 7 6 6 7 6 8 7 8 7 5 8 8 7 8 7 5 6 5 8 5

2 6 Am⁷(b⁵) D⁷ Gm⁷ 9

A diminished triad Cm7b5 G minor triad

Am⁷(b⁵) D⁷ Gm⁷

T 7 8 7 6 8

A 7 8 5 8 7 8 6 7 8 6 8 7 8 7 8

B 7 8 5 8 5 8 7 8 5 8 6 8 6 8 7 7 8 8 7 7 8 7

10 Cm⁷ F⁷ B^bmaj⁷ E^bmaj⁷ 11 12 13

Ebmaj⁷ F major triad Bbmaj⁷ Ebmaj⁷

Cm⁷ F⁷ B^bmaj⁷ E^bmaj⁷

T 10 11 8 5 6 5 7 8

A 10 8 10 11 8 6 5 6 6 8 5 8 7 8 5 8

B 10 8 10 11 8 6 5 6 6 8 5 8 5 6 5 7 8 7 5 6 5 8

14 Am⁷(b⁵) Gsus2/4 15 D⁷ A diminished triad 16 Gm⁷ G minor triad 17 G minor triad

Am⁷(b⁵) D⁷ Gm⁷

7 8 5 8 5 7 6 8

Am⁷(b⁵) D⁷ Gm⁷

7 8 7 8 5 7 8 7 5 8 7 7 6 8 7

Am⁷(b⁵) D⁷ Gm⁷

2 3 2 3 2 2 2 3 2 3 1 1 2 1 2 1 4 3 2 4 3 4 1 3 1 3 4 4 3 4 3 1 3 1 2 1 4 3 4 3 4

7 8 7 8 7 7 8 7 8 8 6 5 6 5 6 5 8 7 6 8 7 8 4 7 5 7 8 8 7 8 7 5 7 5 6 5 8 7 8 7 8

18 Am⁷(b⁵) A diminished triad 19 D⁷ D augmented triad 20 Gm⁷ G minor triad 21

Am⁷(b⁵) D⁷ Gm⁷

5 5 6 7 8

Am⁷(b⁵) D⁷ Gm⁷

5 6 5 6 8 7 7 8

Am⁷(b⁵) D⁷ Gm⁷

1 2 1 4 1 2 1 2 1 3 1 3 1 3 2 2 3 2 1 3 3 1 3 4 2 1 2 1 2 4 3

5 6 5 8 6 5 6 8 6 8 7 7 8 7 5 8 15 13 15 13 11 10 11 10 11 13 12

4 22 Cm⁷ 23 F⁷ 24 B^bmaj⁷ 25 E^bmaj⁷

E^b major triad F major triad B^b major triad G minor triad

Cm⁷ F⁷ B^bmaj⁷ E^bmaj⁷

8 8 6 5 6 7 8 8

Cm⁷ F⁷ B^bmaj⁷ E^bmaj⁷

8 8 7 8 6 8 5 6 7 6 7 8 6 8 7

Cm⁷ F⁷ B^bmaj⁷ E^bmaj⁷

3 4 3 1 3 2 3 3 1 3 1 3 3 1 1 2 1 3 1 2 3 2 1 2 1 2 3 1 1 3 1 3 2 3 1

8 10 8 6 8 7 8 8 6 8 6 8 8 5 5 7 6 8 6 7 8 7 5 7 6 7 8 6 6 8 6 8 7 8 5

[illegible]

30 Am7(b5) 31 D7 32 Gm7 33

Am7(b5) D7 Gm7

7 8 5 8 7 5 6 5 6 5 8 7 6 8 7 8 4 5

Am7(b5) D7 Gm7

7 8 7 8 7 7 8 8 6 5 6 5 6 5 8 7 6 8 7 8 4 5

Am7(b5) Straight Eighths D7 Gm7

2 3 2 3 2 3 2 3 3 1 1 2 1 2 1 4 3 2 4 3 4 1 2

7 8 7 8 7 7 8 8 6 5 6 5 6 5 8 7 6 8 7 8 4 5

Jazz Blues core melody

Jazz Blues in Bb - full elaboration [click to play](#)

4. full elaboration with ornamentation and syncopation

0 Cm7 F7 1 Bb7 2 Eb7 3 Bb7 4 5 Eb9 6 Eb7(b9) 7 Bb7 8 G7 9 Cm7 10 F7 11 Bb7 12 G7 13 Cm7 14 F7

4 2 1 3 3 1 3 1 3 1 3 2 3 3 3 1 3 1 1 2 4 1 1 3 2 3 3 2 1 2 4 3 4 3 1 2 3 1 3 3 1 2 1 3 3 1 4 3 4 1 4 1 2

6 7 8 6 8 6 8 6 8 6 7 8 8 8 6 8 6 5 6 8 6 6 8 7 8 8 7 5 6 9 8 9 8 6 7 8 6 8 8 5 6 5 8 8 6 9 8 5 8 5 6

2 1 1 2 3 1 3 1 3 1 2 3 1 3 2 4 2 1 2 1 3 4 3 1 2 3 1 2 3 1 3 1 2 1 3 4 1 3 1 1 1 3 1 2 3 1 3 1 2 3

6 7 8 6 8 6 8 6 7 8 8 10 8 7 8 6 8 9 8 6 7 8 5 7 8 6 6 6 7 8 5 6 5 8 8 6 8 6 6 8 6 7 8 5 8 6 7 8

Jazz Blues in Bb - four stages of core melody

1. core melody: a cluster of chord tones

2. harmonic framework with no elaboration

3. harmonic framework with simple elaboration

4. full elaboration with ornamentation and syncopation

The score is divided into four sections, each showing a different level of melodic elaboration. Each section includes a treble clef staff with a key signature of two flats (Bb major), a bass clef staff with a key signature of two flats (Bb major), and a tenor/bass staff with a key signature of two flats (Bb major). The first section (measures 0-6) shows a progression of chords: Cm7, F7, Bb7, Eb7, Bb7, Eb7, and Eb7(b9). The second section (measures 7-12) shows a progression of chords: Bb7, G7(b9), Cm7, F7, Bb7, G7(b9), Cm7, and F7. The third section (measures 13-18) shows a progression of chords: Bb7, G7(b9), Cm7, F7, Bb7, G7(b9), Cm7, and F7. The fourth section (measures 19-24) shows a progression of chords: Bb7, G7(b9), Cm7, F7, Bb7, G7(b9), Cm7, and F7. The score includes fingerings for both hands and a tenor/bass staff with a key signature of two flats (Bb major).

Sections Built with Phrases

- **Melodic Design Types**
- **Form: the Order of Sections**
- **Building Sections with Phrases**
- **Repeats, Segno, Endings & Coda, etc.**

MELODIC DESIGN TYPES

The jazz tunes in this section are published in books listed in this Favored Jazz song list, at the link below:

<http://www.guitarencyclopedia.com/zzFavoredJazz.pdf>

The books are shown in the right column. You will probably need to read the tunes while reading my descriptions in this chapter.

In regard to melodic cells (see [Melodic Cell Types](#)), melodic design types are designs *made* with melodic cells.

Links To Melodic Design Types

[Periodic Theme and Variation](#)

[Sequential Theme and Variation with the Melodic Curve](#)

[Pentatonic and Hexatonic Melody](#)

[Call And Response](#)

[Harmonic Scalar Pulse](#)

[Large Arpeggios Connected with Superimposed Cadence Scales](#)

[Joe Pass Chord Melody Style Bass and Chord](#)

Periodic Theme And Variation

Periodic themes occur in many instances in an improvised melody with other connective material. They use more independent ideas that occur periodically and usually have a minimalist basis.

By contrast, sequential theme and variation builds longer melodic ideas without so much connective material. Intervallic theme and variation is more continuous structure, rather than periodic.

Au Privave

The primary theme is established with the first four notes, reoccurring in bars 2, 3, 6, 9, 10 and 12. A secondary theme is the eighth note pickup to a quarter note in bars 5, 7, 8, 10 (pickup to beat).

Bloomdido

Two themes. The first four notes, which reoccur at the beginning of bars two and three. It also occurs at the beginning and end of bar eleven.

The second theme begins bar five and is an inversion of the first (down-up, instead of up-down). The second theme reoccurs in bars six, eight and with elaboration nine.

Four

Georgia

Girl From Ipanema

Have You Met Miss Jones

Sequential Theme and Variation with the Melodic Curve

Autumn Leaves

Autumn Leaves section A uses four two-bar phrases that each begin with a three note scalar pickup from the fifth of the target chord. Each phrase ascends 5-6-7 in the mode of the target chord, then skips up a fourth to the third of the target chord.

Autumn Leaves section B uses two or three pickups to begin each chord. The three note pickups in the second bar resolves to the beginning of the third bar in the same manner as the pickup in the fourth bar resolves to begin the fifth bar. The two note ascending pickup to the first bar is the same idea as the three-note descending pickup to the seventh bar, except the three note pickup repeats its first note with an octave interval.

All the Things You Are

All The Things You Are bars 1-8 uses pairs of notes in fourths for three pairs of pairs: parent scale 1-4, 7-3, 6-#2, then resolves to the key on III with original key tone #5. For bars 9-16, it repeats this idea in the key of IV.

All The Things You Are bars 17-24 uses four two-bar phrases. The first and third phrase start with a three-note pickup that ascends to a fourth note at the beginning of the chord. That fourth note is an upper neighbor to a chord tone, making it an [appoggiatura](#) (leaning tone), which resolves afterward, down to the chord tone. The second and fourth two-bar phrases each use a three-note pickup which ascends to an upper neighbor with the third note. Then the fourth note resolves down to the chord tone on the first beat of the chord.

Bag's Groove

One note pickup from tonic to fifth of key. Each pair of eighths that follows encircles the tone that it precedes. The melody is all tones of minor pentatonic, but ingeniously phrased so each target tone after the encircling is a chord tone, considering the II chord is IIm11.

In the more elaborate version of the melody, the pickups are four notes, which are a “mordent” which is a group of slurred notes: target, upper neighbor, target, lower neighbor, target. Using F minor pentatonic or the note “Bb”, this would be Bb-C-Bb-Ab-Bb.

Black Orpheus

The theme is fifth of target I minor to flatted third of I minor on the first beat of the chord. Two note pickup to the tonic beginning bar two, which is a chord tone of that chord. The end of bar two encircles the tonic to begin bar three, but rather than the tonic, the melody skips to the fifth of the key, which is a chord tone of *that* chord. In the encircling, the fifth of the parent scale (the relative major key) is sharpened, making harmonic minor.

The same melody is used on the next four bars, which cadence to the relative major on in bar seven (the third of those four bars). The theme is only changed by using natural five of the parent scale (the relative major scale).

Bars nine through sixteen begin with four two-bar phrases that each use a three eighth-note pickup that ascends to the fifth of the target chord. The first three of those two-bar phrases follow beginning each chord on its fifth with the root of the chord.

Bars seventeen through thirty two follow the same general ideas.

Blue Bossa

Fly Me to the Moon

Here's That Rainy Day

How High the Moon

How Insensitive

In a Mellow Tone

The Way You Look Tonight

Pentatonic and Hexatonic Melody

minor pentatonic

Blues by Five, Cantelope Island, It Don't Mean a Thing, Moanin', The Road Song, Sonnymoon for Two, Speak Low, Sunny

minor pentatonic add two

In a Sentimental Mood, Mr. P.C., Pawky (also uses flat five), Summertime, Take Five, This Masquerade

major pentatonic

Joy Spring, Last Train Home, Mercy Mercy Mercy, Now's the Time, One for Daddy O" (major pentatonic flat three, called m6/9 pentatonic), Tenor Madness (flat three on the IV chord, making m6/9 pentatonic), Willow Weep for Me (also uses minor pentatonic in bars five and six)

major pentatonic add four

Call and Response

Angel Eyes

Killing Me Softly with His Song

Relating Chord Tones to the Beat

Large Arpeggios Connected with Superimposed Cadence Scales

Much of Charlie Parker's melody is ninth through thirteenth arpeggios connected with harmonic minor and melodic minor cadences. He also chromaticized arpeggios. [See Melodic Cell Types.](#)

Anthropology

Confirmation

Donna Lee

Groovin' High

Harlem Nocturne

Joy Spring

Night In Tunisia

Ornithology

'Round Midnight

Scrapple from the Apple

Yardbird Suite

Joe Pass Chord Melody Style Bass and Chord

FORM: THE ORDER OF SECTIONS

See [Reading Notation](#)/Repeats, Segno, Endings & Coda, Etc.

Word Labels For Sections

verse

The verse tells the story. It is almost always softer and calmer than the chorus and is commonly in the same key as the chorus, and is usually in what is considered the overall key of the song. Two or more verses commonly occur before the first chorus. Verses don't have to come before the chorus.

Verse comes from the Latin word *versus*, which means a line of writing and is based on the Proto-Indo-European root *wer*, meaning to turn or bend. Think of "a turn of phrase", "bending the listener's ear" or "bending the truth" to tell a story.

chorus

The title of the song is usually sung in the chorus and commonly summarizes the story. It is usually louder and fuller than the verse, with more harmony vocals. Etymologically, chorus is an extension of "court" referring to an enclosed area where people assemble to play and sing music or theatrical performance. The chorus comes after the verses a little more commonly, but sometimes songs start with the chorus.

The *refrain* is the line of words that is repeated during the chorus.

pre-chorus, pre-verse, post-chorus, post verse

Around 1990, I started seeing "*pre-chorus*" in printed sheet music. It seemed a strange term to me at first, but I've accepted it over time. As you would think, it comes before the chorus, and usually builds excitement into the chorus. *Post chorus* likewise applies an addendum to the end of the chorus without changing to another section.

The term could be likewise applied to content that precedes the verse: a pre-verse.

Post verse could apply the same principle as post chorus in applying an addendum to the end of a verse without changing to another section.

bridge or middle eight

The section that connects the verse and chorus is called the bridge. It might not occur until the second time the verses and chorus are played. It more commonly follows the chorus. The bridge is more often

in a different key from the verse and chorus, typically a key a perfect fourth (five frets) higher than the verse.

The *middle eight* is a type of bridge that occurs between two choruses using different melody and usually different chord progression. The middle eight can choose from a wide variety of chord progression types.

intro

The intro (abbreviation for introduction), is played at the beginning of a piece. Songs don't always have introductions. Introductions are most commonly borrowed from the end of one of the main sections of the song, the verse or chorus (A or B sections in an instrumental piece). They are typically based on the end of the verse or chorus (A or B section) and followed by the same section they go into in the song.

For example, at the end of the chorus, the music flows into the verse. The intro starts with the end of the chorus, then goes into the first verse. A twelve bar blues commonly begins with the last four bars of the twelve bar chord progression, followed by the twelve bar progression from its beginning.

ending

Like an intro, an ending should be based on content borrowed from the verse or chorus. It is often the last four bars of a verse or chorus played three times, followed by an ending chord. The ending is expected to complete with the chord named after the key, but can use a deceptive cadence, ending on an unexpected chord.

fade-in

A song sometimes begins with a fade-in. An intro or vamp is usually used for the fade-in and usually occurs in recorded music, not live music. The volume swells up from silence, usually to the level standard for the song. Fade-in is not used often, probably because, like fade-outs, it is dynamically and expressively weak.

vamp

A rhythm section with a repeating chord progression (or on a single chord), without any significant thematic material. Vamps are used as "filler" between other sections. They are typically used to setup the section that follows them by establishing the "groove", rhythmic nature, mood, chord sound, etc (any or all of these).

solo

We're used to hearing a guitar solo (or other instrument, if they insist) two-thirds of the way through a song. In this section, the guitar player improvises, or ad-libs. The melodic content may be based on the

vocal part in the verse or chorus, or may be [theme and variation](#). It is important to have some structure to the solo and not just play a bunch of dis-related licks.

The accompaniment is usually simpler during a solo, so the listeners focus can be on the solo content. If the accompaniment has melodic themes, it makes it more challenging for the soloist to make their melody understandable at the same time as the themes in the accompaniment.

interlude or instrumental break

An interlude is a brief instrumental section between main sections like verse and chorus. It is similar to a vamp but usually has thematic material (melody) that is less important than that of the main sections.

An instrumental break is usually improvised or composed to sound more improvisational.

“A” section and “B” section, etc.

In instrumental music, there are usually two, sometimes three or more main sections. The sections are traditionally labeled with letters: section A, section B, section C, etc.

AABA form

The most common song structure is thirty two bars, with two eight-bar A sections, an eight-bar B section and an eight-bar A section. Sections may be of different lengths, but eight, twelve and sixteen bar sections are most common.

a cappella (in the manner of the chapel)

When vocals are sung without instruments, they are called a’ cappella, meaning “in the manner of the chapel”. In early western religion, it was thought unholy to have musical instruments in the place of worship. Overtime, instruments have been accepted in churches, along with every imaginable style of music.

drop sections or drop beats

Like the middle eight, drop sections can follow a chorus to increase intensity with a abruptly lowered volume with an optional change in rhythm. This has become popular in EDM (Electronic Pop Music) and other pop styles since 2010.

elision (also called collision or phrase overlap)

An elision is a song section where different sections overlap one another, usually briefly. It is mostly used in up-tempo music to create tension and drama and to keep the song from losing its energy during resting points (held sustain) at cadences, typically on a tonic or dominant chord.

With an elided cadence, you can bring the section to a cadence on the tonic and immediately begin a new section of music which overlaps with the cadence. The elided cadence may borrow thematic material from other sections of the song.

In Cyndi Lauper's *Time After Time*, the last word of the first verse is omitted, singing "time after ..." (omitting "time"). In place of the missing "time", she sings "sometimes" the first word of the second verse.

q

Order of Sections with Letter Labels

AABA Tin Pan Alley song form still in use

AB (verse/Chorus)

ABC (verse, chorus, bridge)

ABAB

ABAC (verse, chorus, verse, bridge)

ABCD (verse, chorus, verse, interlude)

Eight Bar Blues

Twelve Bar Blues and other AAB

Sixteen Bar Blues and Gospel Songs

BUILDING SECTIONS WITH PHRASES

8, 12 or 16 Bars

bars 1-2	bars 3-4	bars 5-6	bars 7-8	bars 9-10	bars 11-12	bars 13-14	bars 15-16
bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
phrase 1				phrase 2			
phrase 1		phrase 1		phrase 1		phrase 1	
phrase 1		phrase 1		phrase 2		phrase 2	
phrase 1		phrase 1		phrase 1		phrase 2	
phrase 1		phrase 1		phrase 2		phrase 1	
phrase 1		phrase 2		phrase 1		phrase 2	
phrase 1		phrase 2		phrase 2		phrase 1	

CHANGE ALL PHRASE DESIGNATIONS TO ARABIC NUMBERS, AS SHOWN ABOVE

GRAPHICALLY ILLUSTRATE SONGS WITH A TABLE OF PHRASES FOR EACH SECTION:

A-B-C Form

Autumn Leaves

section A

bars 1-2	bars 3-4	bars 5-6	bars 7-8
phrase 1	phrase 2	phrase 3	phrase 4

section B

bars 1-2	bars 3-4	bars 5-6	bars 7-8
phrase 1	phrase 2	phrase 3	phrase 4

section C

bars 1-4	bars 5-8
phrase 1	phrase 2

(OLD CONTENT)

“E” phrases are “empty”, usually with one note at their beginning.

Sections are designated with hyphens (A-1) and phrases without hyphens (A).

A number before a letter beginning a phrase name indicates it’s length in bars (“4A1” shows that A-1 is four bars long).

Charlie Parker tends to use minimalist themes (typically four-note) with rhythmic displacement. He varies phrases by contrast with consecutive syncopation. It’s amazing how alike his 12 bar blues heads are alike in this way.

Sections may vary to accommodate harmonically, such as “3” in section A on a I7 chord and “b3” in another section A during a IV7 chord.

Phrase Divisions Are Similar to Section Divisions

Phrase divisions are similar to section divisions, but are more abstract.

8 or 16 Bars

bars 1-2	bars 3-4	bars 5-6	bars 7-8	bars 9-10	bars 11-12	bars 13-14	bars 15-16
bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
A				B			
A				B			
A		A		A		A	
A		A		B		B	
A		A		A		B	
A		A		B		A	
A		B		A		B	
A		B		B		A	

AA

In A Sentimental Mood B (see AABB), Isn't She Lovely A (see AB), It Don't Mean A Thing A (see ABAB), Moanin' B (A1, A2; see ABBA),

AB

Georgia On My Mind A-1 & A-2 (4A, 4B; see AAAB and ABC), Isn't She Lovely A (see AA), Meditation B (see ABAB), My Funny Valentine A-1 & A-2 (8: AB; see AAAB),

AAAA

Autumn Leaves A, Golden Lady A & B (see AAAB), Harlem Nocturne A-1 (A1, A2, A1, A2; see AAAB), Harlem Nocturne A-2 (A1, A2 only), Here's that Rainy Day A-1 (A1, A2, A3, A4), Here's that Rainy Day A-2 (A1, A2, A3, A2), How Insensitive (8A1, 8A1, 8A2, 8A1), I Got Rhythm B (see AAAB), In A Mellow Tone A (see AABA), It Had to be You A-1 & A-2 (A1, A2, A1, A3), Mercy Mercy Mercy (see AABBB),

AABB

Fly Me to the Moon A-1 & A-2 (A1, A2, B1, B2), Four A (see AABC), How High the Moon A (see AABC), In a Sentimental Mood (2A, 2A, 4B; see AA), Joy Spring B (A1, A2, B, B), Mercy Mercy Mercy (see AAAA),

AAAB

Blue Bossa A (A1, A1, A2, B), Blue Bossa B, Angel Eyes B, Caravan A (AAAB), Caravan B, Gentle Rain A-2 (AAAB; see AABC), Georgia B (A1, A1, A2, B; see AB), Girl from Ipanema A (A1, A2, A3, E), Girl from Ipanema B, Harlem Nocturne B (AAAB, AAABE; see AAAA), Groovin' High A-1 (AAAB), Groovin' High A-2 (2A, 2A, 2A, 4B), I Got Rhythm A-1 (A1, A1, A2, B; see AAAA), I Got Rhythm A-2 (A1, A1, A2, B), Misty B (AAAB; see AABC), My Funny Valentine B (8: AAAB; see AB), Night In Tunisia A (see ABAB), Night In Tunisia C (six 2-bar "A" phrases followed by a four-bar unaccompanied solo break),

AABA

In A Mellow Tone B (4A, 4A, 4B, 2B/2A; see AAAA),

ABAB

It Don't Mean a Thing A (see AA), Meditation A-1 & A-2 (A, B1, A, B2; see AB), Night in Tunisia B (A, B1, A, B2; see AAAB),

ABBA

Moanin' A (see AB),

ABAC

Angel Eyes A, Chopin Waltz Opus 64 B (A1, A2, A1, B) , Confirmation A-1 & A-2 (A1, B, A2, C), Corcovado A-1, A-2, B-1 (A1, A1, A2, B; see 12 bar AAAEAE), Have You Met Miss Jones A (ABAE),

AABC

Chopin Waltz Opus 64 A-1 & A-2, Days of Wine and Roses A-2, Four B-1 (see AABB), Four B-2 (20 bars: A, A, B1, B2, C), Gentle Rain A-1 (AABE; see AAAB), How High the Moon A (see AABB), Joy Spring A-1, A-2 & A-3 (A-1, A-2, B,C; see AABB), Misty A (A1, A2, B, E; see AAAB), My Favorite Things A-1 & A-2 (8: A, A, B, E, see 8A16B),

Nature Boy A-1, A-2, B & A-3 (A, A, B1, B2),

ABCA

Anthropology B,

ABCD

Donna Lee A & B (share the same A; classic Parker big arpeggios , heptatonic; many triplets beginning arpeggios),

More Complex

EAAB

Cantaloupe Island,

8: 2A, 1B, 2A, 3C

Have You Met Miss Jones B,

16: 4A, 4A, 2B, 2B, 2B, 2E

Black Orpheus A, Black Orpheus B,

16: 4A, 4B, 2C, 2D1, 2D2, 2E

Days Of Wine A-1 A-2 (AABC),

12 or 24 bars

AAA

Bag's Groove, C Jam Blues, Killing Me Softly A (A1, A2, A3), Killing Me Softly B (4A1, 8A2),

AAB

Freddie Freeloader, Golden Lady C (AAE; see AAAA),

ABC

Au Privave, Billie's Bounce, Blues For Alice, Footprints (24 bars), Georgia A-3 (see AB and AAAB),

ABABCB

Mr. P.C.,

AAAEAE

Corcovado B-2,

8A, 16B

My Favorite Things B (see AAB)

A1, A2, B1, A2, C, E

Blues By Five,

Links To Section Designs

[A Single Statement, Made Multiple Times](#)

[Statement and Response, Two Pairs \(Commonly Eight Bars\)](#)

[Statement and Response, Three Pairs \(As In 12 Bar Blues\)](#)

[Three Statements and Ending Response \(As In 16 Bar Gospel Blues\)](#)

A Single Statement, Made Multiple Times

jazz

Afro Blue (two pairs of the same two- bar statement for section A, two pairs of a four bar statement for section B),

Beatles

Eleanor Rigby chorus (a single statement, made twice), Norwegian Wood verse (a single statement, made twice), Penny Lane chorus (a single statement, made twice), With a Little Help from My Friends chorus (a single statement, made three times), You've Got to Hide Your Love Away chorus (a single statement, made twice),

Statement And Response, Two Pairs (Commonly Eight Bars)

Beatles

And Your Bird Can Sing verse (the fourth phrases serves as an ending response), Can't Buy Me Love chorus, Don't Let Me Down verse, Don't Let Me Down chorus, Eight Days A Week verse, Eight Days a Week chorus, Eight Days a Week bridge (the fourth phrases serves as an ending response), Help! verse, Hey Jude verse, Hey Jude bridge, I Will verse, In My Life verse, In My Life bridge, Let It Be verse, Michelle verse, Norwegian Wood bridge, Nowhere Man verse (sparse last response), Penny Lane (the second statement is darker in tone color than the first statement), Something bridge, Ticket to Ride bridge, While My Guitar Gently Weeps verse, While My Guitar Gently Weeps bridge, With a Little Help From My Friends verse, With a Little Help From My Friends bridge, You've Got to Hide Your Love Away verse,

Statement And Response, Three Pairs (As In 12 Bar Blues)

jazz

I-IV-V Blues			
I7 two-bar theme 1	I7	I7 two-bar theme 1 (optional variation)	I7
IV7 two-bar theme 1 modi- fied for IV	IV7	I7 two-bar theme 1 (optional variation)	I7
I7 four-bar ending theme	IV7	I7	V7 typically sparse

All Blues			
I7 two-bar theme 1	I7	I7 two-bar theme 1 (optional variation)	I7
IV7 two-bar theme 1 modi- fied for IV	IV7	I7 two-bar theme 1 (optional variation)	I7
V7 four-bar ending theme	VI7 V7	I7	I7 typically sparse

Billie’s Bounce. The first two-bar phrase uses lower chromatic neighbors and features the tonic (“F”) and its “low six”, the sixth of the key commonly used as a lower neighbor to “one” (in the sense of a pentatonic neighbor). Bars three and four just keep bopping along with “one” and its “low six”.

Bar four begins with a lower chromatic embellishment, an encircling mordent (F-G-F-D-F in the key of F), followed by more one and six.

Bars five and six use the key tones that are the b7 and root of the IV chord. Notice that the first note in bar six is the third of the key, even though the IV7 chord has a flatted third of the key. Charlie Parker would commonly refer to our memory of major melodies by using major over Mixolydian or our memory of minor melodies by using harmonic minor over Aeolian.

The end of bar six and beginning of bar seven feature I7 chord tones. Bar eight (including the pickup at the end of bar seven) are structured around three sixths in the key of “F”: G-E for the Am7, F#-Eb (D#) for the D7 and F-D for the Gm7 (“F” for the Gm7 is not actually played, but implied).

Bars nine and ten outline the II minor chord with a descending bass figure: “G” in Gm to “F#” in Gm(ma7) to “F” in Gm7 (or C7sus4) to “E” in C7.

Finally, in bars eleven and twelve, we return to one and the low six.

Beatles

Can’t Buy Me Love verse, Hard Day’s Night (on a second level, the third pair serves as a response to the first two pairs), Sgt. Pepper’s Lonely Heart’s Club Band chorus,

Three Statements And Ending Response (As In 16 Bar Gospel Blues)

Beatles

All My Loving verse, All You Need is Love verse, All You Need is Love chorus, And I Love Her verse, And I Love Her chorus, And Your Bird Can Sing bridge, Drive My Car verse, Drive My Car chorus, Fool on the Hill chorus, Get Back chorus (two-note response), Help! chorus, I Saw Her Standing There, I Will bridge, Sgt. Pepper’s Lonely Heart’s Club Band verse.

Four Phrases With A Busy Third And Sparse Fourth Phrase (commonly eight or 16 bars)

Beatles

Fool on the Hill verse. Four one-bar phrases of four eighth notes except more continuous but syncopated eighths in the third bar.

Here Comes the Sun verse. Two pairs of statement and response, each pair taking four bars. The third set of four bars is two statements and the fourth set is a response followed by a “hook” guitar theme.

Let It Be chorus, Nowhere Man bridge, Ticket to Ride verse,

More Complex

Beatles

Eleanor Rigby verse. A five-bar phrase. A four-note theme in the first bar. A variation of the theme in the second and third bars by repeating the four-note theme ending with a push, then three instances of

the same theme by using the last three of four eighth notes starting on the beat. Bar four is pushed into from the end of bar three, otherwise empty. Bar five restates bar one.

Day in the Life verse. Two pairs of statement and response, followed in the end of the first verse with a restatement of the fourth phrase (the second response). At the end of the second verse, the two pairs of statement of response are followed with a conclusion (“I’d love to turn you on”).

Fool On The Hill pre-chorus. It begins with one statement and response. Another pair begins, but is statement only, to be completed by the chorus.

Michelle bridge (“I love you”). A two-bar statement, two-bar response; then a two bar statement and a four bar response (first three bars busy, last one sparse).

Sgt. Pepper’s Lonely Heart’s Club Band bridge. A one-bar statement, one-bar response; then a one-bar statement and a two-bar response, making five bars in all.

Something verse. A two-bar statement, two bar response; then a two bar statement and a three-bar response (first three bars busy, last one sparse). This takes nine bars.

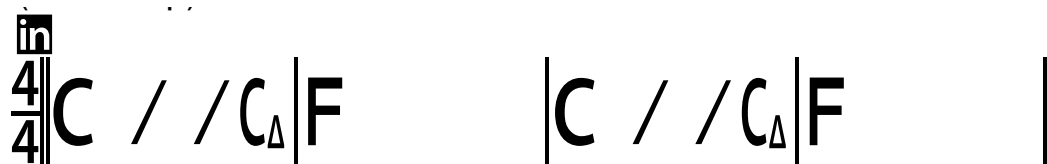
REPEATS, SEGNO, ENDINGS & CODA, ETC.

Beat or Bar Repeats

bar lines

The vertical lines (|) in the examples below separate the music into bars. In Imagine intro, the first bar contains “C” and “CΔ”. The second bar contains “F”.

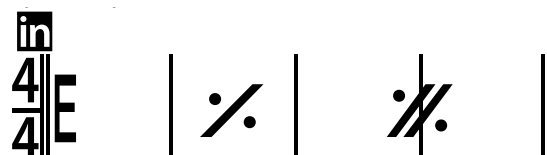
Imagine intro



a forward slash indicates each repeated beat

Each forward slash (/) in the Imagine intro chord progression notation above indicates the chord should be played another beat. In bar 1, the first beat is indicated by the chord name (“C”). Beats two and three of bar 1 should each play the C chord another beat. Beat four of bar 1 is “CΔ7” (C major 7).

And Your Bird Can Sing intro



a forward slash with dots indicates a repeated bar

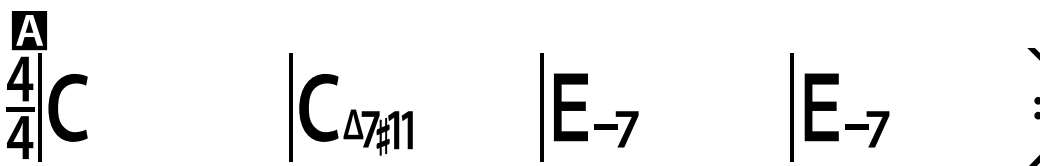
The forward slash symbol with dots on the lower left and lower right (⋈) in the And Your Bird Can Sing intro chord progression notation above indicates the chord should be played for another bar.

the double forward slash with dots directs you to repeat the previous two bars

The double forward slash with dots that draw across the barline between bars 3 and 4 of the And Your Bird Can Sing intro indicates that the “E” chord should be played for two more bars (in bars 3 and 4).

Left and Right Repeat Signs

Eleanor Rigby *without* begin repeat



Eleanor Rigby *with* begin repeat



the right repeat (end repeat)

The right repeat sign (||:) indicates that you repeat from the beginning if there is no left repeat (||:), as shown in Eleanor Rigby *without* begin repeat.

the left repeat (start repeat)

As shown below in Imagine, the left repeat sign (||:) indicates that once you get to the right repeat sign (||:), you would play the content again from the left repeat to the right repeat.

Imagine with left and right repeat for bars 5-12



in chord symbol notation

As in standard music notation, repeat signs indicate a section is played twice. Chord names can be in letter name version or roman numerals, making no difference in the effect of the repeats.

The symbol “||:” is the left repeat shown at the beginning of the repeated section. The symbol “:||” is shown at the end of the repeated section. See the example below, where four bars are to be played twice.

||: I | IV | bVII6 | I :||

When more repetitions are needed, it can be indicated in text. This examples tells us to play the four bars four times.

4X: ||: C | Bb | F6 | Bb :||

Double Bar Lines

thin double barlines

A thin pair of barlines (||) indicates the end and/or beginning of a section. It has no effect on the duration of notes in performance.

thin then thick pair of barlines

A thin then thick pair of barlines (|||) indicates the end of a song.

Multiple Endings

Chains

in 4/4

A $\frac{4}{4}$ B^b | $\frac{4}{4}$ | $\frac{4}{4}$ | $\frac{4}{4}$ B^b | $\frac{4}{4}$ | $\frac{4}{4}$ | $\frac{4}{4}$ |

E^b_9 | $\frac{4}{4}$ | B^b | $\frac{4}{4}$ | F_9 | E^b_9 | B^b | F |

2. B^b_7 | E^b_9 | $\frac{4}{4}$ | B^b | B^b_7 | E^b_9 | $\frac{4}{4}$ | F |

3. B^b_7 | E^b_9 | $\frac{4}{4}$ | B^b | B^b_7 | E^b_9 | $\frac{4}{4}$ |

F | $\frac{4}{4}$ ||

D.S. al Coda

B^b_7 | B^b | $\frac{4}{4}$ | $\frac{4}{4}$ | $\frac{4}{4}$ | E^b |

E^b | B^b ||

numbered endings

In Chains, shown above, there are three numbered endings. Once you get to the first ending with “1.” enclosed in an angle bracket, you play up the repeat sign ($\frac{4}{4}$), then go back to the left repeat sign ($\frac{4}{4}$) and continue up to (but not including) the first ending. Skip the first ending and go on to the second ending with “2.” enclosed in an angle bracket. If there is another right repeat sign ($\frac{4}{4}$) after the “2.”, as there is in *Chains* above, you should go back *again* to the left repeat then go back to the left repeat sign ($\frac{4}{4}$) and continue up to (but not including) the first ending again. Now go to the third ending (the second bar in the fourth row in *Chains*). If there weren’t further instructions, you would go on to the end. But there *are* further instructions. Read about D.S. al Coda below.

Endings with Special Instructions

§ (Segno)

Segno is a sign indicating the location you go to, earlier in the song, to then proceed to the end or coda as instructed. Details below.

D.S. (dal segno)

If only “D.S.” is shown, you should to the location of the “§” (segno) and proceed from there, following any further instructions that may come up.

⦿ (Coda)

The ⦿ (coda) symbol shows where you depart from the main body of music and go on to the ending section which bears another ⦿ (coda) symbol and/or the word “Coda”. You might see it any of the three ways (⦿, Coda or both). See D.S. al Coda below.

D.S. al coda (dal segno al coda)

Where “D.S. al Coda” is shown, like in the fourth row of *Chains* at the end of the third ending (3.), you should to the location of the “§” (segno) and proceed from there to the ending section which bears another ⦿ (coda) symbol and/or the word “Coda”. You might see it any of the three ways (⦿, Coda or both).


D.C. (Da Capo)

D.C. means go back to the beginning. “Capo” means “head” as in the “top” or beginning.

Fine

“Fine” marks the end.

D.S. al fine (dal segno al fine)

Where “D.S. al Fine” is shown, you should to the location of the “” (segno) and proceed from there to the ending, where the word “fine” should appear.

D.C. al fine (da capo al fine)

Go back to the beginning and proceed to the end at “fine”.

(Fermata)

Sustain the note or chord shown under this symbol approximate double the duration or until cued by the bandleader.

Play x Times Versus Repeat X Times

When “play 3x” is written in the last bar of a repeated section (with left and right repeats), play three the section three times. It can be written simply “3x”

When “repeat 3x” is written in the last bar of a repeated section (with left and right repeats), play the the section *four* times (once for the initial notation, then repeat three times). Avoid this notation, it can be misunderstood.

Melodically Superimposed Cadences

Superimposed Cadence Theory

- **Cadence Defined**
- **Target Chords and Setup Chords**
- **Mild and Harsh Cadences**
- **Scales in Superimposed Cadences**
- **Secondary Dominants**
- **Principles of Superimposed Cadences**
- **Superimposed Cadence Voice Leading**
- **Superimposing Cadences in Fourths**
- **Superimposing Stepwise and Chromatic Cadences**
- **Combining Fourths and Stepwise**
- **Modal Contexts and Time**

Playing Melodically Superimposed Cadences

- **Making Melody with Superimposed Cadences**
- **Harmonic Minor Cadences**
- **Melodic Minor Cadences**
- **Combined Cadences**
- **Subsets on the Fifth**

CADENCE DEFINED

Cadences (also called harmonic cadences) are short chord progressions that are known to establish a particular chord as a key or temporary key by sound. The tonic chord is the focal point of the cadence that establishes the key.

We have heard the dominant chord (V or V7 type) so often before the tonic (I or Im type) that we have an automatic association with the tonic (I) being the key. This succession uses perfect fourths.

To make the cadence, a dominant seventh chord is used on the fifth step of a scale named after the root of the tonic chord. “bII” of the target can also be used as a “[flat five substitute](#)”, since it is on the flatted fifth of V (“Db” or bII is a flatted fifth of “G” or V).

melodic cadence

A melodic cadence is the implication of a harmonic cadence in melody. Melodies can be analyzed from multiple perspectives, where each can be valid.

cadences in fourths

Cadences are typically in fourths or [flat five substitutes](#) of fourths. “Back cycling” in fourths can create longer cadences, building with the series of perfect fourths #IV-VII-III-VI-II-V-I-IV. The most common cadences have one or two chords before the tonic or temporary tonic chord.

Cadences often involve minor chords changed to major to strengthen the progression. These are called [secondary dominants](#), since the chord changed to major can act like a V chord (major, as it would occur in the major scale) of the chord it precedes.

Cadences can also be made in fourths without dominant seventh chords, such as IIm7 Vm7 I (notice the V minor). These tend to be less dramatic and less aggressive by nature and are characteristic of calmer music such as old english folk music or slave work songs with V minor chords.

The entire sequence of perfect fourths in the major scale is VII-III-VI-II-V-I-IV (7-3-6-2-5-1-4). In the unaltered major scale, the triad versions of these chords are VII diminished-IIIIm-VIm-IIIm-V-I-IV. Notice the successions of three minor chords (IIIIm-VIm-IIIm) and three major chords (V-I-IV). The seventh chord qualities of these chords are VIIIm7b5, IIIIm7, VIm7 IIIm7, V7, Ima7 and IVma7.

Since V is known to lead to I, II can also lead to V, since it is the “V of V”. This leads to the chord progression II V I, which is the most common three-chord cadence.

In establishing the key on VI, we precede it with III, so as to go up a fourth, as with V to I. To make the progression stronger, III is commonly changed to major if a triad or to a dominant seventh.

VII^{dim}-III-V^{Im} or VII^{Im}7^{b5}-III⁷-V^{Im} has become the most common minor cadence in establishing V^{Im} as the key.

the harmonic breath between consonance and dissonance

Consonance produces calm. It is produced with harmonies that alternate major and minor thirds, perfect fourths and perfect fifths. Dissonance produces tension. It is produced by half steps, diminished and augmented fifths, major sevenths and by serial intervals in diminished seventh chords (all minor thirds) and augmented chords (all major thirds).

When emphasized notes are primarily within the current chord and the chord has consonant intervals, there is a sense of calm. When emphasize notes are not in the current chord, tension is produced. There is even more tension when the chord has dissonant intervals, like minor seconds and diminished fifths (same as augmented fourths).

Sense the “breathing” of consonance and dissonance in the accompaniment of the piece you are improvising on. Then decide if your “harmonic breath” will be the same as the accompaniment. More commonly the harmonic breath in the melody changes more rapidly than in the accompaniment. While the accompaniment may remain calm through an entire bar or two, the melody may fluctuate between consonance every beat or two.

I, IV, V and V^{Im} chords are typically consonant. V and bII chords are commonly dissonant, especially when they have altered fifths and/or altered ninths (b5, #5, b9#9). Any chord with a major third and altered fifths or ninths is dissonant.

By alternating melodic cells of three to six notes back and forth between chord tones (or pleasing added chord tones) and non-chordal tones of the current chord, you could say the music “breathes” with tension as it inhales and relaxation as it exhales.

Hit Points

cadences are expected to end on the target

Cadences follow logical progressions of roots moving in stepwise, perfect fourth or chromatic order. They help us recall the establishment of a key or temporary key as we’ve heard it in previous music we have heard.

phrasing cadences

In composition and arranging, two-chord and three-chord cadences are usually phrased so the last of them ends on the first beat or on the third of four beats. Other locations can work, but should be metrically strong.

This same phrasing is used for superimposed chords. Superimposing adds more chords, but they still follow the same phrasing guidelines of targeting the first beat, third beat or other metrically strong location.

Chords should be melodically emphasized by playing chord tones of the target chord at the beginning of the chord or on strong metric points like the first or third beat in 4/4 (optionally pushing the beat).

jazz-related styles are based on seventh chords

In jazz-related, the target chord is can be a secondary root on its third or sixth, implying a larger seventh or ninth chord. As a result, a superimposed three-chord progression can begin or end with any scale tone and be phrased to work on the target chord, with one exception. One of the sequences of three chords will have the target in the middle, in which case.

If you want to emphasize the first chord of a three-chord cadence, put it at the beginning of a chord in the accompaniment or on the first or third beat (optionally pushing the beat). If you want to emphasize the last of three chords, start the phrase before the target chord begins or before the first or third beat, so the last chord arrives at the hit point.

pop styles are based on triads

Pop styles like folk, reggae, hard rock, soft rock and metal are typically based more on triads. Triads have fewer synonyms. It is a bit of a stretch to even imply a triad as a four-note sixth or seventh chord, and even more stylistically inappropriate to imply an five note chord like a ninth chord. This makes the uses of cadences more difficult in pop music.

target the root in pop styles

In pop music, the target chord is generally on the root of the current chord, not on a secondary root on its third or sixth, as this would inappropriately imply a larger seventh or ninth chord.

Types Of Cadences

authentic cadence

The *authentic* cadence is V-I. In a cadence to the chord C7 with Dm7-G7-C7, “C7” is the tonic chord. In the key of C, establishing “F7” as a temporary tonic, Gm7-C7-F7 could be used as a II-V-I cadence to the temporary key of F.

flat five substitute

A *flat five substitute* for the authentic cadence is bII-I. Using flat five substitutes makes chord root progression chromatic. VI-II-V-I becomes bIII-II-bII-I. See flat five substitute.

plagal cadence

The plagal or “amen” cadence is IV-I. It uses cadences down in perfect fourths, instead of up in fourths. Perfect fourths are two and one half steps and are equivalent to the interval from the first to the fourth step of a major scale, or any pair in the series 4-1-5-2-6-3-7-#4-#1, etc. A double plagal cadence is bVII-IV-I. A triple plagal cadence is bIII-bVII-IV-I. A quadruple plagal is bVI-bIII-bVII-IV-I (C-G-D-A-E), such as Hey Joe, Hush (Joe South, popularized by Deep Purple) or the “aah” middle section of Day In The Life.

deceptive cadence

Although the listener expects a song to end on the tonic chord, it doesn't have to. A song can end with a deceptive cadence, where the final chord is not the tonic chord. See [deceptive cadence](#) in [Modes](#).

Escherian cadence

An Escherian cadence is a special kind of deceptive cadence. It seems to follow the logic of a traditional cadence, but uses an auditory illusion.

Maurits Cornelis Escher's drawings displayed relationships in perspective that defy logic. Each element seems to make sense in its own right, but shouldn't co-exist with related elements. Look at his art at www.mcescher.com, especially “Waterfall”, “Ascending and Descending” and “Belevedere”.

Like Escher's art, music can suggest one thing and do another, leading you along a path of audio logic that may take an unexpected turn. A chord progression can suggest movement to a particular chord and go to another that uses a different mode or that contains the expected chord, but with a different root.

Expert magicians, like expert improvising musicians and composers are clever at distracting the audience while introducing something unexpected. A magician may distract you with one hand while sneaking something with the other. An improvising musician may use a familiar melodic phrase and by changing the right note, use the notes that will introduce an unexpected chord or key.

An Escherian cadence is a resolving chord progression that suggests a resolution to a particular mode then resolves to another. It may do this by resolving to a different mode of the same key, or to a chord that includes the implied chord, but has a different root, such as suggesting Am and resolving to Fma7, which contains Am.

TARGET CHORDS AND SETUP CHORDS

Target Chords Have Tonality

tonic chord

In music history, we have been trained that pieces should end with the main chord of the piece. That chord is called the *tonic chord* and has the primary tonality. It can be established by any combination of many criteria, including:

- ✦ frequent occurrence
- ✦ longer duration
- ✦ chord root (note after which a chord is named) movement up or down a scale to the tonic chord
- ✦ continual occurrence of the chord root of the tonic chord in the bass (even when the chord name is different, such as a G tonic chord combined with a C chord with a G bass)
- ✦ well-known chord sequences called *cadences* that we have known to establish a chord as a key

Sometimes there ambiguously may be two chords “fighting” for the sense of key, but usually one chord predominates as the tonic chord. Sometimes the ending does not sound final, and a piece may end with a *deceptive cadence*. In such a case, you are challenged to imagine what the ending chord *should be* to make the ending of the piece sound final and complete.

secondary tonalities

During each section of a song, the overall key is usually established on a particular chord. Other chords are usually established as temporary tonalities, which then progress back to the tonic chord. In treating a chord as a temporary tonality, you may use scales named after that secondary tonality chord’s root, but it is preferred to predominantly make melody with scales named after the primary tonality, which is the overall key.

target chords have primary or secondary tonalities

In this study of setup and target chords, the target chords may have primary or secondary tonalities. In either case, the melody has a sense of consonance and calm when it is on a target chord.

tonic and secondary tonic chords are based on a major or minor triad

We have been trained, again by music history, that tonic (primary or secondary) chords have a major or minor third and a perfect fifth, so they are based on a major chord (with 1, 3 and 5 of the major scale named after its root) or on a minor chord (with 1, b3 and 5 of a major scale named after its root).

Setup Chords

A setup chord are the last chord in a cadence before the target or tonic chord (temporary tonic chord). See [Superimposed Cadence Voice Leading](#).

V and bII setup chords

A harmonic cadence to a target chord can be suggested melodically by building a melodic on the core melodic tones of each of one or more chords suggested immediately before the target chord. We will first be working with a single setup chord, immediately before the target chord. Numbered in the key of the target chord, those are most commonly V chords and bII chords.

Core Melodic Tones

Experienced improvisers have practiced playing each of many scales over each common chord progression and know which notes are common to the current chord and the scale being used. I call these commonality tones *duality tones*. They are functionally the core melodic tones, those sweet notes improvisers look for. Over time improvisers gain an awareness of these duality tones and can base their improvisation on them without necessarily thinking of scales.

You need to be able to free associate while improvising. With so many ways to number these scales, the numbering can be confusing and distracting. You need a system of few numbered core melodic tones for each chord you are improvising on.

Improv Strategies

Resolve turnarounds to the target chord by step, not by skip.

Typically resolve to the root, third or fifth of the target chord: to its triad. So, if the target chord is based on suspended fourth, resolve to 1, 4 or 5. If you resolve to another chord tone, such as a seventh or ninth, consider playing one or two or more notes down the arpeggio (down in odd numbers) to “paint” the arpeggio for the listener and make it clear what the chord is.

If the last setup tone (tone of the chord before the target chord) is in the target chord, you can resolve by a skip to another chord tone. Smaller intervals are usually preferred.

MILD AND HARSH CADENCES

Cadences are harmonically milder with unaltered major scale modes. In Aeolian mode, sharpening the fifth or flattening the sixth of the parent major scale harshens the chords, by creating a major and dominant V chord (Phrygian dominant) and diminished sevenths (II dim. 7 = IV dim. 7 = bVI dim. 7 = VII dim. 7).

Full-Tertian Arpeggios

Full-tertian arpeggios can be used to extend tertian chords farther than is acceptable in sustained chords. Gm11b5b9, for example, is not an acceptable comping chord, but is usable melodically as an arpeggio (it is the same as Eb13 no root).

Some chord extensions are not acceptable because they contradict the familiar character of the chord. Flat nine on a minor chords contradicts its basic nature with too much dissonance. Dominant chords with altered fifths and ninths have drastic contrasts between the “happy” major third and the depressed or angry altered tones. Minor chords are more somber. Also, the flat nine on a dominant seventh type chord is usually associated with the diminished seventh chord, which is the remainder of a dominant seventh flat nine chord when its root is omitted.

We are used to hearing notes in thirds in melody, apart from thirds used to construct chords. So, when we hear a chord extended in arpeggio tones beyond its acceptable harmonic limit, we are forgiving of momentary dissonances.

SCALES IN SUPERIMPOSED CADENCES

Many Perspectives

Before you start using these scales, learn the relationship between the scale and the chord you are using it on. There are multiple reference notes for each scale, so each scale can be numbered many different ways. They are all useful, but must be studied individually. As you'll read below, we will focus in numbering the major scale to numbers in the key of the target chord.

Harmonic Minor Scale

This scale will be used here in the key of the target chord. A chord built on the fifth step of the harmonic minor scale in the key of the tonic chord will be the setup chord.

Melodic Minor Scale

In classical music, melodic minor scale has different ascending and descending forms. In classical music, melodic minor ascends with only the third of a major scale flat, but descends with b3, b6 and 7. This is effective to build tension ascending to "1" and descending to "5". In jazz, melodic minor is typically used (as it will be here) as a major scale with flat three ascending *and* descending.

We'll use the jazz version melodic minor scale (major b3 up or down) in two ways, one with a melodic minor scale on the root of the target chord and another with melodic minor on b6 in relation to the root of the target chord.

bVI melodic minor

The common use of melodic minor is complex. The melodic minor scale is used in the key of b6, in relation to the target chord.

The core melodic tones in this use of the bVI melodic scale should be thought of as tones of a bII13#11 chord in the key of the target chord.

The scale should be thought of as super Locrian, which is on the seventh step of the bVI melodic minor scale. So the super Locrian tone center is on the fifth of the target chord. This is getting complex. See "Too Many Numbers", below.

I melodic minor

An uncommon, but effective use of melodic minor is in the key of the target chord. It is used most effectively during a dominant type IV chord: IV7, IV9 or any part of IV13#11. Melody on that IV

chord should be more arpeggio-based, sequeing from the arpeggio tones of the IV13#11 on the fourth step of melodic minor to V7(optional #5), V9 (optional #5) or V augmented.

thinking melodic minor dominants

Think the scale fingering as super Locrian, unless the Lydian dominant fingering in the octave shape you are playing is a Mixolydian fingering you know really well with a sharp four. Locrian flat four is commonly called super Locrian. Super Locrian ascends the interval pattern half - whole - half, then four whole steps. This is almost a whole tone scale, but where the last two whole tones are replaced with half - whole - half. Check this out on a single string to see what I mean. It's like replacing the second note as you ascend a whole tone scale with two notes, one a half step above it and one a half step below it.

For both V7b9 and bII9 types, gray-backed notes are ninth arpeggio tones and black-circled notes are roots. Red notes are roots of V chords (V of the target). The remaining notes are non-chordal scale tones. Since ninths span more than an octave it can "overlap" a ninth arpeggio in another octave.

To discern one ninth arpeggio from another, one is shown in bold numbers, another in plain numbers, but all in gray-backed notes. Ascend the ninth arpeggio in the low octave (on the bass strings) up to the ninth (the last ascending note in all bold or all plain), then descend one tone to the opposite (bold or plain) and ascend the next ninth arpeggio.

Learn the modes of Melodic Minor and of Harmonic Minor

Harmonic minor and melodic minor scales may be numbered in terms of any of their modes. This needs simplification, as noted below. See [Modes/Modes Of Four Hepatonic Scales](#).

There are three ways to number a harmonic minor setup chord/scale (major sharp five parent scale, target harmonic minor key scale, Phrygian dominant chord scale). There are four ways to number a melodic minor setup chord/scale (bVI melodic minor parent scale, target Phrygian flat one target scale, a setup scale as melodic minor Lydian dominant on b2 of target and a setep scale as super Locrian [Locrian flat four] on V of the target chord. This needs simplification, as noted below.

By thinking of a harmonic minor V7b9 setup chord in key scale numbers as 5-7-2-4-b6, numbered in terms of the target chord, you can more easily figure out how to resolve to 1-3-5 (or 1-b3-5 if minor).

By thinking of a melodic minor V13#11 setup chord as b2-4-b6-7-b3-5-b7 (notice that there is both 7 and b7), numbered in terms of the target chord, you can more easily figure out how to resolve to 1-3-5 (or 1-b3-5 if minor). "7" would otherwise be "b1", since the numeration of the bII13#11 chord should otherwise be based on the key scale numbers 2-4-6-1-3-5-7 (b2-4-b6-b1-b3-5-b7). By using "7" instead of "1", you can more easily predict its stepwise movement to the target triad tone "1".

the character of harmonic and melodic minor dominants

Harmonic minor and melodic minor each have one half -whole - half regions (at 7 1 2 b3). Harmonic minor combined with Aeolian can have an additional one at 5-b6-b7-7, making a harmonic minor / Aeolian hybrid. In scalar form, this hybrid usually should not ascend 5-b6-b7-7 all the way to “1”, but should end or change direction and descend before “1”. Just a preference: ascending to “1” can work, but build such a phrase carefully. The half -whole - half regions sound middle eastern, gypsy and Spanish (because of the Moorish invasion).

In terms of the target chord using a harmonic minor setup scale, the half -whole - half region is 7-1-2-b3. Melodic minor, as we are using it is b2-b3-4-5-b6-b7-7, in terms of the target chord. In terms of the target chord using a melodic minor setup scale, the half-whole-half region is 5-b6-b7-7. Notice that this melodic minor half-whole-half region is the same as the Aeolian hybrid: 5-b6-b7-7. See the chapter [Half-Whole-Half Cells and Diminished Scale](#).

The harmonic minor V, when combined with Aeolian can have #9 (b7 of target). Otherwise, it can have a b9 (b6 of target) or #5 (b3 of target), but not a natural 9 (6 of target) nor flat five (b2 of target).

The four consecutive whole steps in melodic minor have a tormented, mad scientist, wacky, Simpsons, whole tone scale, augmented sound. Super Locrian's tone center is V of the target chord and produces the “Swiss Army” collection of altered V chords with sharp and flat five, sharp and flat nine. At the same time, the bII of target root, a flat five away from the V of target root is an exotic (#11) bII13#11 chord.

SECONDARY DOMINANTS

What Is a Secondary Dominant?

It is the V chord of any target, V of I (G is V of C in the key of C), V of V (D is V of G in the key of C), V of IV (C is V of F in the key of C), V of VI (E is V of A in the key of C, E is V of Am in the key of C), etc. See “[Modal II-V-I Cadences and Turnarounds](#)”/[Secondary Dominant](#).

The interesting secondary dominants are harmonized with harmonic minor and melodic minor. See [Secondary Roots](#) in the chapter, [Substitution](#). In our use of harmonic minor and melodic minor with cadences, we will commonly be using [Escherian cadences](#).

See also: Voice Leading Improv with Arpeggio Cadences/Graphically Voice Leading Improv with Arpeggio Cadences/[Scale-Tone Seventh Arpeggios in Perfect Fourths Order, Numbered By Parent Major Scale \(includes secondary dominants\)](#)

Harmonic Minor Practice Strategies

To use a secondary dominant with harmonic minor, play a melodic structure that suggests a cadence to a harmonic minor I minor chord, but in [Escherian](#) manner, resolve to any chord with the expected root: major seventh type (Cma7), dominant seventh type (C7), minor seventh type (Cm7), minor seventh flat five type (Cm7b5). Resolutions to other chords with a flat five are difficult to convey to the listener and should be avoided.

A [harmonic minor cadence](#) with a single chord before the target would use dominant seventh or 7b9 (with an optional sharp five to I minor (G7b9 to Cm). IIm7b5-V7(b9) I minor can also be used, a three chord cadence. We will be focusing on the two-chord cadence V7 (optional b9 and optional #5) to I minor, particularly V7b9 to Im.

V7b9 of target

V7b9 can be used as a setup chord before any target with a perfect fifth or before a minor seventh flat five chord. Other chords with altered fifths are possible, but difficult to convince the listener. The target can be major 7, dominant seventh, minor seventh or minor seventh flat five.

7b9 no root is a diminished seventh

There are only three diminished sevenths, since each has four names. Diminished seventh chords divide the octave of twelve half steps into four minor third intervals, so any of its tones can be the root. The letter names for the three diminished seventh chords are A-C-Eb-F#, B-D-F-Ab and E-G-Bb-C#.

Each of the tones with an accidental can use its enharmonic name (Eb is also D#, F# is also Gb, etc.), but these are the most common names and it is convenient to think of them this way.

practice diminished sevenths

This is an outline of the studies covered thoroughly in [Harmonic Minor Cadences/Practicing Diminished Seventh And Half-Whole-Half Cells](#). See also [Half-Whole-Half Cells and Diminished Scale](#).

Half-whole-half is a very familiar and useful melodic device. See the chapter [Half-Whole-Half Cells and Diminished Scale](#). Practice diminished sevenths for half-whole-half, first in chords, then arpeggios, then half-whole-half: II dim7, #I dim7 and I dim 7 are respectively the setup chords for the target chords I, IV and V chords and their respective families.

II diminished 7 just before the I family: I, VI (relative minor), bV or bIII (relative major)

#I diminished just before the IV family: IV-bVI-VII-II (modal relative minor)

I diminished just before the V family: V-bVII-#I-III (modal relative minor)

The two main relationships in each family are a chord and its relative minor.

II diminished 7 just before I and VI, its relative minor.

#I diminished 7 just before IV and II^m, its relative minor (modally).

I diminished 7 just before V and III^m, its relative minor (modally).

Each family is on the roots that make up a diminished seventh chord.

1-b3-b5-6 are the tones of a I dim. 7 and are the same numbers in the I family.

2-4-b6-7 are the tones of a II dim. 7 and are the same numbers as the II family.

#1-3-5-b7 are the tones of a #I dim. 7 and are the same numbers in the V family.

Chord progression in fourths with diminished 7 of (target in parenthesis) forms a chromatic pattern of diminished seventh roots:

VII (#I^o7), III (I^o7), VI (II^o7), II (#I^o7), V (I^o7), I (II^o7), IV (#I^o7), etc.

letter names for diminished sevenths

There are only three diminished seventh chords, since each can be named after either of its four notes. These three sets of letter names allow you to recall them quickly. Each of the three sets of four letter names begins with the natural notes: A-C-Eb-F#, B-D-F-Ab, E-G-Bb-C#. Don't use four versions of A-C-Eb-F#: A-C-Eb-F#, C-Eb-F#-A, Eb-F#-A-C and F#-A-C-Eb. Too much information to recall quickly when improvising.

Melodic Minor

To use a secondary dominant with melodic minor, play a melodic structure that suggests a cadence to a melodic minor I minor chord, but in [Escherian](#) manner, resolve to any chord with the expected root: major seventh type (Cma7), dominant seventh type (C7), minor seventh type (Cm7), minor seventh flat five type (Cm7b5). Resolutions to other chords with a flat five are difficult to convey to the listener and should be avoided. See [Secondary Dominant](#) and Melodically Superimposed Cadences/[Secondary Dominants](#).

We will be focusing more on a synonym of the V altered chord bII of target (part or all of Db13#11 to C, including Db7 to C). Remember, the target (C) can be any quality with a natural fifth or a minor seventh flat five chord.

super Locrian on V of the target

For any target chord with a perfect fifth, super Locrian builds a super-altered (Swiss army) seventh chord on its fifth. So the setup chord of any target can be a seventh chord with a sharped or flatted fifth or with a sharped or flatted ninth, or any combinations. That's as useful scale, but the useful chords are limited, because of their dissonance....(see the next paragraph).

the flat five substitute

Continuing the thought of the previous paragraph: "however", the flat five substitute family on the bII (Db) of the target (bII is a flatted fifth from V, Db is a flatted fifth of G) is any part of bII13#11 (Db13#11 in the key of C). This chord is the scale-tone chord on the fourth step of bVI melodic minor (Ab melodic minor for a C target). Super Locrian is on the seventh step of that melodic minor, which is the fifth of the target. See [Flat Five Substitute Chord Progression](#).

It is very useful to practice the cadence bVIm9(ma7)-bII13#11-I (any type with a perfect fifth). In making melody, first resolve to the triad of the bII chord then to the triad of the target chord, with conservative [voice leading](#) (small intervals). Within each chord, larger intervals can be used, but the last note of one chord to the first of the next should approach by heptatonic stepwise, by a minor third as part of a pentatonic scale or from the fifth of the target to the root.

practice the bVIm(ma7)-bII13#11-I cadence

Play bVIm(ma7) to bII7(13#11) chord cadences first in chords, then arpeggios, then half-whole-half (5-b6-b7-7 of target and b6-5-4-3 of major target) then with V super Locrian of target and IV Aeolian b5 of target.

Progressions for Study with Harmonic Minor and Melodic Minor

See [Harmonic Minor Cadences/Practicing Diminished Sevenths and Half-Whole Half Cells](#).

See [Melodic Minor Cadences/Practicing The bVIm9\(ma7\)-bII13#11 Cadence](#).

first target I and II in I VI II V songs:

Stand by Me (play it as a [bossa nova](#)), The Way You Look Tonight, Isn't She Lovely, I Got Rhythm B (last three bars of B to the first bar of A, treat the I-VIm as I and treat the IIm V as IIm), One Note Samba (the first eight bars is I VI II V twice, substituting IIIIm for I, bIII for V and bII for V), bars 9 and 10 of any jazz blues (see the I, IV and II jazz blues list below), Road Song (the last bar of A and the first three bars of makes VI II V I in the relative major key), All the Things You Are, Fly Me To The Moon, There Will Never Be Another You, Someday My Prince Will Come (last three bars of B and first bar of A), A Foggy Day (has VIm7b5 in A section, useful for darkening), Ornithology (the last three bars of B and the first bar of A is VI II V I), Have You Met Miss Jones?, Anthropology A (A & B are basically the same changes as I Got Rhythm), Misty, Speak Low, St. Thomas, Stormy Weather, Breezin', Caravan B, part of all of the [songs to target 7362514](#).

then target I, IV and II in jazz blues:

in F (progressive order)-Now's The Time, Au Privave, Bags' Groove, Blues for Alice

in Bb (progressive order)-Blues By Five, Sonnymoon for Two, Tenor Madness, Billie's Bounce, Bloomdido, Everyday I Have the Blues, Gibson Creek Shuffle, Excuse My Blues, One for Daddy'O

in C-C Jam Blues

In G-The Thumb

then, songs to target III and V:

III (progressive order)

Autumn Leaves (thinking in parent major), St. Thomas A, How High the Moon C (last A), Have You Met Miss Jones, Golden Lady, Anthropology B, Ornithology B and C (based on How High The Moon), Georgia A, I Got Rhythm B, I Remember B (IIIΔ7), The In Crowd, Joy Spring A, Last Train Home, Meditation, Nature Boy (thinking in parent major), One Note Samba, Peel Me a Grape (first chord), Night in Tunisia (first chord), The Days of Wine and Roses (beings the B section).

V (progressive order)

House of the Rising Sun, Grinnin' in Your Face, Me and My Uncle, The Road Song, St. James Infirmary, Paint It Black, Sugar, The Preacher, I Got Rhythm B (treat the II V as V), A Foggy Day, I Saw Her

Standing There, Santeria, Baja Nights, When the Saints Go Marching In, Tiger Rag, Anthropology B, Don't Get Around Much Anymore, Girl From Ipanema (treating bII as V and last chord in B), On Every Page (E is V), Sultans of Swing, Mediterranean Sundance/Rio Ancho, The Way, Pegao, Hotel California, The Entertainer, Round Midnight B

next, target all chords in I VI II V songs:

Use the earlier list: "first target I and II in I VI II V songs", but omit I Got Rhythm.

next, songs to target 7362514 (fourths):

(progressive order) Autumn Leaves, You Never Give Me Your Money, Fly Me to the Moon, There Will Never Be Another You, All The Things You Are, Europa, Still Got the Blues, Killing Me Softly, Black Orpheus, Days of Wine and Roses, Meditation, My Favorite Things, Yardbird Suite, Scrapple from the Apple, Take Five,

In fourths with diminished 7 of target in parenthesis:

VII (#I°7)-III (I°7)-VI (II°7)-II (#I°7)-V (I°7)-I (II°7)-IV (#I°7), etc.

With **half-whole-half** melodic structures, first target I and VI, then IV-II-VII, then V-III.

Then all of the 7-3-6-2-5-1-4 songs, playing diminished seventh structures only in the end of the bar previous to each target.

PRINCIPLES OF SUPERIMPOSED CADENCES

If you listen for the implication of short chords in improvised solos, you'll start hearing harmonic regions. Every couple of beats, another chord is sounded. Especially in jazz, but in all styles. Try listening to the music in segments of two beats (or one beat on very fast soloing like an up-tempo Pat Martino, John Coltrane, Alan Holdsworth or Charlie Parker solo), whatever would divide the improvisation into groups of about three to six notes.

Elaboration Or Substitution

Whether it is done consciously or not, a player makes their improvisation more interesting with a diversity of chord sounds. When a chord has a long duration (a bar or more), the chord progression can be elaborated by adding chords up or down a fourth, up or down a step, or dominant chords from a half step above (bII dominant chords, usually part of bII13#11). When chords are already occurring at the rate of every two beats or every beat, the improvisation can be made more interesting with substitute chord progression. See [Substitution](#).

You may be curious as to why I said "it is done consciously or not" in the last paragraph. Melody is based on what we have heard before. Over the centuries, great improvisers like Johann Sebastian Bach, John Coltrane, Chick Corea and Alan Holdsworth have put the sense of elaboration and substitution into the minds of their listeners.

Layered Chord Progression

In improvised music, each musician can establish their own version of the chord progression. While one plays a chord for two bars, another may briefly insert another chord, but largely play the same chord.

At important [hit points](#), the musicians need to sound part of the same chord, so the listener hears their harmonic agreement. Between the hit points, the musical parts can wander, preferably with structure, such as chord progression with roots moving in fourths or stepwise.

See [Phrases Built with Core Melody](#), [Cells and Filler/Build Four Tonal Layers](#) and [Tonal Layers and Target Tones](#).

Three Important Preparatory Steps

[Voice leading](#) is the intentional planning of moving each note in a chord to one in the next chord, or retaining it (on the same note). It is possible to improvise with sophisticated [voice leading](#). To do so, we need to determine the key regions, determine the parent scales for each chord and convert all of the parent scales to versions of key scales by region.

key regions

The key regions are generally the same for all the members of an ensemble. There are usually many options. It is preferable for the listener that there are few key regions in a song, often only one key.

parent scale

The parent scales allow you to have quick fretboard access to structures like scale fingerings and scale-tone chords. They are most effective with well-memorized fingerings and sequences, such as knowing the order of triads built on a scale *even when thinking them without numbering each tone*.

convert parent scales to key scales

This can all you to voice lead on the fly. See [Convert Parent Scale-Tone Chords to Key Scale-Tone Chords](#).

Superimposed Cadences in the Original Key

An authentic cadence, plagal cadence, [flat five substitute](#) or deceptive cadence may be used in the original key. See [Types of Cadences](#). Each of these would be an added cadence not in the original song.

Superimposed Cadences on Secondary Roots

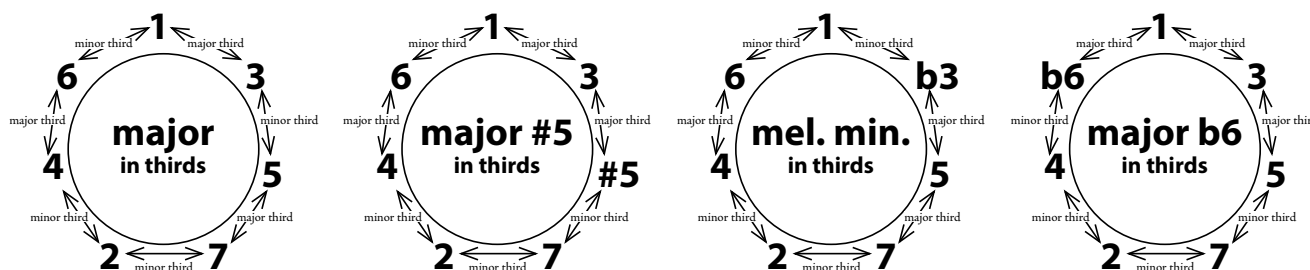
three essential steps

Determine the parent scale for the chord you are playing on. To determine the optional chords you can use to think for each chord, referred to by their alternate root locations as *secondary roots*, perform these three essential steps:

1. determine the step of the parent scale on which the original chord root occurs
2. determine the step of the parent scale on which the secondary chord root occurs
3. know the scale-tone triads, sevenths and modes for the parent scale, so you can build a chord on a secondary root

regions of thirds

All of these relationships revolve around the idea of sharing regions of thirds in the tertian cycle that chords are typically built from. The cycle is shown below for the four usable heptatonic (seven tone) scales. Learn more about these scales (modes) in [Modes / Modes of four Heptatonic Scales](#).



sixths on I, II^m IV and VI of major

Chords built on I, II^m, IV or V of a major scale can have a sixth. In each of those cases, there is a tone in the parent scale that is a whole step (two frets) above the fifth. A I major triad uses 1, 3, 5 of its parent major scale, so adding “6” a whole step above its fifth makes a I6 chord. The table below shows such a relationship for each chord. The tones of VI^m7 are 6, 1, 3, 5. The tones of I6 are 1, 3, 5, 6. They share the same tones, so are synonyms.

scale-tone triad	numbers of parent scale	parent scale tone a whole step above the fifth	name of sixth chord	parent scale tones in sixth chord	synonym with a sixth version of the original chord and the chord on its sixth
I major	1-3-5	6	I6	1-3-5-6	I6 = VI ^m 7
II minor	2-4-6	7	II ^m 6	2-4-6-7	II ^m 6 = VII ^m 7b5
IV major	4-6-1	2	IV6	4-6-1-2	IV6 = II ^m 7
V major	5-7-2	3	V6	5-7-2-3	V6 = III ^m 7

ninths on I, II^m IV, V and VI^m of major

Chords built on every step of the major scale are acceptable as ninths *except* three and seven. Since each ninth chord uses five notes in thirds (see regions of thirds), it has three subset triads and two subset sevenths (tertian quadrads).

- ✦ what number of the parent scale is on the third of the current chord
- ✦ what is the quality of the triad and seventh on that note that is the third

scale-tone ninth	numbers of parent scale	subset triad on root and parent scale tones	subset seventh on root and parent tones	subset triad on third and parent scale tones	subset seventh on third and its parent scale tones	synonym for original chord and seventh on third (nr = no root)
I major	1-3-5-7-2	I, 1-3-5	Ima7, 1-3-5-7	IIIIm, 3-5-7	IIIIm7, 3-5-7-2	Ima9 nr = IIIIm7
II minor	2-4-6-1-3	IIIm, 2-4-6	IIIm7, 2-4-6-1	IV, 4-6-1	IVma7, 4-6-1-3	IIIm9 nr = IVma7
IV major	4-6-1-3-5	IV, 4-6-1	IVma7, 4-6-1-3	VIIm, 6-1-3	VIIm7, 6-1-3-5	IVma9 nr = VIIm7
V major	5-7-2-4-6	V, 5-7-2	V7, 5-7-2-4	VII dim, 7-2-4	VIIIm7b5, 7-2-4-6	V9 nr = VIIIm7b5
VI minor	6-1-3-5-7	VIIm, 6-1-3	VIIm7, 6-1-3-5	I, 1-3-5	Ima7, 1-3-5-7	VIIm9 nr = Ima7

combined sixths and ninths on I, IIIm IV and V of major

Ninth chords can use triads on their root, third or fifth. Triad structures on the fifth tend to need a little help. The chord will be clearer to the listener if the melody goes on down the arpeggio structure to the third.

Sixth chords can use triads on their sixth. I, II, IV and V type chords built on the major scale can be sixths or ninths. This means they use a sequence of *six of the seven notes of the major scale in thirds*. This makes them very flexible. Here is an example for the C major scale

scale tone	numbers of parent scale in sixth and ninth	sixth chord with C major parent	ninth chord with C major parent	subset triads on sixth, root, third and fifth of parent, numbers of parent for roots		subset seventh on sixth and root of parent, numbers of parent for roots	
I	6-1-3-5-7-2	C6	Cma9	Am, C, Em, G	6-1-3-5	Am7, Cma7	6-1
II	7-2-4-6-1-3	Dm6	Dm9	Bdim, Dm, F, Am	7-2-4-6	Bm7b5, Dm7	7-2
IV	2-4-6-1-3-5	F6	Fma9	Dm, F, Am, C	2-4-6-1	Dm7, Fma7	2-4
V	3-5-7-2-4-6	G6	G9	Em, G, Bdim, Dm	3-5-7-2	Em7, G7	3-5

minor elevenths on II and VI of major

Because of the lack of dissonance between the flatted third and the fourth of minor seventh chords, II^m7, III^m7 and VI^m7 sound reasonably consonant with an added fourth. III^m7 is not used with an added ninth, since it would be a flat nine (b9 = b2) and b9 is only acceptable on dominant type chords (with a major third and flatted seventh).

Triad structures on the seventh of a minor eleventh need a little help. The chord will be clearer to the listener if the melody goes on down the arpeggio structure occasionally, at least to the fifth.

So, minor eleventh is acceptable on steps II and VI, where the ninth is not flat. This means triad subsets can occur on the root, third or fifth and that seventh chord subsets can occur on the root or third.

- ✦ what number of the parent scale is on the third and fifth of the current chord?
- ✦ what is the qualities of the triads on the root, third or fifth?
- ✦ what is the quality of the seventh chords on third?

scale tone	numbers of parent scale in minor 11	ninth chord with C major parent	subset triads on root, third, fifth and seventh of parent, numbers of parent for roots		subset seventh on root, third and fifth of parent, numbers of parent for roots	
VI	6-1-3-5-7-2	Am11	Am, C, Em, G	6-1-3-5	Am7, Cma7, Em7	6-1-3
II	2-4-6-1-3-5	Dm11	Dm, F, Am, C	2-4-6-1	Dm7, Fma7, Am7	2-4-6

chord types on roots or secondary roots of I, IV, V and II^m

I, IV, V and II^m chords can be treated as triads or seventh chords on their sixth, root or third.

I⁶ = VI^m7, IV⁶ = II^m7, V⁶ = III^m7 and II^m6 = VII^m7b5. What is the sameness in the relationship between these four sets of chord synonyms? This is explained below.

The chord scale modes for I, IV, V and II^m chords each have a sixth. Each of those chords can be conceived as a triad with an optional added sixth a whole step above its fifth. In each case that note that would be the sixth of the chord is two tones down the scale, a minor third below the root. Each chord (I, IV V and II^m) has a synonym on the root built down two scale tones.

On a I, IV, V or II type, build chords on each tone of the relative minor (III^m tones 3, 5, 7 for a V chord). On a III, VI or VII, build chords on the triad of the chord itself.

chord types on root, third and fifth of III^m7 or III⁷

III or VI^m chords can be treated as triads or sevenths on their root, third or fifth.

A III^m7 secondary root on the fifth of the VI^m chord makes VI^m11.

For III chords, the parent scale often needs to have #5. V⁷ (G⁷) of parent built as secondary roots on the third of III (E^m) causes a b9 for the III chord, which is only acceptable if the chord is dominant: III⁷ with the formula 1, 3, 5, b7 (numbered after a major scale on the root of III).

To allow the b9, make the III chord III⁷b9 by using a parent major scale with sharp five. This changes the seventh chord on the third of III to #V^{dim}7 (G^{#dim}7 for the C major parent scale with III as "E").

chord types on root, third and fifth of VII^m7b5

See also [secondary roots](#).

As a chord, the VII^m7b5b9 is not acceptable, but it works as an arpeggio and melodically, since the dissonances are periodic and not continuous. VII⁷b5b9 (B⁷b5b9) can be substituted as a strummed chord, with a major third making it a dominant chord with acceptable b5 and b9.

For VII chords, the parent scale often needs to have b3, which creates synonyms of IV¹³#11 (F¹³#11) that are much easier to hear and think harmonically than the VII chords it creates. Possible VII chords are subsets of VII⁷b9#9b5#5, the basis of which is the VII⁷b5 synonym of IV⁷b5.

dominant type preferred for 13#11

Avoid use superimposed chords on IV⁷ or VI^m7b5 of the parent melodic minor scale for IV¹³#11 type chords. The IV⁷13#11 usually needs to be more of a dominant seventh type chord, often altered (#11 = b5), not a sixth chord. Using melodic minor II^m7 as a superimposed chord over a IV¹³#11 type would sound IV⁶, since II^m7 = IV⁶. Especially don't use the II^m7 with its root in the bass over a IV¹³#11 type.

Proxy Issues

proxy defined

With some scales, scale tones assigned one particular number can function as another. In a scale with a sharp four, that tone can be used as a flat five, then allowing both five and flat five. Scales with a flat four (melodic minor mode VII and major flat six mode five) can use the flat four as a natural three, allowing both flat three and flat three.

b4 tone in melodic minor VII chords

Mode VII in melodic minor is usually called super Locrian. It has every numbered tone flatted except “1”. The flat four is a proxy for natural three. When super Locrian (melodic minor VII) is used on the root of a m7b5, the flat four really can sound like an upper neighbor to the flat three.

When used on any part of melodic minor VII7b9#9b5#5, it is preferable that the flat third is in the upper octave and the flat four proxies as a natural third in the lower octave. So, this makes it difficult to use the system of superimposing chords.

A practical solution for the melodic minor VII7b9#9b5#5 is to use Locrian, which would impose a blue note flat three against the “proxied” natural third (flat four).

b4 tone in major b6 III chords (super phrygian)

Avoid this scale when chord needs a major 3.

Superimposed Cadences with Changed Versions Of Chords

These may be applied to superimposed cadences in the original key or on secondary roots.

darkend (bluesy) versions

I type chords can be treated like V type chords, V type chords like II type chords. This darkens the mood and is typical of blues.

brightened versions

V type chords can rarely be treated like I type chords, as long as the conflicting flat seventh and natural sevenths are not sustained or otherwise emphasized against one another too strongly. Charlie Parker commonly played on blues with a I major seventh type where the listener expected the accompaniment to play a I dominant seventh type.

Charlie Parker's accompanists typically avoided the flatted seventh of the I7 when he played I major seventh, though the listener could imagine the dominant seventh in their memory of the standard blues with I dominant seventh. Charlie's use of the major seventh seems to be part of his general brightness of mood.

well-known minor mode

For most of the last milenium, European music has primarily featured songs and melodies in major and Aeolian (or its common variant, harmonic minor). With the African influence in American music, major has been darkened with Mixolydian (with flatted seventh), and Mixolydian darkened with Dorian (with flatted third and seventh).

We still have such a strong heritage in the Aeolian mode that when a section of a song is in Dorian, we can accept Aeolian or harmonic minor melody, as long as the conflicting natural sixth of Dorian and the flatted sixth in Aeolian (or harmonic minor) are not sustained or otherwise emphasized against one another too strongly.

the subsets of the substituted chord still apply

All the subsets of V type chords can be used in place of the I type chords with the V type is substituted. Likewise, all the subsets of II type chords can be used in place of

Convert Parent Scale-Tone Chords To Key Scale-Tone Chords

practice writing down the alternate chords

Write down a chord progression with a list for each chord of the possible alternates. Learn to quickly assess what the alternate chords are.

prepare to voice-lead the progression like an arranger composer

A good arranger or composer is aware of the possible alternate chords, a great one is aware of *all* the alternates. This allows them to make a harmonic design on one chord and carry it on to the next.

Two chords in a row may share the same alternate chord, such as Em on a G7 chord followed by Em on a Cma7 chord in the key of C. In such a case, the harmonic and melodic structure on the Em used on the G7 can be thematically varied on the Cma7.

Two chords may share the same alternate chord root, with different qualities, such as C major during the C7 chord and C minor fifth of an F9 chord in a blues in C. In such a case, the harmonic variation would compare the C major and C minor, otherwise elaborating with the character of each chord.

learn to convert parent scale chords to key scale chords

It's not easy, but you can learn to convert scale-tone triads and sevenths of the parent scale (triads are usually enough) to thinking of them in the key scale. If you are using a set of parent scale-tone triads to improvise on a particular chord, it is initially easiest to think in the key of the parent scale, usually being a familiar major scale.

Learn to think the group of parent scale-tone triads both on the fretboard and in your mind in stepwise or fourths (stepwise is easier) *without* needing to associate them to a numbered order. The triads of the major scale ascend major, two minors (IIIm and IIIIm), two majors (IV major and V major), minor and diminished. Start with any particular chord thinking of its location according to the grouping of chords by quality, such as V as the second of the two majors (in ascending) and ascend the order *renumbering them*. As you ascend from the second of two majors, use the usual order: major (the "old V"), minor, diminished, major (the "old I"), two minors (the "old IIIm and IIIIm"), etc.; but renumber them with the old V as I through the old IV as bVII. Whichever mode you are calculating, you use its altered numbers, such as "b3 and b7" for Dorian and proceed through the usual order of triads.

Once you can think with all the triads in the same key for a region in that key, you can voice lead on the fly.

Key Scale Alternate Triads For Jazz Blues

roots in C	C7 I7	F7 IV7	C7 I7	F7 IV7	F#°7	C7 I7	A7(b9) VI7	Dm7 IIIm7	G7 V7	C7 I7
1 blue	C Cm	Cm	C Cm	Cm	C°dim	C Cm	C	(C)		C Cm
b2							C#dim			
2		Dm		Dm				Dm	Dm	
b3	Eb		Eb		Eb°dim	Eb				Eb
3 blue	Edim		Edim			Edim	Edim		Em Edim	Edim
4		F		F						
b5					F#dim			F		
5 blue	Gm		Gm			Gm			G Gm	Gm
6 blue	Am	Adim	Am	Adim	Adim	Am	A Am	Am		Am
b7									Bb	
7								Bdim	Bdim	

Key Scale Alternate Triads And Sevenths For Jazz Blues

roots in C	C7 I7	F7 IV7	C7 I7	F7 IV7	F#°7	C7 I7	A7(b9) VI7	Dm7 IIIm7	G7 V7	C7 I7
1 blue	C7 Cm7	Cm	C7 Cm7	Cm	C°7	C7 Cm7	C			C7 Cm7
b2							C#dim			
2		Dm7		Dm7				Dm7	Dm	
b3			Ebma7		Eb°7	Ebma7				Ebma7
3 blue	Em7b5		Em7b5			Em7b5	Edim		Em7 Em7b5	Eø7
4		F7		F7				Fma7		
b5					F#°7					
5 blue	Gm		Gm			Gm			G7 Gm7	Gm
6 blue	Am7	Am7b5	Am7	Am7b5	A°7	Am7	A Am	Am7		Am7
b7									Bbma7	
7								Bø7	Bm7b5	

SUPERIMPOSED CADENCE VOICE LEADING

Voice Leading Defined

Voice leading is the creative design of voices in chords, treating the chords as an ensemble, made of voices. The succession of all of the top notes of a series of chords creates the top voice, commonly called the soprano. The succession of all of the bottom notes of a series of chords creates the bottom voice, commonly called the bass. With four voices, the next-to-top voice is called the alto and the next to bottom voice is the tenor. So, a series of chords can be thought of as a collection of voices or parts.

Principles Of Voice Leading in Superimposed Cadences

retain common tones

It is preferred that notes are retained (don't change from chord to chord), when possible. This makes less work for the listener and allows the listener to focus on other important parts of a composition.

move by small intervals

It is also preferred that when notes cannot be retained, they change by small intervals, making it easier for the listener. An exception is moving all voices up on the same chord, which is easy for the listener to follow.

dominant and flat five substitute voice leading

In this cadence voice leading study, we are using two-chord and three-chord authentic or flat five substitute cadences. See [Flat Five Substitute Chord Progression](#).

core melodic tones

Core melodic tones are common to a key scale that is being used to make the melody and to the chord. The most important core melodic tones for the dominant (G7) or [flat five substitute](#) (Db7) chord or the tonic chord (C7) are the root, third and fifth of each. We need to transition those core tones with [voice leading](#) so the listener can understand the melody by being able to predict it to a reasonable degree.

make "singable" melodies

The listener will usually like your melody more if they can understand it. It needs to be melody they can think in a vocal sense, so hypothetically they could "sing it back to you". Some of your melody will be mechanical licks that can't necessarily be sung, but be sure to make a large part of it "singable".

Generally, make the melody understandable. You may have to reinforce a melody that uses two dis-related scales by using theme and variation or otherwise showing the commonality of the two scales.

don't change mood too quickly

Cadences can radically change the scale. This usually changes the mood. We are using many modes of major, harmonic minor and melodic minor. Modes are named after the Greek word *modus*, which means mood.

Some scale changes may involve most notes changing but still be understandable when one scale is largely the same as the next, but in a different key, chromatically up or down. For example, Db Lydian dominant (1-2-3-#4-5-6-b7) can be used before C Mixolydian (1-2-3-4-5-6-b7) and your melodic structure could communicate the similarity, such as playing "1-3-5" in Db, then "1-3-5" in C.

chromatic notes can be confusing

In some situations, two notes could be used chromatically below and one or two notes chromatically above a note they will resolve to. This can be confusing to listen to. The "Bb, Cb (B) and Db" of Ab melodic minor could be used during a Db7 chord. If they resolve to "E" in the C7 chord that follows them, it is hard to understand.

Simpler chromatic sequences can be understandable, such as "Eb, D, Db, B", then "C", which encircles C and starts with a chord tone of a C minor chord.

Incorporating 1-2-3-5 and 1-3-4-5

These two fragment patterns are very effective in sounding each chord in a cadence in four-note cells such as four eighths or four sixteenths, straight or swing on either. The links below will take you to many such cells in all keys:

Ab A Bb B C Db D Eb E F F# G

Four Categories Of Voice Leading

The four categories of voice leading in superimposed cadences are fourths, stepwise, chromatic and pedal point. They typically consist of two or three chords. All of the two-chord cadences are the last two chords of a three-chord cadence. So, by studying the three-chord cadences, you'll know the two-chord ones.

We'll look at each of the four types, then at which chords should be emphasized by aligning the phrase so a particular chord is played at the beginning of a target chord or at an important metric location like the first or third beat in 4/4. The "hit points" intended for the first or third beat of the bar can be "pushed" or played a half beat early to provide a "jazzy" rhythmic feel.

Look for these primary types chord progression in each song you play:

roots in fourths

- ✦ ascend 7-3-6-2-5-1-4-7-3-6, et cetera; in letters B-E-A-D-G-C-F-B-E-A (“Bead” Go Catch Fish), et cetera
- ✦ descend 4-1-5-2-6-3-7-4-1-5, et cetera; in letters F-C-G-D-A-E-B, et cetera or descend F-C-G-D-A-E-B, [flat five substitutes](#)

roots ascending or descending stepwise

Chord progression based on the roots of the chords ascending or descending a seven tone scale.

chromatic [voice leading](#)

- ✦ stepwise chord progression where the chords are connected with one or more voices moving chromatically, including I-#I^o7-II^m, V-#V^o7-VI^m, I7-I^o7-II^m6-I, I -I/3-IV-#IV^{dim}.

pedal point progression

variants of fourths or stepwise progression with a pedal tone

- ✦ thirds and pedal, especially I-IV-I7 no fifth
- ✦ triads and pedal, especially I6 no5 to I9 no root, no third

Root Movement in Fourths or Fifths

The oldest cadence is V I (G to C in the key of “C”), called the *authentic cadence* in classical music. It is a root movement up a fourth (or down a fifth, which is to the same note in the lower octave). This cadence was successively repeated as chord progression developed, by first using “V of V” to establish V as a temporary key. By the time European music evolved to American Jazz, fourths were extended to include the entire scale in the order 7-3-6-2-5-1-4.

A list of jazz songs that use the entire “7-3-6-2-5-1-4” root sequence is shown below. The steps of a key scale on which chord roots occur is traditionally shown in Roman numerals, but I’ll list them in Arabic numerals (7-3-6-2-5-1-4) when there is a long sequence. The “VII” usually starts somewhere in the middle of a section, then the progression cycles back to “I”, then “IV”.

Alice In Wonderland

Autumn Leaves

Black Orpheus

Confirmation

Europa
Fly Me to the Moon
My Favorite Things
Scrapple from the Apple
The Shadow of Your Smile
Still Got the Blues
Take Five
You Never Give Me Your Money

See [All Scale Tone Chords/The Cycle of Fourths on the Major Scale](#).

Stepwise Root Movement

Chord roots moving up or down the scale in alphabetical order are in stepwise order. This progression has a processional nature, as most or all notes move up or down one scale tone in tandem, such as a I chord with 1-3-5 moving to a IIm chord with 2-4-6. See [All Scale Tone Chords/The Stepwise Cycle on the Major Scale](#).

Chromatic Chord Progression

When chords are a whole step apart, a chord can be inserted between them. If two chords are of the same quality, the chord in between can be of the same quality as well. The in-between chord can also be major.

Superimposed chromatic chord progression are not used much in pop music, but very common to jazz-related music.

lower chromatic embellishment chord progression

Chords can be approached with a chord of the same quality with one a half step below. When a single note is approached from a non-scalar tone (a note not in the current scale), it is called a *lower chromatic embellishment*. So, when this is down with chords, it could be called a *lower chromatic embellishment chord progression*. This is more often applied to chords with a major basis, like major (C), major seventh (Cma7) or dominant seventh (C7) chords.

Chords approached with a root a half step above are usually [flat five substitutes](#), shown below.

flat five substitute chord progression

Flat five substitutes can convert root movement in fourths to chromatic root movement. The perfect fourth root progression $\text{IIIIm7-VIm7-IIIm7-V7-Ima7}$ ($\text{Em7-Am7-Dm7-G7-Cma7}$) can be converted to the chromatic root progression $\text{IIIIm7-bIII7-IIIm7-II7-Ima7}$ ($\text{Em7-Eb7-Em7-Db7-Cma7}$) by using a flat five substitute for every second chord.

Remember, the classic cadence is the authentic cadence, V to I. A [flat five substitute](#) chord replaces the chord on the fifth of the target chord with one a flat fifth above or below the root of the chord on the fifth of the tonic. This changes hanging II-V7-I to II-bII-I . The note a flat fifth above or below any given note is the same note.

Superimposed chord progression with [flat five substitutes](#) is generally not used in pop music, but very commonly used in jazz-related music.

The [flat five substitute](#) becomes a chord built on the upper chromatic neighbor to the tonic, on the root up a half step (one fret) from the root of the intended tonic chord. It could be thought of as a “bII” chord.

The [flat five substitute](#) is based on the synonym $\text{V7b5} = \text{bII7b5}$. In chord progression, bII chords are usually part of bII13\#11 , which is melodic minor mode IV, Lydian Dominant (Lydian flat seven: 1-2-3-#4-5-6-b7). Modes of any seven tone scale are synonyms of one another, since they all have the same notes. The IV13\#11 chord on the fourth of melodic minor is used for bII chords, while its synonym VII7b5\#5b9\#9 (the “Swiss Army” seventh chord) is its [flat five substitute](#), used for the V of I.

So, you could say $\text{bII13\#11} = \text{V7b5\#5b9\#9}$. $\text{bVI13\#11 V I} = \text{II7b5\#5b9\#9 V I}$

Study bVI13\#11 V7 Im and $\text{II7b5\#5b9\#9 V7 Im}$ extensively. They are optional three-chord cadences where the first chord could be bVI, which is bII of V or the [flat five substitute](#) for bVI, which is II (or V of V). Any part of bVI13\#11 can be used, such as bVI7 or bVI9 . Any part of II7b5\#5b9\#9 can be used, such as II7b5 , II7\#5 , II7b9 or II7\#9 .

Think of the bVI13\#11 as an arpeggio and of the II7b5\#5b9\#9 as a II super Locrian scale (V Phrygian flat one).

See “[Substitution](#)”/Flat Five Substitute. Also see “[Scale Ambiguity](#)”/Ambiguous Scale For Dominant Chords/[VII super Locrian](#), [IV Lydian Diminished](#) and the [flat five substitute](#).

Pedal Point Progression

Pedal point progression a treatment of other types of progression by repeating a particular note in the bass. This has been done so routinely with certain progressions that pedal point progression has taken on a nature of its own. See [Pedal Point Chord Progression](#).

SUPERIMPOSING CADENCES IN FOURTHS

Two-Chord Cadences in Fourths

secondary dominant

See Modal II-V-I Cadences and Turnarounds/[Secondary Dominant](#) and Melodically Superimposed Cadences/[Secondary Dominants](#).

diminished connecting chords

Three-Chord Cadences in Fourths

a secondary root chord expanded to a fourths cadence

modal II V I cadences

SUPERIMPOSING STEPWISE & CHROMATIC CADENCES

Two-Chord Stepwise Cadences

Two-Chord Chromatic Cadences

Three-Chord Stepwise Cadences

Three-Chord Chromatic Cadences

A Secondary Root Chord Expanded to a Stepwise Cadence

A Secondary Root Chord Expanded to a Chromatic Cadence

modal stepwise chords with a chromatic passing chord

modal IIm7-bII7 to target

Inserting Chromatic Chords

Where two chords with roots a whole step apart are of the same quality, such as IIm and IIIIm or IV major and V major, a chord can be inserted in-between of the same quality. This makes IIm-#IIm-IIIIm, IIIIm-bIIIIm-IIm, IV-#IV-V, and -bV-IV.

Melodic minor (ascending version, same as major scale flat three) has IV and V, IV7 and V7, IV9 and V9, VI dim. and VII dim., VIm7b5 and VIIIm7b5. Providing many possible chromatic insertions of the same quality.

Where chords a whole step apart are of different qualities, such as I and IIm, insert major triad between I-#I-IIm or IIm-bII-I. With seventh or larger chords with descending roots, insert dominant seventh between, such as VIm7-bVI7-V7. With seventh or larger chords with ascending roots, insert diminished seventh between, such as Ima7-#Idim7-IIm7.

Parallel Major Triads

The most convincing abstract use of chords of the same quality is major triads. Pat Metheny makes common use of this. Move bIII major chromatically down to I major, bVII major down to V major. IV major chromatically all the way down to I.

the wacky major triad at diminished fifth intervals

Suggesting the flat five relationship, major triads can be played at intervals of a diminished fifth (same as an augmented fourth, three whole steps). This has a cool, wacky, “other worldly” sound. Try it on something modern and jazzy.

COMBINING FOURTHS AND STEPWISE

Since pop music is based more on triads, there are fewer chords synonyms, therefore fewer possible superimposed progressions. Three-chord progressions need to end on the target in pop music. In jazz-related music they can start on the target, establish a sequence of fourths or stepwise root movement the veer off into something new. Triad progression with substitution and superimposition is more confined.

In both jazz and pop styles, three-chord progressions that combine stepwise and fourths work best ending on the target chord, since they are not establishing a strong repeating root pattern like three roots in fourths or three stepwise roots. .

So, use any combination of stepwise and fourths root movement, but always with the target on the last. Chords on numbered steps of the scale are usually represented by Roman numerals, but I've used Arabic numbers here for ease of reading.

up a step, up a fourth versions are: 1-2-5, 2-3-6, 3-4-7, 4-5-1, 5-6-2, 6-7-3, 7-1-4

down a step, up a fourth versions are: 2-1-5, 3-2-6, 4-3-7, 5-4-1, 6-5-2, 7-6-3, 1-7-4

up a fourth, up a step versions are: 1-4-5, 2-5-6, 3-6-7, 4-7-1, 5-1-2, 6-2-3, 7-3-4

down a fourth, up a step versions are: 7-4-5, 1-5-6, 2-6-7, 3-7-1, 4-1-2, 5-2-3, 6-3-4

MODAL CONTEXTS AND TIME

Think in Multiple Modal Contexts

Any mode you will use in any key has the letter that name the setup chord scale, the target chord scale and the key scale. If the key is “C” and the target chord is F and the setup chord scale is Db melodic minor, be able to:

- ✦ Think in terms of the mode named after the target chord (“F”) with the letter “F” in Db melodic minor, which is F Lydian flat one (Fb) on the flat third of Db melodic minor.
- ✦ Think in terms of the setup chord, Gb13#11, think in the mode with the letter “Gb”, which is “Gb” Lydian dominant on the fourth step of Db melodic minor.
- ✦ Think in terms of the key of C, think in the mode with the letter “C”, which is “C” super Locrian on the seventh step of Db melodic minor.

So, be able to think the same notes in terms of the setup chord, the target chord and the key. The target chord may be the same as the tonic chord that names the key.

modes of Db melodic minor scale

Db melodic minor	Eb Dorian flat two	F Phrygian flat one (Fb)	Gb Lydian flat seven (Lydian dominant)	Ab Mixolydian flat six	Bb Aeolian flat five	C Locrian flat four (super locrian)
b3	b2	b1	b7	b6	b5	b4
1-2-b3-4-5-6-7	1-b2-b3-4-5-6-b7	b1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-b7	1-2-3-4-5-b6-b7	1-2-b3-4-b5-b6-b7	1-b2-b3-b4-b5-b6-b7

Think in Terms of the Setup Chord’s Scale

The **setup chord** is the last chord in the cadence before the **target chord**. In a three-chord Dm7 - G7 - C7 cadence that resolves to (sounds finished on) Cma7, the Cma7 is the target chord. G7 is the setup chord that leads to the target chord.

To get oriented to the tones of the setup chord, name the setup chord scale in terms of the mode that uses the letter of the setup root. This will usually make it easier for you to create melody during the setup chord. Don’t stop there, you also need to state the tonality of the key and suggest movement to the target chord.

a secondary root of the setup chord

By thinking of a [secondary root](#) for the setup chord, you can obtain different colors and moods by using a synonym or subset of the setup chord. For example, use IV (F) Aeolian flat five on the third of a bII9 (Db) chord. This allows you to use dark minor (Aeolian) key melodies with a flat five that you may already know and create new sounds with them in this new setting.

Think in Terms of the Target Chord's Scale

Include strong references to a target chord scale by being able to think in the mode named after the letter of its root. As with the setup chord, this will make it easier for you to find and sound tones of the target tone chord. Also state the tonality of the key, as discussed next.

a secondary root for the target chord

By thinking of a [secondary root](#) for the target chord, you can create a kind of [deceptive cadence](#). When the listener expects VIm (Am), having heard VI(A) harmonic minor, it can resolve to a chord that includes VIm, such as I6 (C6) or IVma7 (Fma7).

Think in Terms of the Key Scale

Include strong references to a key scale by being able to think in key scale. You don't have to always refer to the key scale in your melody, but you should refer to it enough that the key scale predominates the tonality.

Each chord in a progression can be treated as many optional chords that are subsets or altered versions such as darkened ones with flatted notes. So, for each chord there is a conceptual list of chords it can be thought of as. A composer or arranger conceives such lists and voice leads from one chord to the next, taking advantage of similarities and patterns.

Best Scales to “Think” on Jazz Blues In C

	C7	C7 blue	F7	A7	Dm7	G7	G7 blue	G7 very blue
target chord parent scale	F major	Bb major	Bb major	F major #5	C major	C major	F major	Bb major
think as	C Mixo.	C Dorian	C Dorian	C Mixo. #1	C major	C major	C Mixo.	C Dorian
melodic minor before target	Ab melodic minor		Db mel. m.	F mel. min.	Bb mel. m.	Eb melodic minor		
best to think V super Locrian, IV Aeolian b5, bII13#11	G super Locrian, F Aeolian b5 on third of Db13#11		C sup. Loc., Bb Ae. b5 on third of Gb13#11	E sup. Loc., D Ae. b5, on third of Bb13#11 or C Mixo. b6	A sup. Loc., G Ae b5 on third of Eb13#11	D super Locrian or C Aeolian b5 on the third of Ab13#11		
harmonic minor before target	C harmonic minor = Eb major #5		F har. min. = Ab ma. #5	A har. min. = C maj. #5	D har. m. = F ma. #5	G har. min. = Bb major #5		
best to think:a	C harmonic minor = Eb major #5 or G harmonic minor* = Bb major #5 = C Dorian #4		C Phrygian dominant	C major #5	C Mixo. #1	C Dorian #4		

in summary, use...

Melodic minor tone center down a major third from the target root, which is a diagonal shape on the bass strings. Major sharp five (for harmonic minor on the target) with its tone center a minor third above the target. You can also say melodic minor targets a root on its major third (though it has a flat third) and harmonic minor targets a root on its sixth.

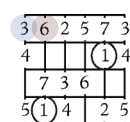
primary major scale fingerings

melodic minor targets natural three ●

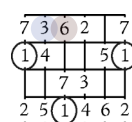
harmonic minor targets six ●

review [Modal Contexts And Time](#)

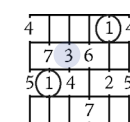
fingering 3



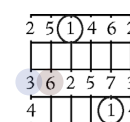
fingering 7



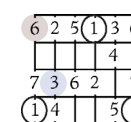
fingering 4



fingering 2



fingering 6



* Used during IV diminished 7(F#dim7). This special case is chromatic and common to blues. I diminished 7 (I°7, C°7) = #IV°7 (F#°7) to I7 (C7), where all tones other than the root move up chromatically.

Be Aware of the Listeners Time-Based Tolerance for Discord

As you emulate a super imposed cadence with your melody, one or more of the chords you emulate may have a strong disagreement with the current chord. The effects of discord are time-based.

Build your melody in time from the end of the setup chord “backward” in time, being able to play it longer.

MAKING MELODY WITH SUPERIMPOSED CADENCES

Set Up Your Practice

strum the chords, then play cells, then make melody

First strum the new chords over the chord progression. Then represent the new chord progression with strong [melodic cells](#) (groups of three to six notes) such as “1235” in the chord scale for each chord to get the harmonic sense of the new progression. Finally, start to abstract the progression with melodic ideas you commonly use. Start moving all around the fretboard.

Listen to your imagination. It can create much more complex things than your logical mind, but with fuzzier definition. When you like something new you’ve created or discovered, figure out its nature in a general sense and populate as much of your music as can with it. See [Globalizing Musical Structure and Design](#).

Most of this is numbered and thought of in terms of the [parent scale](#).

prepare with comping rhythms

Determine one or more appropriate [comping rhythms](#) to use in playing the chord progression. Comping rhythms will give you a rhythmic grid (of two, three, four or six parts per beat) and an environment to create melody.

Learn The Original Chord Progression

First practice playing chords with the accompaniment. You’ll clearly hear any dissonances, since all the notes are sustaining against the accompaniment.

Play the target chord at a “[hit point](#)” at the beginning of the chord or on a strong beat, like the first or third beat in 4/4. First practice playing a chord before the target chord that is down a fourth. Use the series of fourths: 7-3-6-2-5-1-4, For a I chord, precede it with V. For a V chord, precede it with II^m, and so on.

Use the [Put It Where You Want It II V rhythm track](#) to practice each of the two exercises below. Below them there is a detailed study directed at your visualization of the chord and scale tones you will need to improvise on the progression.

IIIm7 and V7 type targets, key on IIm7 of parent, hit point at beginning of chord

original chords/key scale	Cm7 (Im7)/C Dorian				F7 (IV7)/C Dorian				Cm7 (Im7)/C Dorian				F7 (IV7)/C Dorian			
superimposed letter name				Cm7	F7			Gm7	Cm7			Cm7	F7			
by parent scale				IIIm7	V7			Vm7	IIIm7			IIIm7	V7			
by key scale				Im7	IV7			Vm7	Im7			Im7	IV7			

IIIm7 and V7 type targets, key on IIm7 of parent, hit point on beat three

original chords/key scale	Cm7 (Im7)/C Dorian				F7 (IV7)/C Dorian				Cm7 (Im7)/C Dorian				F7 (IV7)/C Dorian			
superimposed letter name		Gm7	Cm7			Cm7	F7			Gm7	Cm7			Cm7	F7	
by parent scale		Vm7	IIIm7			IIIm7	V7			Vm7	IIIm7			IIIm7	V7	
by key scale		Vm7	Im7			Im7	IV7			Vm7	Im7			Im7	IV7	

Visualize the arcs for C minor and F major in the VIII position area. Using the major and minor arcs shown below. C minor would be in the E form. F major would be in the A form.

major chord tone arcs

minor chord tone arcs

The diagram illustrates major and minor chord tone arcs on a fretboard grid. Major arcs are shown for C form, E form, G form, and D/C form. Minor arcs are shown for E form, A/G form, and D/C form. Each diagram includes a small grid showing the chord tones and a larger grid showing the arcs between them.

Major chord tone arcs:

- C form:** Shows arcs between 1-3, 3-5, and 5-1. The small grid shows 1, 3, 5, 1, 3, 5, 1, 3.
- E form:** Shows arcs between 1-3, 3-5, and 5-1. The small grid shows 1, 3, 5, 1, 3, 5, 1, 3.
- G form:** Shows arcs between 1-3, 3-5, and 5-1. The small grid shows 1, 3, 5, 1, 3, 5, 1, 3.
- D/C form:** Shows arcs between 1-3, 3-5, and 5-1. The small grid shows 1, 3, 5, 1, 3, 5, 1, 3.

Minor chord tone arcs:

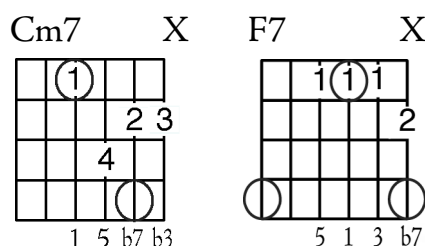
- E form:** Shows arcs between 1-3, 3-5, and 5-1. The small grid shows 1, 3, 5, 1, 3, 5, 1, 3.
- A/G form:** Shows arcs between 1-3, 3-5, and 5-1. The small grid shows 1, 3, 5, 1, 3, 5, 1, 3.
- D/C form:** Shows arcs between 1-3, 3-5, and 5-1. The small grid shows 1, 3, 5, 1, 3, 5, 1, 3.

Practice major scale-tone seventh chord progression with “descend five and seven voicing”. See: [Voice Leading/Perfect Fourth Quadrad Cadences/Descend Five and Seven](#). Keep it simple. Just play one chord before the target.

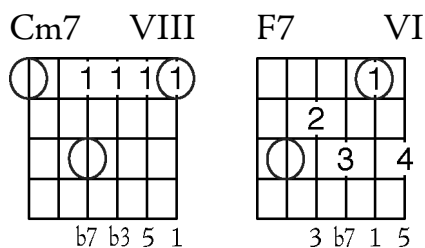
Descend five and seven **voice leading** progresses roots up in perfect fourths, like IIm7 to V7. It uses exclusively four-note chords. On each string in descend five and seven voice leading, each note either trades root and fifth or it trades third and seventh. This means that in a perfect fourth sequence of chords that uses descend five and seven voice leading, if a note on one chord is a fifth, the next chord will have a root on that string (trading root and fifth). On a string where third occurs in one chord will be a fifth in the next chord.

As you can read in the “descend five and seven” links above, roots and thirds each are retained. The same note that is the root of one chord is the fifth of the next chord. Likewise, the same note that is a third of one chord will become the seventh of the next. Fifths and sevenths each descend to become roots and sevenths (respectively) in the next chord. A fifth of one chord descends one scale tone in the parent scale to become the root of the next. A seventh of one chord likewise descends in the parent scale to become the third of the next chord.

If we focus on strings one through four (the four smallest strings) with root and fifth trading in the bass, the Cm7 (IIm7 of parent) is 0015b7b3 and the F7 (V of parent) is 00513b7. The generic 001573 family (including 001573, 0015b73, 0015b7b3 and 001b5b7b3) trades with the generic family 005137 (including 005137, 00513b7, 0051b3b7 and 00b51b3b7). In summary, 001573 trades with 005137.



On the four smallest strings with third and seventh trading in the bass, the Cm7 (IIm7 of parent) is 00b7b351 and the F7 (V of parent) is 003b715. The generic 007351 family (including 007351, 00b7351, 00b7b351 and 00b7b3b51) trades with the generic family 003715 (including 003715, 0051b3b7 and 00b51b3b7). In summary, 007351 trades with 003715.



Why bother with all this detail? You’ll get faster and faster at recalling the descend five and seven voicings until you memorize all the versions on string sets 5-4-3-2, 6-4-3-2, 4-3-2-1 and 5-3-2-1. Then that part of your visualization for improv will be very robust and you will be a much more capable soloist and composer.

The pentatonic subsets C minor pentatonic (Cm7/11) and F major pentatonic (Fma6/9) of the Bb major scale are shown below. See [Pentatonic Fingering](#), [Scales for Songs in All Keys](#) and [Key Scales](#), [Parent Scales](#) and [Chord Scales/Parent Scale](#) and [Key Scale Fingerings](#).

**major
scale
fingerings**

4/5

**IIIm7/11
pentatonic
tones 45612**

**V ma 6/9
pentatonic
tones 56723**

Practice each of the four blues in C exercises below with either of these rhythm tracks:

12 Bar I IV V Slow Triple Blues in C

12 Bar I IV V Medium Duple Blues in C

12 bar blues in C

IIIm7 V7 (in key of target) with V7 type targets, hit point at beginning of chord

original chords/key scale	C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian			
superimposed letter name				Gm7	C7			Gm7	C7			Gm7	C7			Cm7
by parent scale				IIIm7	V7			IIIm7	V7			IIIm7	V7			IIIm7
by key scale				Vm7	I7			Vm7	I7			Vm7	I7			Im7
original chords/key scale	F7 (IV7)/C Dorian				F7 (IV7)/C Dorian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian			
superimposed letter name	F7			Cm7	F7			Gm7	C7				C7			Dm7
by parent scale	V7			IIIm7	V7			IIIm7	V7			IIIm7	V7			IIIm7
by key scale	IV7			Im7	IV7			Vm7	I7			Vm7	I7			IIIm7
original chords/key scale	G7 (V7)/C major				F7 (IV7)/C Dorian				C7 (I7)/C Mixolydian				G7 (V7)/C major			
superimposed letter name	G7			Cm7	F7			Gm7	C7			Dm7	G7			
by parent scale	V7			IIIm7	V7			IIIm7	V7			IIIm7	V7			
by key scale	V7			Im7	IV7			Vm7	I7			IIIm7	V7			

12 bar blues in C

IIIm7 V7 (in key of target) with V7 type targets, hit point at beat three

original chords/key scale	C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian			
superimposed letter name		Gm7	C7			Gm7	C7			Gm7	C7			Gm7	C7	
by parent scale		IIIm7	V7			IIIm7	V7			IIIm7	V7			IIIm7	V7	
by key scale		Vm7	I7			Vm7	I7			Vm7	I7			Vm7	I7	
original chords/key scale	F7 (IV7)/C Dorian				F7 (IV7)/C Dorian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian			
superimposed letter name		Cm7	F7			Cm7	F7			Gm7	C7			Gm7	C7	
by parent scale		IIIm7	V7			IIIm7	V7			IIIm7	V7			IIIm7	V7	
by key scale		Im7	IV7			Im7	IV7			Vm7	I7			Vm7	I7	
original chords/key scale	G7 (V7)/C major				F7 (IV7)/C Dorian				C7 (I7)/C Mixolydian				G7 (V7)/C major			
superimposed letter name		Dm7	G7			Cm7	F7			Gm7	C7			Dm7	G7	
by parent scale		IIIm7	V7			IIIm7	V7			IIIm7	V7			IIIm7	V7	
by key scale		IIIm7	V7			Im7	IV7			Vm7	I7			IIIm7	V7	

sixth type root alternatives on I, IV, V and IIm

I, IV, V and IIm type chords built on the major scale have alternate roots on their sixth, root and third. They have the potential to be a sixth chord and each has a synonym minor seventh chord down two steps (see “chord on sixth/result” in the table below). Each chord can be a seventh chord, or many other types, but the fact that they all have perfect fifths and major sixths makes them similar. The mode in which each occurs (I major, II Dorian, IV Lydian and V Mixolydian) contains a major pentatonic scale (major 6/9 pentatonic), except Dorian contains major pentatonic scale with a flatted third (minor 6/9 pentatonic).

The IIm chord falls into this category when it can be a IIm6 type chord, which has a strong reference to swing music, especially when the tone “6” is used melodically as a lower neighbor to the chord root.

To remember those alternate roots for I, IV, V and II type chords, think of the numbered tones of the parent scale-tone triad down two scale tones: 6-1-3 for the I chord, 2-4-6 for the IV chord, 3-5-7 for the V chord and 7-2-4 for the II chord.

Here’s a table for I, IV, V and IIm chords with parenthetical examples for the key of C major:

major scale-tone chord	chord on third/result	chord on sixth/result
Ima7 (Cma7)	IIIm7 (Em7) / Ima9 (Cma9)	VIIm7 (Am7) / I6 (C6)
IVma7 (Fma7)	VIIm7 (Am7) / IVma9 (Fma9)	IIm7 (Dm7) / IV6 (F6)
V7 (G7)	VIIIm7b5 (Bm7b5) / V9 (G9)	IIIm7 (Em7) / V6 (G6)
IIIm7 (Dm7)	IVma7 (Fma7) / IIm9 (Dm9)	VIIIm7b5 (Bm7b5) / IIm6 (Dm6)

seventh type root alternatives on IIm, III, VIIm and VIIIm7b5

IIm, IIIIm, VIIm and VIIIm7b5 type chords built on the major scale have alternate roots on their root third or fifth. The IIm chord is in both groups. In each case the root alternative on the fifth of one of these chords makes a part of a five-note chord.

In the case of the IIIIm7 and VIIIm7b5, roots on their fifth should only be used melodically, since the chord result is not currently acceptable. Some [special accommodations](#) need to be made for the III and VII chords. The IIIIm or IIIIm7 are often changed to III or III7, requiring a sharp five of the parent scale.

As a chord, the VIIIm7b5b9 is not acceptable, but it works as an arpeggio and melodically, since the dissonances are periodic and not continuous. VII7b5b9 (B7b5b9) can be substituted as a strummed chord, with a major third making it a dominant chord with acceptable b5 and b9.

Here's a table for IIm III, VIm and VII chords, with parenthetical examples for the key of C major:

major scale-tone chord	chord on third/result	chord on fifth/result
IIm7 (Dm7)	IVma7 (Fma7) / IIm9 (Dm9)	VIm7 (Am7) / IIm11 (Dm11)
IIIm7 (Em7)	V6 (G6) = Em7	n/a
IIIm7 (E7)	#Vdim.7 (G#dim.7) / III7b9 (E7b9)	VII dim.7 (Bdim.7) / III7b9 (E7b9)
VIm7 (Am7)	Ima7 (Cma7) / VIm9 (Am9)	IIIm7 (Em7) / VIm11 (Am11)
VIIIm7b5 (Bm7b5)	IIm (Dm7b5) / IIm7b5b9 (Bm7b5b9)*	IVma7 (Fma7) / VIIIm11b5b9 (Bm11b5b9)

* acceptable as an arpeggio or melodically, but not as a chord

Eventually, you should play long sequences of fourths and stepwise, forward or backward and target the right chord on the hit point.

12 bar blues in C

IVma7 (IVΔ7) VIIIm7b5 (VIIø7) with V7 type targets, hit point at beginning of chord

original chords/key scale	C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian			
superimposed letter name				BbΔ7	Eø7			BbΔ7	Eø7			BbΔ7	Eø7			EbΔ7
by parent scale				IVΔ7	VIIø7			IVΔ7	VIIø7			IIm7	VIIø7			IVΔ7
by key scale				bVIIΔ7	IIIø7			bVIIΔ7	IIIø7			bVIIΔ7	IIIø7			bIIIΔ7
original chords/key scale	F7 (IV7)/C Dorian				F7 (IV7)/C Dorian				C7 (I7)/C Mixolydian				C7 (I7)/C Mixolydian			
superimposed letter name	Aø7			EbΔ7	Aø7			BbΔ7	Eø7			BbΔ7	Eø7			FΔ7
by parent scale	IIIø7			IVΔ7	IIIø7			IVΔ7	VIIø7			IVΔ7	VIIø7			IVΔ7
by key scale	VIø7			bIIIΔ7	VIø7			bVIIΔ7	IIIø7			bVIIΔ7	IIIø7			IVΔ7
original chords/key scale	G7 (V7)/C major				F7 (IV7)/C Dorian				C7 (I7)/C Mixolydian				G7 (V7)/C major			
superimposed letter name	Bø7			Eø7	Aø7			BbΔ7	C7			Dm7	G7			
by parent scale	VIIø7			IVΔ7	IIIø7			IVΔ7	VIIø7			IVΔ7	VIIø7			
by key scale	VIIø7			bIIIΔ7	VIø7			bVIIΔ7	IIIø7			IVΔ7	VIIø7			

Learn To Represent The Progression With Melodic Cells

The shortest note sequences are [melodic cells](#), typically three to six notes. Short licks, repeating fragment patterns such as 1-2-3-5 on the chord scale for each chord, arpeggios or pentatonic scales are all cells. See the chapter [Melodic Cells](#).

Arpeggio cells are a great way to learn the clusters of tones in the parent scale that make up each chord as shown in the [Harmonic Clusters](#) section of [Phrases Built with Core Melody, Elaboration and Filler](#).

For the most common scale-tone chord progression, roots ascending in fourths, play four-note seventh arpeggios as cells with descend five and seven voicing. Through this, you will quickly learn the geometric shapes of tones for each chord as a subset of the parent scale in a confined fretboard area. Play root, third, fifth and seventh ascending one chord, then descend the fifth and seventh each one scale tone. The descending arpeggio will be the scale-tone chord up a fourth. Repeat the same process ascending third-fifth-seventh-root, fifth-seventh-root-third and seventh-root-third-fifth. This will take you through the inversions of the arpeggios.

chord roots in fourths

Fourths ascend 7-3-6-2-5-1-4-7-3-6-2-5 in numbers or B-E-A-D-G-C-F in letters. Fourths descend 4-1-5-2-6-3-7-4-1-5 in numbers or F-C-G-D-A-E-B in letters.

Practice descend seven voicing (major scale-tone seventh chords) in scale-tone seventh chords. In “sets of five fourths” below, each underlined number is a target, to be placed at a [hit point](#).

“3-6-2-5-1” can make five different cadences. “6-2” would precede the target IIm7 with VIm7. “3-6-2” would precede the target IIm with IIIIm-VIm, making the cadence IIIIm7-VIm7-IIm7 (with IIm7 on a hit point). “6-2-5” (VIm7-IIm7-V7) would put IIm7 on a hit point and then need to resolve to tones of whatever chord is in the accompaniment after V7 (the last chord in the 625 cadence). “2-5-1” would place IIm7 on a hit point, followed by V7 Ima7, then resolve to tones of whatever chord is in the accompaniment after Ima7 is played.

All of these sequences fourths can also be played in reverse order, making an order down in fourths or up in fifths. “3-6-2-5-1” in reverse makes 5-2, 1-5-2, 5-2-6, 2-6 (resolve afterward) and 2-6-3 (resolve afterward).

sets of five fourths

	sixth	root	third
sets of 5 (shown for “4” or “2”):	3-6-2-5-1	5-1-4-7-3	7-3-6-2-5
sets of 5 (shown for “1” or “6”):	7-3-6-2-5	2-5-1-4-7	4-7-3-6-2
sets of 5 (shown for “5” or “3”):	4-7-3-6-2	6-2-5-1-4	1-4-7-3-6
sets of 5 (shown for “2” or “7”):	1-4-7-3-6	3-6-2-5-1	5-1-4-7-3
summary:	1-4-7-3-6-2-5-1-4-7-3-6-2-5-1-4-7-3-6-2-5-1-4-7-3-6-2-5-1		

stepwise chord roots

Stepwise ascend or descend; connect with chromatic prog. (incl. I-#I^o7-II^m, V-#V^o7-VI^m, I7-I^o7-II^m6-I, I-I/3-IV-#IVdim).

“7-1-2-3-4” can make five different cadences. “1-2” would precede the target II^m7 with I^ma7. “7-1-2” would precede the target II^m with VII^m7b5-I^ma7, making the cadence VII^m7b5-I^ma7-II^m7 (with II^m7 on a hit point). “1-2-3” (I^ma7-II^m7-III^m7) would put II^m7 on a hit point after preceding it with I^ma7 and then need to resolve to tones of whatever chord is in the accompaniment after III7 (the last chord in the 1-2-3 cadence). “2-3” would place II^m7 on a hit point, followed by III^m7, then resolve to tones of whatever chord is in the accompaniment after III^ma7 is played. “2-3-4” would place II^m7 on a hit point, followed by III^m7 and IV^ma7, then resolve to tones of whatever chord is in the accompaniment after IV^ma7 is played.

All of these stepwise sequences can also be played in reverse order, making an order down stepwise. “7-1-2-3-4” in reverse makes 3-2, 4-3-2, 2-1 (resolve afterward) and 2-1-7 (resolve afterward).

sets of five stepwise

	sixth	root	third
sets of 5 (shown for “4” or “2”):	7-1-2-3-4	2-3-4-5-6	4-5-6-7-1
sets of 5 (shown for “1” or “6”):	4-5-6-7-1	6-7-1-2-3	1-2-3-4-5
sets of 5 (shown for “5” or “3”):	1-2-3-4-5	3-4-5-6-7	5-6-7-1-2
sets of 5 (shown for “2” or “7”):	5-6-7-1-2	7-1-2-3-4	2-3-4-5-6
summary:	5-6-7-1-2-3-4-5-6-7-1-2-3-4-5-6-7-1-2-3		

Create Melody

Once you have clearly demonstrated the sound of the chords and cells over the progression, aligning with the hit points, start to abstract the progression by playing the cells with harmonic theme and variation or with melodic ideas you commonly use.

Once you have the harmonic progression “in your ear” and its placement phrase-wise, start playing variations of the cell or something similar to represent it. As you play repeatedly over the progression, get more and more abstract. Move progressively more freely around the fretboard, changing positions and octaves. Freedom!

Work extensively in each octave shape of the fretboard until you can visualize the chords, scales and arpeggio of each common mode. Progressively learn other fretboard areas, learning the structures in relation to each [triad](#) [arc](#), octave shape and major scale fingering area.

Put It Where You Want It

8 and 12 Bar Blues, Jazz Blues, All Blues

Freddie the Freeloader

Mr. PC

The Way You Look Tonight

Cantaloupe Island

Afro Blue

Song for My Father

Sunny

Blue Bossa

Isn't She Lovely

Sugar

Autumn Leaves

Fly Me to the Moon

My Favorite Things

All The Things You Are

Black Orpheus

Four

Moanin'

Girl from Ipanema

One Note Samba (treat the first chord as ma9 no root; Dm7 would be Bbm9 nr)

Take Five

Killing Me Softly

How High the Moon

Meditation

Night in Tunisia
Caravan

Visualization

chunking and multiple contexts

In 1956, George Miller, of Princeton University's Department of Psychology published a paper titled "The Magic Number Seven, plus or minus Two", also called "Miller's Law". In it, he described a human ability to retain about seven objects (numbers, letters, graphic shapes, etc.) in working memory.

Miller and other psychologists have indicated compensations we can use to work around our limitations. Two important compensations are chunking and multiple contexts. With chunking, we develop a strong memory of a group of objects (a chunk). Multiple contexts can strengthen the memory of a chunk.

When we improvise on an area of the fretboard, we need to know the mass of notes in each small area, such as the eight or nine notes of a major scale on three consecutive strings. We can get a very strong memory of those notes by memorizing them in these multiple ways, including chords and arpeggios, scales and licks.

chords and arpeggios

- ✦ the major and minor arcs that make up each of the seven triads built on the major scale
- ✦ the major scale-tone descend five and seven voicings on the relevant set of four strings
- ✦ pentatonic subsets of the scale
- ✦ building ninth arpeggios from pentatonic scales in the area

scales

- ✦ the linear major scale fingering:
- ✦ the major scale lines that make up each three-note-per-string fingering
- ✦ building each three-note-per-string major scale fingering with the master pattern
- ✦ making each in-position fingering by combining two three-note-per-string major scale fingerings

licks

- ✦ a mental library of licks that use the scale
- ✦ the emotive function of each note, so you can predict its sound and emotive before playing it

visual scanning versus mass visualization

Using the chunking methods above, you can get a vivid memory of the notes in a fretboard area and begin experimenting.

Use mass visualization for smaller numbers of items such as the six notes in each triad arcs or the three to six notes in a chord fingering. Use visual and conceptual scanning for around ten to twenty items, such as major scale lines, or pentatonic lines.

Once you have chunked a group of items, such as well-memorized major scale lines, you can conceive combining them, such as visualizing an in-position major scale fingering by combining three major scale lines.

Each group of notes or items (such as rhythmic words) has a different degree of clarity versus fuzziness for you. Make your visualization more clear with multiple points of reference and repetition.

the vast power of the creative mind

I advocate experimenting, free association and improv on a musical idea, followed by interpretation and globalizing. Most of the time, I am amazed at what ideas come up when I have worked creatively, then interpret what I have discovered. You probably have a perfectly good brain and can do the same thing.

The Two Second Rule

With superimposed cadences, you will often play chord sounds that briefly don't harmonize with the accompaniment. This is often called "outside", versus "inside", where "inside" harmonizes with the accompaniment and "outside" doesn't.

The current chord might be C7, but you are playing something that represents Gb7 to transition to the next chord F7. If the Gb7 chord or melodic content is played for two seconds or less and then resolves to F7, it will probably make sense to the listener. If the Gb7 is played for more than two seconds, the listener is likely to have the time to realize that it is not harmonizing with the current chord and it might not sound correct to many listeners.

So, generally play cadences and other content that doesn't harmonize with the current chord for two seconds or less. At 120 beats per minute, two seconds is four beats. At 60 beats per minute, two seconds is only two beats. So something that doesn't harmonize with accompaniment can work for one bar at 120 BPM, but not at 60 BPM.

HARMONIC MINOR CADENCES

See also: [Melodic Minor Cadences](#).

Practicing Diminished Sevenths and **Half-Whole-Half Cells**

As you practice the material in this section, begin to look forward to the theory shown in the remainder of this Harmonic Minor Cadences section. Be sure to read [Cadence Defined](#) and [Secondary Dominant](#) first.

See [Progressions For Study with Harmonic Minor and Melodic Minor](#) for suggested songs to study.

Half-whole-half is a very familiar and useful melodic device. See the chapter [Half-Whole-Half Cells and Diminished Scale](#). Below, we'll learn to practice diminished sevenths for half-whole-half, first in chords, then arpeggios, then half-whole-half.

diminished seventh families

There are only three unique diminished seventh chords, since each one can use four names. As a quick way to find them for any particular key, think of them as II dim7, #I dim7 and I dim 7. Those three diminished sevenths respectively makeup the setup chords for the target chords I, IV and V chords and their respective families.

II diminished 7 just before the I family: I, VI (relative minor), bV or bIII (relative major)

#I diminished just before the IV family: IV-bVI-VII-II (modal relative minor)

I diminished just before the V family: V-bVII-#I-III (modal relative minor)

See [practice diminished sevenths](#).

diminished seventh in chords before I-VIm-II-V

Stand by Me in A

Stand by Me in A

I bars 1-2 Ama7 V

II dim7 Bdim7 VI

1 6 b3 b5

VIm bars 3-4 F#m7 IV

2 3 4

b3 1 5 b7

IIIm bar 5 Bm7 VII

2 3 3 3

1 b7 b3 5

V bar 6 E7sus4 VII

1 1 1 1

1 1 4 b7 2

I bars 7-8 Ama7 V

II dim7 Bdim7 VI

1 6 b3 b5

The Way You Look Tonight in F

The Way You Look Tonight in F

I Fma7 V

II dim7 Gdim7 VI

6 b3 b5 1

VIm Dm7 V

1 5 b7 b3

IIIm Gm7 VII

2 3 4

b7 b3 5 1

V C7 V

3 b7 1 5

Isn't She Lovely in E

Isn't She Lovely in E

VIm C#m7 IX

II dim7 F# dim7 X

6 b5 1 b3

IIIm F#9 VIII

2 3 4

3 5 b7 2

V B13sus4 IX

1 1 1 1

2 3 4

b7 2 4 6

I E IX

3 5 1 5

See more [songs to practice I VI II V](#).

diminished seventh in arpeggios before I-VIm-II-V

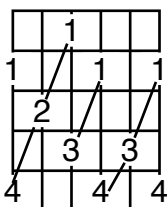
See the chapter [Half-Whole-Half Cells and Diminished Scale](#). Review these fingerings. You should draw from the diminished scale fingerings, but usually don't play them for over an interval of a sixth without abstract ornamentation to make them less exercise-like.

the numbers on the diagrams below are finger numbers

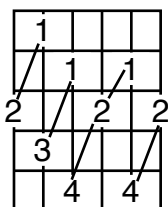
for diminished scale, the target diminished seventh is black when ascending, grey when descending

diminished seventh arpeggio

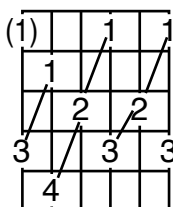
fingering 1



fingering 2

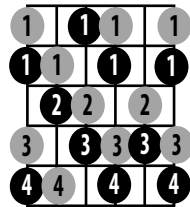


fingering 3

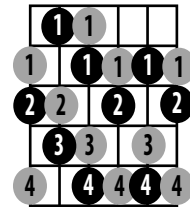


diminished scale

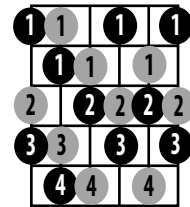
up fingering 1
down fingering 3



up fingering 2
down fingering 1



up fingering 3
down fingering 2



Develop strong memories: restrict your playing to the first three strings, then two strings 4-3-2-1, then 4-3-2-1, 5-4-3-2, then all of the strings. Spend a long time with each string set.

Spend at least a half hour on each of these four steps:

First, play the entire progression with a II dim7 arpeggio before the I and the VIm chords only.

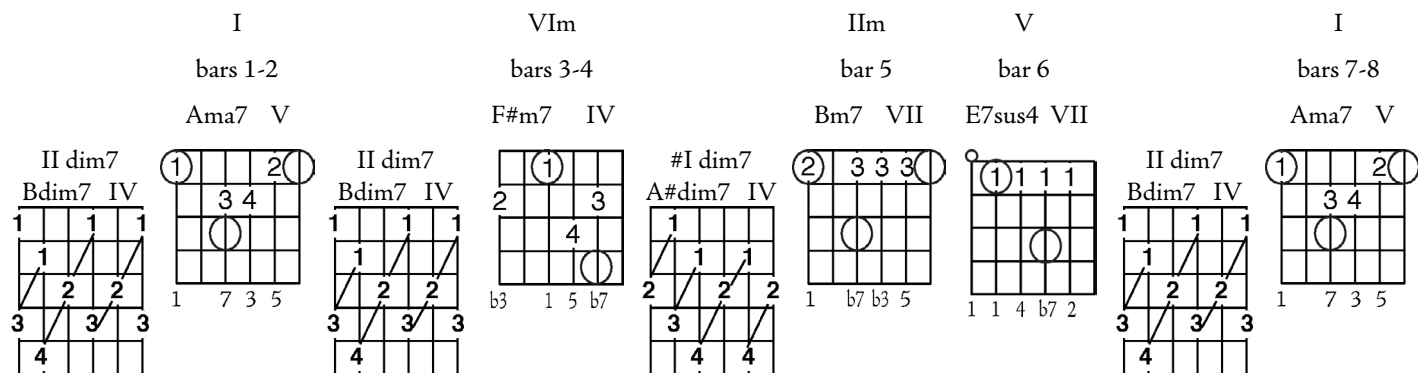
Next, play the entire progression with #I dim7 arpeggio before the IIm chord only.

Next, play the entire progression with I dim7 arpeggio before the V chord only.

Next, play the entire progression the appropriate arpeggio before each chord.

Last, repeat the four steps using [half-whole-half cells](#).

Stand By Me in A in V position



Improvise in the fifth position area, generally keeping your first finger at the fifth fret.

Improvise in the ninth position area, generally keeping your first finger at the ninth fret.

In seventh chords progress below with their roots in ascending order of perfect fourths. Each chord is preceded with a with diminished seventh chord whose root is a half step below the target.

VIIIm7b5-(#II dim7)-IIIm7-(#V dim7)-VIm-(#I dim7)-IIIm7-(#IV dim7)-V-(VII dim7)-Ima7 (III dim7)-IV (#IV dim7)-VIIIm7b5, etc.

Harmonic Minor is Mode VI of Major Sharp Five

From our perspective of European music based on the major scale and Greek modes, harmonic minor scale is a dramatized version of Aeolian mode. It strengthens the harmonic progression in the minor key so the V - Im cadence has a major V chord, as in a major key. Also, the VII diminished seventh (VII^o7) and its three synonyms (VII^o7=II^o7=IV^o7=bVI^o7) are tension-producing sources of cadences to the Im chord and to other chords a half step above or a whole step below their roots.

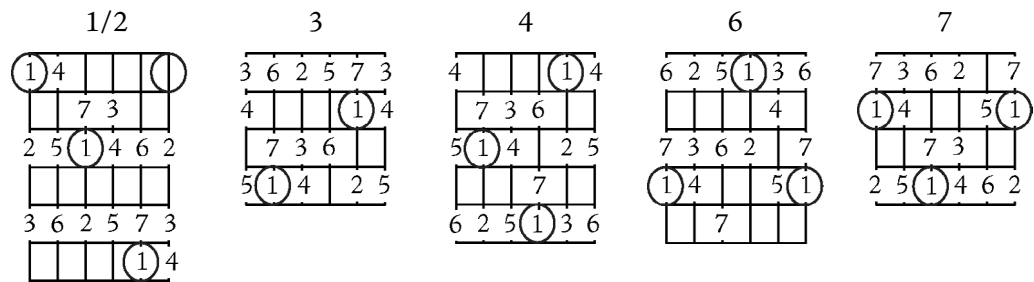
Harmonic minor is the mode on the sixth step of major sharp five scale. Compared to Aeolian mode (the mode on the sixth step of the major scale), it has a natural seven, while harmonic minor has a flat seven. See also [Melodic Minor Cadences](#).

the modes of major sharp five in all keys

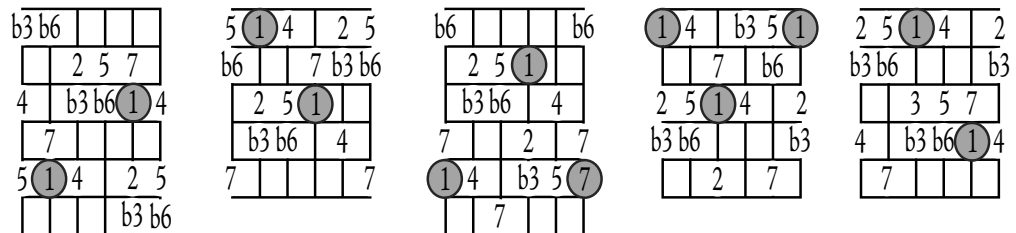
mode of major sharp five	major sharp five	Dorian sharp four	Phrygian dominant (natural third)	Lydian sharp two	Mixolydian sharp one	Aeolian natural seven (harmonic minor)	Locrian natural six
summary chord	ma9#5 (4-6)	m13#11	7b9b13	13#11	13#1 °7-b2b4b6	m9(ma7)	7#5b5#9b9
7th and 246	ma7#5 (2-4-6)	m7 (2-#4-6)	7 (b2-4-b6)	7 (2-#4-6)	7(#1) (2-4-6) °7 (b2-b-4-b6)	m(ma7) (2-4-b6)	m7b5 (b2-b4-b6)
alteration of grand parent major	#5	#4	natural 3	#2	#1	natural seven	natural 6
formula	1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1-2-3-4-5-6-b7	1-2-b-4-5-b6-7	1-b2-b3-4-b5-6-b7
	C	D	E	F	G#	A	B
	G	A	B	C	D#	E	F#
	D	E	F#	G	A#	B	C#
	A	B	C#	D	E#	F#	G#
	E	F#	G#	A	B#	C#	D#
	B	C#	D#	E	F##	G#	A#
	F#	G#	A#	B	C##	D#	E#
	C#	D#	E#	F#	G##	A#	B#
	F	G	A	Bb	C#	D	E
	Bb	C	D	Eb	F#	G	A
	Eb	F	G	Ab	B	C	D
	Ab	Bb	C	Db	E	F	G
	Db	Eb	F	G	A	Bb	C
	Gb	Ab	Bb	Cb	D	Eb	F

graphic relationships of useful harmonic minor modes to the target root

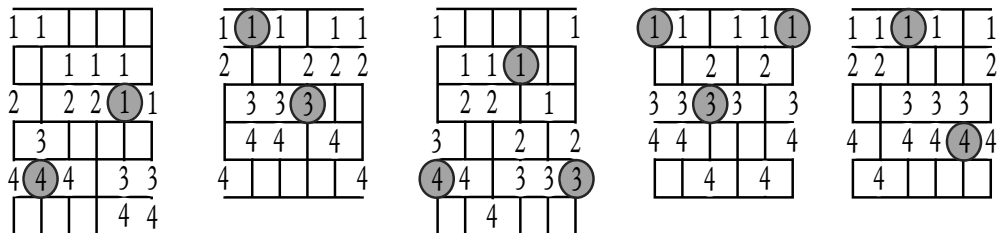
fingering number →
major scale



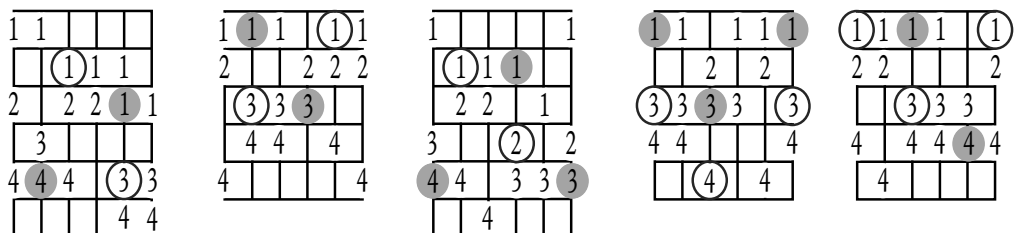
I harmonic minor with
scale-tone numbers



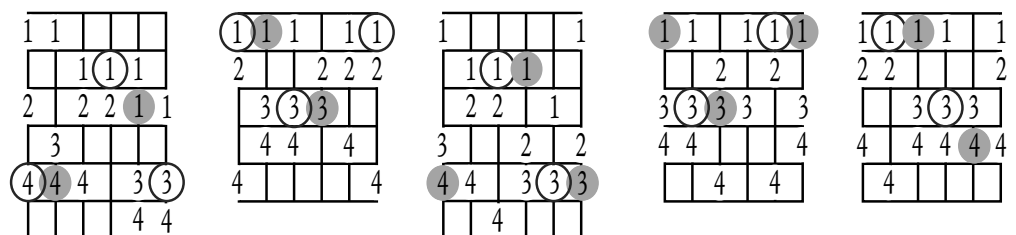
I harmonic minor
(tone center circled)
“grey-back” is target



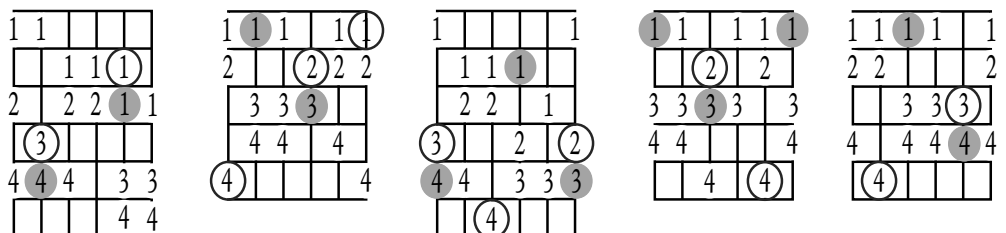
II Locrian natural six
(tone center circled)
“grey-back” is target



V Phrygian dominant
(tone center circled)
“grey-back” is target



VII
Mixolydian sharp one
(tone center circled)
“X” is target



Think the Harmonic Minor Tone Center

In [harmonic minor cadences](#), you give the impression that you are progressing to the minor key named after the harmonic minor scale you are using. You may actually go to the key named after letter of the harmonic scale, but in different mode like major or Mixolydian. So, you may use A harmonic minor and progress to A major seventh in the key of A major.

You may progress to a chord that *contains* the minor chord named after the letter of the harmonic minor scale you are using, but with a different root. For example, you may be using A harmonic minor and progress to Fma7, which has the notes of Am.

Think the Key Scale with the Same Letter as the Harmonic Minor Scale

Every type of seven tone scale in any key uses all seven letters of the musical alphabet (A - B - C- D- E- F- G) and uses each letter only once. So, whatever seven-tone scale you are using, you *can* name it after the letter of the key.

It is very important to think in terms of the key. The listener aurally expects it.

target chord →	I7 (C7)	IV7 (F7)	V7 (G7)	VI7 (A7)	IIm7 (Dm7)
implied scale (commonly changed at resolution)	C harmonic minor	F harmonic minor	G harmonic minor	A harmonic minor	D harmonic minor
key scale	I (C) harmonic minor	I (C) Phrygian dominant	I (C) Dorian sharp four	I (C) Major sharp five	I (C) Mixolydian sharp one (C#)

First Learn to Improvise Aurally with the Scales

Improv with aurally intuition first, before engaging your left brain into much thought in numbers and letters. To use elements of theory afterward in your improv, you need to learn the theory thoroughly. Learn the necessary harmonic minor scale fingering and the location of the root, third and fifth of the chord it will resolve to.

Begin with Harmonic Minor to Aeolian (Relative Minor)

use these three steps:

1. improvise on VIIm with minor blues
2. emphasize the tones of VI minor using the parent major scale
3. include the sharped fifth of the parent major scale, but without drawing attention to it

Practice this first, to get an aural sense of the authentic minor cadence. Using the C major parent scale, this puts the key on six minor, A minor. To dramatize and strengthen the cadence to VIIm (Am), the III chord is changed to major or seventh, so III major, III7, III7#5, III7b9 or III7b9#5 (all "E" chords before Am) are used before the VIIm (Am).

minor cadences

The minor key is traditionally derived by establishing major scale tone six as the tone center. With the C major scale, this means making Am the key. Parent major scale tone III(E) major (altered from III minor) to VI minor (E to Am) is the authentic minor cadence. In the key of Am, E - Am is re-numbered as V to Im. See the table below.

	Em	E	Am
C major parent scale number from root	IIIIm	III (major)	VIIm
A minor key scale from each root	Vm	V	Im

Cadences are traditionally made in fourths. The entire sequence of fourths in the major scale is 7 - 3 - 6 - 2 - 5 - 1 - 4. A two-chord cadence in fourths establishing VIIm (Am) as the key is III VIIm (E Am) of the parent scale (C major). This is V - Im in the key scale.

A three chord cadence establishing VI (Am) is VIIIm7b5 III VIIm (Bm7b5 E Am). Re-numbering VIIm as Im, to make it the key, 7 - 3 - 6 becomes 2 - 5 - 1, mimicking the common 2 - 5 - 1 (Dm G C) used in a major key. So, VIIIm7b5 III7 VIIm7 in a major key is re-numbered IIm7b5 V7 Im in the relative minor.

	Bm7b5	E7	Am
C major parent scale number from root	VIIIm7b5	III7	VIIm
A minor key scale from each root	IIm7b5	V7	Im

1. improvise on VIIm with minor blues

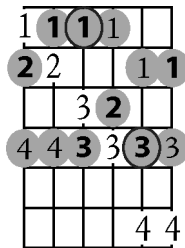
To make authentic, jazz must have the blues element. So, start your study in using harmonic minor with minor pentatonic and add the harmonic minor carefully as you develop the melodic style. Establish VIIm (Am) of the parent major scale (C major) as a key with A minor pentatonic blues melody. Use some flat five tones (Eb notes), making Am7/11b5 scale.

Use [Minor Pentatonic Blues Rock Cells](#) as a resource. They are written in G minor, so you'll need to move them up a whole step (two frets toward the body of the guitar).

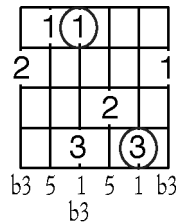
2. emphasize VIIm tones and use the entire parent major scale

Next, make it a point to emphasize tones of the VI minor (A minor) triad during the VIIm (Am) chord in the chord progression. Use the entire parent major scale, but continue the VIIm blues basis.

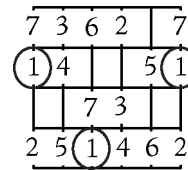
A minor pentatonic
subset of A Aeolian (C major)
fingering 2 VII



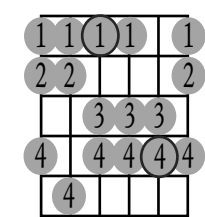
A minor
arpeggio VII



C major scale
fingering 7 VII



C major sharp five
fingering 7 VII



3. include the sharpened fifth of the parent major scale

Include the sharpened fifth of the parent major scale, making VI harmonic minor. Continue to use VIIm (Am) blues as a basis. The goal is to use the harmonic minor scale to establish the VIIm chord, which does not include the sharp five. VIIm7 has a "5" of the parent scale, being made with 6 - 1 - 3 - 5 of the parent scale. Sharp five is dissonant against five, so it should be de-emphasized.

Use the sharpened fifth unobtrusively. Avoid starting or ending phrases with it. Use it as a lower neighbor to the sixth step of the parent major scale. Use the sharpened fifth in a scale passage.

A minor II V rhythm tracks

The rhythm tracks linked use the progression: ||: Am7 | E7 | Am7 | Bm7b5 E7 :||

[Am7_E7_Am7_Bm7b5E7_LatinBossa](#)

[Am7_E7_Am7_Bm7b5E7_JazzSamba](#)

[Am7_E7_Am7_Bm7b5E7_BBRock](#)

[Am7_E7_Am7_Bm7b5E7_DrJohnRock](#)

[Am7_E7_Am7_Bm7b5E7_FunkSeventies](#)

[Am7_E7_Am7_Bm7b5E7_FunkSoft](#)

[Am7_E7_Am7_Bm7b5E7_JamesBrown](#)

[Am7_E7_Am7_Bm7b5E7_JamesTaylorLatin](#)

[Am7_E7_Am7_Bm7b5E7_Marcus](#)

[Am7_E7_Am7_Bm7b5E7_Marley](#)

[Am7_E7_Am7_Bm7b5E7_MilesFunk](#)

[Am7_E7_Am7_Bm7b5E7_MilesRock](#)

[Am7_E7_Am7_Bm7b5E7_Aretha](#)

[Am7_E7_Am7_Bm7b5E7_Otis](#)

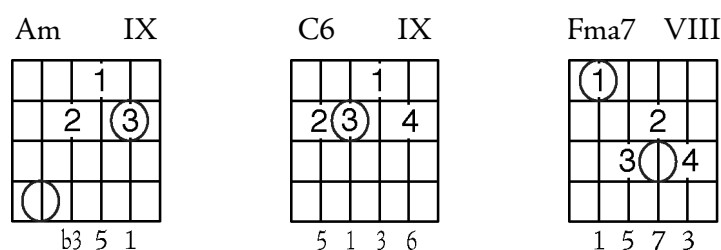
[Am7_E7_Am7_Bm7b5E7_SamDave](#)

[Am7_E7_Am7_Bm7b5E7_StevieW](#)

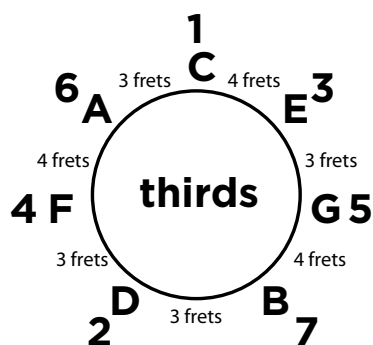
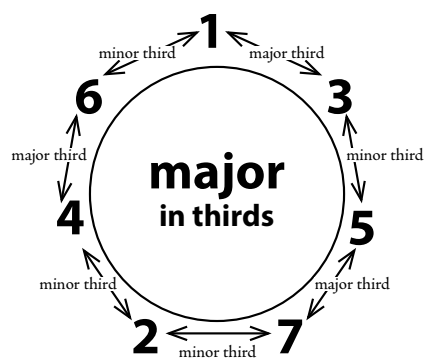
Next, Use VI_m During I and IV_{ma}7

An Escherian cadence is a resolving chord progression that suggests a resolution to a particular mode then resolves to another. It may do this by resolving to a different mode of the same key, or to a chord that includes the implied chord, but has as different root, such as suggesting Am and resolving to F_{ma}7, which contains Am. See [Melodically Superimposed Cadences/Escherian Cadence](#).

In Escher-like fashion, sound VI_m (Am) just before or during C and/or FΔ7, predicting the Am part of I₆ (C₆) or IV_{ma}7 (F_{ma}7). Strengthen your melodies with familiar minor themes with VI (A) harmonic minor that sound the VI_m (Am) more than the III₇ (E₇, which is V₇ of Am). The Am chord below is part of C₆ and F_{ma}7.



VI_m (Am) is major scale tones 6-1-3. I₆ (C₆) is major scale tones 1-3-5-6. IV_{ma}7 (F_{ma}7) is major scale tones 4-6-1-3. Both I₆ (C₆) and IV_{ma}7 (F_{ma}7) contain 6-1-3, the notes of VI_m (Am). See the circle of thirds (below) from which they are built.

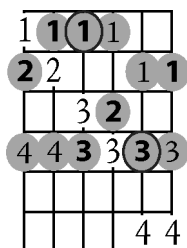


Use these three steps:

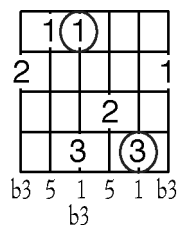
1. improvise on I (6, 7 or ma7) and IVma7 with I major pentatonic
2. emphasize VIIm tones using the parent major scale
3. include the sharpened fifth of the parent major scale

harmonic minor scale fingerings 7 and 3

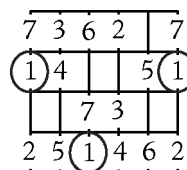
A minor pentatonic
subset of A Aeolian (C major)
fingering 2 VII



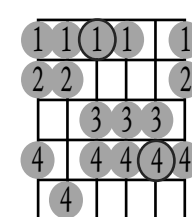
A minor
arpeggio VII



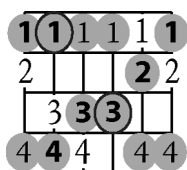
C major scale
fingering 7 VII



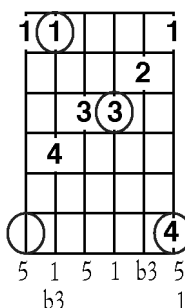
C major sharp five
fingering 7 VII



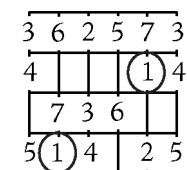
A minor pentatonic
subset of A Aeolian (C major)
fingering 4 XII



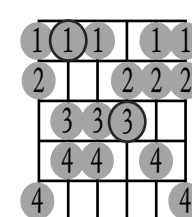
A minor
arpeggio XII



C major scale
fingering 3 XII



C major sharp five
fingering 3 XI



1. improvise on I and IVma7 with I major pentatonic

Base your melody on I (C) major pentatonic, in swing blues style.

Use [Major Pentatonic Swing Cells](#) as a resource. They are written in G major, so you'll need to move them up two and a half steps (five frets toward the body of the guitar) or down three and a half steps (seven frets toward the head of the guitar).

2. emphasize VIIm tones using the parent major scale

Emphasize the VIIm (Am) chord tones as part of I6 (C6) or IVma7 (Fma7). Continue to use swing blues as a basis. In the swing blues style, the blue notes flat three and flat seven can be included. Flat seven changes the I major scale to I Mixolydian. Flat three and flat seven (both) change I major to I Dorian. Usually, if three is flat, seven is flattened also, to make the more familiar Dorian mode instead of melodic minor (major flat three is melodic minor).

3. include the sharpened fifth of the parent major scale

Include the sharpened fifth of the parent major scale, making VI harmonic minor. Continue to use I major pentatonic and swing blues (in the key of I) as a basis. The goal is to use the harmonic minor scale to establish the VIIm chord sound as part of I6 (C6) or IVma7 (Fma7) in [Escher](#) fashion. See [Melodically Superimposed Cadences/Escherian Cadence](#)

I major and IVma9 have "5" of the parent scale. I major is 1- 3- 5 of the parent scale. IVma9 is 4-6-1-3-5 of the parent. Although IVma7 does not literally include tone five of the parent scale, it implies it. Sharp five is dissonant against five, so it should be de-emphasized.

Use the sharpened fifth unobtrusively. Avoid starting or ending phrases with it. Use it as a lower neighbor to the sixth step of the parent major scale. Use the sharpened fifth in a scale passage.

an optional preview of Mixolydian sharp one

During the later part of V7 (G7) before I (C), use chord scale V (G) Mixolydian #1, which is the same notes as A harmonic minor. Like a magician (see [Melodically Superimposed Cadences/Escherian Cadence](#)), this will attract the listener to the major blues melody on G7, but bring in the middle-eastern sounding harmonic minor scale as well. Here are the modes of C major sharp five to support this idea:

modes of C major sharp five scale for VI harmonic minor

C major sharp five	D Dorian sharp four	E Phrygian dominant (natural third)	F Lydian sharp two	G Mixolydian sharp one (G#)	A Aeolian natural seven (harmonic minor)	B Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	natural 6
12-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

C major II V I IV rhythm tracks

The rhythm tracks linked use the progression: ||: Dm7 | G7 | Cma7 | Fma7 :||

[Dm7_G7_Cma7_Fma7_BossaBrazil](#)

[Dm7_G7_Cma7_Fma7_BossaNew](#)

[Dm7_G7_Cma7_Fma7_PastoriusLatinFunk](#)

[Dm7_G7_Cma7_Fma7_BBRock](#)

[Dm7_G7_Cma7_Fma7_Funk70s](#)

[Dm7_G7_Cma7_Fma7_FunkSoft](#)

[Dm7_G7_Cma7_Fma7_JamesBrown](#)

[Dm7_G7_Cma7_Fma7_JamesTaylorLatin](#)

[Dm7_G7_Cma7_Fma7_Marcus](#)

[Dm7_G7_Cma7_Fma7_Marley](#)

[Dm7_G7_Cma7_Fma7_McCoyBossa](#)

[Dm7_G7_Cma7_Fma7_MilesFunk](#)

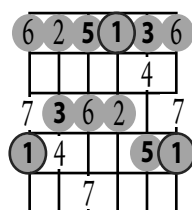
[Dm7_G7_Cma7_Fma7_MilesRock](#)

[Dm7_G7_Cma7_Fma7_StevieW](#)

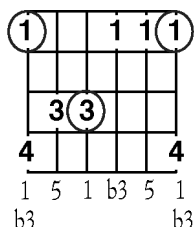
harmonic minor scale fingerings 6, 7 and 3 for VIm

Also see [melodic minor scale fingerings 6, 7 and 3](#), based on the same parent scales.

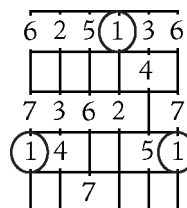
C major pentatonic
subset of C major
fingering 1 V



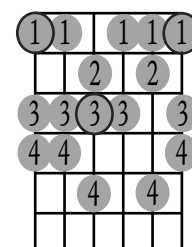
A minor
arpeggio V



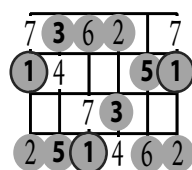
C major scale
fingering 6 V



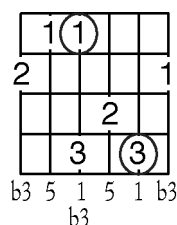
C major sharp five
fingering 6 V



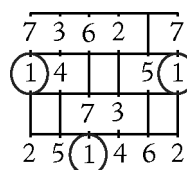
C major pentatonic
subset of C major
fingering 2 VII



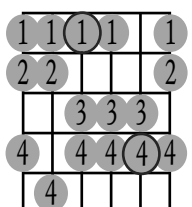
A minor
arpeggio VII



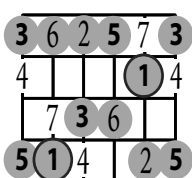
C major scale
fingering 7 VII



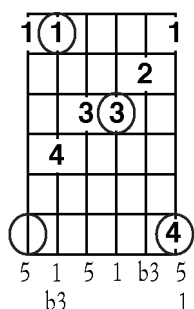
C major sharp five
fingering 7 VII



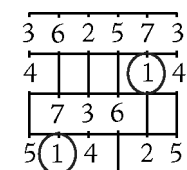
C major pentatonic
subset of C major
fingering 4 XII



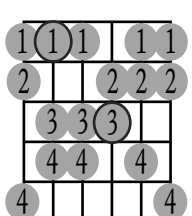
A minor
arpeggio XII



C major scale
fingering 3 XII



C major sharp five
fingering 3 XI



Using Mixolydian Sharp One

Harmonic minor occurs as a mode on the sixth step of major sharp five scale. Mixolydian sharp one is the mode on the fifth step of major scale five. In many situations, Mixolydian can be established, then altered to Mixolydian sharp one, which becomes the same notes as harmonic minor up a half step.

the magic trick

This provides the opportunity to distract the listener with familiar Mixolydian melody in blues or jazz styles, while changing the scale to harmonic minor to suggest an upcoming minor chord *or* to suggest a minor chord as part of another chord.

mode of major sharp five	major sharp five	Dorian sharp four	Phrygian dominant (natural third)	Lydian sharp two	Mixolydian sharp one	Aeolian natural seven (harmonic minor)	Locrian natural six
summary chord	ma9#5 (4-6)	m13#11	7b9b13	13#11	13#1 °7 (b2-b4-b6)	m9(ma7)	dim. 7
7th and 246	ma7#5 (2-4-6)	m7 (2-#4-6)	7 (b2-4-b6)	7 (2-#4-6)	7(#1) (2-4-6) °7 (b2-b4-b6)	m(ma7) (2-4-b6)	m7b5 (b2-4-6)
alteration of grand parent major	#5	#4	natural 3	#2	#1	natural seven	natural 6
formula	1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7
	C	D	E	F	G#	A	B
	G	A	B	C	D#	E	F#
	D	E	F#	G	A#	B	C#
	A	B	C#	D	E#	F#	G#
	E	F#	G#	A	B#	C#	D#
	B	C#	D#	E	F##	G#	A#
	F#	G#	A#	B	C##	D#	E#
	C#	D#	E#	F#	G##	A#	B#
	F	G	A	Bb	C#	D	E
	Bb	C	D	Eb	F#	G	A
	Eb	F	G	Ab	B	C	D
	Ab	Bb	C	Db	E	F	G
	Db	Eb	F	G	A	Bb	C
	Gb	Ab	Bb	Cb	D	Eb	F

I Mixolydian Sharp One before II Harmonic Minor

theory summary: C Mixolydian sharp one

In the modes of major sharp five, the mode on the sixth step is harmonic minor. The mode on the fifth step (see below) is Mixolydian sharp one. This is very convenient! To suggest the key of II minor when it follows I, I Mixolydian can be first established, then altered. Theme and variation works well for this.

II minor is not as common after I as is VI, then IIm. The most common four-chord progression in jazz is I-VI-IIm-V (VI can be minor and still treated melodically as major or dominant). The nickname for this progression is “rhythm changes”, both because it is a common progression in a rhythm section and is the main progression of the classic Gershwin song “I Got Rhythm”.

In the I-VI-IIm-V progression, suggest the key of II minor by playing I Mixolydian during the I chord, then I Mixolydian sharp one during the VI chord. I Mixolydian sharp one is the same notes as II harmonic minor and aurally predicts it.

To apply this to jazz blues in C, play C Mixolydian during the C chord in bar 7, then C Mixolydian sharp one during the A7 chord in bar 8. C Mixolydian sharp one (C#) is the same notes as D harmonic minor, so it will predict the Dm chord in bar nine.

The mode on the sharpened fifth of F major sharp five is C Mixolydian sharp one (C Mixolydian which a “C#”). The mode on the sixth step of F major sharp five is D harmonic minor. Of course, all the modes of F major sharp five have the same notes. See the table below:

modes of major sharp five scale

F major sharp five	G Dorian sharp four	A Phrygian dominant (natural third)	Bb Lydian sharp two	C Mixolydian sharp one (C#)	D Aeolian natural seven (harmonic minor)	E Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	natural 6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

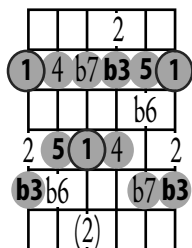
By recalling and using C Mixolydian melodies and licks that you otherwise would use on a C7 type chord *and sharpening the C (C#)*, you can easily build a repurposed library of licks for the A7b9 chord. This works particularly well because A7b9 no root is C#diminished seventh and C7 with “C” changed to C# is A7b9 no root.

voice leading V of IIm tones to IIm

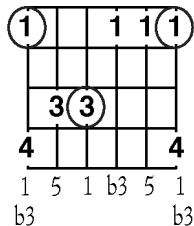
Learn to voice-lead each tone of A7b9 to Dm. See [Voice Leading The Tones Of Harmonic Minor V to I](#).

harmonic minor scale fingerings 6, 7 and 3 for Ilm (Dm)

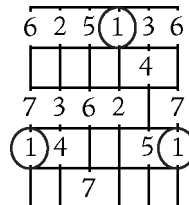
D minor pentatonic
subset of D Aeolian (F major)
fingering 1 X



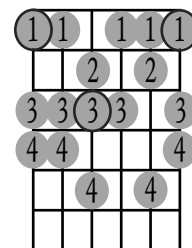
D minor
arpeggio X



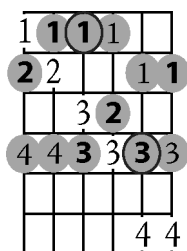
F major scale
fingering 6 X



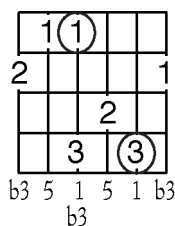
F major sharp five
fingering 6 X



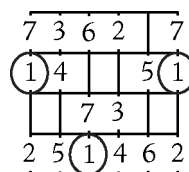
D minor pentatonic
subset of D Aeolian (F major)
fingering 2 XII



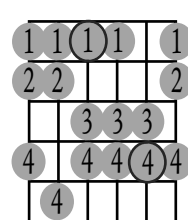
D minor
arpeggio XII



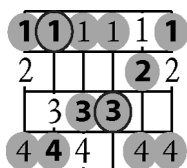
F major scale
fingering 7 XII



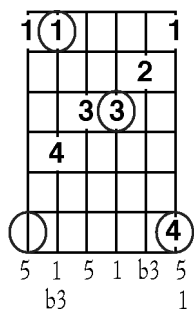
F major sharp five
fingering 7 XII



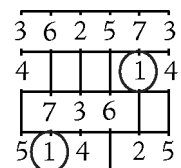
D minor pentatonic
subset of D Aeolian (F major)
fingering 4 XII



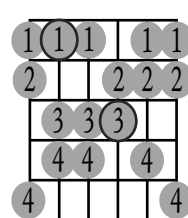
D minor
arpeggio V



F major scale
fingering 3 V



F major sharp five
fingering 3 V



V Harmonic Minor in Bar Six of Jazz Blues in C

theory summary: F Mixolydian sharp one

Imply the Vm (Gm) part of the I9 chord in bar seven by playing IV Mixolydian sharp one in bar six, empassizing the tones of F sharp diminished seventh, the VII chord in G harmonic minor (sharp five Mixolydian sharp one).

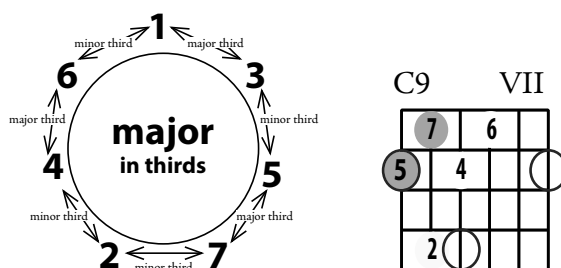
In the modes of Bb major sharp five, the mode on the fifth step is F Mixolydian sharp one (tone center F#). The mode on the sixth step is G harmonic minor. Play F Mixolydian melodic ideas in bar six, but with “F’s” changed to “F#’s”. This will create G harmonic minor and suggest the Gm part of the C9 chord and allow you to repurpose your F Mixolydian melodic ideas. See the table below:

modes of Bb major sharp five scale for V harmonic minor

Bb major sharp five	C Dorian sharp four	D Phrygian dominant (natural third)	Eb Lydian sharp two	F Mixolydian sharp one (F#, with F#dim.7)	G Aeolian natural seven (harmonic minor)	A Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	natural 6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

theory summary: suggest the G minor part of C9 with G harmonic minor

C9 is built on the fifth step of an F major scale. It uses scale tones 5-7-2-4-6 of F major. As you probably know scale tones 2-4-6 of a major scale makeup a IIm chord. In the diagram of a C9 arpeggio, the numbered tones of the F major scale with a white background, “2, 4 and 6” are the tones of the G minor chord.



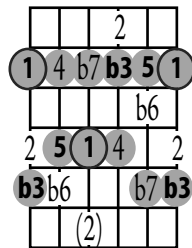
theory summary: C Dorian #4

The fifth, seventh and ninth of the F9 arpeggio are the root, third and fifth of Cm. As shown on the table above, F Mixolydian sharp one (Bb major sharp five) can be thought in terms of a key scale with the mode “C Dorian sharp four”.

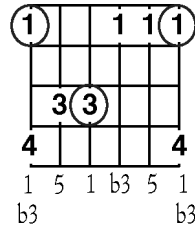
By thinking in C, you can retain the sense of key and use theme and variation to transition to the C7 chord that follows, using C Mixolydian or C Dorian (darker, bluesier) on the C7.

harmonic minor scale fingerings 6, 7 and 3 for Vm (Gm)

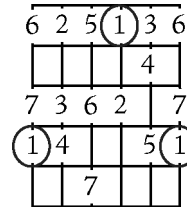
G minor pentatonic
subset of G Aeolian (Bb major)
fingering 1 III



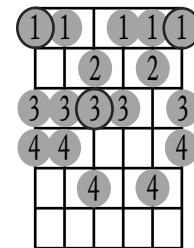
A minor
arpeggio III



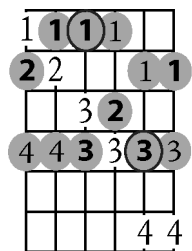
Bb major scale
fingering 6 III



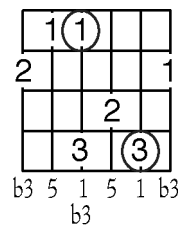
Bb major sharp five
fingering 6 V



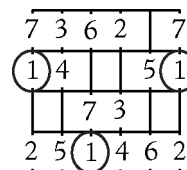
G minor pentatonic
subset of G Aeolian (Bb major)
fingering 2 V



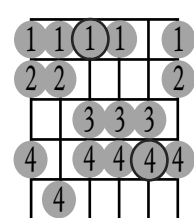
G minor
arpeggio V



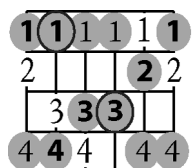
Bb major scale
fingering 7 V



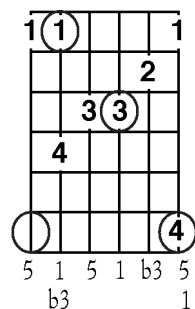
Bb major sharp five
fingering 7 V



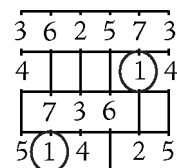
G minor pentatonic
subset of G Aeolian (Bb major)
fingering 4 X



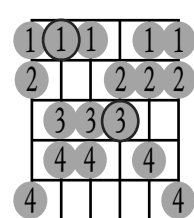
G minor
arpeggio X



Bb major scale
fingering 3 X



Bb major sharp five
fingering 3 X



Harmonic Minor to Major or Mixolydian Targets

For a dominant to tonic cadence (G7 to C7 or Dm7b5 G7 C7), use the bIII major sharp five scale (Eb major sharp five for a C tonic chord) to create a harmonic minor scale in the key of the tonic chord to target the root, third and fifth tones (core melodic) of the tonic chord.

voice leading the tones of harmonic minor V to I

<u>tones of V7b9</u>	<u>V tones in key of 1</u>	<u>voice lead V7b9 to I (various types)</u>
1	5	retain to become fifth of I
3	7	up to root of I
5	2	down to root of I
b7	4	up to fifth of I
b2	b6	down to fifth of I
b13(#5)	b3	down to ninth or root of I (or any Im tone)

In summary, resolve tones of V7b9 to the root or fifth of I or resolve the b7 of V to 3 of I. Prefer resolving to 5 with key scale b7, b6, 5 instead of 7, b6 5 (key scale tone b7 makes Vm7 and I Aeolian during the V chord).

jazz blues In C

Many of the examples in this section use Jazz Blues in C. The progression is shown below. You should also see [Modes/Modes On Jazz Blues](#) and especially [Jazz Blues Key Scales](#).

C7 (I7)	F7 (I7)	C7 (I7)	C7 (I7)
F7 (IV7)	F#dim7 (IV7)	C7 (I7)	A7 (VI7)
Dm7 (IIIm7)	G7 (V7)	C7 (I7) A7 (VI7)	Dm7 (IIIm7) G7 (V7)

Application Of Harmonic Minor Cadences

[Harmonic minor cadences](#) can be applied to any chord with a perfect fifth, with different degrees of effectiveness. The classic minor II V I cadence is most effective in jazz blues in the key of IIIm, using the VI chord (A7) in bar eight as a V of IIIm (Dm). In bar six, #IV diminished seven can be elaborated with V harmonic minor, suggesting the V minor part of I9. The I or IV chords can each be preceded with harmonic minor in the key of their root by emphasizing the tones of V7b9 in each harmonic minor scale. All of these will be covered in detail below.

Harmonic Minor before I , IV or V

harmonic minor dominants to I, IV and V

This is the most straight-forward use of harmonic minor in major keys (such as jazz blues) but not the most common. The most common use is II harmonic minor during VI7 preceding a IIm chord. Dominant chords are built on the fifth step of the scale named after the tonic. V7 (G7) is the dominant seventh chord for I (C or Cm). With secondary dominants, you precede a temporary tonic with its V chord, such as C7 before F, where C7 is V7 in the key of F. See [Secondary Dominant](#) and [Melodically Superimposed Cadences/Secondary Dominants](#).

In a bar immediately before I, play I harmonic minor (C harmonic minor), which is the mode on the sixth step of bIII major sharp five scale (Eb major sharp five scale). I harmonic minor can also be used in the middle of a long duration of I (such as bars three and four in a twelve bar blues), but make sure use it early enough to establish the resolution to I, before moving on to another chord.

modes of bIII (Eb) major sharp five scale for I (C) harmonic minor

Eb major sharp five	F Dorian sharp four	G Phrygian dominant (natural third)	Ab Lydian sharp two	Bb Mixolydian sharp one (B)	C Aeolian natural seven (harmonic minor)	D Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	#6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

In a bar immediately before IV (F), play IV harmonic minor (F harmonic minor), which is the mode on the sixth step of bVI major sharp five scale (Ab major sharp five scale). As with I harmonic minor, IV harmonic minor can also be used in the middle of a long duration of IV (such as bars five and six where they are both the IV chord). Use it early enough to establish the resolution to IV, before moving on to another chord.

modes of Ab major sharp five scale for IV harmonic minor

Ab major sharp five	Bb Dorian sharp four	C Phrygian dominant (natural third)	Db Lydian sharp two	Eb Mixolydian sharp one (E)	F Aeolian natural seven (harmonic minor)	G Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	#6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

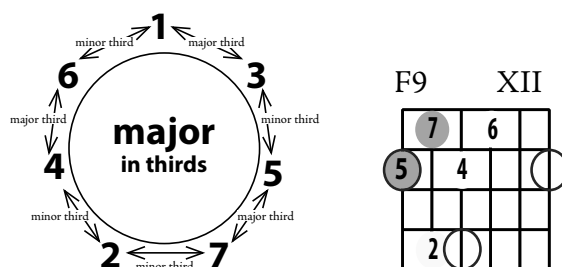
In a bar immediately before V (G), play V harmonic minor (G harmonic minor), which is the mode on the sixth step of bVI major sharp five scale (Bb major sharp five scale). As with I harmonic minor, V harmonic minor can also be used in the middle of a long duration of V (not available in a jazz blues). Use it early enough to establish the resolution to IV, before moving on to another chord.

modes of Bb major sharp five scale for IV harmonic minor

Bb major sharp five	C Dorian sharp four	D Phrygian dominant (natural third)	Eb Lydian sharp two	F Mixolydian sharp one (F#)	G Aeolian natural seven (harmonic minor)	A Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	#6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

theory summary: suggest the C minor part of F9 with C harmonic minor

F9 is built on the fifth step of a Bb major scale. It uses scale tones 5, 7, 2, 4, 6 of Bb major. As you probably know scale tones 2, 4, 6 of a major scale make up a IIm chord. In the diagram of a F9 arpeggio, the numbered tones of the Bb major scale with a white background, “2, 4 and 6” are the tones of the C minor chord.



The mode on the sixth step of Eb major sharp five is C harmonic minor. By using C harmonic minor in bar four, you can suggest that the next chord (in bar five) will be C minor, but it will in fact be F9 with C minor as part of it.

modes of Eb major sharp five scale for I harmonic minor

Eb major sharp five	F Dorian sharp four	G Phrygian dominant (natural third)	Ab Lydian sharp two	Bb Mixolydian sharp one (B)	C Aeolian natural seven (harmonic minor)	D Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	#6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

voice leading

Learn to voice-lead each tone of G7b9 to Cm to use before I7 and to voice-lead each tone of C7b9 to Fm before IV7. Use the voice leading table shown earlier. For the I7 chord (C7), voice-lead V7b9 to I in the key of I (G7b9 to C). For the IV7 chord (F7), voice lead V7b9 to I in the key of IV (C7b9 to F).

V Harmonic Minor in Bar Nine of Jazz Blues in C

theory summary: expect G minor, get G dominant seventh

Imply the Vm (Gm) version of the V chord in bar ten by playing V harmonic minor in bar nine with D7b9, the V dominant chord of G harmonic minor. In the modes of Bb major sharp five, the mode on the sixth step is G harmonic minor. Hearing G harmonic minor in bar nine, the listener would expect a G minor chord in bar ten, but will hear a G7 chord. See the table below:

modes of Bb major sharp five scale for V harmonic minor

Bb major sharp five	C Dorian sharp four	D Phrygian dominant (natural third)	Eb Lydian sharp two	F Mixolydian sharp one (F#)	G Aeolian natural seven (harmonic minor)	A Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	natural 6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

theory summary: C Dorian #4

The fifth, seventh and ninth of the F9 arpeggio are the root, third and fifth of Cm. As shown on the table above, F Mixolydian sharp one (Bb major sharp five, tone center on F#) can be thought in terms of a key scale with the mode “C Dorian sharp four”.

By thinking in C, you can retain the sense of key and use theme and variation to transition to the C7 chord that follows, using C Mixolydian or C Dorian (darker, bluesier) on the C7.

VI Harmonic Minor Before I or VI^m of Jazz Blues in C

theory summary: expect A minor, get A7

Imply the Am playing VI harmonic minor in bar seven with E7b9, the V dominant chord of A harmonic minor. In the modes of C major sharp five, the mode on the sixth step is A harmonic minor. Hearing A harmonic minor in bar seven, the listener would expect an A minor chord in bar eight, but will hear an A7 (or A7b9) chord. See the table below:

modes of C major sharp five scale for VI harmonic minor

C major sharp five	D Dorian sharp four	E Phrygian dominant (natural third)	F Lydian sharp two	G Mixolydian sharp one (G#)	A Aeolian natural seven (harmonic minor)	B Locrian natural six
#5	#4	natural 3	#2	#1	natural seven	natural 6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

theory summary: expect A minor, get C6

Imply the Am playing VI harmonic minor before any C7 with E7b9, the V dominant chord of A harmonic minor. In the modes of C major sharp five, the mode on the sixth step is A harmonic minor. The listener would expect an A minor chord, but will hear a C7 chord, which can easily be imagined as C6. C6 contains A minor. C6 has the notes "C, E, G and A", while A minor has "A, C and E. See the table above.

A Theory Summary for Every Major Sharp Five Mode

major sharp five is the parent scale for harmonic minor

Parent scales are major scales or major scales with a simple alteration. By using a major scale or simply altered major scale as a point of reference, we can use a well-known set of fingerings, scale-tone chords, and chord progression to relate to the modes of that scale. The parent scale for A harmonic minor is C major sharp five scale. By thinking of the modes we know of C major and sharpening the “G” on each of them, we can conceive the modes of C major sharp five, which has A harmonic minor on its sixth step. See the tables below, and [the modes of major sharp five in all keys](#).

C major	D Dorian	E Phrygian	F Lydian	G Mixolydian	A Aeolian	B Locrian
#5	#4	natural 3	#2	#1	natural seven	natural 6
1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7

theory summary: parent scale I major sharp five

This will represent the parent scale III augmented (key scale V augmented) with its synonym, parent scale I augmented (key scale bIII augmented).

The triad basis of C major sharp five is C augmented. Like diminished seventh chords, augmented triads are made from a repeating interval. Augmented triads are repeating major thirds. Augmented triads major third from the root to the third, a major third from the third to the sharpened fifth *and* a major third from the sharpened fifth to the octave. Since the intervals are all equal, any note in the augmented triad can be the root, making three synonyms. C augmented = E augmented = G# augmented.

The minor authentic V - I cadence uses III (E) of a parent major scale changed to major (which makes the parent scale major sharp five, since a three major triad uses scale tones 3, #5, 7) for the V chord and VI_m of the parent major scale for the I chord, as you can see below.

parent major by number →	I major	II Dorian	III Phrygian	IV Lydian	V Mixolydian	VI Aeolian	VII Locrian
parent major by letter →	C major	D Dorian	E Phrygian	F Lydian	G Mixolydian	A Aeolian	B Locrian
parent major sharp five by letter →	C major #5	D Dorian #4	E Phrygian natural 3	F Lydian #2	G Mixolydian #1 (G#)	A Aeolian natural seven (harmonic minor)	B Locrian natural six
parent major sharp five by number →	I major #5	II Dorian #4	III Phrygian natural 3	IV Lydian #2	V Mixolydian #1 (G#)	VI Aeo. nat. 7 (har. minor)	VII Locrian natural six
re-number for har- monic minor →	bIII major #5	IV Dorian #4	V Phrygian natural 3	bVI Lydian #2	VII Mixolyd- ian #1 (G#)	I harmonic minor (Aeo. nat. 7)	II Locrian natural six

The authentic V - I cadence (D to Am) can be modified to V augmented (E augmented) to Im. In terms of the parent scale, this cadence is III augmented to VI_m. Since III augmented (E augmented) = I augmented (C augmented), you could play I augmented (C augmented) and be playing the same notes as III augmented. So to emulate the cadence III augmented to VI_m of the parent scale (which is V augmented to Im in the key scale), you can think I augmented to VI_m (C augmented to VI_m). If such a cadence were composed into a piece, the bass would play III of the parent scale ("E"), while the melody treated the III augmented as I augmented, since they are synonyms.

The target key scale I chord can be changed to I dominant type (major with b7) or I major type (major with natural seven).

theory summary: parent scale II Dorian sharp four

Key scale VII diminished seventh is a synonym of V7b9 no root. Represent the key scale V7b9 to I minor cadence with II diminished seventh to I minor, since key scale VII[°]7 = II[°]7 (= IV[°]7 = VI[°]7)). In terms of the parent scale, VII[°]7, II[°]7, IV[°]7 and VI[°]7 are respectively #V[°]7, VII[°]7, II[°]7 and IV[°]7.

The key scale II diminished seventh ([°]7) to V augmented to Im (B dim. E aug. Am) cadence (see [theory summary: parent scale III Phrygian dominant](#)) could also be thought of as II[°]7 - I augmented - Im, since key scale V augmented (E augmented) is a synonym of I augmented (C augmented).

Use your vocabulary of Dorian phrases, but sharp the fourth, making Dorian sharp four. Play them in key scale IV (D Dorian sharp four before an Am target). Since they will represent VII diminished seventh ([°]7), bring out the tones of IV[°]7, which is a synonym of VII[°]7.

As usual, the target key scale chord doesn't have to be I minor, but can be I dominant type (major with b7) or I major type (major with natural seven).

The hybrid Aeolian and harmonic minor scale includes the notes of both. It is like Aeolian with both a flatted seventh and a natural seventh. This scale is not harmonizable in the traditional sense, but it is useful melodically. The mode on the fourth step of this scale would be Dorian *add sharp four*, and would have both four and sharp four in the key of the Dorian scale. Four and sharp four of the temporary Dorian key can be used in phrases that treat the sharp four as a flat five and avoid ascending from flat five (sharp four) up to five. Likewise, use of the hybrid Aeolian and harmonic minor scale should avoid ascending from natural seven to one, which is relatively the same pair of notes as its "Dorian add sharp four" modes' sharp four and five.

See also [Theory Summary: C Dorian Sharp Four](#).

theory summary: parent scale III Phrygian dominant

This is the classic V chord (E) of the authentic minor V - I cadence. See [harmonic minor dominants to I, IV and V](#) and [modes of bIII \(Eb\) major sharp five for I \(C\) harmonic minor](#).

Be sure to also explore the key scale II diminished seven to V augmented to Im (B dim. E aug. Am) cadence.

theory summary: parent scale IV Lydian #2

Use parent scale IVm(ma7), constructed with parent scale 4, #5 (proxies as b6), 1, b3. Or use the hybrid Aeolian and harmonic minor scale (see above) to create IVm9(ma7). In either case, the parent scale III augmented (= #V aug. = I aug.) part of the IVm(ma7) or IVm9(ma7) can cadence to the parent scale VIm. Elaborate with parent scale IV Lydian #2. In terms of key scale, this is bVI Lydian sharp two, with the cadence bVIm(ma7) to Im, where the bVIm(ma7) contains V augmented, emulating the V augmented Im cadence. The usual options for I7 and Ima7 target types apply.

Key scale VII diminished seventh (°7) is a synonym of V7b9 no root. Using the synonyms of diminished seventh chords in the major sharp five parent scale, VII°7 = II°7 = IV°7 = VI°7 (key scale #V°7, VII°7, II°7 and IV°7), represent the key scale VII diminished seventh (°7) to I minor cadence with IV diminished seventh to I minor.

The key scale II diminished seventh (°7) to V augmented to Im (B dim. E aug. Am) cadence could also be thought of as IV°7 - I augmented - Im, since key scale IV°7 (D°7) is a synonym of II°7 (B°7) and V augmented (E augmented) is a synonym of I augmented (C augmented).

theory summary: major parent scale V Mixolydian #1

See [theory summary: C Mixolydian sharp one](#), which uses the synonyms modes of major sharp five parent scale V Mixolydian sharp one and VI harmonic minor.

See [theory summary: F Mixolydian sharp one](#), which uses the synonyms modes of major sharp five parent scale V Mixolydian sharp one and VI harmonic minor in the key of V harmonic minor to suggest the V minor part of the I9 chord that the IV7b9 will resolve to.

theory summary: parent scale VI harmonic minor (Aeolian natural seven)

This is the same as the classic V chord (E) of the authentic minor V - I cadence discussed in [theory summary: parent scale III Phrygian dominant](#), but from the perspective of the target chord. The target is implied as a minor chord, using harmonic minor scale in the key of the target chord *before* the target chord, emphasizing its V7b9 tones.

See [harmonic minor dominants to I, IV and V](#) and [modes of bIII \(Eb\) major sharp five for I \(C\) harmonic minor](#).

Be sure to also explore the key scale II diminished seven to V augmented to Im (B dim. E aug. Am) cadence.

theory summary: parent scale VII Locrian natural six

Key scale VII diminished seventh ($^{\circ}7$) is a synonym of V7b9 no root.

The key scale II diminished seventh ($^{\circ}7$) to V augmented to Im (B dim. E aug. Am) cadence could also be thought of as IV $^{\circ}7$ - I augmented - Im, since key scale VII $^{\circ}7$ (G $^{\circ}7$) is a synonym of II $^{\circ}7$ (B $^{\circ}7$) and V augmented (E augmented) is a synonym of I augmented (C augmented).

More Harmonic Minor Theory Summaries

theory summary: voice leading with key scales

For both comping and soloing, thinking versions all of the scales named after the tone center ("C" in C jazz blues) can make it much easier to see relationships for theme and variation and for [voice leading](#). It is quite a chore to learn all of the modes as key scales (all in "C", for example), but worth the effort.

On the table "[harmonic minor modes used for secondary dominant \(V of I, IV, V, VI or IIm\)](#)", you can find a mode for every melodic minor scale that names it with the letter "C", for the key of "C".

Here is a key scale summary of the [harmonic minor mode table](#):

target tonic chord →	C7 tonic	F7 temp. tonic	G7 temp. tonic	A7 temp. tonic	Dm7 temp. tonic
key scale used during V7b9 of tonic	C harmonic minor	C Phrygian dominant	C Dorian sharp four	C major sharp five	C Mixolydian sharp one (C#)
implied tonic chord scale (usually changed at resolution)	C harmonic minor	F harmonic minor	G harmonic minor	A harmonic minor	D harmonic minor
V of tonic	G7b9	C7b9	D7b9	E7b9	A7b9
key scale formula	1, 2, b3, 4, 5, b6, 7 (of C)	1, b2, b3, b4, b5, b6, b7 (of C)	1, 2, b3, #4, 5, 6, b7 (of C)	1, 2, 3, 4, #5, 6, 7 (of C)	#1, 2, 3, 4, 5, 6, b7 (of C)
parent major #5 scale	Eb major sharp five	Ab major sharp five	Bb major sharp five	C major sharp five	F major sharp five

theory summary: pedal point triads

For both comping and soloing (as usual), you can create a wealth of harmonic and melodic structures based on scale-tone triads. If you're more excited about single-note soloing than comping (which is typical) be aware that the triad structures can be thought of a template to build single note melodic lines.

In Pedal Point Triads/Modal Triad Improv, you can learn to build chords and melodies with triads. It also directs you to [Scale-Tone Arpeggios and Pentatonics/Building Triad Arcs](#), where you can go through a set of the seven major scale in-position fingerings to get an overview of the full-fretboard triad structure.

Fingering Harmonic Minor Cadences for Jazz Blues in C

E form tonic (C7 in jazz blues in C)

Dm7b5 IX	G7b9 IX	C7 VIII	Cm7 VIII	Cma9 VIII	
C har. min. VII	Dm7b5 VII	G7b9 VII	C9 VI	Cm9 VIII	Cma9 VII

A form tonic (F7 in jazz blues in C)

Dm7b5 III	G7b9 III	C7 III	Cm7 III	Cma9 II	
F har. min. VII	Gm7b5 VIII	C7b9 VII	F9 VIII	Fm9 VIII	Cma9 III

D form tonic (A7b9 in jazz blues in C)

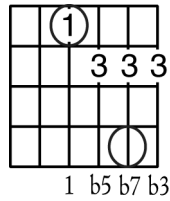
Bm7b5 VII	E7 VII	Ab7b9 X	A7 VII	Am7 VII	
A har. min. VII	Bm7b5 VII	E7b9 VII	A7b9 V	A9 V	Am9 V

G form tonic (Dm7 in jazz blues in C)

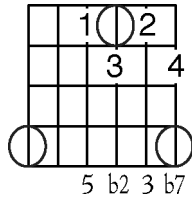
Em7b5 VII	A7 VII	Dm7 VII	D7 VII	Cma9 V	
D har. min. VI	Em7b5 VI	A7b9 V	Dm9 VII	D9 VII	Dma9 VII

C form tonic (G7 in jazz blues in C)

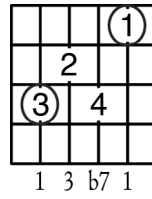
Am7b5 VII



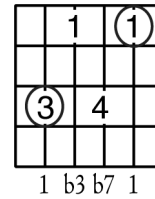
D7b9 VII



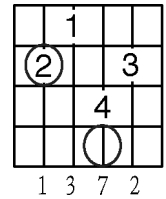
G7 VIII



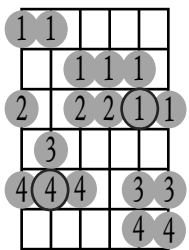
Gm7 VIII



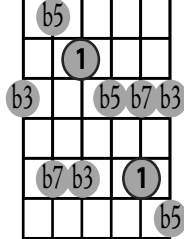
Gma9 IX



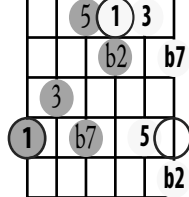
G har. min. VI



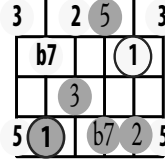
Am7b5 VI



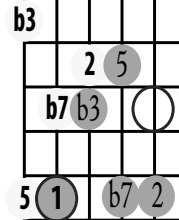
D7b9 VII



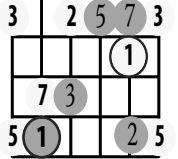
G9 VII



Gm9 VI



Gma9 VII



Harmonic Minor Cadences to Each Chord in Jazz Blues

Using a IIm7b5 to V7b9 cadence in the appropriate key, *every* chord in a jazz blues can be approached with a harmonic minor cadence. I'm using the term "grandparent" major here (upper left of the table) to refer to the major scale which was altered to produce the major sharp five scale (including the harmonic minor mode) on its sixth step.

table of harmonic minor modes used for secondary dominant (V) of I, IV, V, VI or IIm

See Modal II-V-I Cadences and Turnarounds/[Secondary Dominant](#) and Melodically Superimposed Cadences/[Secondary Dominants](#).

altered tone of grandparent major scale →		#5	#4	natural 3	#2	#1	natural seven	natural six
mode formula	→	1-2-3-4-#5-6-7	1-2-b3-#4-5-6-b7	1-b2-3-4-5-b6-b7	1-#2-3-#4-5-6-7	#1,-2-3-4-5-6-b7 (of the original Mixolydian)	1-2-b3-4-5-b6-7	1-b2-b3-4-b5-6-b7
target tonic chord ↓	key scale ↓	mode I of major sharp five	mode II of major sharp five	mode III of major sharp five	mode IV of major sharp five	mode #V of major sharp five	mode VI of major sharp five	mode VII of major sharp five
C7 (I7) or Cm as secondary root of F9	C harmonic minor	Eb major sharp five	F Dorian sharp four	G Phrygian dominant (natural third)	Ab Lydian sharp two	Bb Mixolydian sharp one (B)	C Aeolian natural seven (harmonic minor)	D Locrian natural six
F7 (IV7)	C Phrygian sharp two	Ab major sharp five	Bb Dorian sharp four	C Phrygian dominant (natural third)	Db Lydian sharp two	Eb Mixolydian sharp one (E)	G Aeolian natural seven (harmonic minor)	A Locrian natural six
G7 (V7)	C Dorian sharp four	Bb major sharp five	C Dorian sharp four	D Phrygian dominant (natural third)	Eb Lydian sharp two	F Mixolydian sharp one (F#)	G Aeolian natural seven (harmonic minor)	A Locrian natural six
Dm7 (IIm7)	C Mixolydian sharp one (C#)	F major sharp five	G Dorian sharp four	A Phrygian dominant (natural third)	Bb Lydian sharp two	C Mixolydian sharp one (C#)	D Aeolian natural seven (harmonic minor)	E Locrian natural six
A7 (VI7) or Am as secondary root of C	C major sharp five	C major sharp five	D Dorian sharp four	E Phrygian dominant (natural third)	F Lydian sharp two	G Mixolydian sharp one (G#)	A Aeolian natural seven (harmonic minor)	B Locrian natural six

MELODIC MINOR CADENCES

See also: [Harmonic Minor Cadences](#).

Melodic minor cadences work better to major targets. Of the minor modes, melodic minor resolves best to Phrygian, like in Night In Tunisia. See [Prime Scales, Chords and Arpeggios/Melodic Minor Scale Fingerings](#).

Practicing the bVIIm9(ma7)-bII13#11 Cadence

As you practice the material in this section, begin to look forward to the theory shown in the remainder of this Harmonic Minor Cadences section. Be sure to read [Cadence Defined](#) and [Secondary Dominants](#) first.

See [Progressions For Study With Harmonic Minor And Melodic Minor](#) for suggested songs to study.

the modes of melodic minor

We will be using modes on five steps of melodic minor. See [Modes/Modes Of Four Heptatonic Scales/Melodic Minor Modes \(major b3\)](#).

Mode One. You'll need to quickly find the melodic minor scale you intend on using just before the target chord. You should learn to find it multiple ways, mostly related to the modes of melodic minor. The melodic minor scale you will use on your target chord is on the flatted sixth (b6) of your target. This is a half step above the fifth of your target. The flatted sixth of your target is also a major third below the target.

Super Locrian. In relation to [Secondary Dominants](#), the most important melodic minor mode is super Locrian, which is on the fifth of your target. On the bass strings (the largest, 4, 5 and 6), this would be on the same fret of the next larger string in relation to your target or on the next smaller string, two frets higher.

Cadences. In relation to cadences, the most important melodic minor modes are one (discussed above) and four. Mode four is Lydian dominant, which is the same as Mixolydian sharp four, since it has sharp four and flat seven. See [Lydian Dominant And The Flat Five Substitute](#), below.

The bVIIm9(ma7)-bII13#11-I cadence (Abm9-Db13#11-C for a "C" target) mimics the II V I cadence based on the major scale. This is not commonly used, but is very effective. I love it when that happens!

Lydian Dominant And The Flat Five Substitute. A flat five substitute uses a chord on the flatted second (b2) of the target, instead of on the fifth (5). See [Substitution/The Flat Five Substitute](#) and [Flat Five Substitute Chord Progression](#).

bVIIm9(ma7) bII13#121 in chords before I VIm II V

The Way You Look Tonight in F

		I Fma7 V		VIm Dm7 V																															
bVI of I	bII of I	II dim7 Gdim7 VI	bVI of VI	bII of VI																															
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Isn't She Lovely

I C#m7 IX	VIm F#9 VIII	IIIm B13sus4 IX	V E IX																																																																				
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Melodic Minor is Major Flat Three

While harmonic minor scale is a dramatized version of Aeolian mode (see [Harmonic Minor Is Mode VI Of Major Sharp Five](#)), melodic minor is more of a normalized minor scale to counter-act the commonly used harmonic minor. In European classical music, melodic minor has a traditional ascending form that is the major scale with a flat three. Its descending form is the same as Aeolian (natural minor) with flat three, flat six and flat seven. In jazz, melodic minor is used as major flat three, ascending or descending.

the modes of melodic minor in all keys

mode of melodic minor	major flat three	Dorian flat two	Phrygian flat one	Lydian flat seven (Mixolydian sharp four)	Mixolydian flat six	Aeolian flat five	Locrian flat four (super Locrian)
summary chord	m9(ma7)	m7/6/11	m7b1 ma9#5	13#11	11	m11b5	7#5b5#9b9
7th and 246	m(ma7) -246	m7-b246	ma7#5-2#46	7-2#46	7-24b6	m7b5-24b6	m7b5-b2b4b6
alteration of grand parent major	b3	b2	b1	b7	b6	b5	b4
formula	1-2-b3-4-5-6-7	1-b2-b3-4-5-6-b7	b1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-b7	1-2-3-4-5-b6-b7	1-2-b3-4-b5-b6-b7	1-b2-b3-b4-b5-b6-b7
	C	D	Eb	F	G	A	B
	G	A	Bb	C	D	E	F#
	D	E	F	G	A	B	C#
	A	B	C	D	E	F#	G#
	E	F#	G	A	B	C#	D#
	B	C#	D	E	F#	G#	A#
	F#	G#	A	B	C#	D#	E#
	C#	D#	E	F#	G#	A#	B#
	F	G	Ab	Bb	C	D	E
	Bb	C	Db	Eb	F	G	A
	Eb	F	Gb	Ab	Bb	C	D
	Ab	Bb	Cb	Db	Eb	F	G
	Db	Eb	Fb	G	Ab	Bb	C
	Gb	Ab	Bbb	Cb	Db	Eb	F

Think in the Most Relevant Melodic Minor Mode

this will be a challenge in memorization

Stick with one fingering for hours, until you can freely improvise with it. Strengthen that memory with multiple perspectives by using many modes of the fingering. That will make you harmonically more fluent as well.

melodic minor modes, rather than melodic minor itself

In jazz and other styles that use melodic minor improvisationally, melodic minor is typically not used in the key of the melodic minor scale. Instead, modes of melodic minor are used, mostly modes IV, VI and VII of melodic minor.

multiple modes are better

The most fluent and interesting improvisers like Art Tatum, Charlie Parker, Joe Pass, Pat Martino, Chick Corea, Keith Jarrett and George Benson make free-form melody that shows resources from a great many modes. Being able to think in multiple modes allows making more theme and variation relationships by playing with common roots involving substitute chords and their modes.

In melodic minor, at least learn to think in modes IV, VI and VII, which are respectively on bII, IV and V of your target.

you need to know all the modes for cadences with inversions

A descending number series occurs when you look at the alterations of the major scale modes that occur when you alter a tone of the major scale, then look in ascending order of modes (I, II, III, etc.) and which numbered tone is altered. That is shown in the table below for melodic minor.

major scale modes →	major	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
mode of melodic minor	major flat three	Dorian flat two	Phrygian flat one	Lydian flat seven (Lydian Dominant)	Mixolydian flat six	Aeolian flat five	Locrian flat four (super Locrian)
alteration of grand parent major	b3	b2	b1	b7	b6	b5	b4
formula	1-2-b3-4-5-6-7	1-b2-b3-4-5-6-b7	b1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-b7	1-2-3-4-5-b6-b7	1-2-b3-4-b5-b6-b7	1-b2-b3-b4-b5-b6-b7
harmonic use	Im(ma7) IV7 cadence	IIIm7 = IV6	thinking in the key of the target	bII13#11 of the target	V chords of target with b6 of mel. min. bass	secondary root on the third of bII13#11	super-altered V chords

deciding which mode to focus on

You may know one of the modes better. It may be easy for you to think in Mixolydian and sharp the four. This would be on bII of your target.

Or, you may have a blues background and find it easiest to think in a minor key with b5, using Aeolian b5. This would be on IV of your target.

If you are thinking in terms of altered V chords, you may want to think in terms of super Locrian on V of your target, as elaborated below.

the super Locrian basis

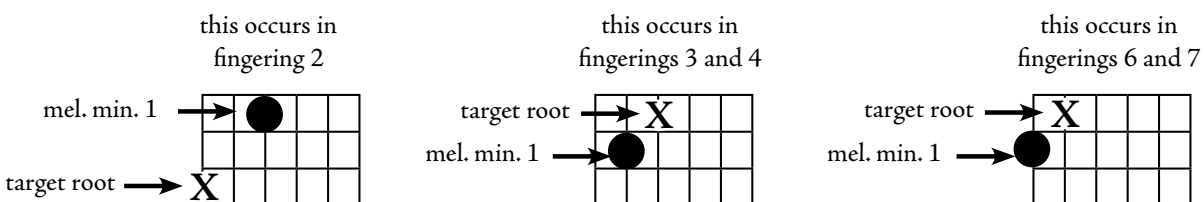
In jazz, melodic minor is mainly used to sound a super-altered V chord. I call this chord the *Swiss army seventh chord*. It is a seventh chord with sharp and flat five, sharp and flat nine, written 7b5#5b9#9. Of all the modes of seven-tone scales, only one has the notes of this chord (of course, all modes are unique). That is the mode on the seventh step of melodic minor scale.

Relating Melodic Minor Modal Tone Centers to the Target Root

The melodic minor tone center ("1") is a point of reference from which to build its modes. It is usually not played in the key of the chord which it is targeting.

graphically relating melodic minor 1 and the target root

The melodic minor scale you're using is on the flat sixth of the target. Looking at in from the perspective of the melodic minor tone center (mode I), the target is a major third above it, though it has a flat third. On the bass strings, a major third has a diagonal shape, making one of the shapes below.

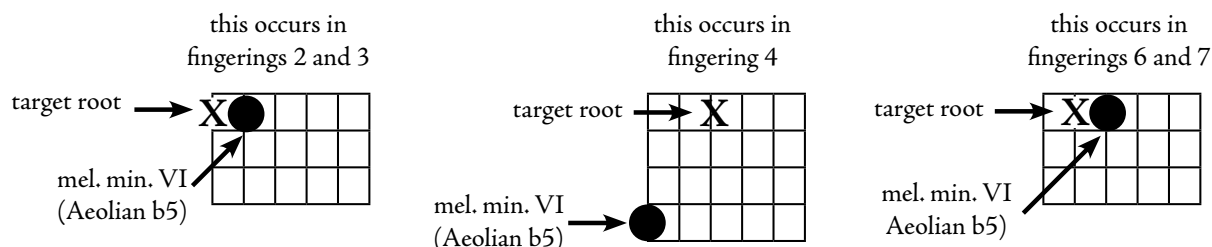


graphically relating Lydian dominant and the target root

Mode IV of the melodic minor scale is Lydian dominant (Lydian mode with flat seven). It is to be used on "b2" of the target. This is easy to visualize, since the tone center for melodic minor IV is a half step above the target root. See the diagrams on the table below and note the one-fret relationship between the circled tone center of melodic minor IV and the target root (marked "X").

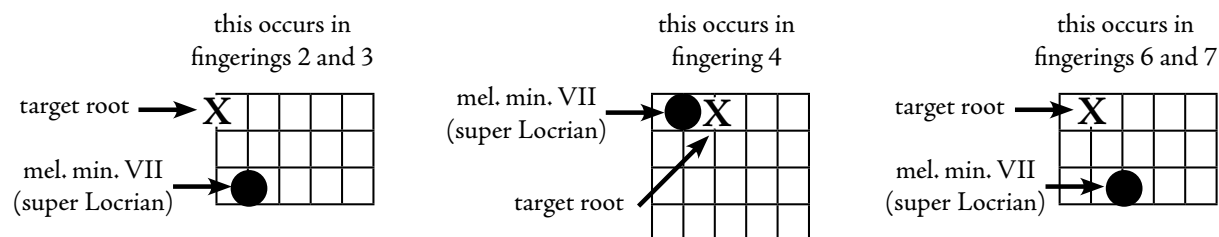
graphically relating Aeolian flat five and the target root

Mode VI of melodic minor is Aeolian flat five. It should be used on IV of the target. So it will be either a perfect fourth above the target or a perfect fifth below (which is the same note).



graphically relating super Locrian and the target root

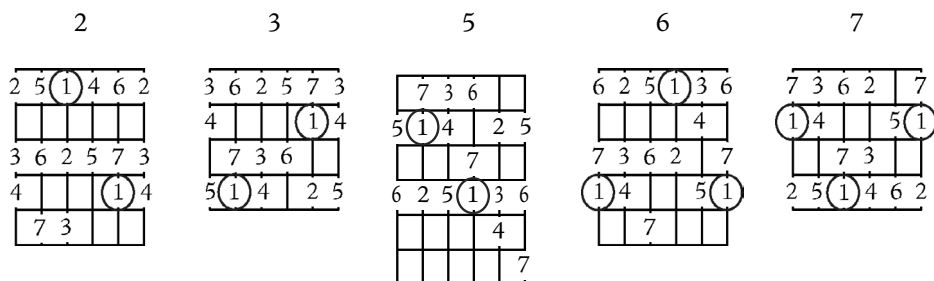
Mode VII of melodic minor is super Locrian. It should be used on V of the target. So it will be either a perfect fifth above the target or a perfect fourth below (which is the same note).



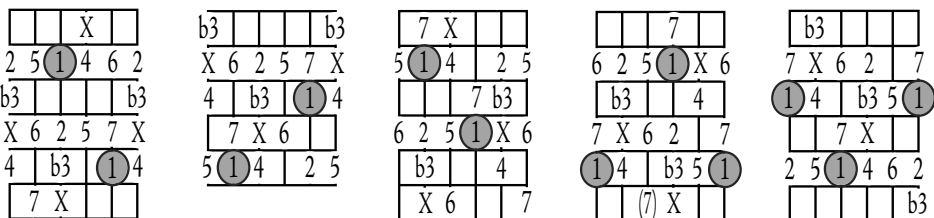
graphic relationships of useful melodic minor modes to the target root

fingering number →

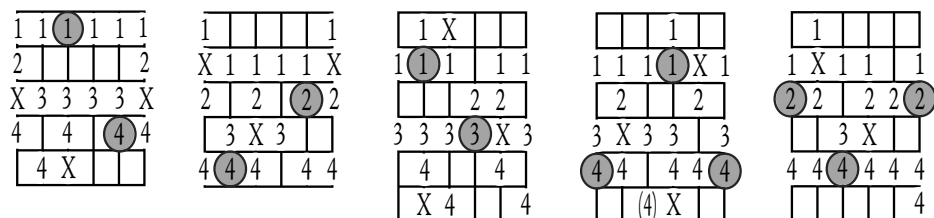
major scale



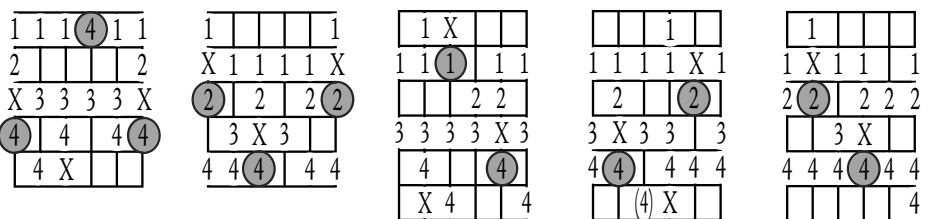
I melodic minor with
scale-tone numbers
"X" is target



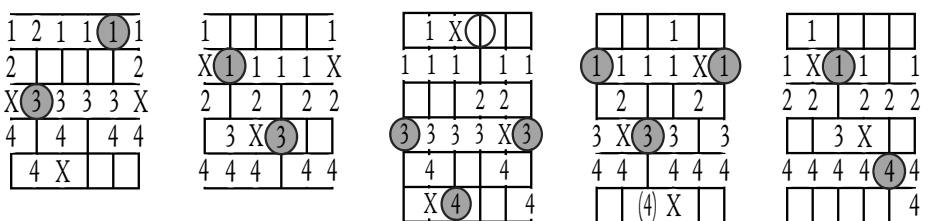
I melodic minor with
finger numbers
(tone center circled)
"X" is target



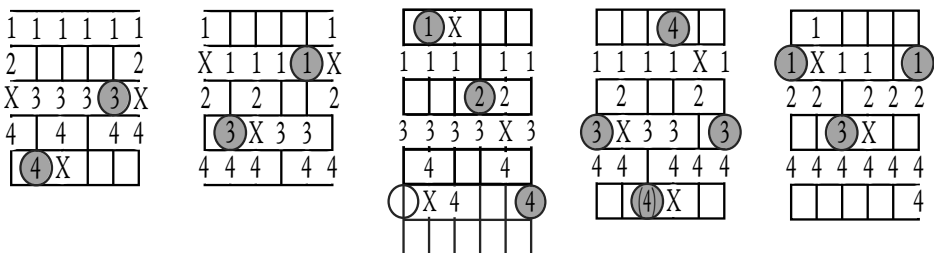
IV Lydian dominant
(finger numbers, tone
center circled)
"X" is target



VI Aeolian b5
(finger numbers, tone
center circled)
"X" is target



VII super Locrian
(finger numbers, tone
center circled)
"X" is target



Aural Melodic Minor Improv

IV Aeolian b5, V Super Locrian and bII13#11

use these three steps:

1. improvise with bluesy IV Aeolian flat five
2. improvise with super Locrian, resolving to the target triad
3. voice-lead with bII13#11 to the target triad

See [melodic minor scale fingerings 6, 7 and 3](#).

For the I chord (C7) in a blues in C, learn to use Ab melodic minor (b6 of C) during the Db7 chord in Db7 to C7.

For the IV chord (F7) in a blues in C, learn to use Db melodic minor (b6 of F) during the Gb7 chord in Gb7 to F7. Then use Db melodic minor on Dbm9(ma7) Gb7 and F Mixolydian (same notes as C Dorian) on the F7.

1. improvise with bluesy IV Aeolian flat five, resolving to the target triad

Before actually using the IV Aeolian b5, establish a blues-based style.

If in a minor key, Begin your improv with minor pentatonic and elaborate to the minor mode, Aeolian or Dorian, as appropriate.

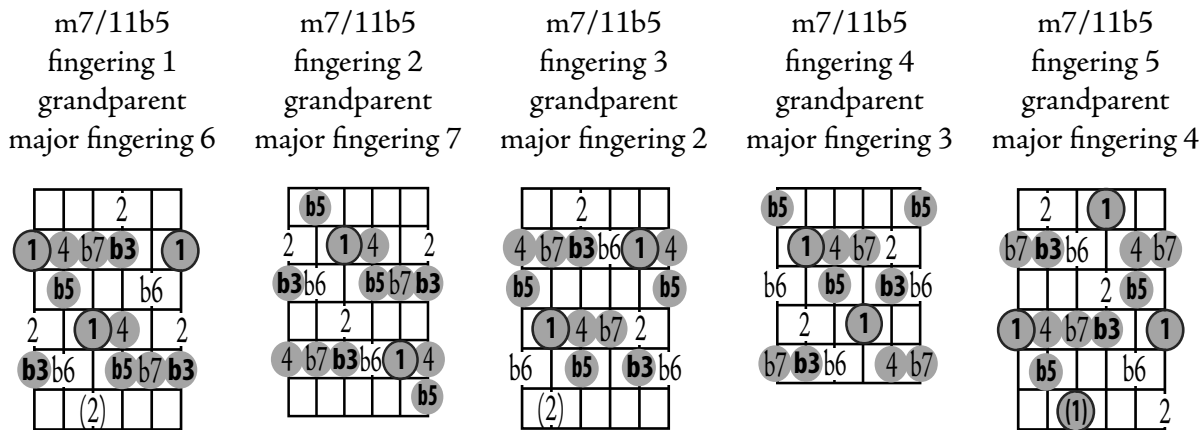
If in a major key, also use minor pentatonic. Slur flat three to natural three, use occasional flatted thirds as a blue note. In some cases, use natural three instead of flat three. If you are in major mode and have a natural seven in the key scale, use some blue note flat sevens.

If in a major key, combine minor pentatonic and major pentatonic. This combination is the basis of B.B. King's style, as adopted by Eric Clapton and countless others. Use [Minor Pentatonic Blues Rock Cells](#) as a resource. They are written in G minor, so you'll need to move them up a whole step (two frets toward the body of the guitar). Use [Major Pentatonic Swing Cells](#) as a resource. They are written in G major, so you'll need to move them up two and a half steps (five frets toward the body of the guitar) or down three and a half steps (seven frets toward the head of the guitar).

IV Aeolian flat five (on the four of your target) can be very effective in sharing memories of bluesy minor melodies with a flat five with your listeners (on IV of the target). These are likely familiar to you and your listeners. Using the melodic minor with its super Locrian mode on the fifth of your target can

also be thought of as Aeolian flat five on the fourth of the target. If your target chord is C7, F Aeolian flat five on the fourth of C has the same notes as G super Locrian on the fifth of C.

Here are minor 7/11b5 pentatonic (minor pentatonic with a flat five) subsets of Aeolian flat five. Locate the circled tone center on IV of your target.



2. improvise with V super Locrian, resolving to the target triad

Do this aurally and intuitively at first, before engaging your left brain into much thought in numbers and letters. Think of melodic minor first in terms of the super Locrian tone center on its seventh step. This is the fifth of your target. In the super Locrian scale on V of your target, locate the half-whole-half and five-note whole step parts and use them to bring out the character of each.

Learn versions of altered seventh chords, including 7#5, 7b5, 7#9, 7b9, 7#5#9, 7b5#9, 7b5b9 and use parts of them rooted on the super Locrian tone center in your melody. With the “flat all” formula of super Locrian (1-b2-b3-b4-b5-b6-b7), the flat four proxies as (acts as) a natural three. The flat two and flat three function as flat nine and sharp nine (b3 = #2 = #9). The flat sharp six proxies as sharp five. Along with the flat four acting as a natural three, the scale has the tones 1, 3, b5 and 7 to make a seventh flat five chord. With the other tones, it has all the tones of 7b5#5b9#9.

3. voice lead with bII13#11 to the target triad

Another melodic minor mode makes a colorful chord on the flat two of your target. For a C7 target, this would be bII (Db) Lydian flat seven, which makes the chord Db13#11. The root triad part of II(Db)13#11 (its root, third and fifth) is very important in [voice leading](#) to the target chord. Each note progresses down to its target chord tone.

Voice lead arpeggio tones of bII13#11 (Db13#11) to the root, third and fifth of your target. If the target chord is major, each tone of the bII triad progresses down a half step (one fret) and the third can optionally resolve up a whole step (two frets). If the target chord is minor, the only change is the third [voice leading](#) down a whole step.

flat five substitute

In addition to providing the Swiss army seventh chord, melodic minor allows a set of synonym chords. Most of the Swiss army seventh chords based on $V7b5\#5b9\#9$ ($G7b5\#5b9\#9$) have alternate names as parts of $bII13\#11$ ($Db13\#11$). Basically, use the super Locrian V type ($G7b5\#5b9\#9$) for scalar ideas and chunks of chords (see “use Swiss army seventh chord fingerings below). Use the bII type ($Db13\#11$) for arpeggio ideas. See [Flat Five Substitute Chord Progression](#).

if the setup chord is bII , think Lydian flat seven first

If the chord in the accompaniment actually is bII of the target, such as $Db7$ before $C7$, think Lydian flat seven (Db Lydian $b7$) first. That reverses the order of priority shown earlier:

- ✦ Lydian flat seven on the flat two of your target chord
- ✦ Aeolian on the fourth of your target
- ✦ super Locrian on the fifth of your target

melodic minor scale fingerings 6, 7 and 3

The target chord below is Cma7, C7 or Cm7. Also see [harmonic minor scale fingerings 6, 7 and 3](#) based on the same parent major scale fingerings.

<p>Ab major scale fingering 6 I</p>	<p>Ab major flat three fingering 6 I</p>	<p>F Aeolian b5 I</p>	<p>Db9 arpeggio I</p>	<p>target chord Cma9 II</p>	<p>target chord C9 II</p>	<p>target chord Cm9 I</p>
<p>Ab major scale fingering 7 III</p>	<p>Ab major flat three fingering 7 III</p>	<p>F Aeolian b5 II</p>	<p>Db9 arpeggio II</p>	<p>target chord Cma9 III</p>	<p>target chord C7 III</p>	<p>target chord Cm7 III</p>
<p>Ab major scale fingering 7 VIII</p>	<p>Ab major flat three fingering 7 VII</p>	<p>F Aeolian b5 VI</p>	<p>Db9 arpeggio VII</p>	<p>target chord Cma9 VIII</p>	<p>target chord C7 CIII</p>	<p>target chord Cm7 VIII</p>

Voice Leading the Tones of Melodic Minor IV13#11

	<u>voice lead</u>	<u>interval</u>
1	down	half step
3	up or down	down half, up whole
5	down	half step
b7	up	up half
2	down	minor third (or half)
#4	retain	(or to 5 then down half)
6	retain	(or to b7 then up half)

It's most important to voice lead the root, third and fifth of the bII7 chord (Db7 before tonic C) down a half step, with an option of the third resolving up a whole step.

Think bII bVI In The Key Of The Target Chord

In the key of the target chord, think of the melodic minor Im9(ma7) IV9 cadence as bIIIm9(ma7) bVI9. Melodic minor cadences are shown below in every key.

target chord key ↓	melodic minor key	mel. minor I bII of target	mel. minor I bVI of target
A	A	Bbm9(ma7)	Fb(E)13#11
Bb	Bb	Cbm9(ma7)	Gb13#11
B	B	Cm9(ma7)	G13#11
C	C	Dbm9(ma7)	Ab13#11
C#	C#	Dm9(ma7)	A13#11
Db	Db	Ebb(D)m9(ma7)	Bbb(A)13#11
D	D	Ebm9(ma7)	Bb13#11
Eb	Eb	Fb(E)m9(ma7)	Cb 13#11
E	E	Fm9(ma7)	C 13#11
F	F	Gbm9(ma7)	Db 13#11
F#	F#	Gm9(ma7)	D 13#11
Gb	Gb	Abb(G)m9(ma7)	Ebb(D) 13#11
G	G	Abm9(ma7)	Eb 13#11
Ab	Ab	Dbm9(ma7)	Eb 13#11

Voice Leading bII Tones to I

melodic minor arpeggios with voice leading

Each tone of the bII resolves down one fret. Optionally, the third of the bII chord ("F" in the Db7) can resolve up a third to the fifth of the tonic C7. Extensively practice resolving from each tone of the bII chord to a tone of the I chord. Memorize a library of phrases that employ resolution from the root, third and fifth of the bII (Db7) to the root, third and fifth of the I tonic (C7). Similarly practice resolving in the key of IV (F) with Gb7 to F7.

jazz blues In C

Many of the examples in this section use Jazz Blues in C. The progression is shown below. You should also see [Modes/Modes On Jazz Blues](#) and especially [Jazz Blues Key Scales](#).

C7 (I7)	F7 (I7)	C7 (I7)	C7 (I7)
F7 (IV7)	F#dim7 (IV7)	C7 (I7)	A7 (VI7)
Dm7 (IIIm7)	G7 (V7)	C7 (I7) A7 (VI7)	Dm7 (IIIm7) G7 (V7)

melodic minor "I IV" cadences

C9 is the target chord, using a Im(ma7) IV9 (Abm [ma7] Db9) cadence in Ab melodic minor. Db Lydian dominant is mode IV of Ab melodic minor, as you can see in the table below.

modes of Ab melodic minor scale used for Db Lydian dominant

Ab melodic minor	Bb Dorian flat two	C Phrygian flat one (Cb)	Db Lydian flat seven (Lydian dominant)	Eb Mixolydian flat six	F Aeolian flat five	G Locrian flat four (super locrian)
b3	b2	b1	b7	b6	b5	b4
1-2-b3-4-5-6-7	1-b2-b3-4-5-6-b7	b1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-b7	1-2-3-4-5-b6-b7	1-2-b3-4-b5-b6-b7	1-b2-b3-b4-b5-b6-b7

A Theory Summary for Every Melodic Minor Mode

The target key scale chord doesn't have to be I minor, but can be I dominant type (major with b7) or I major type (major with natural seven).

theory summary: melodic minor contains a super-altered dominant

Im(ma7) begins the I IV melodic minor cadence (Abm[ma7] - Db7 to C target), which can elaborate on the bII chord before the target I chord. I melodic minor is chord scale that elaborates on the Im(ma7) that occurs as a secondary root on the fifth of IV13#11.

The melodic minor scale was chosen for jazz improv because of its super Locrian mode. We needed a super-altered dominant chord with flat five, sharp five flat nine and sharp nine, yet still with a major third and a flattened seventh. That calls for seven specific notes. Only one mode has those: melodic minor mode seven, commonly called super Locrian.

Thinking in melodic minor is based on using a super-altered V chord in authentic minor V - I cadence with V7b5#5b9#9 (G7b5#5b9#9), but from the perspective of the target I chord (Am). See theory summary: melodic minor VII (super Locrian).

Remember, the target key scale chord doesn't have to be I minor, but can be I7 type (major with b7) or Ima7 (major with natural seven).

theory summary: Dorian flat two

The [flat five substitute](#) for the key scale V - I authentic cadence is bII - I. Use the synonym bII6 = bVIIIm7 (Db6 = Bbm7) as a basic for use of key scale bVII Dorian flat two. In terms of the bVI melodic minor parent scale, this is II Dorian flat two.

Especially resolve the key scale bII triad to the I triad, where the bII triad is the root, third and fifth of bVIIIm7. In addition to resolving those tones, generally emulate key scale bVIIIm7 to VIm7, which is a synonym of I6. Key scale IVm7b5 - bVIIIm7-VIm7 (= I6) is a cool cadence.

Use your library of Dorian licks and flat the two. For jazz blues in C (or most any jazz tune in C), use Bb Dorian b2 emulate a Db13#11 chord for up to two seconds before a C chord.

theory summary: Phrygian flat one

This is a useful theme and variation perspective. Key scale bVI melodic minor emulates the key scale V7b5#5b9#9 (Swiss army, super-altered) and its [flat five substitute](#), the key scale bII13#11. Key scale I Phrygian flat one (C Phrygian flat one, on Cb) is a mode of key scale bVI melodic minor (Ab melodic minor). It can be used to conceive theme and variation that ambiguously suggests the Cm or Cm7 of C Phrygian, but with a flat one (Cb) while emphasizing tones of key scale V7b5#5b9#9

or bII13#11. The theme can then be restated when you follow onto the tonic I chord and change the mode of the theme to the appropriate one for the tonic chord (I Mixolydian for a I7 chord, for example).

theory summary: Lydian flat seven (Lydian dominant)

This is the classic [flat five substitute](#) mode. Subsets of key scale IV13#11 (like IV9) make numerous synonyms of subsets of VII7b5#5b9#9 (like VII7b5#5b9 no root). The IV13#11 is used in key as bII13#11 and the VII7b5#5b9#9 as V7b5#5b9#9. These are based on the synonym IV7b5 = VII7b5.

The melodic minor Im9(ma7) - IV13#11 (or subset such as IV9) is very effective with this mode. See [Fingering Melodic Minor Cadences](#).

theory summary: Mixolydian flat six

The root, third and flat six (b13 or #5) of the key scale bIII chord is an augmented triad and is a synonym for key scale V augmented. Make use of that as a synonym for an authentic V augmented - I cadence.

Tone five of melodic minor is a major third below the root of the super-altered (Swiss army) family of chords rooted on the seventh step of melodic minor (see [melodic minor VII](#), below). So, it can function as a root in the same manner that Am (A-C-E) over "F" is Fma7. This produces hypothetical names like G7#9/Eb, where Eb is the fifth of Ab melodic minor and G7#9 is one of the altered seventh chords on mode VII of melodic minor.

theory summary: Aeolian flat five on the third of bII9

Theory summaries allow you to tap whole genres of melody and repurpose them in a manner very understandable to the listener. In this case, you can play your minor key (Aeolian) blues ideas with a flat five (Aeolian flat five) and be using the notes of melodic minor without having to think melodic minor at first.

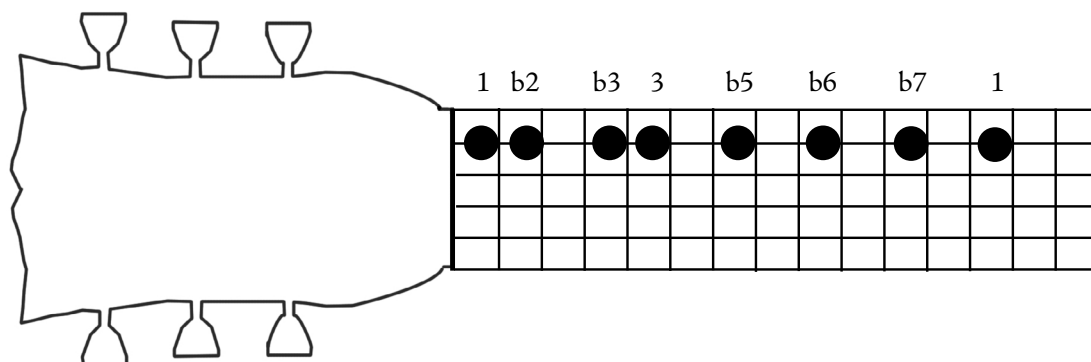
F can be a [secondary root](#) on the third of Db9, using Fm7b5 as a partial Db9. Db9 without its root has the same notes as Fm7b5. To then elaborate on Fm7b5, use F Aeolian flat five, mode six of Ab melodic minor. The result is the same notes as Ab melodic minor or Db Lydian dominant but stylized as dark minor blues. You can see the examples of Aeolian flat five for each chord of a C jazz blues on [the table "melodic minor modes used for bII Lydian dominant of each target"](#).

Key scale IVm7b5 - bVIIIm7 - VIIm7 (= I6) is a cool cadence. See [theory summary: Dorian flat two](#).

theory summary: melodic minor VII (super Locrian)

The fingering for super Locrian is half-whole-half steps, followed by five notes a whole step apart. The formula for super Locrian is 1-b2-b3-b4-b5-b6-b7. Thinking of flat four as natural three, there is a note a half step above the tone center ("b2" is a half step above "1") and a note a half step below three (b3 is a half step below b4, which is 3). From three ("b4") up to one, it is five notes in whole steps: 3, b5, b6,

b7 and 1. On a single string, it looks like this (from the players perspective, looking down at their own guitar):



I call the super-altered key scale V chord ($G7b5\#5b9\#9$) created by super Locrian the *Swiss army seventh chord*. In your improv with this scale, you can think of chord fingerings such as $G7\#5\#9$ or $G7b5b9$ as a graphic template for melody. Elaborate on notes in the chord in single note melody.

By thinking in super Locrian, you'll suggest the super-altered V chords. Thinking of A^b melodic minor in terms of its mode VII, G super Locrian before a C7 chord suggests part or all of the super-altered (Swiss army) $G7b5\#5b9\#9$ chord.

A similar mode occurs on the third step of major flat six scale: Phrygian flat four. Because of its similarity to super Locrian, I call it "super Phrygian". It has all the same notes as super locrian, but has a perfect fifth rather than a flatted fifth. So, it has the notes to make a flat nine and sharp nine but only a sharpened fifth, not a flatted fifth.

More Melodic Minor Theory Summaries

theory summary: half-whole-half

The super Locrian scale starts with the interval pattern half step, whole step, half step, which makes one of the most popular four-note [melodic cells](#) in jazz improv. This half-whole-half pattern is steps seven, one two flat three of harmonic minor, melodic minor and Phrygian flat four (super Phrygian, mode three of major flat six scale).

Half-whole-half also occurs with the hybrid Aeolian and harmonic minor (1-2-b3-4-5-b6-b7-7) with tones 7-b7-b6-5. Other instances of half-whole-half occur at the transition from one scale to another, such as descending 5- $\#4$ -3 (A^b -G-F) of D^b Lydian dominant (Lydian flat seven, mode four of melodic minor) to the third of C ("E").

theory summary: **voice leading with key scales**

For both comping and soloing, thinking versions all of the scales named after the tone center (“C” in C jazz blues) can make it much easier to see relationships for theme and variation and for **voice leading**. It is quite a chore to learn all of the modes as key scales (all in “C”, for example), but worth the effort.

On the table “**melodic minor modes used for bII Lydian dominant of each target**”, you can find a mode for every melodic minor scale that names it with the letter “C”, for the key of “C”.

Here is a key scale summary of the **melodic minor mode table**:

target tonic chord →	C7 tonic	F7 temp. tonic	G7 temp. tonic	A7 temp. tonic	Dm7 temp. tonic
key scale used during (bVIm) bII cadence (flat five substitute)	C Phrygian flat one (Cb)	C Locrian flat four (super locrian)	C Phrygian flat one (Cb)	C Mixolydian flat six	C Dorian flat two
key scale formula	b1-b2-b3-4-5-b6-b7	1-b2-b3-b4-b5-b6-b7	b1-b2-b3-4-5-b6-b7	1,-2-3-4-5-b6-b7	1-b2-b3-4-5-6-b7
authentic V of tonic or temporary tonic	G7b5#5b9#9	C7b5#5b9#9	D7b5#5b9#9	E7b5#5b9#9	A7b5#5b9#9
parent melodic minor	Ab melodic minor	Db melodic minor	Eb melodic minor	F melodic minor	Bb melodic minor

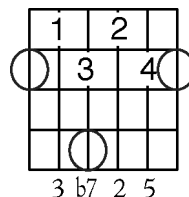
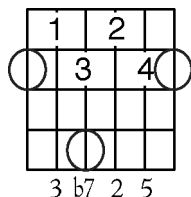
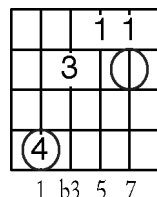
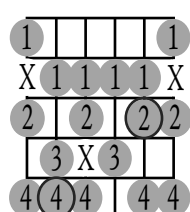
theory summary: **pedal point triads**

For both comping and soloing (as usual), you can create a wealth of harmonic and melodic structures based on scale-tone triads. If you’re more excited about single-note soloing than comping (which is typical) be aware that the triad structures can be thought of a template to build single note melodic lines.

In Pedal Point Triads/Modal Triad Improv, you can learn to build chords and melodies with triads. It also directs you to [Scale-Tone Arpeggios And Pentatonics/Building Triad Arcs](#), where you can go through a set of the seven major scale in-position fingerings to get an overview of the full-fretboard triad structure.

E form tonic (C7 in jazz blues in C)

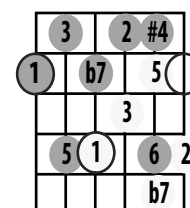
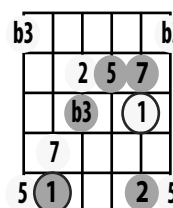
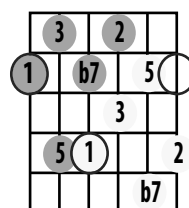
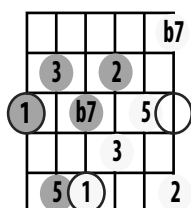
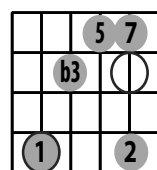
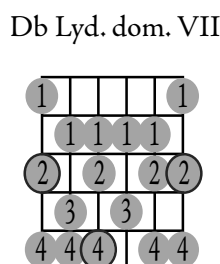
Ab mel. min. VII Abm(ma7) VIII Db9 VIII C9 VII



Ab melodic minor

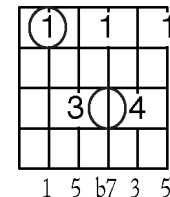
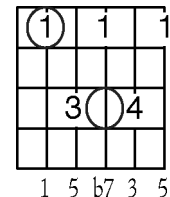
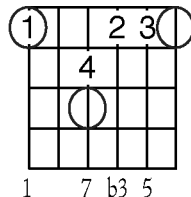
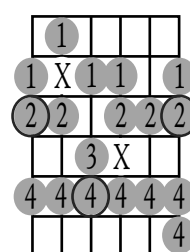
C Mixolydian

- more Ab melodic minor



C jazz blues video sketch examples: A Form To F7-1, A Form To F7-2

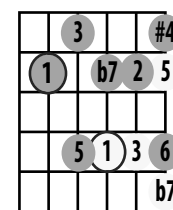
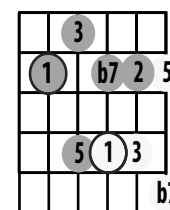
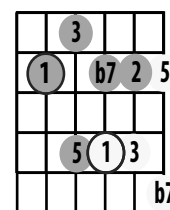
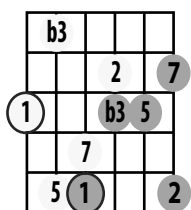
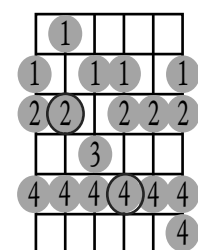
Db mel. min. VII Dbm(ma7) IX Gb7 IX F7 VII



Db melodic minor

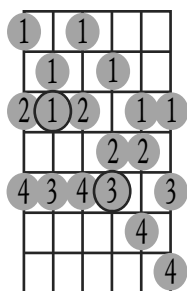
C Mixolydian

more Db melodic minor

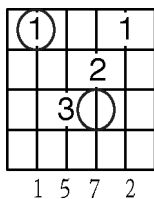


D form tonic (A7b9 in jazz blues in C)

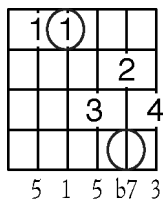
F mel. min VI



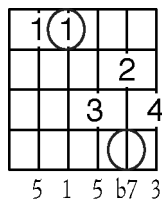
Fm(ma7) VIII



Bb7 VIII



A7 VII

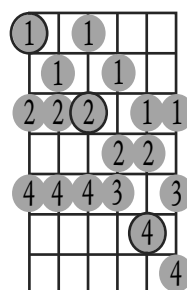


Ab melodic minor

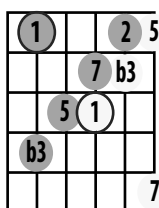
VI7 type target

dominant target

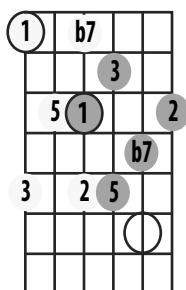
Bb Lyd. dom.VI



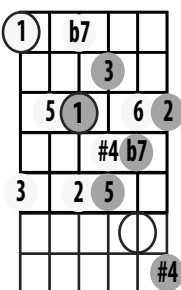
Fm9(ma7) VIII



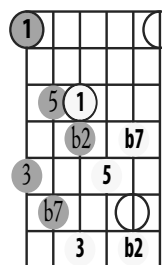
Bb9 VI



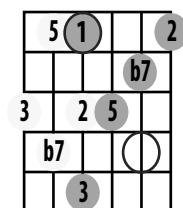
Bb13#11 VI



A7b9 V

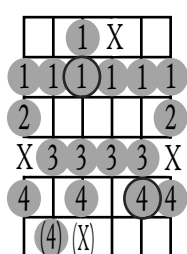


A9 VII

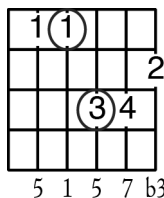


G form tonic (Dm7 in jazz blues in C)

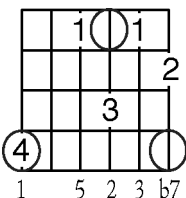
Bb mel. min. VIII



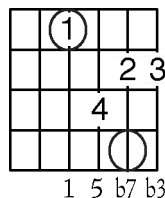
Bbm(ma7) VIII



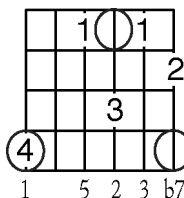
Eb9 VIII



Dm7 VII



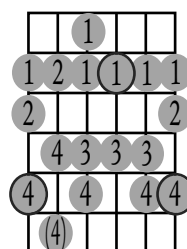
D9 VII



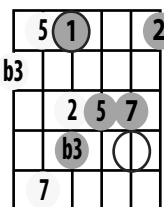
Ab melodic minor

dominant target

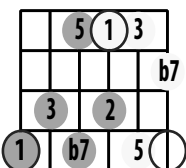
Eb Lyd. dom.VII



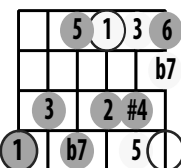
Bbm9(ma7) VIII



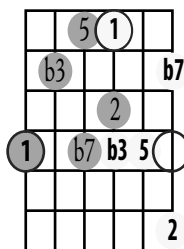
Eb9 VIII



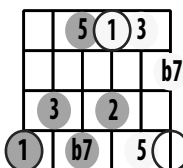
E1b13#11 VII



Dm9 VII

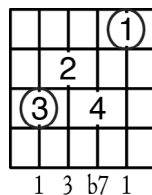
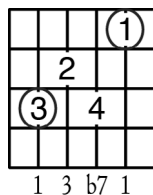
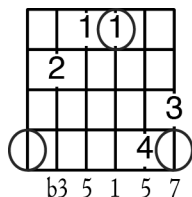
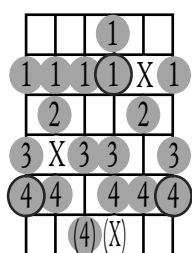


C9 V



C form tonic (G7 in jazz blues in C)

Eb mel. min. VIII | Ebm(ma7) VIII Ab9 IX G7 VIII

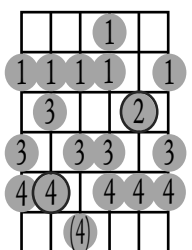


_____ Ab melodic minor _____

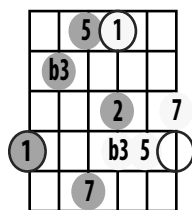
C Mixolydian

_____ more Ab melodic minor _____

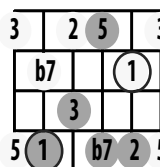
Ab Lyd. dom. VIII



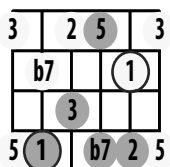
Ebm9(ma7) VIII



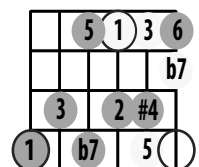
Ab9 XIII



G9 VII



Ab13#11 XIII



Melodic Minor Cadences to Each Chord in Jazz Blues

Using a Im(ma7) IV9 cadence in the appropriate key, *every* chord in a jazz blues can be approached with a melodic minor cadence. I'm using the term "grandparent" major here (upper left of the table) to refer to the major scale which was altered to produce the major sharp five scale (including the harmonic minor mode) on its sixth step.

melodic minor modes used for bII Lydian dominant of each tonic or temporary tonic

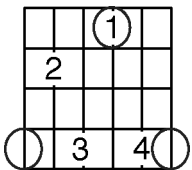
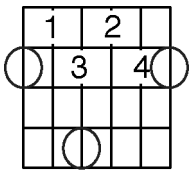
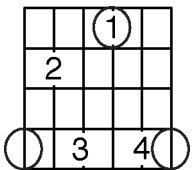
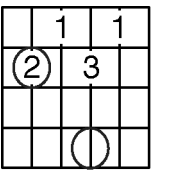
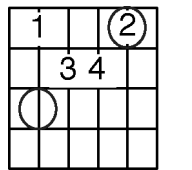
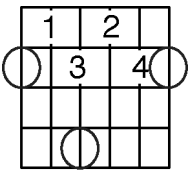
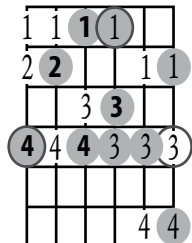
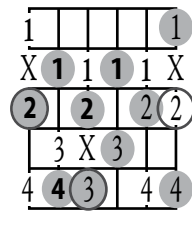
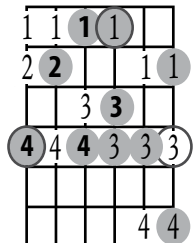
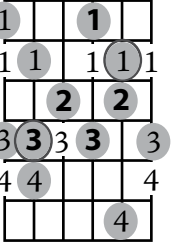
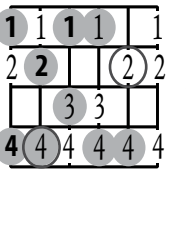
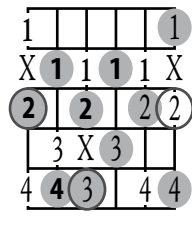
altered tone of grandparent major scale →		b3	b2	b1	b7	b6	b5	b4
target tonic chord ↓	mode formula →	1-2-b3-4-5-6-7	1-b2-b3-4-5-6-b7	b1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-b7	1-2-3-4-5-b6-b7	1-2-b3-4-b5-b6-b7	1-b2-b3-b4-b5-b6-b7
	key scale ↓	mode I of melodic minor	mode II of melodic minor	mode bIII of melodic minor	mode IV of melodic minor	mode V of melodic minor	mode VI of melodic minor	mode VII of melodic minor
C7 (I7) or Cm as secondary root of F9	Ab melodic minor	Ab melodic minor	Bb Dorian flat two	C Phrygian flat one (Cb)	Db Lydian flat seven (Lydian dominant)	Eb Mixolydian flat six	F Aeolian flat five	G Locrian flat four (super locrian)
F7 (IV7)	Db melodic minor	Db melodic minor	Eb Dorian flat two	F Phrygian flat one (Fb)	Gb Lydian flat seven (Lydian dominant)	Ab Mixolydian flat six	Bb Aeolian flat five	C Locrian flat four (super locrian)
G7 (V7)	Eb melodic minor	Eb melodic minor	F Dorian flat two	G Phrygian flat one (Gb)	Ab Lydian flat seven (Lydian dominant)	Bb Mixolydian flat six	C Aeolian flat five	D Locrian flat four (super locrian)
Dm7 (IIIm7)	Bb melodic minor	Bb melodic minor	C Dorian flat two	D Phrygian flat one (Db)	Eb Lydian flat seven (Lydian dominant)	F Mixolydian flat six	G Aeolian flat five	A Locrian flat four (super locrian)
A7 (VI7)	F melodic minor	F melodic minor	G Dorian flat two	A Phrygian flat one (Ab)	Bb Lydian flat seven (Lydian dominant)	C Mixolydian flat six	D Aeolian flat five	E Locrian flat four (super locrian)

The more dis-related the scales are in a cadence and its target (tonic or temporary tonic), the more time you need to establish the cadence melodically and the simpler the resolution needs to be. When such cadences happen in a few seconds, it is usually better to use a two-chord version of the cadence, such as bII9 to I, rather than the three-chord version bVIm(ma7) bII9 to I.

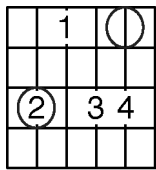
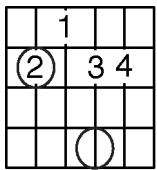
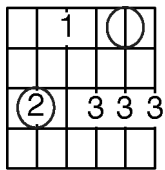
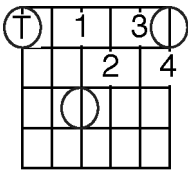
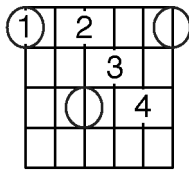
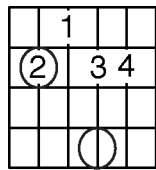
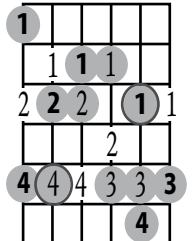
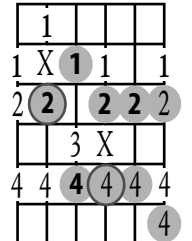
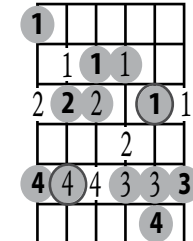
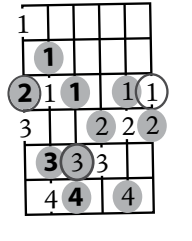
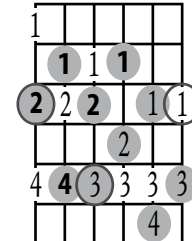
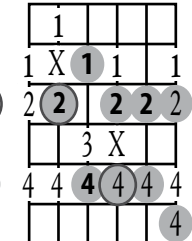
To make it simpler, stay closer to the triad tones of each chord and use common tones. For example, in playing a melodic minor cadence during the later part of bar nine in a jazz blues in C with Ab9 to G7b9, you could use the secondary root of the Ab9 and play Cm7b5 and think C Aeolian flat five as its chord scale. This will get you playing dark C minor flat five blues ideas and strike a relationship with the key. To further strengthen it, be sure to include the note “D”, so the chord also suggests the synonym of Ab13#11, D7b5#5b9#9 (the “Swiss army”, super-altered mode VII of its parent Eb melodic minor scale).

COMBINED CADENCES

E form I, IV or V type tonic

IIIm	bII	IIIm	V7b9	V13	bII
Dm7 VII	Db9 VIII	Dm7 VII	G7b9 IX	G13 VIII	Db9 VIII
					
b3 b7 1 5	3 b7 2 5	b3 b7 1 5	1 3 b7 b2	b7 3 6 1	3 b7 2 5
Dm9	Db9	Dm9	G7b9	G9	Db9
C major VII	Db Lyd. dom. VII	C major VII	C har. min. VII	C major VII	Db Lyd. dom. VII
					

A form I, IV or V type tonic

IIIm	bII	IIIm	V7b9	V13	bII
Dm9 III	Db9 III	Dm7 III	G7b9 III	G13 III	Db9 III
					
1 b3 b7 2	1 3 b7 2	1 b3 b7 2 5	1 b7 3 5 b2	1 b7 3 6	1 3 b7 2
Dm9	Db9	Dm9	G7b9	G9	Db9
C major I	Db Lyd. dom. II	C major I	C har. min. II	C major I	Db Lyd. dom. II
					

D form I, IV or V type tonic

IIIm		bII		IIIm		V7b9		V13		bII	
Dm9	X	Db9	X	Dm9	X	G7b9	XII	G13	IX	Db9	IX
1 b3 b7 2	1 3 b7 2	1 b3 b7 2	5 b2 3 b7	3 b7 2 6	b7 3 5 2						
Dm9	Db9	Dm9	G7b9	G9	Db9						
C major VIII	Db Lyd. dom. IX	C major VIII	C har. min. VII	C major VIII	Db Lyd. dom. IX						

G form I, IV or V type tonic

IIIm		bII		IIIm		V7b9		V13		bII	
Dm7	VI	Db9	VI	Dm7	VI	G7b9	VI	G9	V	Db9	VI
5 1 b3 b7	5 2 3 b7	5 1 b3 b7	b2 5 b7 3	3 5 b7 2	5 2 3 b7						
Dm9	Db9	Dm9	G7b9	G9	Db9						
C major V	Db Lyd. dom. VI	C major V	C har. min. V	C major V	Db Lyd. dom. VI						

C form I, IV or V type tonic

IIIm	bII	IIIm	V7b9	V13	bII
Dm7 XIII	Db9 XIII	Dm7 XIV	G7b9 XIII	G9 XIV	Db7 XIII
1 b3 5 b7	1 3 5 b7	b7 b3 5 1	3 b7 b2 5	3 b7 2 5	b7 3 5 1
Dm9	Db9	Dm9	G7b9	G9	Db9
C major XII	Db Lyd. dom. XIII	C major XII	C har. min. XI	C major XII	Db Lyd. dom. XIII

Cadence Pairs

E form

II Dorian	V Phrygian maj.	II Dorian	bII Lyd. dom	bVI mel. min.	bII Lyd. dom	V Mixolydian	bII Lyd. dom.
IIIm9	V7b9	IIIm9	bII9	bVIIm9(ma7)	bII9	V9	bII9

A form

II Dorian	V Phrygian maj.	II Dorian	bII Lyd. dom	bVI mel. min.	bII Lyd. dom	V Mixolydian	bII Lyd. dom.
IIIm9	V7b9	IIIm9	bII9	bVIIm9(ma7)	bII9	V9	bII9

D form

II Dorian	V Phrygian maj.	II Dorian	bII Lyd. dom	bVI mel. min.	bII Lyd. dom	V Mixolydian	bII Lyd. dom.
IIIm9	V7b9	IIIm9	bII9	bVIIm9(ma7)	bII9	V9	bII9

G form

II Dorian	V Phrygian maj.	II Dorian	bII Lyd. dom	bVI mel. min.	bII Lyd. dom	V Mixolydian	bII Lyd. dom.
IIIm9	V7b9	IIIm9	bII9	bVIIm9(ma7)	bII9	V9	bII9

C form

II Dorian	V Phrygian maj.	II Dorian	bII Lyd. dom	bVI mel. min.	bII Lyd. dom	V Mixolydian	bII Lyd. dom.
IIIm9	V7b9	IIIm9	bII9	bVIIm9(ma7)	bII9	V9	bII9

Cadence Arpeggios and Scales from Four Heptatonic Scales

E form

II Dorian	V Mixolydian	II Locrian	V Phrygian maj.	bVI mel. min.	bII Lyd. dom	II Dorian b5	V Mixo. b2
IIIm9	V9	IIIm11b5b9	V7b9	bVIIm9(ma7)	bII9	IIIm9b5	V7b9

A form

II Dorian	V Mixolydian	II Locrian	V Phrygian maj.	bVI mel. min.	bII Lyd. dom	II Dorian b5	V Mixo. b2
IIIm9	V9	IIIm11b5b9	V7b9	bVIIm9(ma7)	bII9	IIIm9b5	V7b9

D form

II Dorian	V Mixolydian	II Locrian	V Phrygian maj.	bVI mel. min.	bII Lyd. dom	II Dorian b5	V Mixo. b2
IIIm9	V9	IIIm11b5b9	V7b9	bVIIm9(ma7)	bII9	IIIm9b5	V7b9

G form

II Dorian	V Mixolydian	II Locrian	V Phrygian maj.	bVI mel. min.	bII Lyd. dom	II Dorian b5	V Mixo. b2
IIIm9	V9	IIIm11b5b9	V7b9	bVIIm9(ma7)	bII9	IIIm9b5	V7b9

C form

II Dorian	V Mixolydian	II Locrian	V Phrygian maj.	bVI mel. min.	bII Lyd. dom	II Dorian b5	V Mixo. b2
IIIm9	V9	IIIm11b5b9	V7b9	bVIIm9(ma7)	bII9	IIIm9b5	V7b9

Table of Combined Cadences by Parent Major Scale

t a r g e t ↓	melodic minor targets natural three ●	primary parent major scale fingering				
	harmonic minor targets six ●	fingering 3	fingering 7	fingering 4	fingering 2	fingering 6
	review Modal Contexts And Time					
		position in C				
6251	I major scale for VIm7, IIm7, V7, Ima7	XII	VII	I or XIII	X	V
2	VI(A) harmonic minor, sound VIm (Am) during I (C) or Escher-like VIm (Am) before IVma7 (Fma7), predicting the VIm (Am) part of IVma7 (Fma7). See Melodically Superimposed Cadences/ Escherian Cadence	XII	VII	I or XIII	X	V
4	bII (Db) melodic minor before IV (F) see below					
1	V (G) har. minor = IV (F) Mixo. #1, in the later part of of IV7 (F7) before I(C), predicting the Escher-like Vm(Gm) part of C9	X	V	XI	VIII	III
pairs in fourths that share a parent scale:						
6	IV (F) melodic minor before VI7(A7)	V	XII	VI	III	X
2	II (D) harmonic minor = I (C) Mixo. #1 on VI7 (A7) before IIm7 (Dm7)	V	XII	VI	III	X
2	bVII (Bb) mel. minor before IIm7 (Dm7)	X	V	XI	VIII	III
5	V pos. G harmonic minor before G7	X	V	XI	VIII	III
5	bIII (Eb) melodic minor before V(G).	XII	VII	I or XIII	X	V
1	I (C) harmonic minor before I (C).	XII	VII	I or XIII	X	V
1	bVI (Ab) melodic minor before I(C)	VIII	III	IX	VI	I or XIII
	IV (F) harmonic minor before F7	VIII	III	IX	VI	I or XIII
("4" to "6" is a major third, so the tone center for the second scale is down a fret from a perfect fourth)						
4	bII (Db) melodic minor before IV (F)	I or XIII	VIII	II or XIV	XI	VI
6	VI (A) harmonic minor before VI (or Am)	XII	VII	I or XIII	X	V

Comparing Combined Cadences to Chromatic Drift

Chromatic drift is the repetition of a melodic cell (short phrase) up or down chromatically (in half steps). It is then resolved to the chord used by the first cell. Combined cadences are more often chromatic than not and can be very similar to chromatic drift. Combined cadences don't usually return to the original chord, which is the distinction.

SUBSETS ON THE FIFTH

Subsets Triads on the Fifth of the Dominant

Each of the ninth chords described below V9, V7b9 or bII9 are preceded in three chord cadences with a chord whose triad is the same notes as the fifth, seventh and ninth of the ninth chord. With major II V or harmonic minor II V cadences, these make up the tones of a II or II dim triad which each resolve down a scale tone to a triad tone of the tonic chord. With bVIIm bII cadences, the tones of the bVIIm triad have more specific and complicated resolutions:

the fifth of the bII9 (root of bVIIm) resolves down a half step to the fifth of the I tonic

the b7 of the bII9 (b3 of bVIIm) resolves up a half step to the root of the I tonic

the ninth of the bII9 (fifth of bVIIm) resolves down a minor third to the root of the tonic

IIIm is a Subset of V9

Any II V cadence that uses exclusively tones of a single scale shares tones. The root, third and fifth of a IIIm chord are 2, 4, 6 of the parent and are the top tones of the V9 chord, which is 5, 7, 2, 4, 6.

II dim is a Subset of V7b9

In a minor IIIm7b5 V7b9 cadence, the II diminished triad part of the IIIm7b5 (Dm7b5) is 2, 4, b6 of the harmonic minor tonic scale (C harmonic minor scale) and are the top tones of the V7b9 chord, which is 5, 7, 2, 4 b6.

bVIIm is a Subset of bII9

In a [flat five substitute](#) cadence, the bVIIm triad part of the bVIIm9(ma7) (Abm9[ma7]) is 1, b3 5 of the bVI melodic minor scale (Ab harmonic minor for Abm to Db7 to a C tonic) and are the top tones of the bII7b9 chord, which is 4, 6, 1, b3, 5 of the bVI melodic minor.

bVIm(ma7) is a Subset of bII13#11

When thinking the bVIm bII (Abm Db) cadence (Im IV of bVI parent melodic minor), there are shared tones in the arpeggios. bVIm(ma7) tones are 1, b3, 5, 7, 2 of the parent bVI melodic minor scale. IV13#11, which is used for [flat five substitutes](#) (bII of tonic) is 4, 6, 1, b3, 5, 7, 2 of the parent bVI melodic minor scale. “4, 6, 1, b3, 5, 7, 2” are respectively the root, third, fifth, flatted seventh, ninth, sharp eleventh and thirteenth of the 13#11. Notice that the fifth through the thirteen of the IV13#11 are “1, b3, 5, 7, 2” of the parent bVI melodic minor scale, the same thing as the Im(m9).

So, when you are using the Im(ma7) or Abm9(ma7) arpeggio, be aware that is is the top of the IV13#11 and can resolve to the tonic chord, especially if you descend the arpeggio to the lower tones of the IV13#11.

Building Chord Melody

- **Reference Major Scale Fingerings**
- **Playing Melody by Number**
- **The Chord Serial Number System**
- **Top-Voiced Chords by Serial Number in Chord Melody**
- **Learning Chord Melody with Song Example Quizzes**

REFERENCE MAJOR SCALE FINGERINGS

The Purpose of Memorizing These Major Scale Fingerings

Melodies and chord voicings can be learned by number, in relation to major scales. Chord voicings are the choices of which notes are represented in a chord and in which octave each note occurs. To fluently find melodies by number and to fluently build chord voicings, you need to know all seven in-position major scale fingerings.

Seven In-Position Major Scale Fingerings

Major scale fingerings are numbered in these studies according to the number of lowest note fingered with the index finger on the sixth string. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

In-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall. Three-note-per-string major scale fingerings combine in-position fingerings and are not initially needed in these studies.

in-position major scale fingerings by fingers

fingering 1

fingering 2

fingering 3

fingering 4

fingering 5

fingering 6

fingering 7

1 1 1 1 1

2 2 2 2 2

4 4 4 3 4 4

(1)(1)

1 1 1 1 1

3 3 3 3 3

4 4 4 4 4

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

1 1 1 1 1

2 2 2 2 2

3 3 3 3 3

4 4 4 4 4

in-position major scale fingerings by formula

fingering 1

fingering 2

fingering 3

fingering 4

fingering 5

fingering 6

fingering 7

1 4 5 1

2 5 1 4 6 2

3 6 2 5 7 3

(7)(3)

2 5 1 4 6 2

3 6 2 5 7 3

4 7 3 6 1 4

3 6 2 5 7 3

4 7 3 6 1 4

5 1 4 2 5

4 1 4

5 1 4 2 5

6 2 5 1 3 6

5 1 4 2 5

6 2 5 1 3 6

7 3 6 2 7

(7)

6 2 5 1 3 6

7 3 6 2 7

1 4 5 1

7 3 6 2 7

1 4 5 1

2 5 1 4 6 2

Strict Vertical Position

This concept is primarily used for single-note playing of melodies, scales and arpeggios; not for chords. The rules of strict vertical position specify which finger would be used to fret each of thirty-six note locations on the fretboard through a range of six frets on all six strings.

fifth position

1	1	1	1	1	1
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
4	4	4	4	4	4

← fifth fret

Position is numbered after the fret at which your index finger is placed. In that position, the other three fingers are assigned one of the next three frets in-a-row toward the body of the guitar. In other words, each of the four fingers are assigned to one of four consecutive frets.

The examples below show the first string. The position numbers would be the same, regardless of which string the fingers were placed upon.

fifth position

V

			1
			2
			3
			4

← fifth fret

sixth position

VI

			1
			2
			3
			4

← sixth fret

seventh position

VII

			1
			2
			3
			4

← seventh fret

You can also reach one fret out-of-position with the index and little fingers:

fifth position

IV

			1
			1
			2
			3
			4
			4

← fourth fret

sixth position

V

			1
			1
			2
			3
			4
			4

← fifth fret

seventh position

VI

			1
			1
			2
			3
			4
			4

← sixth fret

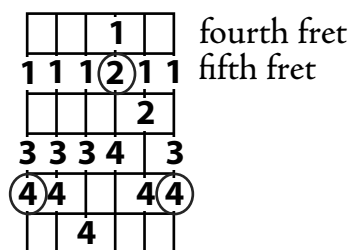
head reach and body reach

A head reach is a reach out of position toward the head of the guitar with the index finger, shown above where the index finger is used twice on the same string. A body reach is a reach out of position toward the body of the guitar with the little finger, shown above where the little finger is used twice on the same string.

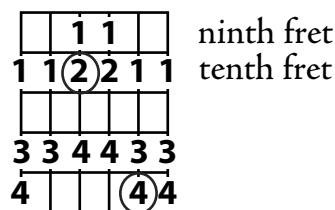
side step

A *side step* is a temporary change of position before returning to the original position. It usually involves notes in the temporary position on only one or two strings. In fingering six of C major scale below, most of the scale is fingered in fifth position (with the index finger at the fifth fret), but there is a side step where the notes on the third string are fingered in fourth position. In fingering two of C major scale below, most of the scale is fingered in tenth position (with the index finger at the tenth fret), but there is a side step where the notes on the fourth and third string are fingered in ninth tenth position.

C major scale
fingering 6



C major scale
fingering 2

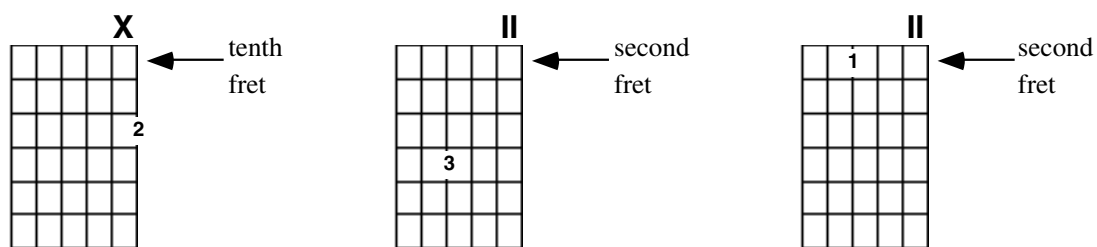


quiz: in what position are each of the examples below?

Example 1

Example 2

Example 3



Example 1: eleventh position. Example 2: third position. Example 3: second OR third position. : answers:

PLAYING MELODY BY NUMBER

Melody is usually in a key or may change keys during the course of the melody. Each portion of the melody in a particular key (often the entire melody) can be expressed in numbers of a major scale named after the key of the melody.

Reference Major Scales for Note Numbers

The tones of any melody, scale, arpeggio, chord or bassline can be expressed in numbers. The universal reference is the major scale. The major scale needs to be conceived in the key of the melody, scale bassline or on the root of the chord or arpeggio. By using sharped and flatted versions of the major scale, any chromatic note can be defined with a number. A “C” note in a melody or in a chord in the key of “C” would be numbered “1”. A “D” note would be “2”. An “Eb” would be flat three.

Chord Formulas

The number expression for a chord can be called its *formula*. The formula for a dominant seventh chord such as C7 is 1-3-5-b7. You can learn more about chord formulas in “[Chord Naming Conventions](#)” and “[All Scale-Tone Chords](#)” and “[Chord Archetypes](#)”.

all tones by number in all keys, including hypothetical keys

Key	1	b2	2	#2/b3	3	4	#4/b5	5	#5/b6	6	b7	7
C	C	Db	D	D#/Eb	E	F	F#/Gb	G	G#/Ab	A	Bb	B
C#	C#	D	D#	D##/E	E#	F#	F##/G	G#	G##/A	A#	B	B#
Db	Db	Ebb	Eb	E/Fb	F	Gb	G/Abb	Ab	A/Bbb	Bb	Cb	C
D	D	Eb	E	E#/F	F#	G	G#/Ab	A	A#/Bb	B	C	C#
D#	D#	E	E#	E##/F#	F##	G#	G##/A	A#	A##/B	B#	C#	C##
Eb	Eb	Fb	F	F#/G	G	Ab	A/Bbb	Bb	B/Cb	C	Db	D
E	E	F	F#	F##/G	G#	A	A#/Bb	B	B#/C	C#	D	D#
Fb	Fb	Gbb	Gb	G/Abb	Ab	Bbb	Bb/Cbb	Cb	C/Dbb	Db	Ebb	Eb
F	F	Gb	G	G#/Ab	A	Bb	B/Cb	C	C#/Db	D	Eb	E
F#	F#	G	G#	G##/A	A#	B	B#/C	C#	C##/D	D#	E	E#
Gb	Gb	Abb	Ab	A/Bbb	Bb	Cb	C/Dbb	Db	D/Ebb	Eb	Fb	F
G	G	Ab	A	A#/Bb	B	C	C#/Db	D	D#/Eb	E	F	F#
G#	G#	A	A#	A##/B	B#	C#	C##/D	D#	D##/E	E#	F#	F##
Ab	Ab	Bbb	Bb	B/Cb	C	Db	D/Ebb	Eb	E/Fb	F	Gb	G
A	A	Bb	B	B#/C	C#	D	D#/Eb	E	E#/F	F#	G	G#
A#	A#	B	B#	B##/C#	C##	D#	D##/E	E#	E##/F#	F##	G#	G##
Bb	Bb	Cb	C	B#/C	D	Eb	E/Fb	F	F#/Gb	G	Ab	A
B	B	C	C#	C##/D	D#	E	E#/F	F#	F##/G	G#	A	A#

numbering chord tones may involve double sharps or double flats

Numbering the tones in a chord or arpeggio may involve uncommon major scales with double sharps and double flats. For example, the flatted ninth in Ab7b9 is B double flat. The formula for a seven flat nine chord is 1-3-5-b7-b9. “b9” is the same note as “b2”. In the table above, you can see that the “b2” in the key of Ab is “Bbb” (B double flat).

Reference major scales include redundant major scales not used in performance, such as “D#” (D sharp) major, where “Eb” is used instead, with the same pitches. “D#” may be a chord root in the key of B major, where you would think in the hypothetical key of D# to number tones in the D# chord. D sharp major would have five notes with a sharp name and two with a double sharp. See the table above.

THE CHORD SERIAL NUMBER SYSTEM

chord name	Cm	VIII	C7	VIII	Cm7	VIII
chord fingering						
serial number	151b351	10b7350	10b7b350			

chord serial numbers

In the chord serial number system, the number 157300 represents chord tones in order from the sixth (largest) to first (smallest) string. Each number represents a major scale tone in the key of the chord root. The number “0” (zero) indicates that a string is not played. If a number is flatted or sharped, it indicates an altered major scale tone in the key of the chord root. The large circles on chord diagrams in this course show the location of the chord root (note after which the chord is named, such as the Bb root of a Bbma7 chord). When the large circle is empty, it shows the location of a chord root that is not played in the chord, as a point of reference.

The numbers 151b351 would represent the tones one, five, one, flat three, five, one, from the sixth string (largest) to the first string. In the key of “C”, these notes would be C-G-C-Eb-G-C. See the first diagram above.

The numbers 10b7350 would represent the tones one on the sixth string, no note on the fifth string, flat seven on the fourth string, three on the third string, five on the second string and no note on the first string. In the key of “C”, these notes would be C-(no note)-Bb-E-G-(no note). See the middle diagram above.

The serial number system applies to all fretted chords only, not open string chords. “1” represents the root, “3” the third, “5” the fifth and “7” the seventh of the chord. Zeros (“0”) represent a string that is not to be sounded.

TOP-VOICED CHORDS BY SERIAL NUMBER IN CHORD MELODY

What is Top-Voice Leading?

Chords with similar numbers of notes can be thought of as voices, as in a vocal or instrumental ensemble. A melodic line made from the series of the top note from each chord makes the soprano part or the “top voice” part. A melodic line made from the series of the bottom note from each chord makes the bass part. In four-voice harmony, the next to bottom note is the alto and the next to the top notes is the tenor.

The most prominent voice is usually the soprano, or top voice. Learn to voice chords so they make a melody with their series of top voice notes, sometimes doubling the main melody of the song or creating a counter melody.

LEARNING CHORD MELODY WITH SONG EXAMPLE QUIZZES

Melodic Character and Story

- **Telling a Story**
- **The Character of Chord Progression**
- **The Character of Melody**

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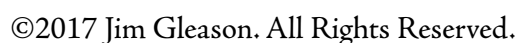
Body.....

The Emotive Curve and Sentiments

- **The Emotive Curve**
- **Sentiments (Rasas) in Indian Classical Music**

Immediately before a live performance or recording, performers should conceive how their music will sound and what moods it will create. Developing performers typically have in mind what they want out of a performance but during the performance, they are affected emotionally by the audience or band members and lose track of how they wanted to perform the music. There may be some confused communication with a band member or a comment or look from someone in the audience that throws you off and distracts you. You have memorized your scales, chord progressions and licks so you can recall and control them, why not do the same with the elements of expression when under pressure?

The emotional expression during a piece of music can be expressed with a diagram. The timeline would run from left to right. High intensity to low intensity would be indicated top to bottom. There are typically two or more peaks, with the greatest one near or at the end as a climax.



Melody

Stage the melody with the appropriate accompaniment. The overall emotive curve combines any or all of the elements below.

Pitch: slurs, dynamics, rhythm, timbre, combinations.

Dynamics: fade, skip in volume level.

Rhythmic intensity: rhythmic level, syncopation, phrasing, polyrhythm.

Harmonic Complexity. More complex chord progressions, particularly those with dissonance or chromaticism increase the intensity.

Timbre. Anything that draws the listeners attention increases the intensity. The location of pick up and down string affects its tone, with brighter tone toward the bridge. Rotation of the pick on its axis affects the clarity of its tone, with the clearest tone where the pick is parallel to the string and the roughest tone when the picks axis is angled at a 45° angle to the string. Choice of pick. Plucking versus picking. Muting. Guitar and amp tone and effects such as distortion and wah wah.

Melodic Expression Contrasted By The Accompaniment. Melodic content strikingly different in nature from the accompaniment can increase the intensity.

Expressive Curve Example In A Lesson. We copied the overall expressive curve from the intro solo to Metallica's Sanitarium by sketching it. Used the first half of it to play over Center (C to Em 4X) in pitch curve context. Curve (first half) was generally four segments: mid-range plateau, rise to slightly higher plateau, break briefly, descend to low range. Sentiments used were:

- (1) Astonishment, where the student suggested "tinkling octaves" in the accompaniment.
- (2) Disgust (angry), where the student suggested hard feel and accents with some dissonance. I used syncopation in the accents to support the anger.

SENTIMENTS (RASAS) IN INDIAN CLASSICAL MUSIC

PART 8 CONTENTS

Chord Progression and Comping

[Introduction to Chord Progression](#)

[Chord Options for a Melody](#)

[Open Position Basslines](#)

[Triad Bass Harmonization](#)

[Pedal Point Chord Progression](#)

[Chord Archetypes](#)

[Scale-Tone Seventh Chord Progression](#)

[Abbreviating and Elaborating Chord Progression](#)

[Comping Strategies](#)

[Quartal and Quintal Harmony](#)

Introduction to Chord Progression

- **Basic Definitions**
- **Scale-Tone Chord Construction**
- **Chord Construction by Formula**
- **Major Scale-Tone Chord Progression**
- **Parent Scale, Chord Scale and Key Scale**
- **Modulation and Voice Leading**
- **Recognizing Chord Progressions**

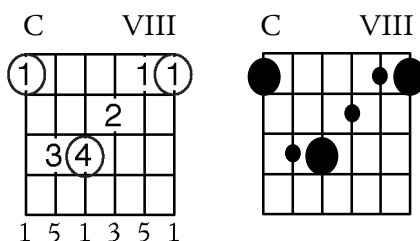
BASIC DEFINITIONS

Chord

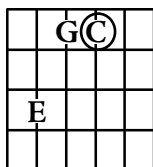
Two scale tones played simultaneously constitute an interval. Three or more scale tones played simultaneously constitute a chord. An interval (two different notes played simultaneously) can be considered a chord, but the more common definition of a chord specifies a minimum of three different notes played simultaneously.

Chord Root

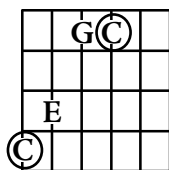
A chord root is the note after which a chord is named. “A” is the root of an A7 chord. “D” is the root of a Dm7 chord. “Eb” is the root of an Eb7 chord. The root is the main note of a chord. Enlarged or circled notes on diagrams indicate chord roots.



A chord root is the lowest bass note you can imagine in a chord. In the chord below, the lowest pitch that sounds is not the root of the chord. The bass note (on the fourth string) is “E”, but the root is “C”.



The version of the “C” chord below includes the root in the bass. The root is a “C” note, after which the chord is named.



Tonic Chord

The tonic chord (or “main chord”) is the chord you would expect the piece of music to end on. It is the chord which sounds most resolved in a piece of music. A tonic chord is used to give the most final sound at the end of a piece.

I said “you would expect” the piece of music to end on the tonic chord, because although the listener expects a song to end on the tonic chord, it doesn’t have to. A song can end with a deceptive cadence (deceptive chord sequence) where the final chord is not the tonic chord. This type of ending is intended to “trick” the listener. Although a deceptive cadence does not produce as strong a feeling of resolution, it still can be stimulating. Likewise, songs often begin on the tonic chord, but they don’t have to.

Many recorded pieces of music have a “fade-out” ending, where no distinct ending chord is played. I generally don’t like fade-out endings. I much prefer hearing the ending the band or artist would play in a live performance.

compositional techniques of establishing the tonic chord:

- ✦ Use long duration or frequent occurrence of the main chord.
- ✦ Use the root of the main chord as the continual bass note for a series of chords.
- ✦ Progressions are typically built with groups of two or four bars. A tonic chord would typically be the first chord after a two or four bar unit.
- ✦ Use a main chord which has a strong consonance. Example “a” below is the strongest consonance and example “c” has the weakest consonance.
 - a. The main chord usually has a strong tonality (is easy to establish as the main chord) in major, Dorian, Mixolydian or Aeolian mode (when major, Dorian, Mixolydian or Aeolian scales are used).
 - b. The main chord has a passive tonality (somewhat difficult to establish as a main chord) in Phrygian or Lydian mode (when Phrygian or Lydian scales are used).
 - c. The main chord has a weak tonality (quite difficult to establish as the main chord) in Locrian mode (when Locrian scale is used).
- ✦ Use the root of the main chord in a low range of pitch.

Tone Center

The tone center of a piece of music is the root of the tonic chord (the chord you expect the piece to end on). If the tonic chord is Cm7, the tone center is “C.” If the tonic chord is Ebm, the tone center is “Eb.” The roman numeral “III” on the upper right of each diagram indicates that the top fret is the third fret.

Whenever scales are shown on diagrams in this book, the tone centers are indicated by enlarged, circled, or “squared” notes:

Key

A song is said to be in a key named after the tone center. If the tone center is “A”, the song is said to be in the key of “A”. The key may be further qualified by the scale or mode type, such as “A” major, “A” minor or “A” Mixolydian.

The term “minor” is often used loosely in key names where the song may be in any mode which has a minor chord built on the tone center (e.g., Aeolian or harmonic minor). Likewise, the term major is sometimes used in reference to any mode which has a major chord built on the tone center (e.g., Mixolydian or Phrygian major).

SCALE-TONE CHORD CONSTRUCTION

In the scale-tone method of chord construction, each tone of a scale can be the root of another chord. The typical construction is with every-other tone of the scale. Scale-tone chords are most often conceived on the major scale, but other seven tone scales can be used as well.

Chords are commonly constructed with an every-other-note pattern on the major scale called thirds. In numbers, this is 1-3-5-7-2-4-6-1-3-5, etc. In letters it is F-A-C-E-G-B-D-F-A-C, etc. (notice that it includes the F-A-C-E- and Every Good Boy Does Fine sequences typically used to memorize the every-other-note patterns of lines and spaces on the staff).

Memorizing Major Scale Note Names

Since chords are constructed from major scales (or from altered major scales), you need to know the names of the notes in all major scales. [Key signatures](#) can help you memorize these note names. In written form, a key signature is written immediately after the clef in a piece of music to indicate which notes (if any) are sharped or flatted (not both) in the major scale on which the piece is based.

Major Scale-Tone Triads

Three note chords are called triads. They can be built on each tone of a major scale, using the every-other note pattern of thirds. Roman numerals are assigned to each scale tone. Due to the varying step-to-step intervals in the major scale, the chords differ. The qualities are as follows:

<u>scale tone</u>	<u>quality</u>	<u>scale tones</u>	<u>written name</u>
I	major	1, 3, 5	I
II	minor	2, 4, 6	II ^m
III	minor	3, 5, 7	III ^m
IV	major	4, 6, 1	IV
V	major	5, 7, 2	V
VI	minor	6, 1, 3	VI ^m
VII	diminished	7, 2, 4	VII ^{dim.}

Major Scale-Tone Seventh Chords

Four note chords should be called quadrads. Chords built in thirds can be called “tertian”, to indicate their structure of notes three scale tones apart (inclusive, in that “A” to “C” is three letters). Quadrads constructed with an every-other scale tone are commonly called “seventh chords”. They could more descriptively be called *tertian* quadrads.

Confusingly, “seventh chord” can refer to chord types or can be an abbreviation for a dominant seventh chord. The group of chord types including major seventh, dominant seventh, minor seventh and any chord with “seventh” in its name is called “seventh chords”. A dominant seventh chord commonly has the abbreviated name “seventh chord”. C7 (C seventh) is a C dominant seventh chord. Seventh chords with the root “C” include C major seventh, C dominant seventh, and C minor seventh.

Like triads, seventh chords can be built on each tone of a major scale, using the every-other note pattern of thirds. Roman numerals are assigned to each scale tone. Due to the varying step-to-step intervals in the major scale, the chords differ. The qualities are as follows:

<u>scale tone</u>	<u>quality</u>	<u>scale tones</u>	<u>written name</u>
I	major seventh	1-3-5	I ^{ma} 7
II	minor seventh	2-4-6	II ^m 7
III	minor seventh	3-5-7	III ^m 7
IV	major seventh	4-6-1	IV ^{ma} 7
V	dominant seventh	5-7-2	V7
VI	minor seventh	6-1-3	VI ^m 7
VII	minor seventh flat five	7-2-4	VII ^m 7 ^b 5

Memorizing Global Spellings for Seventh Chords

Every major scale uses the same seven letters (A, B, C, D, E, F, G). Every major scale uses the same cycle of letters in thirds in the primary method of chord construction (below). Therefore, it is very useful to memorize parts of the cycle of thirds. Starting on different letters.

Any seventh chord (tertian quadrad) with the letter “C” in its name (C^{ma}7, C^b7, C^{#m}7^b5) uses the same four letters. All of the chords below with “C” in their letter name have the letters C, E, G and B.

<u>chord</u>	<u>spelling</u>
C ^{bma} 7	C ^b -E ^b -G ^b -B ^b
C7	C-E-G-B ^b
C ^{#m} 7 ^b 5	C [#] -E-G [#] -B

Because of this, it is very important to memorize the spelling of all seven of the tertian quadads (seventh chords) constructed from the C major scale. For each root (C, D, E, F, G, A or B), *any* seventh chord with that root in its letter name would use the seven letters. The seven tertian quadads from the C major scale are shown below.

<u>chord</u>	<u>spelling</u>
Cma7	C-E-G-B
Dm7	D-F-A-C
Em7	E-G-B-D
Fma7	F-A-C-E
G7	G-B-D-F
Am7	A-C-E-G
Bm7b5	B-D-F-A

CHORD CONSTRUCTION BY FORMULA

Chords can be constructed by specifying the numbered tones of a major scale they use. In this formula method of chord construction, chords are conceived with their root on the tone center (step “1”) of a major scale named after the chord root. The root of a chord is the letter at the beginning of its name and any sharp or flat that may be immediately after the letter in its name. Bb (“B” flat) is the root of a Bbma13#11 chord and Bb is the root of a Bb major chord.

A major chord is constructed with the first, third and fifth tones of a major scale named after the chord root, so it uses the numbered tones “1-3-5”. The formula for a major chord is “1-3-5”. A Bb major chord uses tones 1, 3, 5 of a Bb major scale. To know the specific names of the notes in a chord, you need to know the names of the notes in a major scale on its chord root. Some chord tones may be an altered version of a major scale tone, such as a “flat three”. A minor chord uses major scale tones “1-b3-5” of a major scale on the chord root.

MAJOR SCALE-TONE CHORD PROGRESSION

Chord Root Movement

The root is the note after which a chord is named. In popular music, the roots are usually the lowest note in the chord. When the root is in the bass the chord is said to be in root position. The roots of triads move in three categories: stepwise, thirds and fourths. In each of these categories, the interval is counted in a inclusive manner, so C to E would be up a third and C to A would be down a third. The root of the C chord in a C major scale could move stepwise to D or B, in thirds to E or A and in fourths to F or G.

Types of Root Movement

Stepwise order has the chord roots moving up or down in alphabetical order. Root movement in *thirds* is an every-other-note pattern (F-A-C-E-G-B-D-F-A, etc.) and is three notes from each note to the next, inclusive. *Fourths* is every fourth note, inclusive. When roots move up or down in *fourths*, two letters are skipped from each note to the next (B-E-A-D-G-C-F-B-E-A, etc.)

In each type of root movement (stepwise, thirds and fourths), look for:

- ✦ chords of the same quality with their roots a whole step apart (IV major and V major; II minor and III minor),
- ✦ ambiguous chord progressions which could occur in different parts of a major scale, but are relatively the same progression:

I major to II minor and V major to VI minor

I major to VI minor, IV major to II minor and V major to III minor
 VI minor to IV major and III minor to I major

- progressions involving chords of different quality which are unique within the major scale (III minor to IV major).

Listen for the nature of each type of major scale-tone triad root movement. In stepwise progressions, every note changes from chord to chord, producing a “processional” effect. Example: I, II_m, III_m, IV, V, VI_m VII_{dim} (notice the pair of minor and the pair of major triads).

In triad progressions up or down in thirds, two notes stay the same and one note changes from chord to chord, producing a transforming effect and the weakest of the three types of major scale-tone triad progression. Example: II_m, IV, VI_m, I, III_m.

In progressions up or down in fourths, one note stays the same and two notes change from chord to chord, producing a “pivot” effect, characteristic of hymns, jazz standards (though they use 7th chords) and Motown. Example: VII_{dim}, III_m, VI_m, II_m, V, I, IV (notice the grouping of three minor chords and three major triads).

PARENT SCALE, CHORD SCALE AND KEY SCALE

Parent Scales Defined

Chord progressions are mainly constructed from the notes of seven tone scales. Primary seven tone scales are major, harmonic minor, melodic minor and harmonic major. Other seven tone scales can be generated by using any of these with a tone center other than the first step of the scale. These other scales are called *modes*. To play an example of a mode, you would play a scale up and down an octave, beginning and ending on the desired tone center. For example, if you wanted to create a mode on the second step of the C major scale, you would play from “D” up to “D”, then back down. This would be called D Dorian mode. There are mode names for each of the seven tones of the major scale, as shown below.

modes of the c major parent scale

major scale tone	mode name	typical example, using C major scale
1	major (Ionian)	C-D-E-F-G-A-B-C-B-A-G-F-E-D-C
2	Dorian	D-E-F-G-A-B-C-B-A-G-F-E-D-C-D
3	Phrygian	E-F-G-A-B-C-B-A-G-F-E-D-C-D-E
4	Lydian	F-G-A-B-C-B-A-G-F-E-D-C-D-E-F
5	Mixolydian	G-A-B-C-B-A-G-F-E-D-C-D-E-F-G
6	Aeolian	A-B-C-B-A-G-F-E-D-C-D-E-F-G-A
7	Locrian	B-C-B-A-G-F-E-D-C-D-E-F-G-A-B

Relative Major And Minor Keys

In the [relative major and minor system](#) of key signatures, still predominant today, pieces of music are categorized as to their basic quality being major or minor. Sharps or flats are written where necessary at the beginning of a piece of music to indicate the major scale on which it is based. A Aeolian (also called A natural minor) has the same notes as C major. C major is the relative major of A Aeolian and A Aeolian is the relative minor of C major.

If the piece of music sounds resolved on a minor chord, the key signature indicates a key in Aeolian mode, named after the letter name of the root of the chord (including any necessary sharp or flat in the name), on the sixth step of the major scale indicated by the key signature. If the piece is based on a minor chord but is not in Aeolian mode, accidentals (sharps or naturals) are writing before particular notes in the body of the music notation to alter the Aeolian mode that was indicated by the key signature.

Modes of Harmonic Minor

There are mode names for each of the modes of harmonic minor, as shown below. Harmonic minor is a variant of Aeolian mode, where the seventh note of Aeolian is raised a half step. This is equivalent to raising the fifth tone of the parent major scale. As you can see below, A Aeolian has had its seventh tone "G" raised (compare to the chart above). C major sharp five below is the altered version of A Aeolian's parent major scale, C major.

Modes Of The A Harmonic Minor Parent Scale:

harmonic minor tone	mode name	typical example, using A harmonic minor
1	harmonic minor	A-B-C-D-E-F-G#-A-G#-F-E-D-C-B-A
2	Locrian natural six	B-C-D-E-F-G#-A-G#-F-E-D-C-B-A-B
b3	major sharp five	C-D-E-F-G#-A-G#-F-E-D-C-B-A-B-C
4	Dorian sharp four	D-E-F-G#-A-G#-F-E-D-C-B-A-B-C-D
5	Phrygian major	E-F-G#-A-G#-F-E-D-C-B-A-B-C-D-E
b6	Lydian sharp two	F-G#-A-G#-F-E-D-C-B-A-B-C-D-E-F
7	"Mixolydian sharp one"	G#-A-G#-F-E-D-C-B-A-B-C-D-E-F-G#

Key Scales Defined

The key scale is named after the tone center (defined earlier). You would expect the section (or song) to end on the note after which the key is named. It is generally best to predominate a melody with key scales that retain a melodic thread which moves toward its eventual goal of the tonic chord.

Chord Scales Defined

For the purpose of considering a chord as a temporary key (to improvise on it, for example), the root of the chord can be considered a temporary tone center. You should determine in context which type of scale would be used on the chord. The chord scale for adjacent chords in a progression would typically share the same parent scale. For example, Dm could use D Dorian mode, G major could use G Mixolydian, where the parent major scale is C major (since the notes of D Dorian, G Mixolydian and C major are all the same). If too much focus is put on chord scales rather than key scales, the music can sound fragmented and disjointed.

MODULATION AND VOICE LEADING

Modulation Through Pivotal Relationships

Memorize all major scale-tone triads, seventh chords and modes. Be able to recall them in stepwise order, in thirds and in fourths; ascending and descending order. Begin to conceive major scale-tone chord progressions in many keys. Abstractly combine the chords from one major scale with those from another through (1) a chord common to both of them, or (2) use of an altered chord and a second major scale set of chords that includes the altered chord.

Compose ten triad chord progressions of four chords or more each. For the first five or so progressions, use triads exclusively from one major scale (Book 3, Chapter 25, pages 285-287). Any triad of the major scale may be the main chord (mode). Mix the root movement between stepwise, thirds and fourths (you don't have to use all three types in each progression).

For the next couple of progressions, use a pivotal chord common to two major scales. For the last couple of progressions, use of an altered chord and a second major scale set of chords that includes the altered chord.

Voice Leading

In studying the arrangement of chord tones of one chord moving to those of another, each note in a chord is called a *voice* and has a logical destination in the next chord. As a voice progresses through a number of chords, it creates a *voice path*. The study of the path created by each voice is called *voice leading*. The study of the matrix of paths created by a number of voices is called *voice mapping*. Voice leading is explained in further detail in the chapter on [voice leading](#).

RECOGNIZING CHORD PROGRESSIONS

The two most effective clues to use in recognizing which major scale a progression was constructed on are:

- Two chords of the same quality on adjacent scale steps, where you should suspect they are derived from steps two and three of a major scale if they are both minor or steps four and five of a major scale if they are both major. The chords don't need to have occurred in alphabetical order in the progression, you can re-order them.
- Two or more chords whose roots can be ordered in perfect fourths.

Unaltered Major Scale-Tone Chord Progression Exercise

Listen to each song (if you have the recording). Play the progression on Songs By Letter Name. Determine the major scale from which the chords came and the tonic chord (chord you would expect the song or section to end on). The chords won't necessarily occur in the same order in the song as they do on the Major Scale-Tone Chords reference chart. Look for:

- (1) two chords of the same quality that could be put in alphabetical order.
- (2) two or more chords that could be put in an order of fourths. Identify the major scale in which the chord qualities would match those in the song (major, minor).

<u>title</u>	<u>parent scale (of)</u>	<u>tonic chord</u>	<u>key scale (in)</u>
Afro Blue, section A	Eb major	Fm	F Dorian
Afro Blue, section B	Ab major	Fm	F Aeolian
Ain't No Sunshine	C major	Am	A Aeolian
All Along the Watchtower	Eb major	Cm	C Aeolian
Black verse	A major	E7	E Mixolydian
Blue Moon	C major	C	C major
Come To My Window	C major	C	C major
Flake verse	F major or Bb major	Dm or F	D Aeolian or F major (more likely than modes of Bb major)
Heart of Gold intro	G major	Em	E Aeolian
Heart of Gold verse	G major	G	G major
Hound Dog	C major	C	C major
How's It Gonna Be	F major	F	F major
Imagine verse and bridge	C major	C	C major
I'm Lookin' Through You	G major	G	G major
Island In the Sun	G major	G	G major
Knockin' On Heavens	A major	A	A major
Kodachrome verse	E major	E	E major
Like A Rolling Stone	C major	C	C major
Minority (exclude the B chord)	C major	C	C major

Polly verse	G major	Em	E Aeolian
Runaway chorus	A major	A	A major
Say It Ain't So verse	E major	E	E major
Save Tonight	C major	Am	A Aeolian
Soul To Squeeze (after intro)	F major	F	F major
Sympathy For Devil verse	A major	E	E Mixolydian
Time Of Your Life	G major	G	G major
Under the Boardwalk verse	G major	G	G major
Under the Boardwalk chorus	G major	Em	E Aeolian
What's It like	C major or F major	Dm	D Dorian or D Aeolian
Yellow Ledbetter	E major	E	E Major

Altered Major Scale-Tone Chord Progression Exercise

chords changed to set up a cadence

In each case, a chord on the fifth step of a major scale based on the target chord is changed from minor to major.

III^m chords of the parent major scale changed to III major (V of VI^m: V of chord scale to VI^m of parent scale)

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>V of target chord</u>	<u>target chord</u>
Put Your Lights On	C major	A Aeolian	E	Am
Runaway verse	C major	A Aeolian	E	Am
Flake chorus	F major	D Aeolian	A	Dm

II^m chords of the parent major scale changed to II major (V of V: V of chord scale to V of parent)

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>V of target chord</u>	<u>target chord</u>
Are You Lonesome Tonight	C major	C major	D	G (target chord)
Help! intro.	D major	D major	E	A (target chord)

in "Help!" intro., the progression suggests that it would end on a D major chord, but D major is never played.

VI^m chords of the parent major scale changed to VI major (V of II^m: V of chord scale to II^m of key and parent scale)

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>altered chords</u>
Me and My Uncle	D major	E Aeolian	B = V of II ^m (B ^m to B major)
Kodachrome chorus	A major	A major	C# = V of VI (C# ^m to C# major), F# = V of II ^m (F# ^m to F# major)

I chords of the parent major scale changed to I7 (V of IV: V of chord scale to IV of parent)

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>V of target chord</u>	<u>target chord</u>
Are You Lonesome Tonight	C major	C major	C7	F (target chord)

chord qualities changed to alter the mood

darkening the mood by changing major chords to minor

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>altered chords</u>
Sleepwalk	C major	C major	F changed to F ^m

brightening the mood by changing m7 or major seventh chords to dominant seventh

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>altered chords</u>
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Black chorus	G major	E Aeolian (alt.)	Em7 changed to E7
--------------	---------	------------------	-------------------

brightening the mood by changing minor chords to major

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>altered chords</u>
Ends verse	Bb major (alt.)	G Aeolian (alt.)	Gm changed to G
Imagine chorus of F)	C major (alt.)	C major (alt.)	Em changed to E (becomes lower chromatic)
Fly Away	G major (alt.)	Bb Aeolian (alt.)	Bbm changed to Bb, Ebm changed to Eb
In Bloom verse	Db major (alt.)	Bb Aeolian (alt.)	Bbm changed to Bb, Ebm changed to Eb B and A are upper & lower chromatics to Bb
Polly bridge	F major	D Aeolian (alt.)	Dm changed to D, Gm changed to G

darkening the mood by changing major seventh chords to dominant seventh

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>altered chords</u>
Torn	Eb major	F Dorian	Bbma7 changed to Bb7 (as in a Blues in F)

mode (scale) changed to alter the mood

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>changed chord(S) and description</u>
Say It Ain't So bridge B B E	E major	B Mixolydian	G changes to B Aeolian

pivotal chords (in two or more major scales in their unaltered form)

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>altered chords</u>
Help! verse	A major/D major	A major/A Mixo.	D is of A and D major, G = bVII of A Mixo, V of D
You've Got To Hide verse	G major/C major	G major/G Mixo.	C and G are of C and G major, F = IV of C, bVII in G Mixo.

extractions from longer progressions

<u>title</u>	<u>parent scale (of)</u>	<u>key scale (in)</u>	<u>altered chords</u>
Debasser	F major	F major	Gm changed to G major (suggests G would progress to C, although it doesn't). Extracted from F Bb G C, without the C.

Chord Options for a Melody

- **Expand Your Palette of Chord Options for a Melody**
- **Create or Find a Melody**
- **Determine the Core Melody**
- **Write Down the Core Melody Letter Names**
- **Define the Scale**
- **Find Chord Options for Each Core Melody Note**
- **Examples**

EXPAND YOUR PALETTE OF CHORD OPTIONS FOR A MELODY

Develop the Ability to Compose and Improvise

How do you develop the ability to compose and improvise?

- Memorize fingerings for seventh chords with roots ascending in fourths.
- Learn secondary dominants and flat five substitutes and the fingerings for them.
- Think of chords as a collection of voices, like a vocal or instrumental group and direct the movement of each voice with movement by small or predictable intervals.
- Think the rhythm for your improvisation separate from the pitches, then put the two together.
- Key scales are named after the key and are easier for the listener to predict your melody. Chord scales illustrate the sound of each chord, but you should predominate your melody with key scales, using chord scales sparingly.
- Improvise emotively. Sing your melody as you play it.
- For each recording or performance, work up a few sketches of chord progression and melody to make your performance meaningful and memorable.

Purposing Chord Options

You can use what you learn in this chapter in composing, arranging and improvising. You could determine chords for a melody (a cover song melody, your original or in your improvisation) and conceive other chord options for:

- Another song section with the melody in another key and/or another mode.
- A version of the chords to be used in an improvisation where the accompaniment is playing one progression and you suggest a different but compatible one in your improvisation.
- Another version of the original section with more elaborate chords to be played as an interlude or intro. Imagine Kingston Trio performing *Tom Dooley* on the Hootenany TV in the early sixties (the American folk era) where the Kingston trio played and sang two verses with only the simple E and B7 chords, followed by a small orchestra and choir singing a more elaborate and lush alternate version of the chords, while a harmonica plays the melody.

CREATE OR FIND A MELODY

Create an original melody or use an existing melody of three to ten notes (to make the process manageable).

DETERMINE THE CORE MELODY

The core melody has fewer notes, using the main notes of the original melody. See Part 5 of this course, including the chapters [Core Melody on Triad Chord Progression](#), [Core Melody on Quadrad Chord Progression](#) and [Core Melody Built with Duality Tones](#).

WRITE DOWN THE CORE MELODY LETTER NAMES

Write the core melody in letter names on a piece of paper from left to right *in pencil*, spaced to allow writing columns of chord names in rows beneath the row of core melody note names.

DEFINE THE SCALE

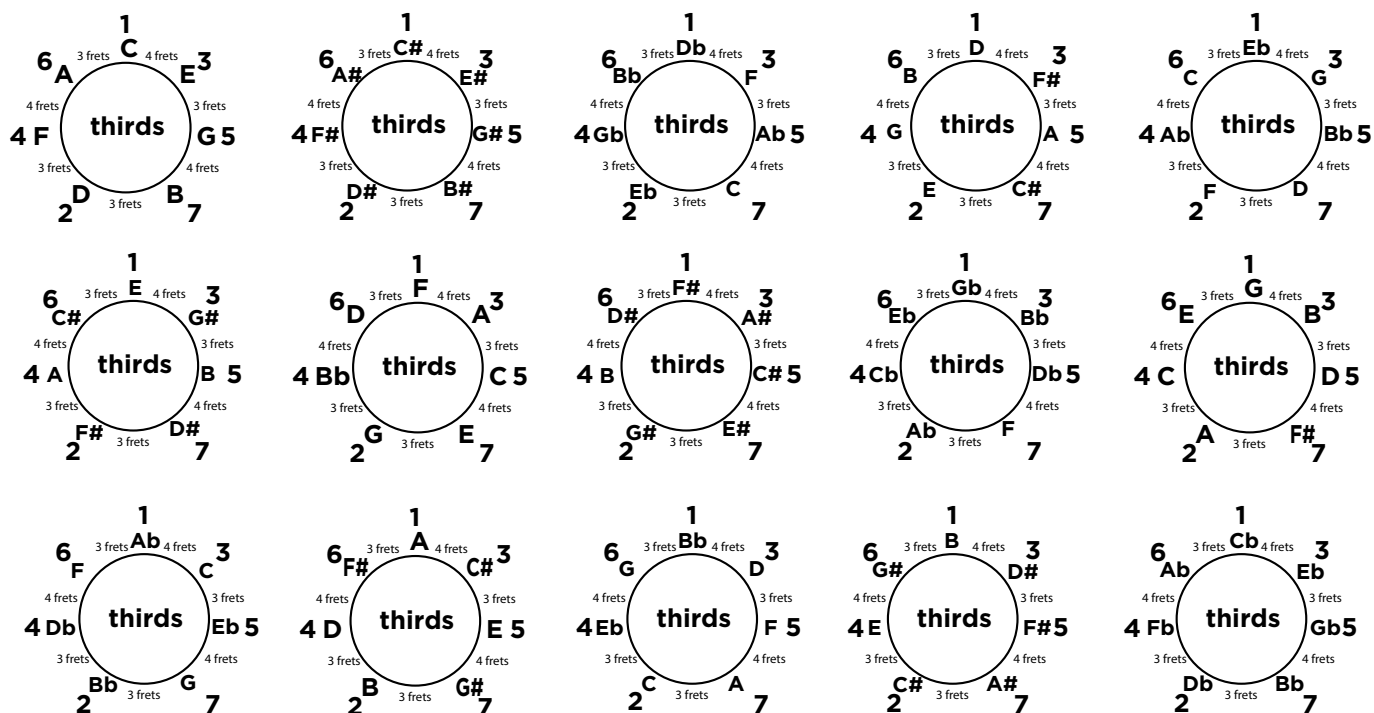
Consider a major scale (or one of 3 other harmonizable 7 note scales) that includes ALL THE MELODY NOTES. On Number & Letter Cycles page 2, look for a candidate major scale that includes all of your melody notes). For example, E-G-B are in the C major, G major and D major scale. Begin by considering one of those major scales at a time until you are more proficient. If the melody you are considering is solely the notes of a major or minor pentatonic scale (Tom Dooley is E major pentatonic), there will be three major scale candidates. Six-tone scales: if the melody is a minor pentatonic add 2 or b2 or is a major pentatonic add 4 or sharp 4, there are two major scale candidates.

FIND CHORD OPTIONS FOR EACH CORE MELODY NOTE

Choose a scale in a common mode first, like major, Dorian, Mixolydian or Aeolian. With triads, for EACH CORE MELODY NOTE “back cycle” thirds to find the three possible chord roots by going counter-clockwise on “Thirds Letter Cycles in All Keys”, below. Think of the letters with their chord names, where I, IV and V are major; II, III and VI are minor and VII is diminished. A “G” note in a C scale could have a C, E or G root. To find the C, E and G, back-cycle thirds, which means I started on “G” and went counter-clockwise in the cycle of thirds to include three letters (C-E-G) where for each letter a three note chord would include the note “G”. C-E-G is C major, E-G-B is Em and G-B-D is G major.

Thirds Letter Cycles in All Keys

For each cycle, the key letter name is below the number “1”.



WRITE CHORD NAMES FOR EACH MELODY NOTE

Write one of the possible chord names for each melody note below it, to begin forming a row of chord names. Write lightly in pencil at first, so you can easily change chord options to create sequences of chords that are likable to you and appropriate in mood and style for your developing song.

Number and Letter Cycles see the thirds on the second page Back Cycling Thirds

EXAMPLES

Harmonizations of The River on [Youtube](#)

Tom Dooley on [Youtube](#)

Open-Position Basslines

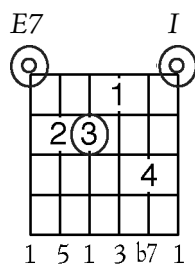
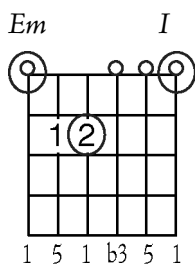
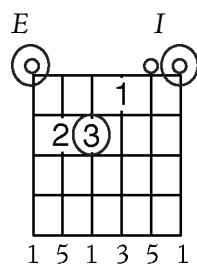
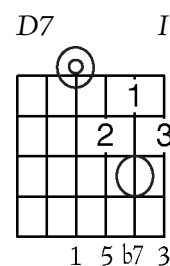
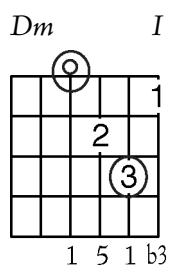
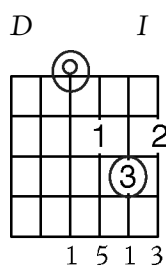
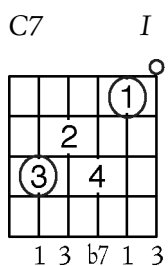
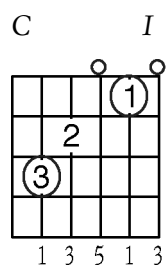
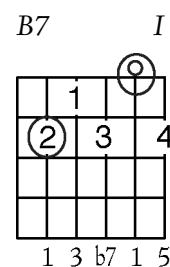
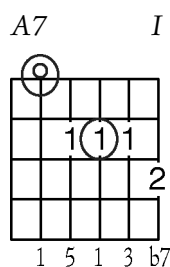
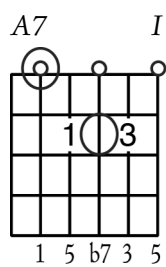
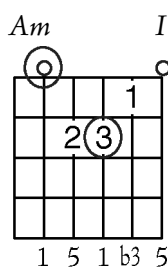
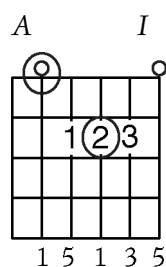
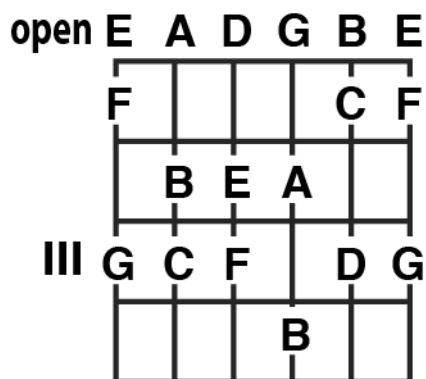
- **What You Need To Know**
- **Roots and Fifths in Basslines**
- **Roots, Thirds and Fifths in Basslines**
- **Open Chord Basslines, Low Octave**
- **Open Chord Basslines, Full Octave**
- **Bassline Pickups**

WHAT YOU NEED TO KNOW

Before studying this chapter, make sure you are familiar with [Note Sets, Structures and Design](#) and with [Basic Chord Construction](#).

ROOTS IN BASSLINES

In all of the most common open chord fingerings, the chord root is on the largest string used in the chord.



ROOTS AND FIFTHS IN BASSLINES

1 5 1 3 5

A

5 1 5 b7 3 5

Am

1 5 b7 3 5

A⁷

1 3 b7 1 5

B⁷

1 3 5 1 3

C

1 3 b7 1 3

C⁷

1 5 1 3

D

1 5 1 b3

Dm

1 5 b7 3

D⁷

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I Saw Her Standing There, Roots and Fifths in the Bass

This tablature provides a bass line for the song "I Saw Her Standing There," focusing on playing the root and fifth of the chords in the bass. The key signature has one flat (Bb), and the time signature is 4/4. The progression consists of 16 measures, grouped into four systems of four measures each. Chords are indicated above the staff: C7 (measures 1-4), F (measures 5-8), G7 (measures 9-12), and Ab (measures 13-16). The bass line uses a consistent pattern of eighth notes for the root and fifth of each chord, with triplets indicated by a '3' over the notes. Fingering is indicated by numbers 0-4 on the strings.

System 1 (Measures 1-4): Chords C7, F, C7. Bass line: C7 (root, fifth), F (root, fifth), C7 (root, fifth).

System 2 (Measures 5-8): Chords C7, G7, G7, G7. Bass line: C7 (root, fifth), G7 (root, fifth), G7 (root, fifth), G7 (root, fifth).

System 3 (Measures 9-12): Chords C7, F, Ab, Ab. Bass line: C7 (root, fifth), F (root, fifth), Ab (root, fifth), Ab (root, fifth).

System 4 (Measures 13-16): Chords C7, G7, C7, C7. Bass line: C7 (root, fifth), G7 (root, fifth), C7 (root, fifth), C7 (root, fifth).

The Secondary Dominant Thirds and Fourths Chord Cycle

See [Secondary Dominant/Scale-Tone Secondary Dominant](#).

5

9

13

Chords and positions shown in the score:

- C (root 0, fifth 0)
- E⁷ (root 3, fifth 0)
- A^m (root 0, fifth 0)
- C⁷ (root 0, fifth 0)
- F (root 1, fifth 1)
- A⁷ (root 0, fifth 0)
- D^m (root 1, fifth 1)
- F⁷ (root 4, fifth 4)
- B^b (root 6, fifth 6)
- D⁷ (root 3, fifth 3)
- G (root 3, fifth 3)
- B⁷ (root 2, fifth 2)
- E^m (root 0, fifth 0)
- G⁷ (root 1, fifth 1)
- C (root 0, fifth 0)
- G⁷ (root 1, fifth 1)
- C (root 0, fifth 0)

ROOTS, THIRDS AND FIFTHS IN BASSLINES

Under The Boardwalk-Roots, Thirds and Fifths in the Bass

verse

21 Em D

root third fifth root third fifth root third fifth root third fifth

T	0	0	0	0	0	2	2	2	2	2	2
A	0	0	0	0	0	3	3	3	3	3	3
B	2	2	2	2	2	2	2	2	2	2	2
	0	3	2	2	0	3	2	2	0	4	2

25 Em

repeat verse

T	0	0	0	0
A	0	0	0	0
B	2	2	2	2
	0	0	0	0

OPEN CHORD BASSLINES, LOW OCTAVE

play in reverse order, also

Am 1-b7-b6-5 1-b7-6-5 1-7-b7-6-b6-5

1 1 1 1 1 1 1 1 0 0 1 1 2 0
3 3 3 3 3 3 3 3 1 1 3 4 4 1
0 2 4 2 T 2 0 2 0 2 4 2 4 2 2 3 T 3 0 3

TAB: 0 3 1 0 0 3 2 0 0 4 3 2 1 0

A 1-b7-6-5 1-7-6-5 1-7-b7-6-b6-5

1 1 1 1 1 1 1 1 1 1 1 3 3 3
1 1 1 1 1 1 1 1 1 1 1 3 3 3
0 1 2 1 2 1 0 1 0 1 3 1 2 1 0 1 0 1 3 1 2 1 2 3 1 3 0 3

TAB: 0 3 3 2 0 4 3 2 0 4 3 2 1 0

Bb 1-b7-6-5 1-7-6-5 1-7-b7-6-b6-5

3 1 3 3 3 1 3 3 3 3 1 1 3 3
3 1 3 3 3 1 3 3 3 3 1 1 3 3
1 3 2 1 2 3 1 3 0 3 0 1 2 3 1 3 1 3 0 3 2 1 1 1 1 3 1 3

TAB: 1 4 3 1 1 0 3 1 1 0 4 3 2 1

Bm 1-b7-b6-5 1-b7-6-5 1-7-b7-6-b6-5

2 2 2 2 2 2 1 2 2 2 2 1 2 2
4 4 4 4 4 4 4 4 4 4 4 4 4 4
1 3 0 3 1 3 1 3 1 3 0 3 2 3 1 3 1 3 1 3 0 3 2 3 1 3 1 3

TAB: 2 0 3 2 2 0 4 2 2 1 0 4 3 2

29 Cm 1-b7-b6-5 1-b7-6-5 1-7-b7-6-b6-5

T 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B 3 1 4 3 3 1 0 3 3 2 1 0 4 3

36 C 1-b7-6-5 1-7-6-5 1-7-b7-6-b6-5

T 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
B 3 0 2 0 0 0 3 0 3 0 2 0 2 0 0 0 0 2 0 2 0 0 0 4 0 3 0

43 D 1-b7-6-5 1-7-6-5 1-7-b6-b6-5

T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 3
A 3 3 3 3 2 2 2 2 2 2 3 3 3 3 4 4
B 0 1 2 1 1 1 0 1 0 1 3 1 2 1 0 1 0 1 3 1 2 1 1 1 1 2 0 2

50 Dm 1-b7-b6-5 1-b7-6-5 1-7-b7-6-b6-5

T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
A 4 4 4 4 4 4 4 4 3 3 4 4 4 4 4 4
B 0 2 3 2 1 2 0 2 0 2 3 2 3 2 0 2 0 2 4 2 3 2 3 2 1 2 0 2

barré five strings,
tilt the fingertip away
for the last bass note

barré five strings,
tilt the fingertip away
for the first bass note

57 E 1-b7-6-5 1-7-6-5 1-7-b7-6-b6-5

0 0 0 0 0 0 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 2 1 0 1 4 1 2 1 2 1 2 1 0 1 4 1 3 1 2 1

T 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 A 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 B 2 1 0 1 4 2 2 1 1 1 1 1 0 1 4 1 4 2

64 Em 1-b7-b6-5 1-b7-6-5 1-7-b7-6-b6-5

0 0 0 0 0 0 0 0 0 0 0 0 0 0
 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 2 0 0 0 3 0 2 0 2 0 0 0 4 0 2 0 2 0 1 0 0 0 4 0 3 0 2 0

T 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 A 0 0 0 0 0 0 0 0 0 0 0 0 0 0
 B 2 0 0 0 3 2 2 0 0 0 0 0 2 0 1 0 0 0 4 0 3 2

71 F 1-b7-6-5 1-7-6-5 1-7-b7-6-b6-5

1 1 1 1 0 0 0 0 0 0 0 0 0 0
 1 1 1 1 0 0 0 0 0 0 0 0 0 0
 3 2 1 2 0 2 3 2 3 1 3 1 0 1 3 1 3 1 2 1 1 1 0 1 4 1 3 1

T 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 A 2 2 2 2 2 2 2 2 2 2 2 2 2 2
 B 3 1 0 3 3 2 2 0 3 2 2 1 2 0 4 3

78 F#m 1-b7-b6-5 1-b7-6-5 1-7-b7-6-b6-5

1 1 1 1 1 1 2 1 1 1 1 2 1 1
 1 1 1 1 1 1 2 1 1 1 1 2 0 1 1
 3 1 1 1 0 1 3 1 3 1 1 1 1 2 3 1 3 1 2 1 1 1 1 2 0 1 3 1

T 2 2 2 2 2 2 2 2 2 2 2 2 2 2
 A 2 2 2 2 2 2 2 2 2 2 2 2 2 2
 B 4 2 0 4 4 2 1 4 4 3 2 2 1 0 4

barré 4 strings barré 3 strings barré 3 strings barré 3 strings barré 4 strings barré 3 strings

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85 G 1-b7-6-5 1-7-6-5 1-7-b7-6-b6-5

4 4 3 3 3 3 3 3 3 3 1 3 3 3
3 3 2 2 2 0 2 2 2 0 2 2 2 2
0 2 1 0 0 0 0 4 1 0 0 0 0 4 1 1 1 4 1 4 0 4

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3
A 0 3 2 0 0 0 0 4 4 0 0 0 4 4 4 4 4 4 4 4
B 3 2 0 0 4 4 2 0 0 4 4 3 4 2 4 1 4 0 4

92 Gm 1-b7-b6-5 Gm 1-b7-b6-5 1-7-b7-6-b6-5

1 1 3 3 1 1 2 2 1 1 1 2 3 3
1 1 3 3 1 1 2 2 1 1 1 2 3 3
3 1 3 1 1 3 0 3 3 1 3 1 1 2 0 2 3 1 2 1 1 1 1 2 1 3 0 3

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3
A 5 3 1 0 5 3 2 0 5 4 3 2 1 0 3
B 5 3 1 0 5 3 2 0 5 4 3 2 1 0 3

barré 4 strings barré 3 strings barré 4 strings barré 3 strings barré 4 strings barré 3 strings

OPEN CHORD BASSLINES, FULL OCTAVE

play in reverse order, also

Am
Am Aeolian

0 1 0 0 0 0 0 0
0 3 4 3 4 3 0 3 2 3 4 3 0 1 3 1

T 0 0 0 0 0 0 0 0
A 2 2 2 2 2 2 2 2
B 0 2 3 0 2 3 2 1 2 1

5 Am
Am Dorian

0 1 0 0 0 0 0 0
0 3 4 3 4 3 0 3 2 3 4 2 0 1 2 1

T 0 0 0 0 0 0 0 0
A 2 2 2 2 2 2 2 2
B 0 2 3 0 2 4 2 1 2 1

9 A
A major Mixolydian

0 2 0 0 0 0 0 0
0 1 3 1 4 1 0 1 3 1 4 1 0 2 1 2

T 0 0 0 0 0 0 0 0
A 2 2 2 2 2 2 2 2
B 0 2 4 0 2 4 2 2 2 2 2 2 0 2 2 2

13 A
A major Ionian

0 2 0 0 0 0 0 0
0 1 3 1 4 1 0 1 3 1 4 1 1 2 1 2

T 0 0 0 0 0 0 0 0
A 2 2 2 2 2 2 2 2
B 0 2 4 0 2 4 2 1 2 2 2 2 1 2 2 2

17 Bb

Bb major
Mixolydian

1 4 4 0 4 4 1 1 1 1 1 1 1 1 1 1

1 3 2 3 0 3 1 3 2 3 0 4 1 4 3 4

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

A 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

B 1 3 3 0 3 1 3 3 0 3 1 3 3 3 3 3

21 Bb

Bb major
Ionian

1 4 4 0 4 4 1 1 1 1 1 1 1 1 1 1

1 3 2 3 0 3 1 3 2 3 0 4 2 4 3 4

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

A 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

B 1 3 3 0 3 1 3 3 0 3 1 3 3 3 3 3

25 Bm

Bm
Aeolian

1 2 2 0 2 2 3 2 2 2 2 2 2 2 2 2

1 4 3 4 0 4 1 4 3 4 0 3 1 3 4 3

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

A 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

B 2 4 4 0 4 2 4 4 0 4 2 4 4 4 4 4

29 Bm

Bm
Dorian

1 2 2 0 2 2 3 2 2 2 2 2 2 2 2 2

1 4 3 4 0 4 1 4 3 4 1 3 1 3 4 3

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

A 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

B 2 4 4 0 4 2 4 4 0 4 2 4 4 4 4 4

33 C

C major
Mixolydian

0 0 0 0 0 0 1 1
1 1 1 1 1 1 4 4
3 0 0 0 2 0 3 0 0 2 1 3

T 0 0 0 0 0 0 3 3
A 1 1 1 1 1 1 5 5
B 3 0 2 3 0 2 3 5

37 C

C major
Ionian

0 0 0 0 0 0 1 1
1 1 1 1 1 1 4 4
3 0 0 0 2 0 3 0 0 2 2 3

T 0 0 0 0 0 0 3 3
A 1 1 1 1 1 1 5 5
B 3 0 2 3 0 2 4 5

41 Cm

Cm
Aeolian

2 3 3 3 3 3 3 1
4 4 4 4 4 4 4 2
2 0 0 0 1 0 2 0 0 1 2 3

T 3 3 3 3 3 3 3 3
A 4 4 4 4 4 4 4 4
B 0 0 0 0 0 0 1 3 0 4 5 4

45 Cm

Cm
Dorian

3 3 3 3 3 3 3 2
4 4 4 4 4 4 4 3
2 0 0 0 1 0 2 0 0 1 2 3

T 3 3 3 3 3 3 3 3
A 4 4 4 4 4 4 4 4
B 0 0 0 0 0 0 1 3 0 4 10 4

49 D

D major
Mixolydian

1 1 1 1 1 1 1 1 1 1

2 2 2 2 2 2 2 4 4

0 1 1 1 4 1 0 1 3 1 3

T 2 2 2 2 2 2 2 5 5

A 2 2 2 2 2 2 2 7 7

B 0 2 2 4 0 2 2 4 7 7

53

D major
Ionian

1 1 1 1 1 1 1 1 1 1

2 2 2 2 2 2 2 4 4

0 1 1 1 4 1 0 1 3 2 3

T 2 2 2 2 2 2 2 5 5

A 2 2 2 2 2 2 2 7 7

B 0 2 2 4 0 2 2 6 7 7

57 Dm

Dm
Aeolian

1 1 1 1 1 1 1 1 1 1

4 4 4 4 4 4 2 2 2

0 2 3 1 3 1 0 2 4 1 3

T 2 2 2 2 2 2 2 5 5

A 2 2 2 2 2 2 2 6 6

B 0 2 2 3 2 0 2 3 7 6

61 Dm

Dm
Dorian

1 1 1 1 3 1 2 2 2

4 4 4 4 4 4 1 3 4

0 2 3 1 3 1 0 2 3 1 3 4 3

T 2 2 2 2 2 2 2 5 5

A 2 2 2 2 2 2 2 6 6

B 0 2 2 3 2 0 2 4 6 5 6 7 6

65 E

E major
Mixolydian

69 E

E major
Ionian

73 Em

Em
Aeolian

77 Em

Em
Dorian

81 F

F major
Mixolydian

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

85 F

F major
Ionian

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

89 F#m

F#m
Aeolian

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

93 F#m

F#m
Dorian

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

1 2 3 4 3 2 1 3 2 1 3 2 1 3 2 1

97 G

G major
Mixolydian

1 0 0 0 1 0 1 0 0 0 1 0 1 0 0 0

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B 3 0 2 3 0 2 3 0 3 0 0 0 0 0 0 0

101 G

G major
Ionian

1 0 0 0 1 0 1 0 0 0 1 0 4 0 0 0

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
B 3 0 2 3 0 2 3 0 4 0 0 0 0 0 0 0

105 Gm

Gm
Aeolian

2 0 0 0 1 0 2 0 0 0 1 0 1 1 3 1

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
A 0 0 0 0 0 0 0 0 0 0 0 0 1 1 5 1
B 3 0 1 3 0 1 3 0 3 3 5 3 3 3 3 3

109 Gm

Gm
Dorian

0 0 0 0 1 0 2 0 0 0 1 0 1 1 3 1

T 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
A 0 0 0 0 0 0 0 0 0 0 0 0 1 1 5 1
B 3 0 1 3 0 1 3 0 3 3 5 3 3 3 3 3

BASSLINE PICKUPS

What is a Bassline Pickup?

A bassline pickup is a series of notes played before the first beat of a chord. The chord being led into is the target chord. The notes may come from an arpeggio or scale. They may represent the sound of the chord they precede or they may represent the sound of a chord that progresses to the target chord.

three-note C major scale pickup

one note pickup, using a scale-tone neighbor of the target

C major pentatonic pickup with the last note as a neighboring tone of the target chord

G major pentatonic pickup with an octave displacement to low C

The Target Chord

The target chord can be any chord in a chord progression, commonly the first chord in the chord progression. It usually begins on the first beat, but it can be on the third beat in 4/4, or even the third beat in 3/4. The target tone is the first note played at the beginning of the target chord.

The Setup Chord

The setup chord is the chord preceding the first beat of the first bar of the main chord progression. For example, G7 can precede C. G7 can be represented with a G major pentatonic, G Mixolydian mode (G major scale with flat seven = C major scale), a G major arpeggio or a G7 arpeggio.

Scales And Arpeggios Used in Pickups

arpeggios

pentatonic scales

heptatonic (7-tone) scales

arpeggios with passing tones and neighboring tones

pentatonic scales with added tones (add 4 for major, add 2 for minor)

Rhythms Used in Pickups

continuous eighths, triplets or sixteenths

Irregular rhythms

combined quarters and eighths, rhythmic words, syncopated series

The Linear Pickup

A linear pickup is a series of ascending or descending scale or arpeggio tones that precede the target chord in ascending or descending order.

Non-Linear Pickups

When a scale or arpeggio changes direction in regard to ascending or descending, it is non-linear. Pickups don't have to be entirely linear. They are usually all or mostly linear.

skipping to a neighbor of the target at the last pickup tone

resolution with an octave displacement

The Pickup Bar

The pickup bar, sometimes called bar zero in software, is the bar preceding bar one, the beginning of a section. The pickup bar can contain notes of an arpeggio or scale for the setup chord (G7) or the target chord (C).

Setup Chord Pickups During the Target Chord

Setup chord pickups can also be used during a target chord, where a setup chord (G7) is sounded in the melody, but not in the accompaniment. In such a situation, the setup chord should be one to two seconds at most, usually closer to one second. At 120 BPM, two beats is one second. Otherwise, the listener will have too long a time to ponder the “mismatching” of the melody and accompaniment chords.

The Pickup Series

Start with increasing numbers of pickups, using the pickup series.

pickup with tones (or a scale) of the setup chord

Play one note (the setup tone) of G7 as the last eighth note in the pickup bar. Then play a single triad tone of the target chord, with the smallest interval possible from the setup tone or the setup tone can be “5” of the key of the target chord (the note “G”), progressing to “1” of the target chord (the note “C”).

Progressively add more pickup notes as in the pickup series. For example, play the last eighth note in the pickup bar, then the last two eighth notes, the last three, etc.

pickup with tones (or a scale) of the target chord

Play one note of C as the last eighth note in the pickup bar. Then play a single triad tone of the target chord, with the smallest interval possible from the setup tone or the setup tone can be “5” of the key of the target chord (the note “G”), progressing to “1” of the target chord (the note “C”). Progressively add more pickup notes as in the pickup series.

Adding Chromatics

Chromatics may be added between 2 and 3 or between 5 and 6 of major pentatonic. Chromatics may be added between 4 and 5 or between b7 and 1 of major pentatonic.

The Strength Of Resolution

strength of resolution according the last pickup tone

The last pickup tone will be well-remembered by the listener, usually strongest of the pickups tones. The last pickup tone can be a setup chord tone, a neighboring tone of the target tone, a lower chromatic for the target tone. The setup tone can also be the fifth of the key of the target chord progressing to the root of the target chord. In order of strength, they are:

strong: lower chromatic of the target tone or fifth of the target chord progressing to the root

moderate: a neighboring scale tone of the target tone

weak: a chord tone that is not a neighbor of the target tone

the lower sixth and upper flatted third as neighboring tone pickups

Both of these resolve to the root of the target chord. As a lower neighboring tone, the sixth of the target chord may approach from below to the root of the target chord from below, usually in the context of a major pentatonic scale. With another minor third interval, the flat three of the target chord may approach from above to the root of the target chord.

strength according the quality of the setup chord

Setup chords that are better known to progress to target chords are stronger in their resolution to the target chord.. Dissonant V or bII of target chords are very strong in their resolution to the target chord.

Triad Bass Harmonization

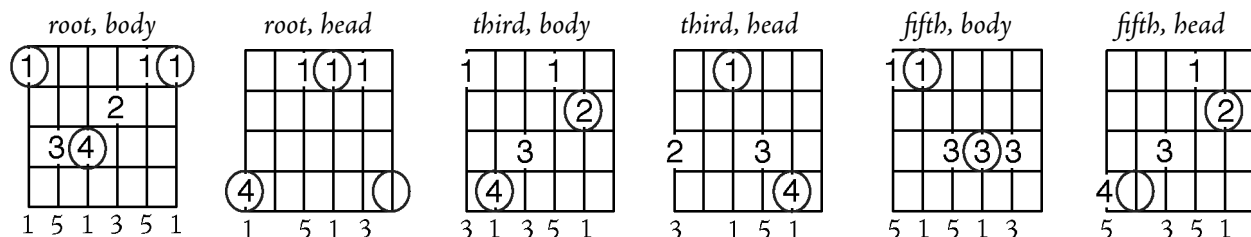
- **Strumable Triad Inversions**
- **Three Note Close-Voiced Triad Inversions**
- **Three Note Open-Voiced Triad Inversions**
- **Basslines with Strumable I, IV and V Triads**
- **Basslines with Strumable I, IV, V and IIm Triads**
- **Basslines with Strumable VIm, IV and V Triads**
- **Triad Descending Bass Harmonization**

STRUMABLE TRIAD INVERSIONS

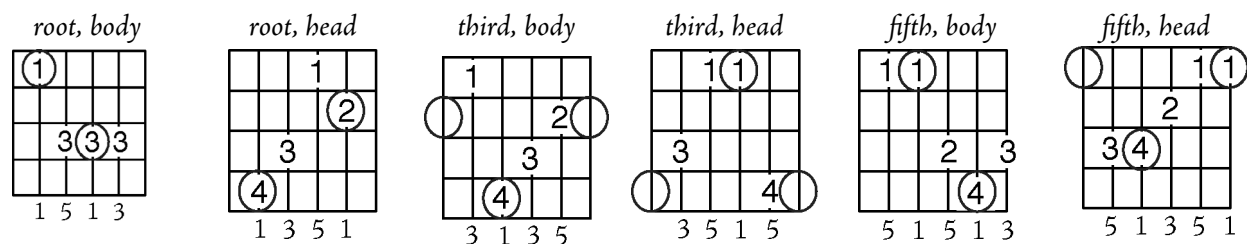
“head” and “body” refer to the fingering extending from the root, third or fifth toward the head of the guitar or the body of the guitar.

strumable major

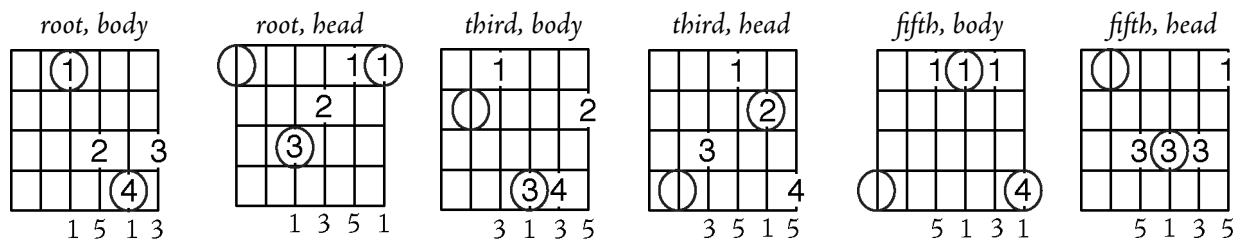
sixth string bass, major



fifth string bass, major

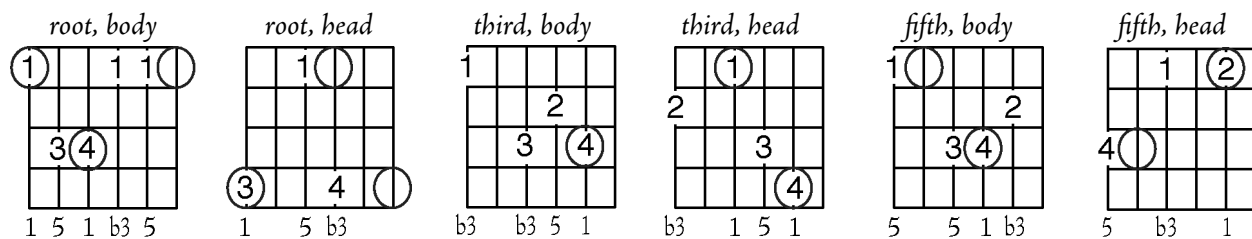


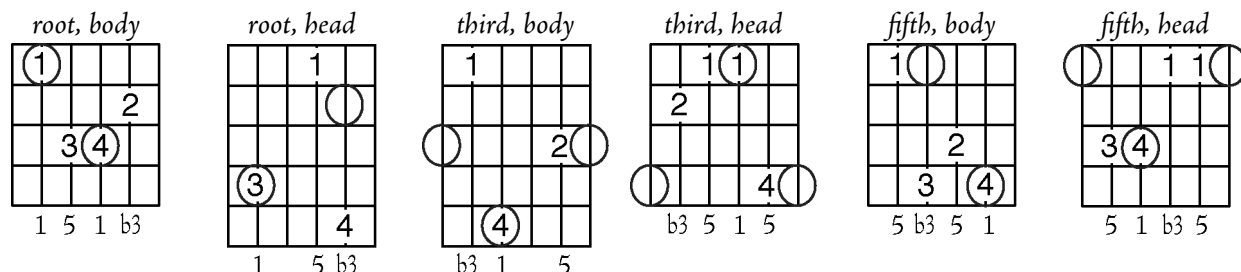
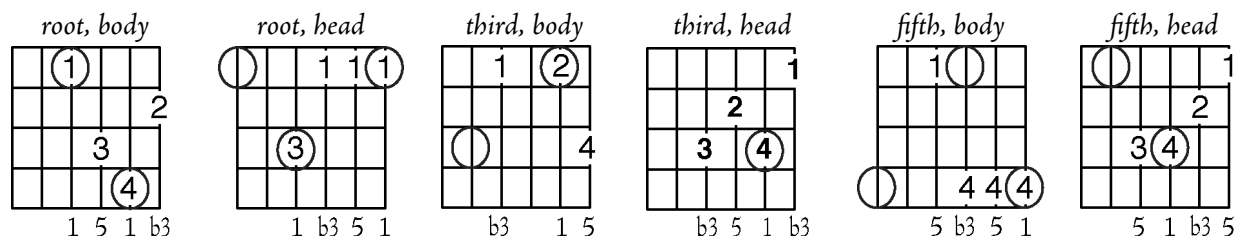
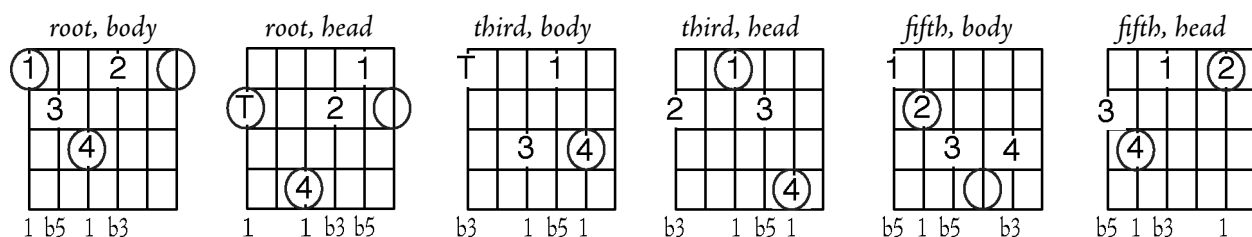
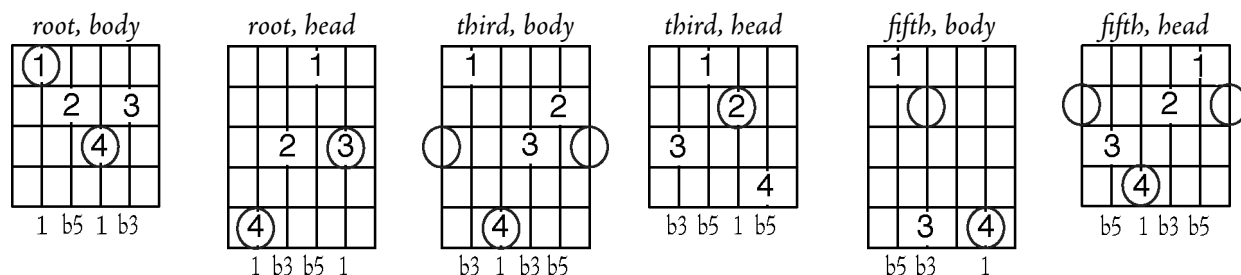
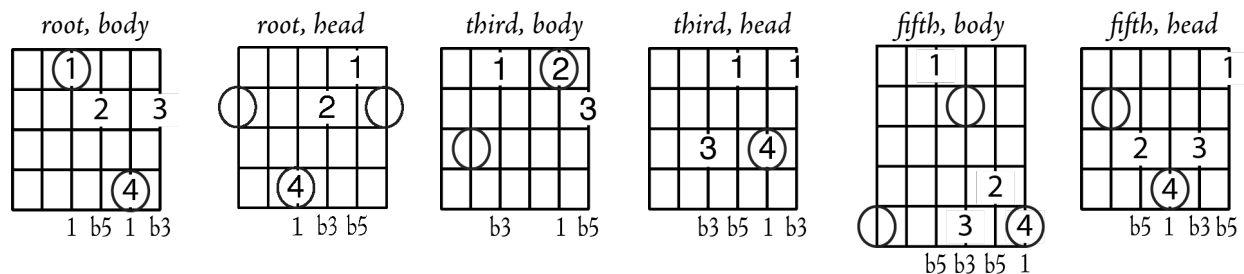
fourth string bass, major



strumable minor

sixth string bass, minor



fifth string bass, minor**fourth string bass, minor****strumable diminished****sixth string bass, diminished****fifth string bass, diminished****fourth string bass, diminished**

CLOSE-VOICED 3-NOTE TRIAD INVERSIONS

inversion sequences by position in rows and by bass string in columns

<p>A V</p>	<p>A V</p>	<p>A VI</p>	<p>A VII</p>	<p>major</p>
<p>A IX</p>	<p>A IX</p>	<p>A IX</p>	<p>A XI</p>	
<p>A XII</p>	<p>A XIV</p>	<p>A XIV</p>	<p>A XIV</p>	
<p>Am V</p>	<p>Am V</p>	<p>Am V</p>	<p>Am VII</p>	<p>minor</p>
<p>Am VIII</p>	<p>Am IX</p>	<p>Am IX</p>	<p>Am X</p>	
<p>Am XII</p>	<p>Am XIII</p>	<p>Am XIV</p>	<p>Am XIV</p>	

OPEN-VOICED 3-NOTE TRIAD INVERSIONS

inversion sequences by bass string in columns and by inversion in columns

major three-note open-voiced triads

	root, body	root, head	third, body	third, head	fifth, body	fifth, head

minor three-note open-voiced triads

	root, body	root, head	third, body	third, head	fifth, body	fifth, head

BASSLINES WITH STRUM-ABLE I, IV and V TRIADS

<p>G III</p>	<p>D/A V</p>	<p>G/B V</p>	<p>C VIII</p>	<p>G/D X</p>	<p>C/E XII</p>	<p>D/F# XII</p>	<p>G XII</p>
<p>C III</p>	<p>G5/D V</p>	<p>C/E V</p>	<p>F VIII</p>	<p>C5/G X</p>	<p>F/A X</p>	<p>G/B XII</p>	<p>C XII</p>
<p>E II</p>	<p>B/F# IV</p>	<p>E/G# IV</p>	<p>A V</p>	<p>E/B VII</p>	<p>A/C# IX</p>	<p>B/D# XI</p>	<p>E XII</p>
<p>A V</p>	<p>E/B VII</p>	<p>A/C# VII</p>	<p>D VII</p>	<p>A/E V</p>	<p>D/F# VII</p>	<p>E/G# IV</p>	<p>A V</p>
<p>D V</p>	<p>A/E VII</p>	<p>D/F# VII</p>	<p>G VII</p>	<p>D/A V</p>	<p>G/B VII</p>	<p>A/G# IX</p>	<p>D X</p>

BASSLINES WITH I, IV, V and IIIm TRIADS

Diagram illustrating basslines for various chords and triads, organized in rows. Each diagram shows a 5-string bass fretboard (E1 to E5) with fingerings (1-4) and a corresponding bassline sequence below it.

Row 1:

- G III: 1 5 1 3 5 1
- Am V: 1 5 1 b3 5
- G V: 3 1 5 1
- Am VII: b3 1 5 1
- G/D X: 5 5 1 3
- Am/E XII: 5 1 5 1 b3
- D/F# XII: 3 1 5 1
- G XII: 1 5 1 3

Row 2:

- C III: 1 5 1 3
- Dm V: 1 5 1 b3
- C/E V: 3 5 1 5
- Dm/F VII: b3 5 1 5
- C/G VIII: 5 1 3 5
- Dm/A X: 5 1 b3 5
- G/B XII: 3 5 1 3
- C XII: 1 3 5 1

Row 3:

- E II: 1 5 1 3
- F#m IV: 1 5 1 b3
- E/G# IV: 3 5 1 5
- F#m/A VI: b3 5 1 5
- E/B VII: 5 1 3 5
- F#m/C# IX: 5 1 b3 5
- B/D# XI: 3 5 1 3
- E XII: 1 3 5 1

Row 4:

- G III: 1 5 1 3 5 1
- Am V: 1 5 1 b3 5
- G V: 3 1 5 1
- Am V: b3 1 b3 5
- G5/D X: 5 1 5 1
- Am/E V: 5 1 b3 5
- D/F# VII: 3 5 1 3
- G VII: 1 3 5 1

Row 5:

- C III: 1 5 1 3
- Dm V: 1 5 1 b3
- C/E V: 3 5 1 5
- Dm/F V: b3 1 b3 5
- C/G III: 5 1 3 5
- Dm/A V: 5 1 b3 5
- G/B VII: 3 5 1 3
- C VIII: 1 3 5 1

BASSLINES WITH VIIm, IV and V TRIADS

<i>Em/G</i> III b3 b3 5 1	<i>D/A</i> V 5 5 1 3	<i>Em/B</i> VII 5 1 5 1 b3	<i>C</i> VIII 1 5 1 3 5	<i>D</i> X 1 5 1 3 5	<i>Em</i> XII 1 5 1 b3 5	<i>D/F#</i> XII 3 1 5 1	<i>Em/G</i> XII b3 1 b3 5
<i>Am/C</i> II b3 5 1 5	<i>G5/D</i> V 5 1 5 1	<i>Am/E s VII</i> 5 b3 5 1	<i>F</i> VIII 1 5 1 3	<i>G</i> X 1 5 1 3	<i>Am</i> XII 1 5 1 b3	<i>G/B</i> XII 3 5 1 5	<i>Am</i> XIII b3 5 1 b3
<i>C#m/E</i> I b3 5 1 5	<i>B/F#</i> II 5 1 3 5	<i>C#m/G#</i> IV 5 1 b3 5	<i>A</i> V 1 3 5 1	<i>B</i> VII 1 3 5 1	<i>C#m</i> IX 1 b3 5 1	<i>B/D#</i> XI 3 5 1 3	<i>C#m</i> XII b3 5 1 b3
<i>Em/G</i> III b3 b3 5 1	<i>D/A</i> II 5 3 5 1	<i>Em/B</i> II 5 b3 5 1	<i>C</i> III 1 5 1 3	<i>D</i> II 1 3 5 1 3	<i>Em</i> II 1 5 1 b3	<i>D/F#</i> II 3 5 1 5	<i>Em/G</i> III b3 5 1 b3

TRIAD DESCENDING BASS HARMONIZATION

1-7-6-5, 7-6-5-4, 6-5-4-3, 5-4-3-2, 4-3-2-1, 3-2-1-7, 2-1-7-6

I-VII^{dim}-VI^m-V

I-VII^{dim}-VI^m-I/5

I-VII^{dim}-VI^m-III^m/b3

I-V/3-VI^m-V

I-V/3-VI^m-I/5

I-V/3-VI^m-III^m/b3

I-III^m/5-VI^m-V

I-III^m/5-VI^m-I/5

I-III^m/5-VI^m-III^m/b3

VI^m/b3-VII^{dim}-VI^m V

VI^m/b3-VII^{dim}-VI^m I/5

VI^m/b3-VII^{dim}-VI^m III^m/b3

VI^m/b3-V/3-VI^m V

VI^m/b3-V/3-VI^m I/5

VI^m/b3-V/3-VI^m III^m/b3

VI^m/b3-III^m/5-VI^m V

VI^m/b3-III^m/5-VI^m I/5

VI^m/b3-III^m/5-VI^m III^m/b3

IV/5-VII^{dim}-VI^m-V

IV/5-VII^{dim}-VI^m-I/5

IV/5-VII^{dim}-VI^m-III^m/b3

IV/5-V/3-VI^m-V

IV/5-V/3-VI^m-I/5

IV/5-V/3-VI^m-III^m/b3

IV/5-III^m/5-VI^m-V

IV/5-III^m/5-VI^m-I/5

IV/5-III^m/5-VI^m-III^m/b3

Pedal Point Chord Progression

- **Drone and Pedal Point**
- **Open Bass Pedal Point: Modal Scales**
- **Open Bass Pedal Point: Modal Thirds**
- **Open Bass Pedal Point: Modal Sixths**
- **Open Bass Pedal Point: Modal Triads**
- **Triads as a Harmonic or Melodic Basis**
- **Thirds and Sixths with Pedal Point (I-IV-I7 Progression)**
- **Pedal Point Triads**
- **Parent Scales for Cadences**
- **Neighbor Tone Triads**
- **Six Nine: VIm-Vm Triads with Pedal Point One**
- **Scale-Tone Triads of Four Heptatonic Scales**
- **Modal Triad Improv and Cluster Playing**

DRONE AND PEDAL POINT

History

A drone is a continuous low-pitched buzz or hum. Vocally, a drone is used in chants in many world cultures. The raga, a classical East Indian Hindu musical form nearly two thousand years old, uses a drone. American Indian chants (often called pow-wow) use a drone in a pulsing fashion. Bagpipes, a commonly Scottish instrument, use a drone and are found throughout Europe, Northern Africa, the Persian Gulf, and the Caucasus. It is said that Roman Emperor Nero played bagpipes (C. Suetonius Tranquillus: “The Lives of the Twelve Caesars”, 54).

Archelological dating of paintings on cave walls and shelters in Northern Australia suggests that the Aboriginal people of the Kakadu region of the Northern Territory have been using a drone pipe instrument called the diggeridoo for at least 1,500 years.

The berimbau in Brazil is a single-stringed instrument with a gourd resonator that produces a drone. The string is rubbed with a stone. It is said that its origins are in South Africa, where there are similar instruments (Funso Afolayan: “Culture and Customs of South Africa”, page 240-241)

Beginning in the twelfth century in Europe, choral pieces sometimes included held notes in one of the voices that did not necessarily harmonize with the chords produced by the other voices. The tradition was carried over to the church organ, when church organists began a tradition of sustaining a bass note while changing chords on the keyboard above it. The device was given the name *pedal point* and later *organ tone* and *pedal tone*. The term pedal tone is ambiguous, since it also refers to the fundamental harmonic tone on tubular mouthpiece instruments.

Establishing a Tone Center

The pedal point can be a very effective device in establishing a tone center by sustaining or repeatedly playing the same note in the bass. Some pedal point chords may be part of a succession of chords that establishes an architecture important enough to forgive the dissonance of one or more of the chords. The C# diminished chord below was used in this Bach Prelude in Dm shown below, as part of a succession of chords leading to Dm.

J.S. Bach: Prelude In Dm

1

Dm V V Dm V Gm VI Gm VI V

TAB 3/4 0 7 6 5 6 7 6 7 7 7 7 8

5

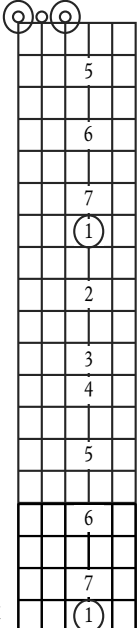
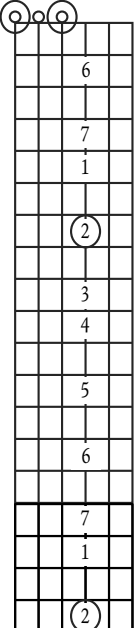
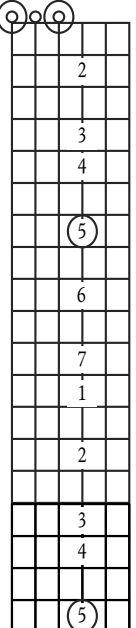
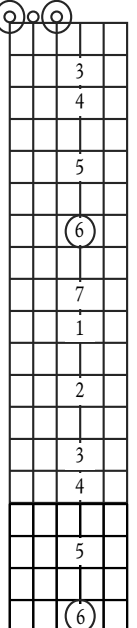
C#dim/D III II C#dim/D III II Dm I Dm I Dm7 I V

TAB 0 6 5 3 5 6 5 6 3 2 0 2

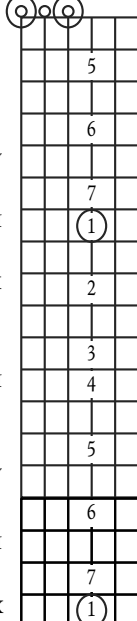
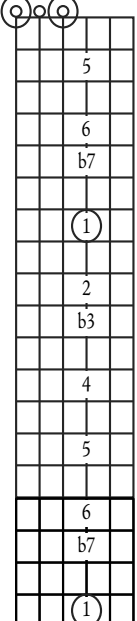
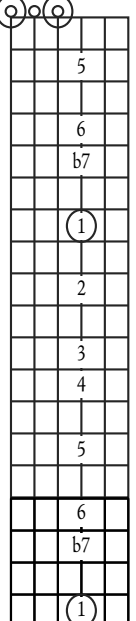
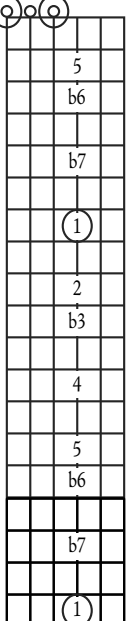
OPEN BASS PEDAL POINT: MODAL SCALES

The sixth string is tuned down to “D”.

Modes in the Key of “D” by Parent Scale

major (on 1)	Dorian (on 2)	Mixolydian (on 5)	Aeolian (on 6)
 <p>Diagram showing the major scale on string 1 (tuned D). Fingering: 5, 6, 7, (1), 2, 3, 4, 5, 6, 7, (1).</p>	 <p>Diagram showing the Dorian scale on string 2 (tuned D). Fingering: 6, 7, 1, (2), 3, 4, 5, 6, 7, 1, (2).</p>	 <p>Diagram showing the Mixolydian scale on string 5 (tuned D). Fingering: 2, 3, 4, (5), 6, 7, 1, 2, 3, 4, (5).</p>	 <p>Diagram showing the Aeolian scale on string 6 (tuned D). Fingering: 3, 4, 5, (6), 7, 1, 2, 3, 4, 5, (6).</p>

Modes in the key of “D” by Key Scale

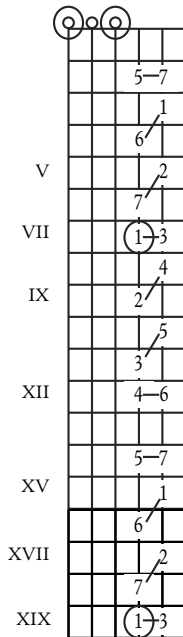
major	Dorian	Mixolydian	Aeolian
 <p>Diagram showing the major scale on string 1 (tuned D). Fingering: 5, 6, 7, (1), 2, 3, 4, 5, 6, 7, (1).</p>	 <p>Diagram showing the Dorian scale on string 2 (tuned D). Fingering: 5, 6, b7, (1), 2, b3, 4, 5, 6, b7, (1).</p>	 <p>Diagram showing the Mixolydian scale on string 5 (tuned D). Fingering: 5, 6, b7, (1), 2, 3, 4, 5, 6, b7, (1).</p>	 <p>Diagram showing the Aeolian scale on string 6 (tuned D). Fingering: 5, b6, b7, (1), 2, b3, 4, 5, b6, b7, (1).</p>

OPEN BASS PEDAL POINT: MODAL THIRDS

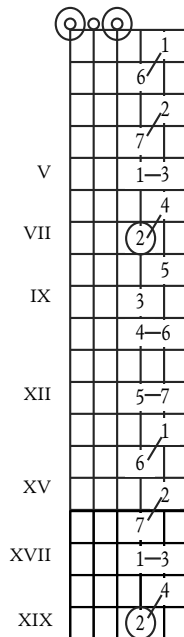
The sixth string is tuned down to "D". The scale is "tracked" by the high-pitched note of each third.

Thirds in the Key of "D" by Parent Scale

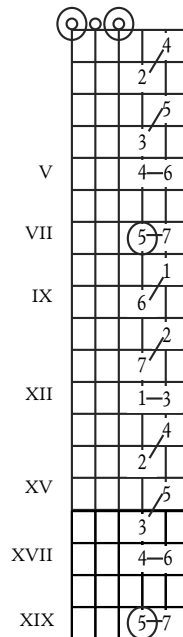
major (on 1)
emphasize 1-3-5



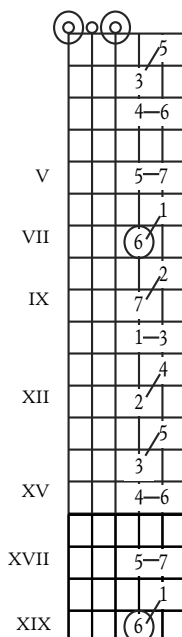
Dorian (on 2)
emphasize 2-4-6



Mixolydian (on 5)
emphasize 5-7-2

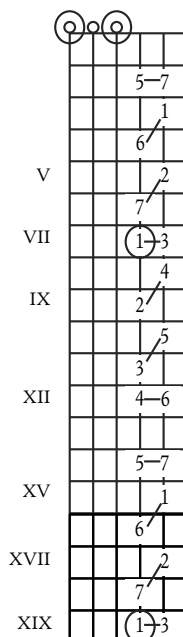


Aeolian (on 6)
emphasize 6-1-3

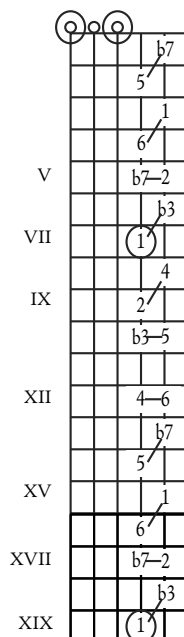


"Thirds in the Key of "D" by Parent Scale

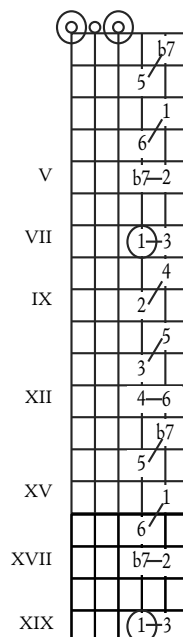
major
emphasize 1-3-5



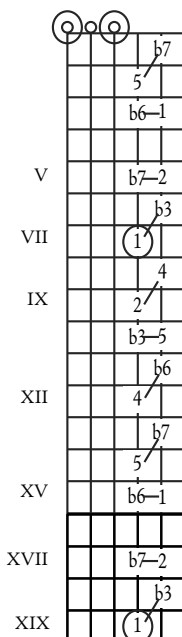
Dorian
emphasize 1-b3-5



Mixolydian
emphasize 1-3-5



Aeolian
emphasize 1-b3-5



OPEN BASS PEDAL POINT: MODAL SIXTHS

The sixth string is tuned down to "D". The scale is "tracked" by the high-pitched note of each sixth.

Sixths in the Key of "D" by Parent Scale

major (on 1) emphasize 1-3-5	Dorian (on 2) emphasize 2-4-6	Mixolydian (on 5) emphasize 5-7-2	Aeolian (on 6) emphasize 6-1-3

"Sixths in the Key of "D" by Parent Scale

major emphasize 1-3-5	Dorian emphasize 1-b3-5	Mixolydian emphasize 1-3-5	Aeolian emphasize 1-b3-5

OPEN BASS PEDAL POINT: MODAL TRIADS

The sixth string is tuned down to “D”. The scale is “tracked” on the third string.

Modal Root Position Triads in the Key of “D” by Parent Scale

major (on 1) emphasize 1-3-5	Dorian (on 2) emphasize 2-4-6	Mixolydian (on 5) emphasize 5-7-2	Aeolian (on 6) emphasize 6-1-3

Modal First Inversion Triads in the Key of “D” by Parent Scale

The sixth string is tuned down to “D”. The scale is “tracked” on the first string.

major (on 1) emphasize 1 3 5	Dorian (on 2) emphasize 2 4 6	Mixolydian (on 5) emphasize 5 7 2	Aeolian (on 6) emphasize 6 1 3

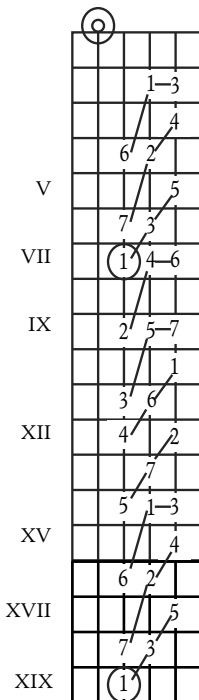
Modal Second Inversion Triads in the Key of "D" by Parent Scale

The sixth string is tuned down to "D". The scale is "tracked" on the second string.

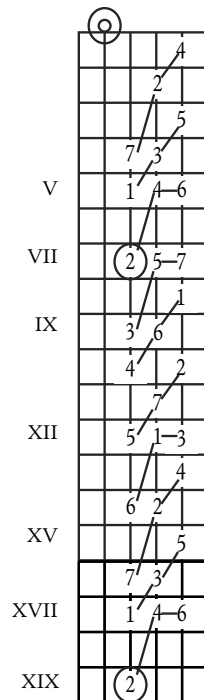
	major (on 1) emphasize 1 3 5	Dorian (on 2) emphasize 2 4 6	Mixolydian (on 5) emphasize 5 7 2	Aeolian (on 6) emphasize 6 1 3
V				
VII				
IX				
XII				
XV				
XVII				
XIX				

“A” Modal Root Position Triads by Parent Scale

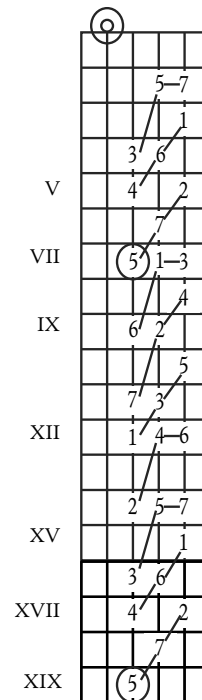
major (on 1)
emphasize 1-3-5



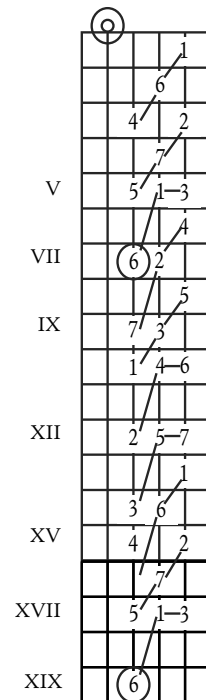
Dorian (on 2)
emphasize 2-4-6



Mixolydian (on 5)
emphasize 5-7-2



Aeolian (on 6)
emphasize 6-1-3



Each set of “Open Bass Pedal Point Modal Triads” shown below uses a particular scale as its basis. When the scale is Mixolydian, it uses a major scale where the key noted in the title is on the fifth step of that major scale. Dorian is on the second step of its parent scale, and Aeolian on the sixth step.

key scale	<u>key tones</u>	<u>parent major scale</u>	<u>parent major scale tones</u>
A major	A-B-C#-D-E-F#-G#-A	A major	A-B-C#-D-E-F#-G#-A
A Mixolydian	A-B-C#-D-E-F#-G-A	D major	D-E-F#-G-A-B-C#-D
A Dorian	A-B-C-D-E-F#-G-A	G major	G-A-B-C-D-E-F#-G
A Aeolian	A-B-C-D-E-F-G\ -A	C major	C-D-E-F-G-A-B-C
D major	D-E-F#-G-A-B-C#-D	D major	D-E-F#-G-A-B-C#-D
D Mixolydian	D-E-F#-G-A-B-C-D	G major	G-A-B-C-D-E-F#-G
D Dorian	D-E-F-G-A-B-C-D	C major	C-D-E-F-G-A-B-C
D Aeolian	D-E-F-G-A-Bb-C-D	F major	F-G-A-Bb-C-D-E-F

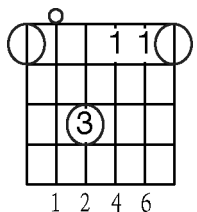
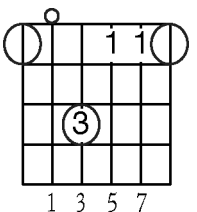
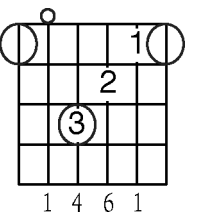
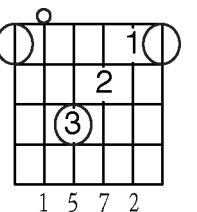
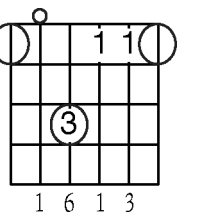
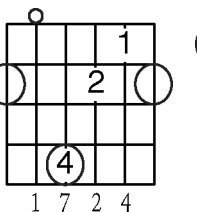
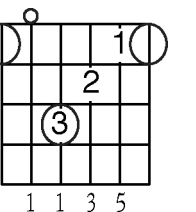
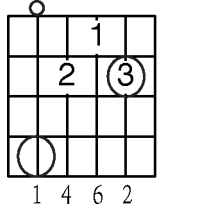
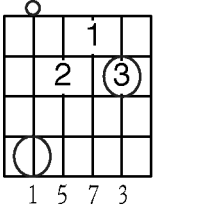
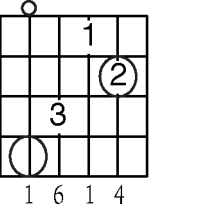
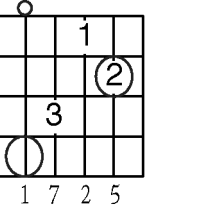
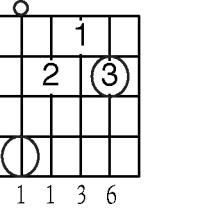
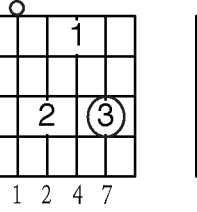
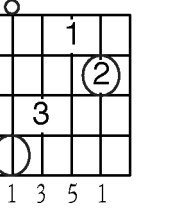
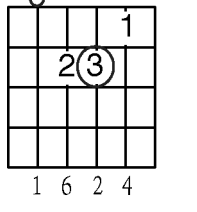
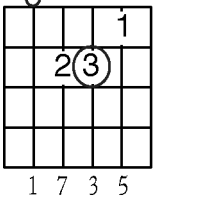
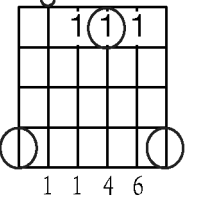
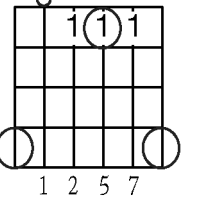
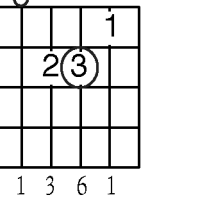
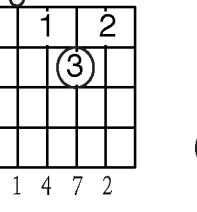
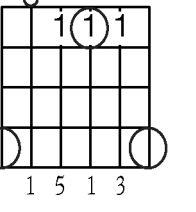
A Major Scale-Tone Triads with Open String Pedal Point "A"

<p>A V</p> <p>1 1 3 5</p>	<p>Bm/A VII</p> <p>1 2 4 6</p>	<p>C#m/A IX</p> <p>1 3 5 7</p>	<p>D/A X</p> <p>1 4 6 1</p>	<p>E/A XII</p> <p>1 5 7 2</p>	<p>F#m/A II</p> <p>1 6 1 3</p>	<p>G#dim/A III</p> <p>1 7 2 4</p>
<p>A IX</p> <p>I 1 3 5 1</p>	<p>Bm/A XI</p> <p>1 4 6 2</p>	<p>C#m/A I</p> <p>1 5 7 3</p>	<p>D/A II</p> <p>1 6 1 4</p>	<p>E/A IV</p> <p>1 7 2 5</p>	<p>F#m/A VI</p> <p>1 1 3 6</p>	<p>G#dim/A VII</p> <p>1 2 4 7</p>
<p>A II</p> <p>1 5 1 3</p>	<p>Bm/A II</p> <p>1 6 2 4</p>	<p>C#m/A V</p> <p>1 7 3 5</p>	<p>D/A VII</p> <p>1 1 4 6</p>	<p>E/A IX</p> <p>1 2 5 7</p>	<p>F#m/A IX</p> <p>1 3 6 1</p>	<p>G#dim/A XII</p> <p>1 4 7 2</p>

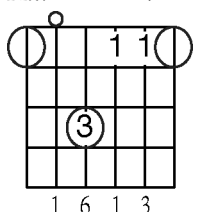
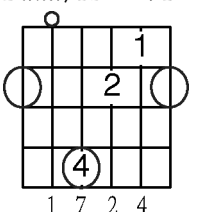
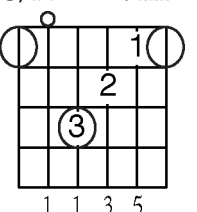
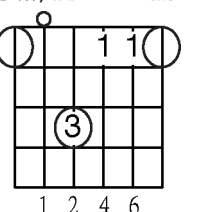
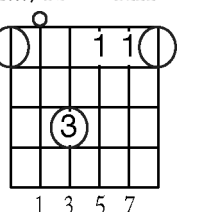
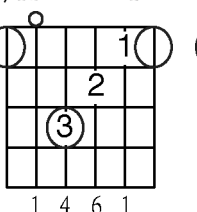
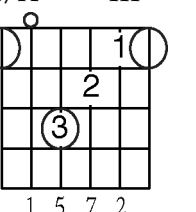
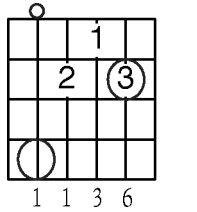
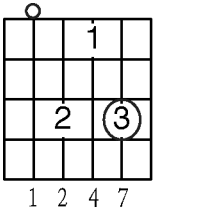
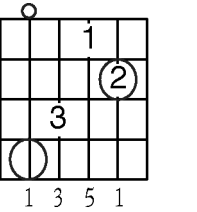
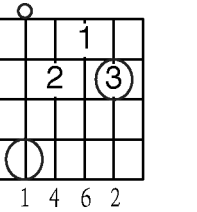
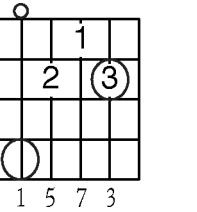
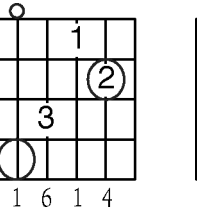
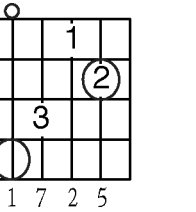
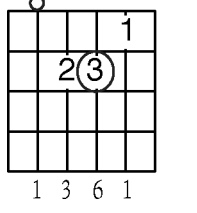
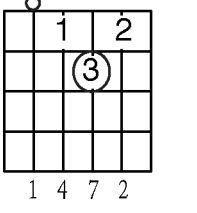
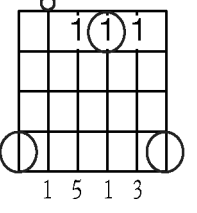
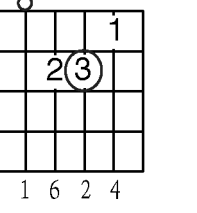
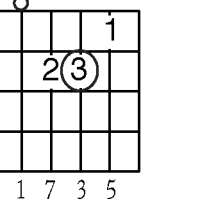
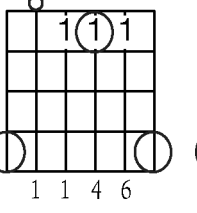
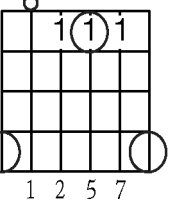
A Mixolydian Scale-Tone Triads with Open String Pedal Point "A"

<p>A V</p> <p>1 5 7 2</p>	<p>Bm/A VII</p> <p>1 6 1 3</p>	<p>C#dim/A VIII</p> <p>1 7 2 4</p>	<p>D/A X</p> <p>1 1 3 5</p>	<p>Em/A XII</p> <p>1 2 4 6</p>	<p>F#m/A II</p> <p>1 3 5 7</p>	<p>G/A III</p> <p>1 4 6 1</p>
<p>A IX</p> <p>1 7 2 5</p>	<p>Bm/A XI</p> <p>1 1 3 6</p>	<p>C#dim/A XII</p> <p>1 2 4 7</p>	<p>D/A II</p> <p>1 3 5 1</p>	<p>E/A IV</p> <p>1 4 6 2</p>	<p>F#m/A VI</p> <p>1 5 7 3</p>	<p>G/A VII</p> <p>1 6 1 4</p>
<p>A II</p> <p>1 2 5 7</p>	<p>Bm/A II</p> <p>1 3 6 1</p>	<p>C#m/A V</p> <p>1 4 7 2</p>	<p>D/A VII</p> <p>1 5 1 3</p>	<p>E/A IX</p> <p>1 6 2 4</p>	<p>F#m/A IX</p> <p>1 7 3 5</p>	<p>G/A XII</p> <p>1 1 4 6</p>

A Dorian Scale-Tone Triads with Open String Pedal Point "A"

Am V 	Bm VII 	C/A VIII 	D/A X 	Em/A XII 	F#dim/A I 	G/A V 
Am IX 	Bm XI 	C/A XII 	D/A II 	Em/A IV 	F#dim/A V 	G/A VII 
Am I 	Bm III 	C/A V 	D/A VII 	Em/A VIII 	F#dim/A X 	G/A XII 

A Aeolian Scale-Tone Triads with Open String Pedal Point "A"

Am V 	Bdim/A VI 	C/A VIII 	Dm/A X 	Em/A XII 	F/A I 	G/A III 
Am IX 	Bdim/A X 	C/A XII 	Dm/A II 	Em/A XII 	F/A V 	G/A VII 
Am I 	Bdim/A III 	C/A V 	Dm/A VI 	Em/A VIII 	F/A X 	G/A XII 

D Major Scale-Tone Triads with Open String Pedal Point "D"

D	V	Em/D VII	F#m/D IX	G/D X	A/D XII	Bm/D II	C#dim/D III
1 1 3 5	1 2 4 6	1 3 5 7	1 4 6 1	1 5 7 2	1 6 1 3	1 7 2 4	
D	X	Em/D XII	F#m/D II	G/D III	A/D V	Bm/D VII	C#dim/D VIII
1 3 5 1	1 4 6 2	1 5 7 3	1 6 1 4	1 7 2 5	1 1 3 6	1 2 4 7	
D	II	Em/D III	F#m/D V	G/D VII	A/D IX	Bm/D X	C#dim/D XII
1 5 1 3	1 6 2 4	1 5 7 3	1 1 4 6	1 2 5 7	1 3 6 1	1 2 5 7	

D Mixolydian Scale-Tone Progressions with Pedal Tone "D"

D	V	Em/D VII	F#dim/D IX	G/D X	Am/D XII	Bm/D II	C/D III
1 5 7 2	1 6 1 3	1 7 2 4	1 1 3 5	1 2 4 6	1 3 5 7	1 4 6 1	
D	X	Em/D XII	F#dim/D I	G/D III	Am/D V	Bm/D VII	C/D VIII
1 7 2 5	1 1 3 6	1 2 4 7	1 3 5 1	1 4 6 2	1 5 7 3	1 6 1 4	
D	II	Em/D III	F#dim/D V	G/D VII	Am/D VIII	Bm/D X	C/D XII
1 2 5 7	1 3 6 1	1 2 5 7	1 5 1 3	1 6 2 4	1 5 7 3	1 1 4 6	

D Dorian Scale-Tone Progressions with Pedal Tone "D"

<i>Dm</i> V 1 2 4 6	<i>Em/D</i> VII 1 3 5 7	<i>F/D</i> VIII 1 4 6 1	<i>G/D</i> X 1 5 7 2	<i>A/D</i> XII 1 6 1 3	<i>Bm/D</i> II 1 7 2 4	<i>C/D</i> III 1 1 3 5
<i>Dm</i> X 1 4 6 2	<i>Em/D</i> XII 1 5 7 3	<i>F/D</i> I 1 6 1 4	<i>G/D</i> III 1 7 2 5	<i>A/D</i> V 1 1 3 6	<i>Bm/D</i> VII 1 2 4 7	<i>C/D</i> VIII 1 3 5 1
<i>Dm</i> I 1 6 2 4	<i>Em/D</i> III 1 5 7 3	<i>F/D</i> V 1 1 4 6	<i>G/D</i> VII 1 2 5 7	<i>A/D</i> IX 1 3 6 1	<i>Bm/D</i> X 1 2 5 7	<i>C/D</i> XII 1 5 1 3

D Aeolian Scale-Tone Progressions with Pedal Tone "D"

<i>Dm</i> V 1 6 1 3	<i>Edim/D</i> VI 1 7 2 4	<i>F/D</i> VIII 1 1 3 5	<i>G/D</i> X 1 2 4 6	<i>A/D</i> XII 1 3 5 7	<i>Bb/D</i> I 1 4 6 1	<i>C/D</i> III 1 5 7 2
<i>Dm</i> X 1 1 3 6	<i>Edim/D</i> XI 1 2 4 7	<i>F/D</i> I 1 3 5 1	<i>G/D</i> III 1 4 6 2	<i>A/D</i> V 1 5 7 3	<i>Bb/D</i> VI 1 6 1 4	<i>C/D</i> VIII 1 7 2 5
<i>Dm</i> X 1 3 6 1	<i>Edim/D</i> XI 1 2 5 7	<i>F/D</i> I 1 5 1 3	<i>G/D</i> III 1 6 2 4	<i>A/D</i> V 1 5 7 3	<i>Bb/D</i> VI 1 1 4 6	<i>C/D</i> VIII 1 2 5 7

TRIADS AS A HARMONIC OR MELODIC BASIS

Triads can be a structural basis to your comping or soloing. During a single chord, use any of the seven triads in its [parent scale](#), emphasizing those in the current chord, de-emphasizing ones not in the current chord and creating tonal and stylistic environments for any that you dwell on.

Read more about this in [Tonal Layers](#)/[Harmonic Clusters](#)/[Triads As A Harmonic Or Melodic Basis](#).

THIRDS AND SIXTHS WITH PEDAL POINT

The examples in this chapter are all I-IV-I7, in various modes. Also see the chapter “[Thirds and Sixths](#)”/ [Chords Implied by Thirds and Sixths](#).

Retain the I Chord’s Root Through All Three Chords

In each of these voicings, all the chords have three notes. The root of the I chord is retained through all three chords. As you play whichever version of I-IV-I7 you choose in the order I-IV-I7, the root will remain while the other two notes ascend in thirds or sixths.

The Two Notes Other Than the I chord Root Move in Thirds or Sixths

voice leading for close-voiced I-IV-I7 progression with three-note chords

With close-voiced I-IV-I7 chords (of any mode):

- When the I chord root is the lowest note in close-voiced I-IV-I7 progressions, the other two notes will move on the top (the highest pitches) in thirds.
- When the I chord root is the highest note in close-voiced I-IV-I7 progressions, the other two notes will move on the bottom (as the lowest pitches), in thirds.
- Close-voiced I-I-I7 progressions with the root as the middle pitch are combined with the top and bottom notes in sixths.

voice leading for open-voiced I-IV-I7 progression with three-note chords

With open-voiced I-IV-I7 chords (of any mode):

- When the root of the I chord is in the bass in open-voiced I-IV-I7 progressions, the other two notes will move above it in sixths.
- When the root of the I chord is in the middle of the three notes in open-voiced I-IV-I7 progressions, the other two notes will move above and below in tenth intervals.
- When the root of the I chord is the top voice in open-voiced I-IV-I7 progressions, the other two notes will move below it in sixths.

Make Note of the Quality of the Third or Sixths Changing or Retaining

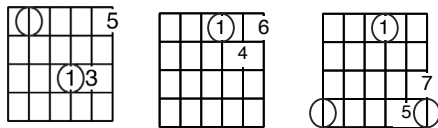
With both close-voicing and open voicing, the thirds or sixths will change quality, then change again as you ascend I-IV-I7 in Mixolydian. In Phrygian major, they will retain, then retain again. Make note of the pattern of third or sixths in regard to “change” and “retain” for each modal I-IV-I7. This also applies to the tenths in open-voiced I-IV-I7, since a tenth is an octave and a third.

1-Major (Ionian), I-IV-I^{ma}7ⁿ3 (thirds or sixths ascend: “change-retain”)

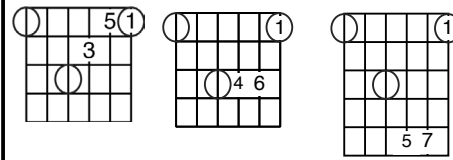
“I-IV-I^{ma}7” indicates a I major chord, a IV major chord, then a I chord of a major seventh quality (I⁷), without a third (I^{ma}7ⁿ3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I is 1-3-5, IV is 4-6-1 and I⁷ no third is 1-5-7. Orient the fingerings below by keeping “1” on the same note. In I-IV-I^{ma}7ⁿ3, three moves to four, then to five. Five moves to six, then to seven.

major (Ionian), I-IV-I^{ma}7 no 3: close-voiced on string set 3-2-1

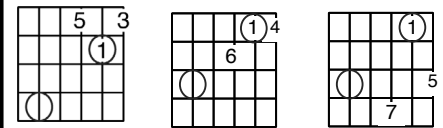
root in bass



third in bass

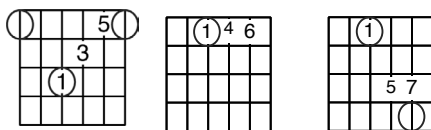


fifth in bass

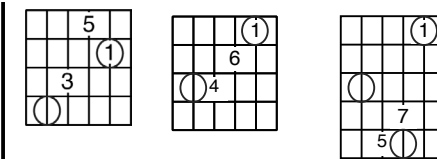


major (Ionian), I-IV-I^{ma}7 no 3: close-voiced on string set 4-3-2

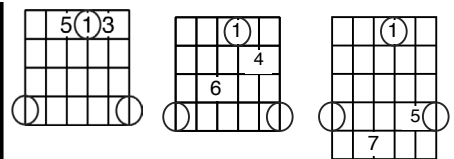
root in bass



third in bass

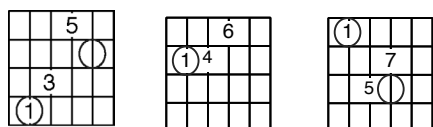


fifth in bass

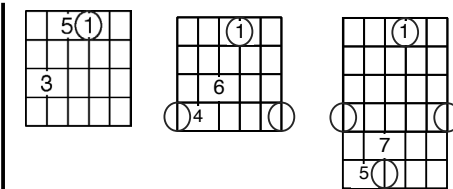


major (Ionian), I-IV-I^{ma}7 no 3: close-voiced on string set 5-4-3

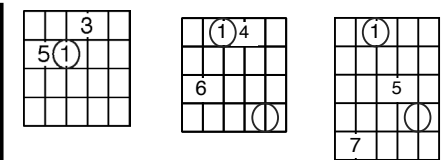
root in bass



third in bass

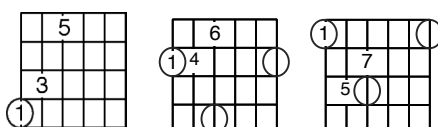


fifth in bass

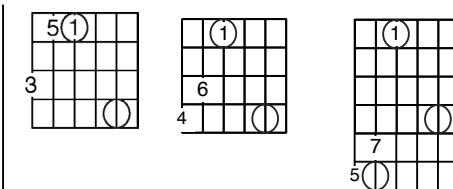


major (Ionian), I-IV-I^{ma}7 no 3: close-voiced on string set 6-5-4

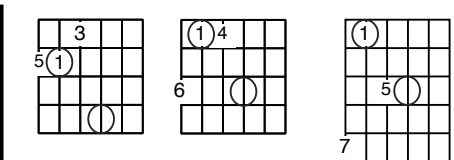
root in bass



third in bass

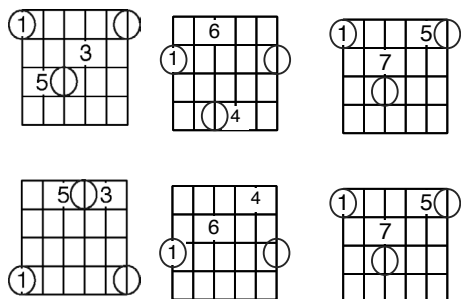


fifth in bass

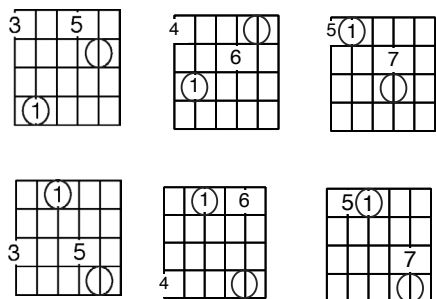


major (Ionian), I-IV-I^{ma}7 no 3: open-voiced, bass on sixth

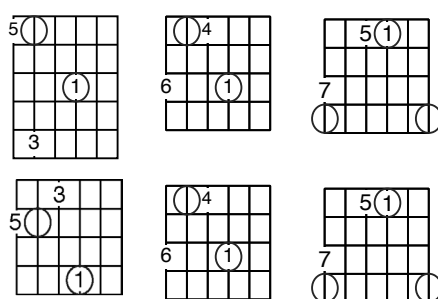
root in bass



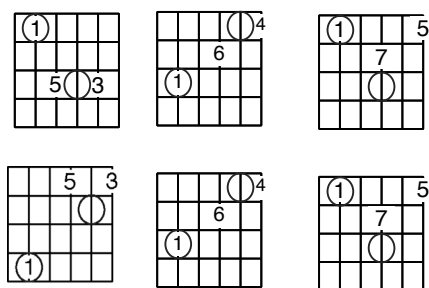
third in bass



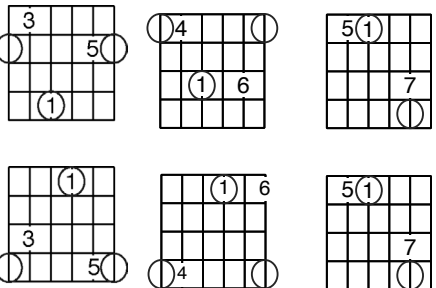
fifth in bass

**major (Ionian), I-IV-I^{ma}7 no 3: open-voiced, bass on fifth**

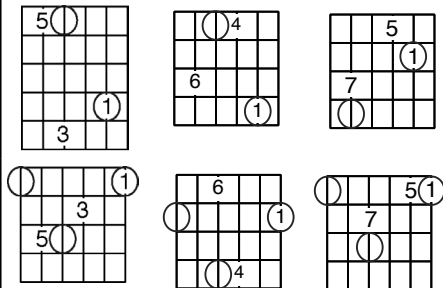
root in bass



third in bass



fifth in bass

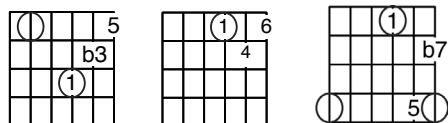


2-Dorian, Im-IV-Im7n3 (thirds or sixths ascend: “retain-change”)

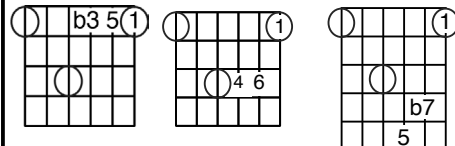
“Im-IV-Im7n3” indicates a I minor chord, a IV major chord, then a I minor seventh chord without a third (I7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: Im is 1-b3-5, IV is 4-6-1 and Im7 no third is 1 -5-b7. Orient the fingerings below by keeping “1” on the same note. In Im-IV-Im7n3, flat three moves to four, then to five. Five moves to six, then to flat seven.

Dorian, Im-IV-Im7 no 3: close-voiced on string set 3-2-1

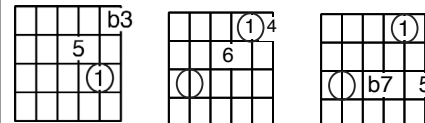
root in bass



third in bass

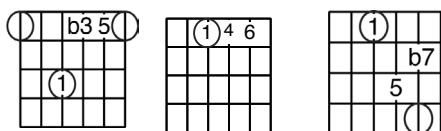


fifth in bass

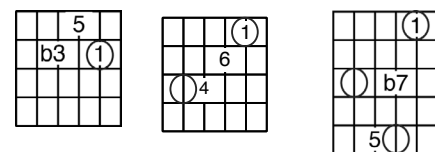


Dorian, Im-IV-Im7 no 3: close-voiced on string set 4-3-2

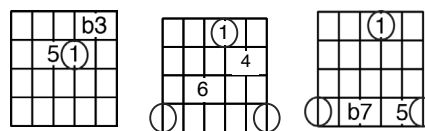
root in bass



third in bass

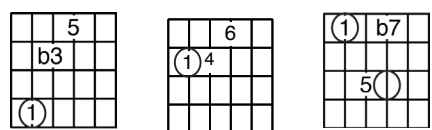


fifth in bass

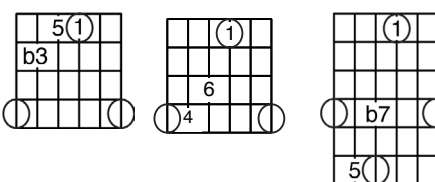


Dorian, Im-IV-Im7 no 3: close-voiced on string set 5-4-3

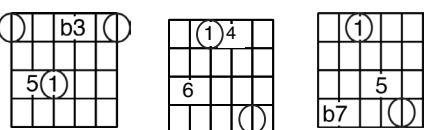
root in bass



third in bass

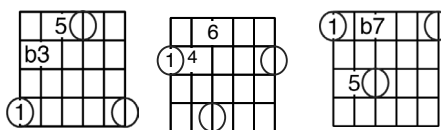


fifth in bass

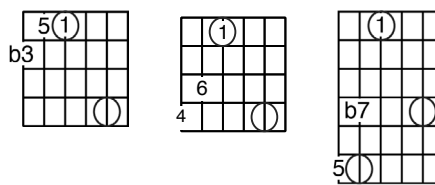


Dorian, Im-IV-Im7 no 3: close-voiced on string set 6-5-4

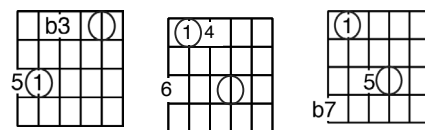
root in bass



third in bass

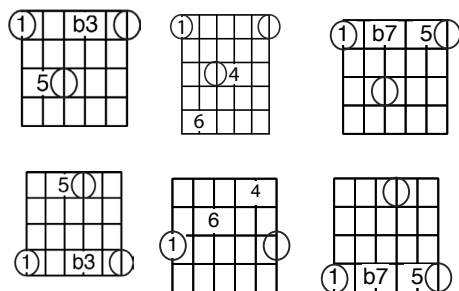


fifth in bass

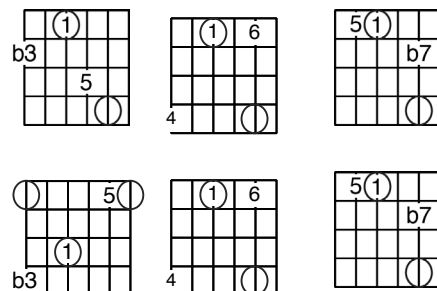


Dorian, Im-IV-Im7 no 3: open-voiced, bass on sixth

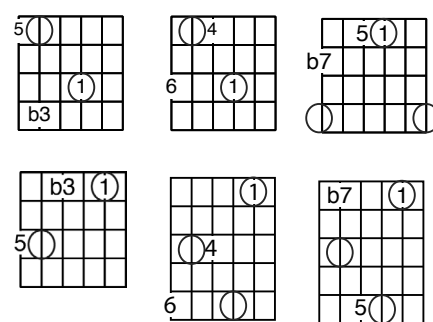
root in bass



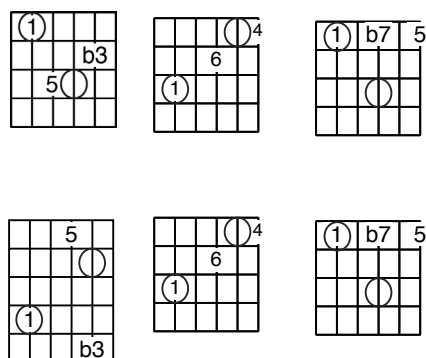
third in bass



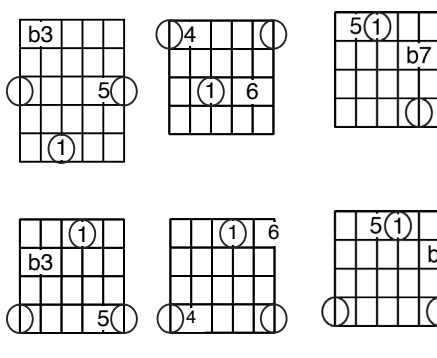
fifth in bass

**Dorian, Im-IV-Im7 no 3: open-voiced, bass on fifth no 3**

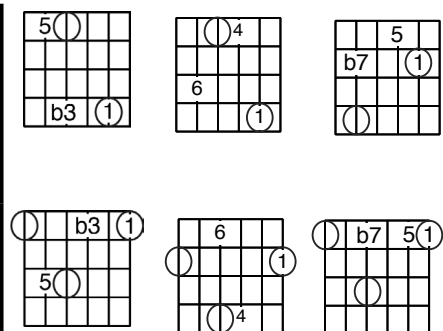
root in bass



third in bass



fifth in bass



Dorian, Im-IV-Im7n3 Blues, Close-Voiced (Im-IV-Im7n3 in the key of each chord)

Chord progression: Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C

5 Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C

9 Dm G D7n3 G Dm G D7n3 G Dm G D7n3 G Dm G D7n3 G Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Gm

Dorian Im-IV-I7n3 Blues, Open-Voiced (Im-IV-I7n3 in the key of each chord)

Chord progression: Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F

5 Fm Bb F7n3 Bb Fm Bb F7n3 Bb Fm Bb F7n3 Bb Fm Bb F7n3 Bb Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F

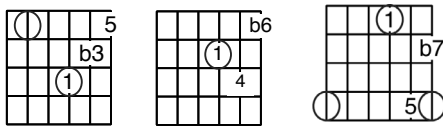
9 Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Gm C G7n3 C Cm F C7n3 F Cm F C7n3 F Cm F C7n3 F Cm

3-Phrygian, Im-IVm-Im7n3 (thirds or sixths ascend: “change-retain”)

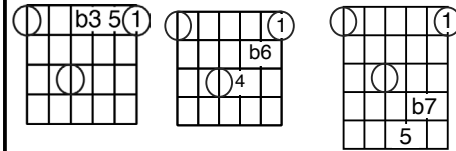
Phrygian Im-IVm-Im7n3 is the same as [Aeolian Im-IVm-Im7n3](#). “Im-IVm-Im7n3” indicates a I minor chord, a IV minor chord, then a I minor seventh chord without a third (Im7n3). Based on a major scale named after the root of the I minor chord, the chords use the following scale tones: Im is 1-b3-5, IVm is 4-b6-1 and Im7 no third is 1-5-b7. Orient the fingerings below by keeping “1” on the same note. In Im-IVm-Im7n3, flat three moves to four, then to five. Five moves to flat six, then to flat seven.

Phrygian, Im-IVm-Im7 no 3: close-voiced on string set 3-2-1

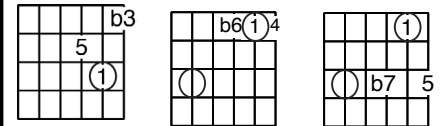
root in bass



third in bass

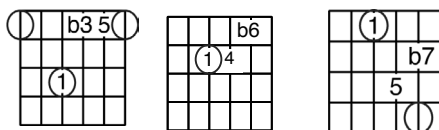


fifth in bass

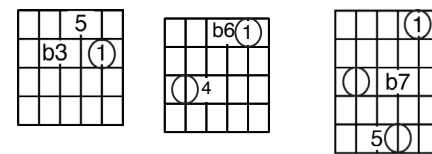


Phrygian, Im-IVm-Im7 no 3: close-voiced on string set 4-3-2

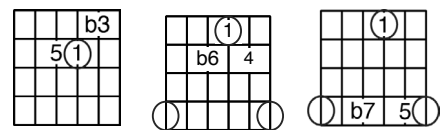
root in bass



third in bass

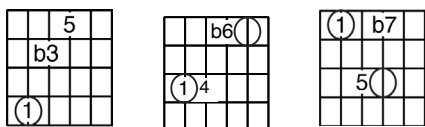


fifth in bass

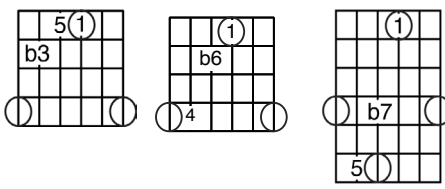


Phrygian, Im-IVm-Im7 no 3: close-voiced on string set 5-4-3

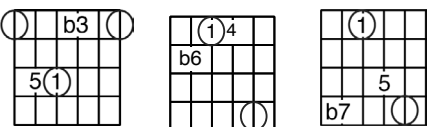
root in bass



third in bass

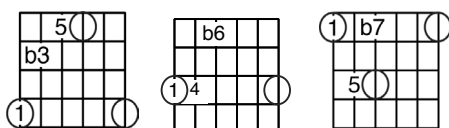


fifth in bass

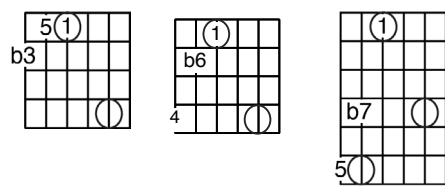


Phrygian, Im-IVm-Im7 no 3: close-voiced on string set 6-5-4

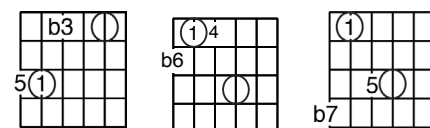
root in bass



third in bass

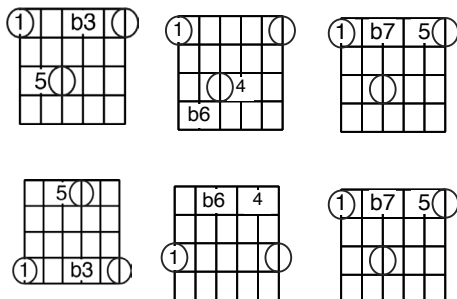


fifth in bass

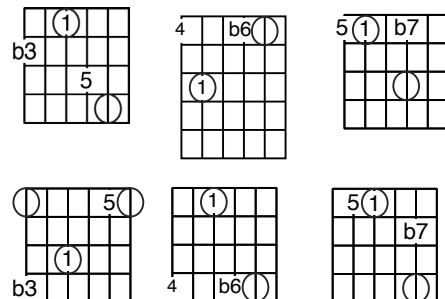


Phrygian, Im-IVm-Im7 no 3: open-voiced, bass on sixth

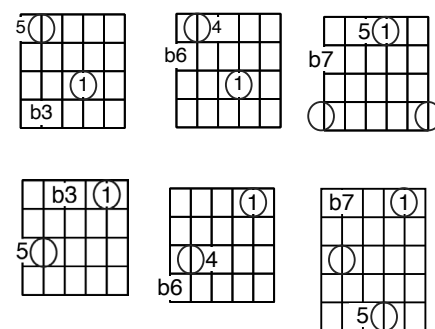
root in bass



third in bass

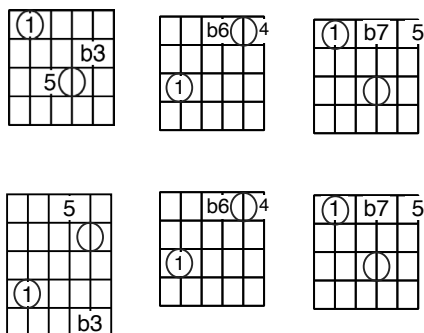


fifth in bass

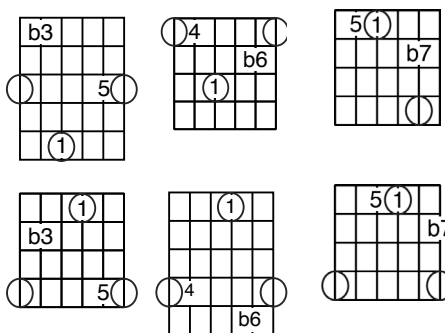


Phrygian, Im-IVm-Im7 no 3: open-voiced, bass on fifth

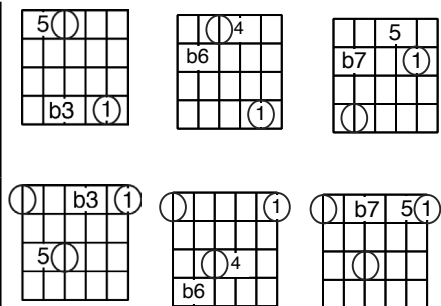
root in bass



third in bass



fifth in bass

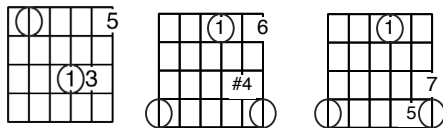


4-Lydian, I-#IVdim-Ima7n3 (thirds or sixths ascend: “retain-change”)

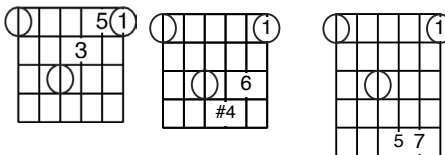
“I-#IVdim-Ima7” indicates a I major chord, a #IV diminished chord, then a I major seventh chord without a third (Ima7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I is 1-3-5, #IV diminished is #4-6-1 and Ima7 no third is 1-5-7. Orient the fingerings below by keeping “1” on the same note. In I-#IVdim-I7n3, three moves to sharp four, then to five. Five moves to six, then to seven.

Lydian, I-#IVdim-Ima7 no 3: close-voiced on string set 3-2-1

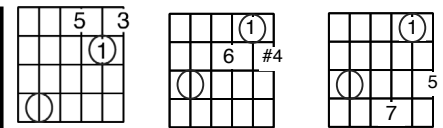
root in bass



third in bass

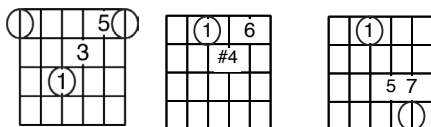


fifth in bass

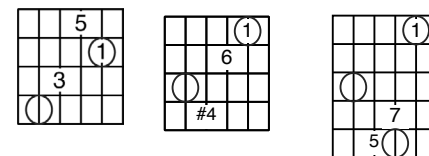


Lydian, I-#IVdim-Ima7 no 3: close-voiced on string set 4-3-2

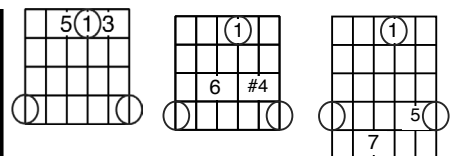
root in bass



third in bass

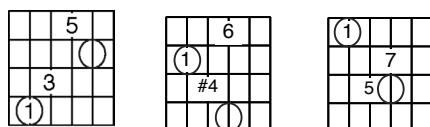


fifth in bass

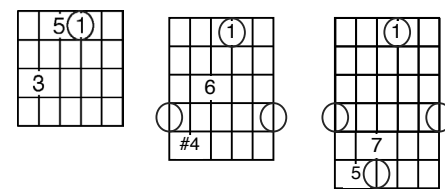


Lydian, I-#IVdim-Ima7 no 3: close-voiced on string set 5-4-3 no 3

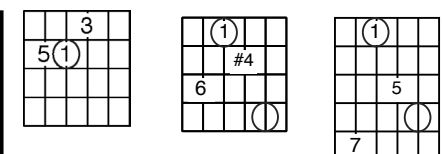
root in bass



third in bass

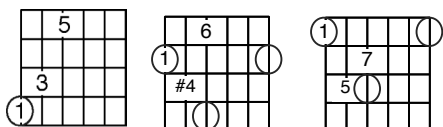


fifth in bass

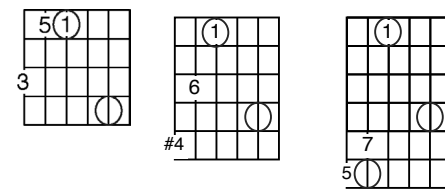


Lydian, I-#IVdim-Ima7 no 3: close-voiced on string set 6-5-4

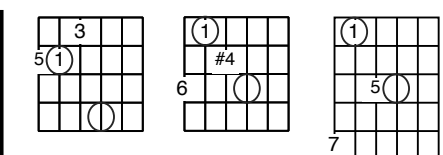
root in bass



third in bass

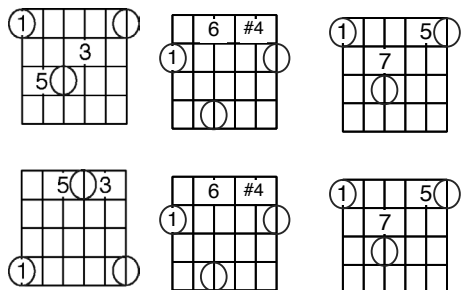


fifth in bass

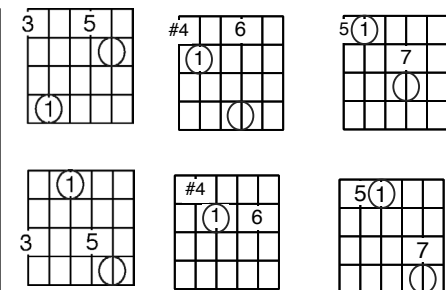


Lydian, I-#IVdim-Ima7 no 3: open-voiced, bass on sixth

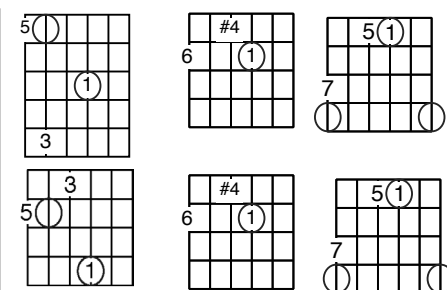
root in bass



third in bass

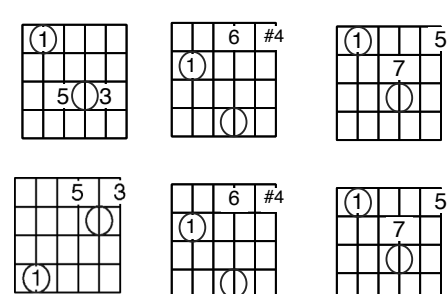


fifth in bass

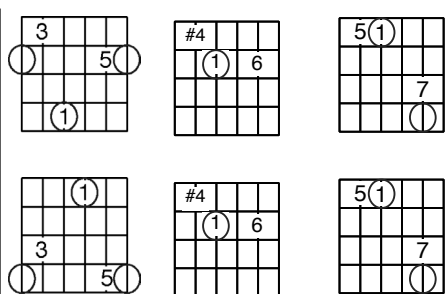


Lydian, I-#IVdim-Ima7 no 3: open-voiced, bass on fifth

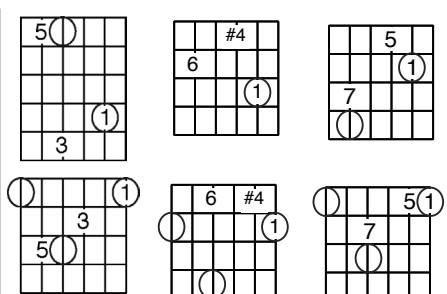
root in bass



third in bass



fifth in bass

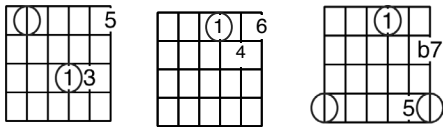


5 Mixolydian, I-IV-I7n3 (thirds or sixths ascend: “change-change”)

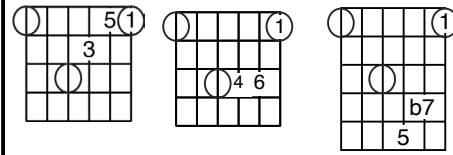
“I-IV-I7n3” indicates a I major chord, a IV major chord, then a I chord of a seventh quality (I7), without a third (I7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I is 1-3-5, IV is 4-6-1 and I7 no third is 1-5-b7. Orient the fingerings below by keeping “1” on the same note. In I-IV-I7n3, three moves to four, then to five. Five moves to six, then to flat seven.

Mixolydian, I-IV-I7 no 3: close-voiced on string set 3-2-1

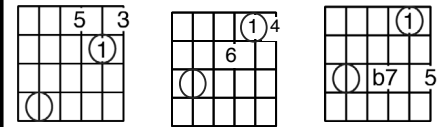
root in bass



third in bass

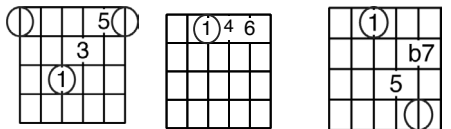


fifth in bass

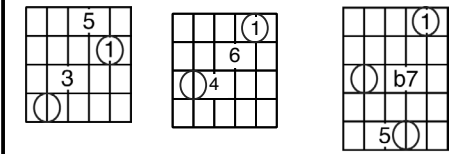


Mixolydian, I-V-I7 no 3: close-voiced on string set 4-3-2

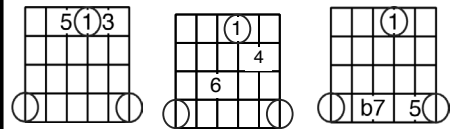
root in bass



third in bass

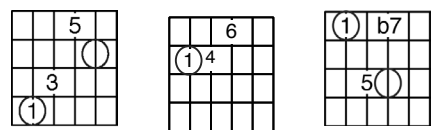


fifth in bass

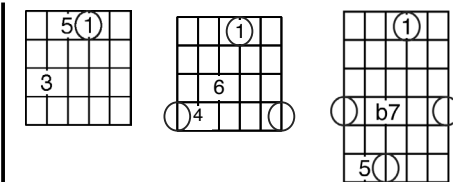


Mixolydian, I-IV-I7: close-voiced on string set 5-4-3 no 3

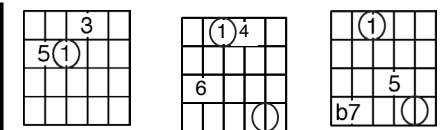
root in bass



third in bass

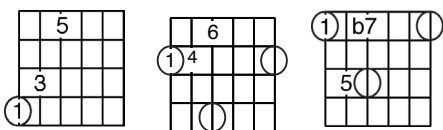


fifth in bass

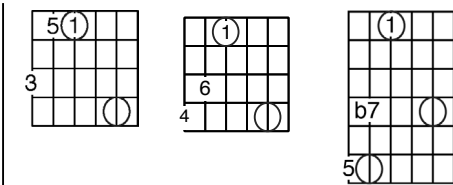


Mixolydian, I-IV-I7 no 3: close-voiced on string set 6-5-4

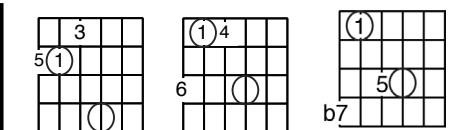
root in bass



third in bass

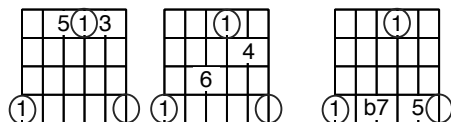


fifth in bass

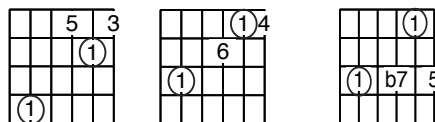


Mixolydian, I-IV-I7 no 3: close-voiced, doubled root

root in bass on sixth

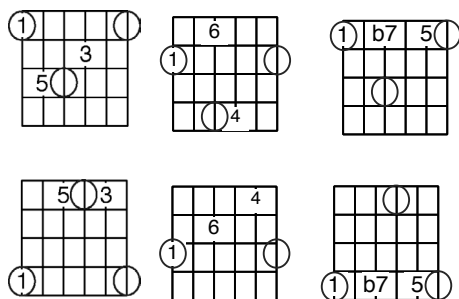


root in bass on fifth

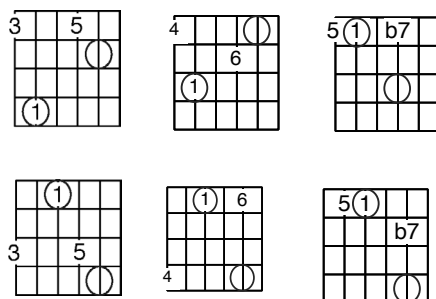


Mixolydian, I-IV-I7 no 3: open-voiced, bass on sixth

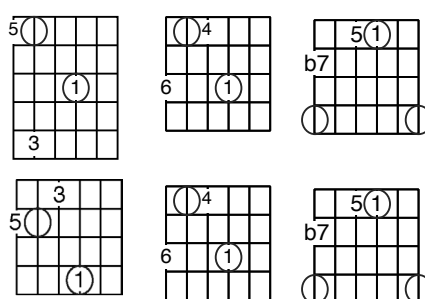
root in bass



third in bass

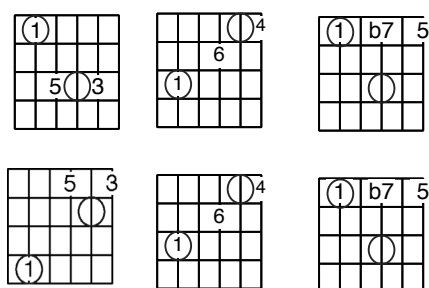


fifth in bass

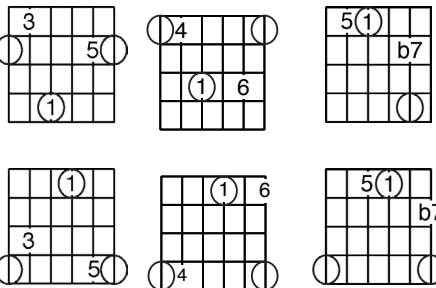


Mixolydian, I-IV-I7 no 3: open-voiced, bass on fifth

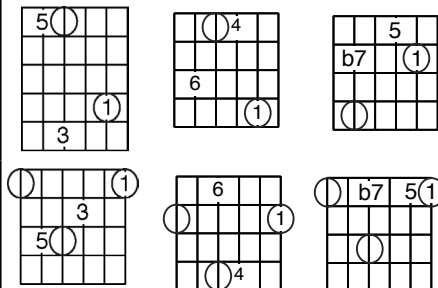
root in bass



third in bass



fifth in bass



Mixolydian I-IV-I7 Blues, Close-Voiced

Chord progression for Mixolydian I-IV-I7 Blues, Close-Voiced (4/4 time):

Measures 1-4: G C G⁷ C G C G⁷ C G C G⁷ C G C G⁷ C G C G⁷ C

Measures 5-8: C F C⁷ F C F C⁷ F C F C⁷ F G⁷ C G⁷ C G C G⁷ C G C G⁷ C

Measures 9-12: D G D⁷ G D G D⁷ G D G D⁷ G G⁷ C G⁷ C G C G⁷ C G C G⁷ C G

TAB notation is provided for each measure, showing fret numbers for strings T, A, and B.

Mixolydian I-IV-I7 Blues, Open-Voiced

Chord progression for Mixolydian I-IV-I7 Blues, Open-Voiced (4/4 time):

Measures 1-4: C F C⁷ F C F C⁷ F C F C⁷ F C F C⁷ F C F C⁷ F C F C⁷ F

Measures 5-8: F B^b F⁷ B^b F B^b F⁷ B^b F B^b F⁷ B^b C F C⁷ F C F C⁷ F C F C⁷ F C F C⁷ F

Measures 9-12: G C G⁷ C G C G⁷ C G C G⁷ C C F C⁷ F C F C⁷ F C F C⁷ F C

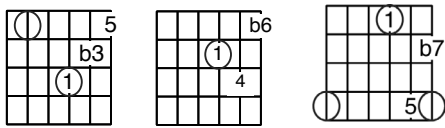
TAB notation is provided for each measure, showing fret numbers for strings T, A, and B.

6-Aeolian, Im-IVm-Im7n3 (thirds or sixths ascend: “change-retain”)

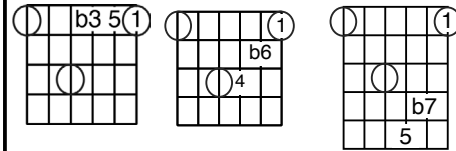
Aeolian Im-IVm-Im7n3 is the same as [Phrygian Im-IVm-Im7n3](#). “Im-IVm-Im7n3” indicates a I minor chord, a IV minor chord, then a I minor seventh chord without a third (Im7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: Im is 1-b3-5, IVm is 4-b6-1 and Im7 no third is 1-5-b7. Orient the fingerings below by keeping “1” on the same note. In Im-IVm-Im7n3, flat three moves to four, then to five. Five moves to flat six, then to flat seven.

Aeolian, Im-IVm-Im7 no 3: close-voiced on string set 3-2-1

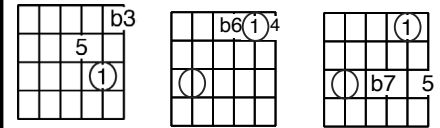
root in bass



third in bass

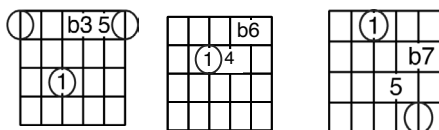


fifth in bass

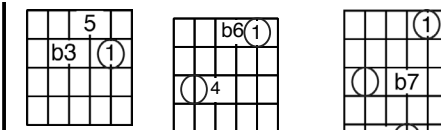


Aeolian, Im-IVm-Im7 no 3: close-voiced on string set 4-3-2

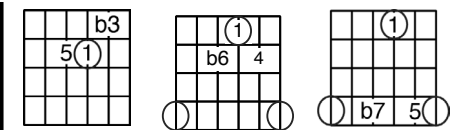
root in bass



third in bass

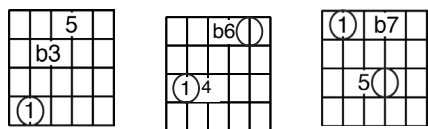


fifth in bass

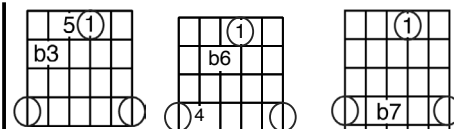


Aeolian, Im-IVm-Im7 no 3: close-voiced on string set 5-4-3

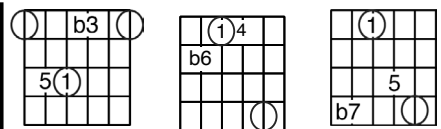
root in bass



third in bass

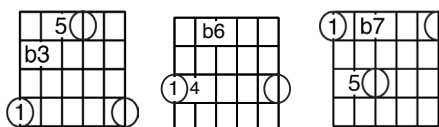


fifth in bass

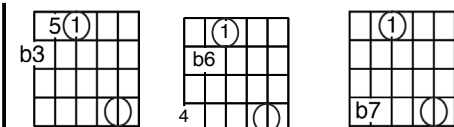


Aeolian, Im-IVm-Im7 no 3: close-voiced on string set 6-5-4

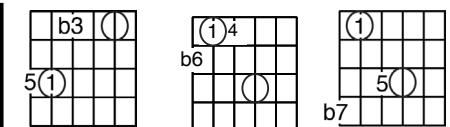
root in bass



third in bass

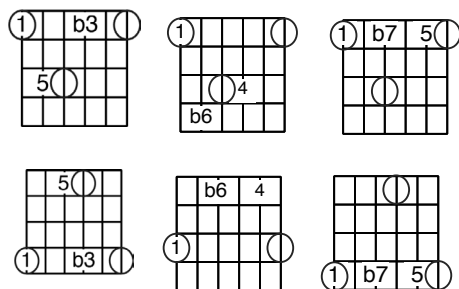


fifth in bass

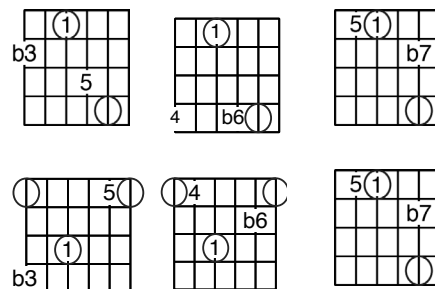


Aeolian, Im-IVm-Im7 no 3: open-voiced, bass on sixth

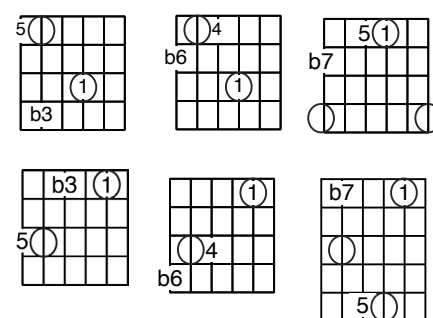
root in bass



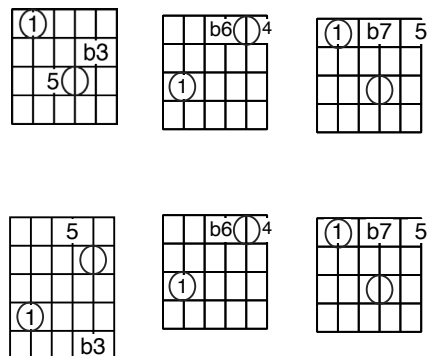
third in bass



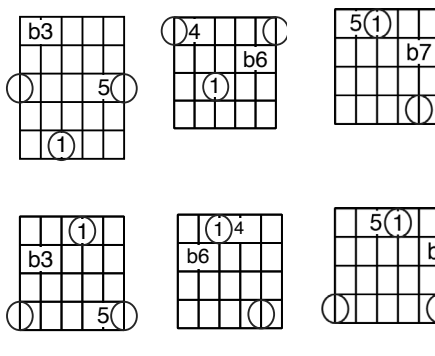
fifth in bass

**Aeolian, Im-IVm-Im7 no 3: open-voiced, bass on fifth**

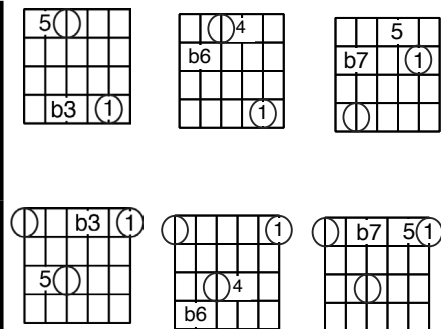
root in bass



third in bass



fifth in bass



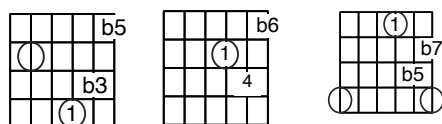
7-Locrian or Aeolian flat five, Idim-IVm-Im7b5n3 (thirds or sixths ascend: “retain-change”)

Locrian and Aeolian flat five differ only in that Locrian has flat two (1-b2-b3-4-b5-b6-b7) and Aeolian flat five has natural two. The Idim-IVm-Im7b5 no third progression doesn't use a “2”, so it can be used on both scales.

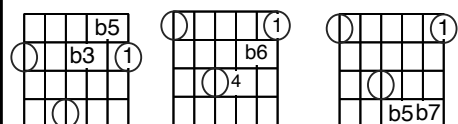
“Idim-IVm-Im7b5n3” indicates a I diminished chord, a IV minor chord, then a I minor seventh flat five chord without a third (Im7b5n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: Idim is 1-b3-b5, IVm is 4-b6-1 and Im7b5 no third is 1-b5-b7. Orient the fingerings below by keeping “1” on the same note. In Idim-IVm-Idim7n3, flat three moves to four, then to flat five. Flat five moves to flat six, then to flat seven.

Locrian or Aeolian flat five, Idim-IVm-Idim7 no 3: close-voiced on string set 3-2-1

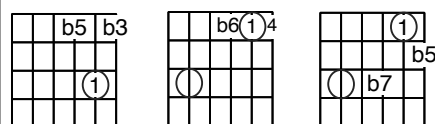
root in bass



third in bass

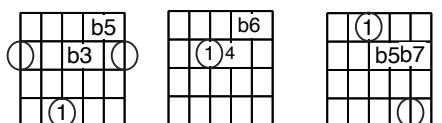


fifth in bass

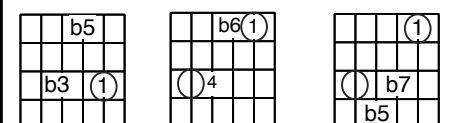


Locrian or Aeolian flat five, Idim-IVm-Idim7 no 3: close-voiced on string set 4-3-2

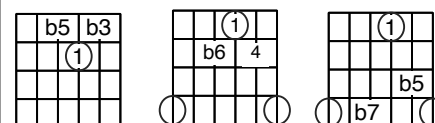
root in bass



third in bass

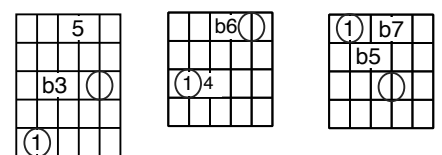


fifth in bass

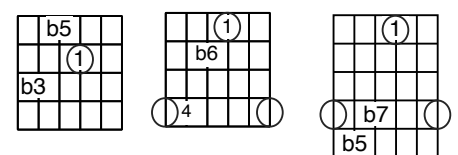


Locrian or Aeolian flat five, Idim-IVm-Idim7 no 3: close-voiced on string set 5-4-3

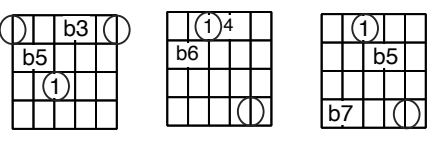
root in bass



third in bass

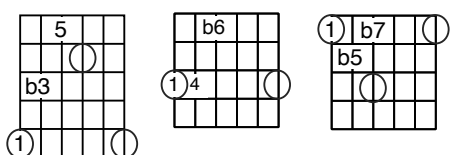


fifth in bass

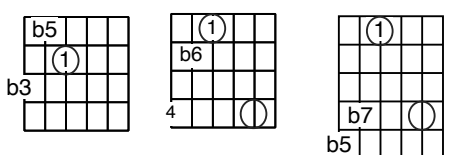


Locrian or Aeolian flat five, Idim-IVm-Idim7 no 3: close-voiced on string set 6-5-4

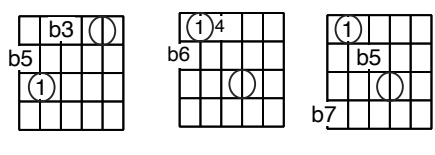
root in bass



third in bass

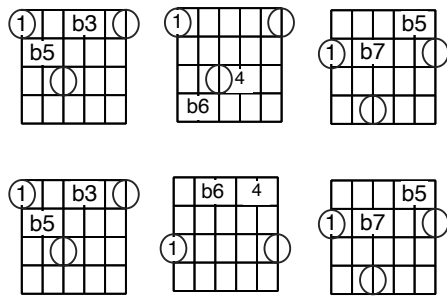


fifth in bass

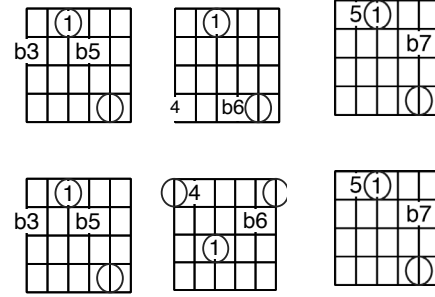


Locrian or Aeolian flat five, Idim-IVm-Idim7 no 3: open-voiced, bass on sixth

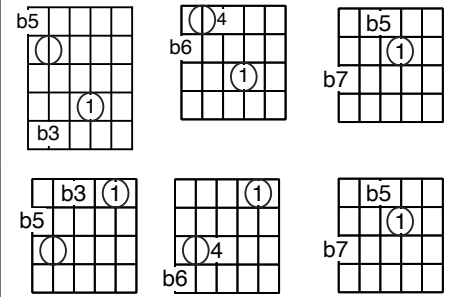
root in bass



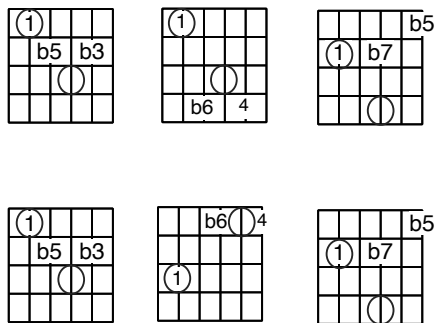
third in bass



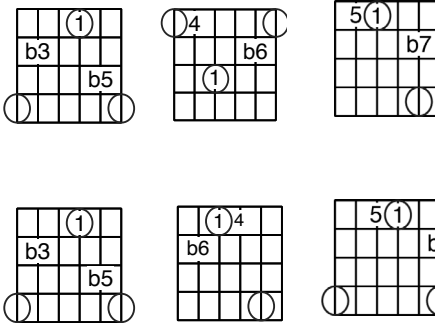
fifth in bass

**Locrian or Aeolian flat five, Idim-IVm-Idim7 no 3: open-voiced, bass on fifth**

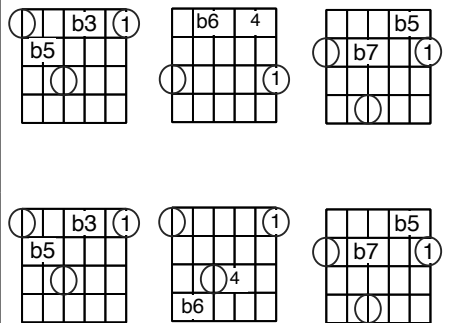
root in bass



third in bass



fifth in bass

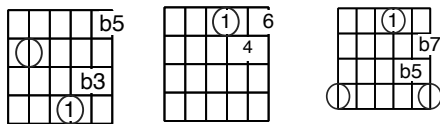


Dorian Flat Five, Idim-IV-Im7b5n3 (thirds or sixths ascend: “change-retain”)

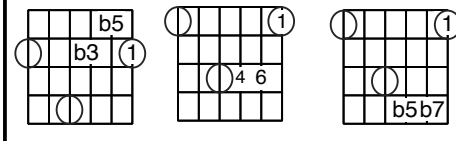
“Idim-IV-Im7b5n3” indicates a I diminished chord, a IV major chord, then a I minor seventh flat five chord without a third (Im7b5n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: Idim is 1-b3-b5, IV is 4-6-1 and Im7b5 no third is 1-b5-b7. Orient the fingerings below by keeping “1” on the same note. In Idim-IV-Idim7n3, flat three moves to four, then to flat five. Flat five moves to six, then to flat seven.

Dorian flat five, Idim-IVm-Idim7 no 3: close-voiced on string set 3-2-1

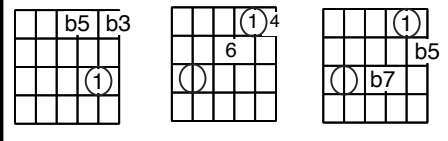
root in bass



third in bass

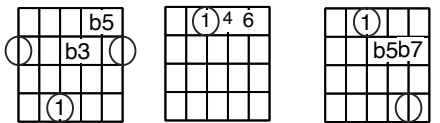


fifth in bass

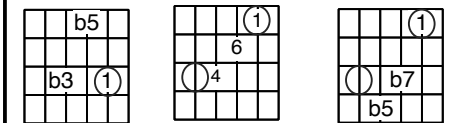


Dorian flat five, Idim-IVm-Idim7 no 3: close-voiced on string set 4-3-2

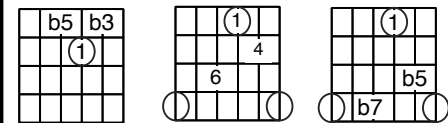
root in bass



third in bass

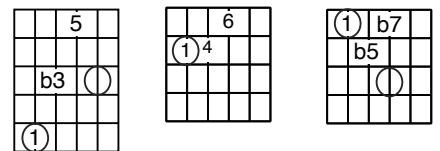


fifth in bass

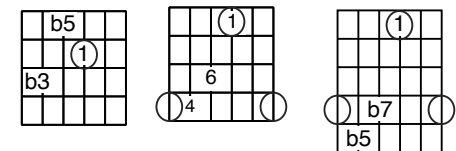


Dorian flat five, Idim-IVm-Idim7 no 3: close-voiced on string set 5-4-3

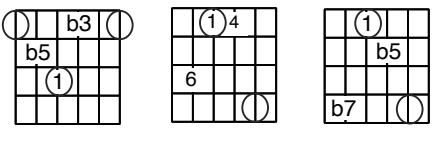
root in bass



third in bass

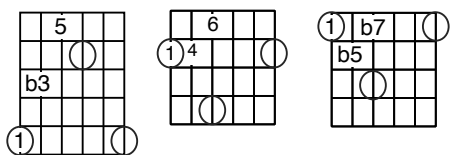


fifth in bass

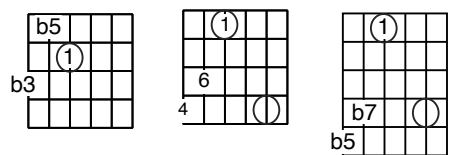


Dorian flat five, Idim-IVm-Idim7 no 3: close-voiced on string set 6-5-4

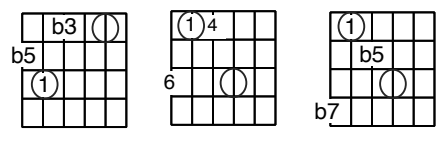
root in bass



third in bass

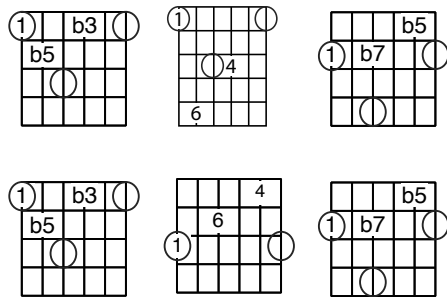


fifth in bass

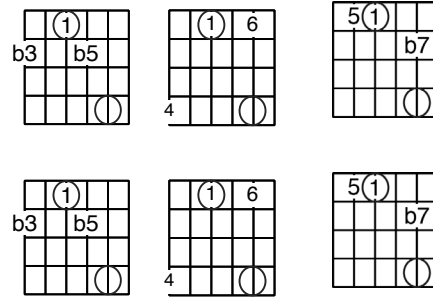


Dorian flat five, Idim-IVm-Idim7 no 3: open-voiced, bass on sixth

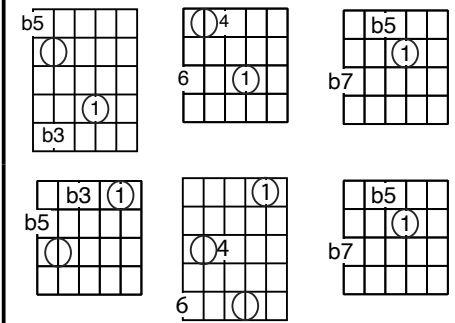
root in bass



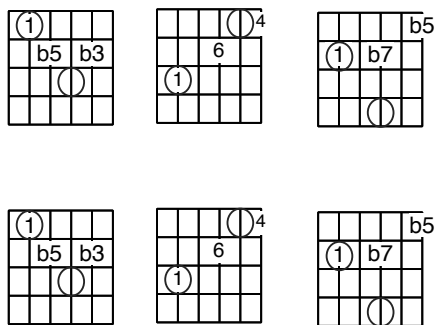
third in bass



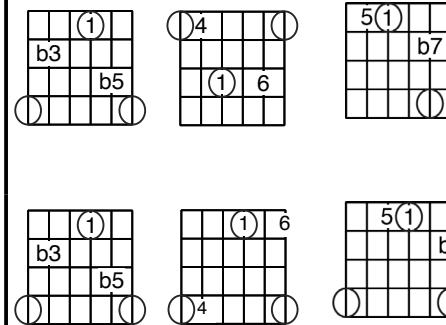
fifth in bass

**Dorian flat five, Idim-IVm-Idim7 no 3: open-voiced, bass on fifth**

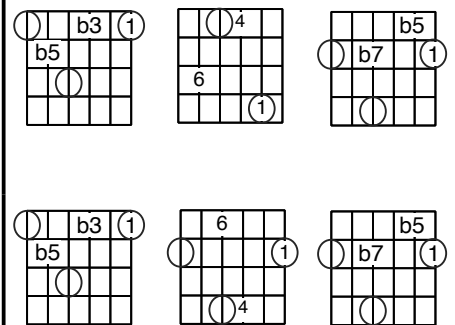
root in bass



third in bass



fifth in bass

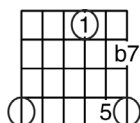
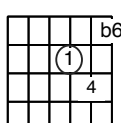
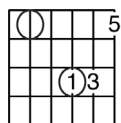


Phrygian dominant, I-IVm-I7n3 (thirds or sixths ascend: “retain-retain”)

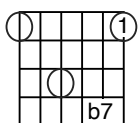
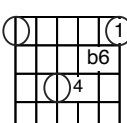
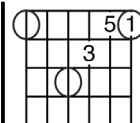
“I-IVm-I7n3” indicates a I major chord, a IV minor chord, then a I seventh chord without a third (I7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I is 1-3-5, IVm is 4-b6-1 and I7 no third is I-5-b7. Orient the fingerings below by keeping “1” on the same note. In I-IVm-I7n3, three moves to four, then to five. Five moves to flat six, then to flat seven.

Phrygian dominant I-IVm-I7 no 3: close-voiced on string set 3-2-1

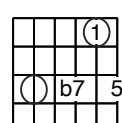
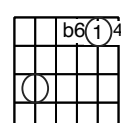
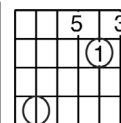
root in bass



third in bass

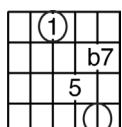
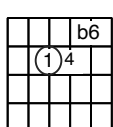
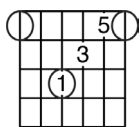


fifth in bass

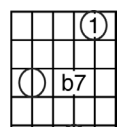
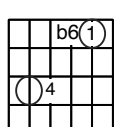
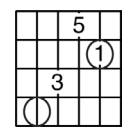


Phrygian dominant I-IVm-I7 no 3: close-voiced on string set 4-3-2

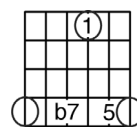
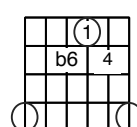
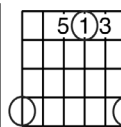
root in bass



third in bass

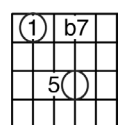
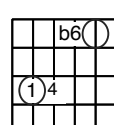
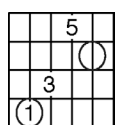


fifth in bass

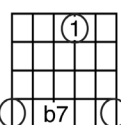
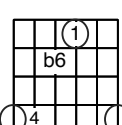
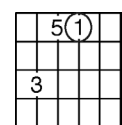


Phrygian dominant I-IVm-I7 no 3: close-voiced on string set 5-4-3

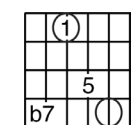
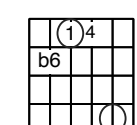
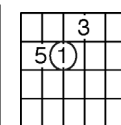
root in bass



third in bass

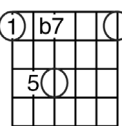
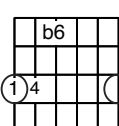
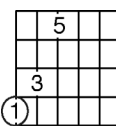


fifth in bass

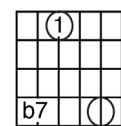
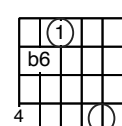
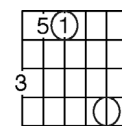


Phrygian dominant I-IVm-I7 no 3: close-voiced on string set 6-5-4

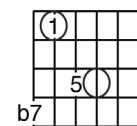
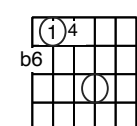
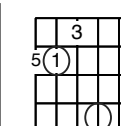
root in bass



third in bass

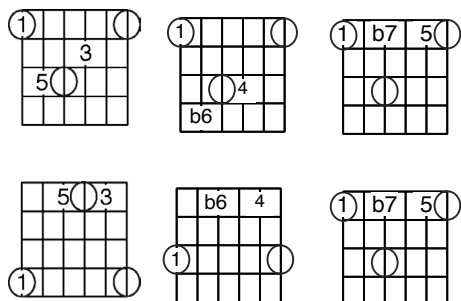


fifth in bass

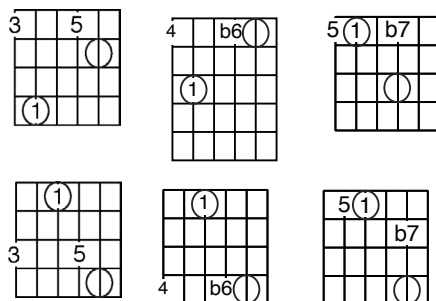


Phrygian dominant I-IVm-I7 no 3: open-voiced, bass on sixth

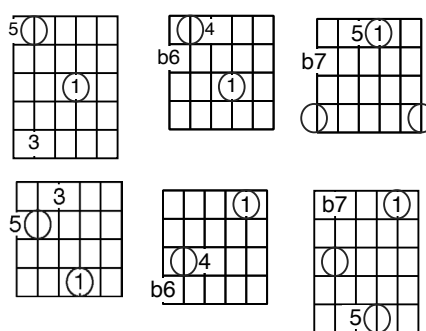
root in bass



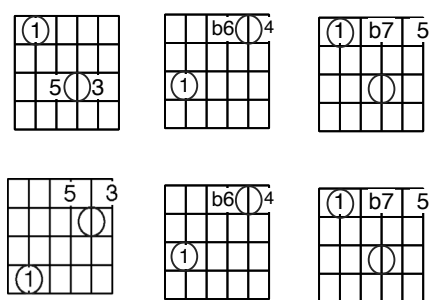
third in bass



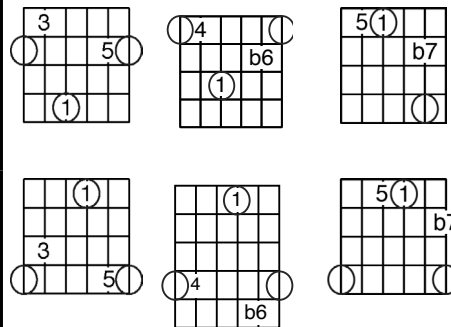
fifth in bass

**Phrygian dominant I-IVm-I7 no 3: open-voiced, bass on fifth**

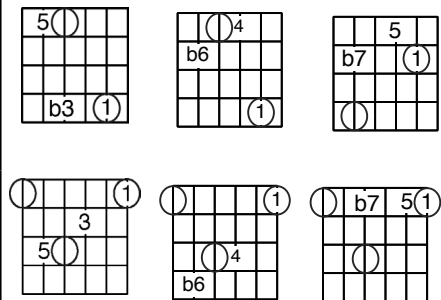
root in bass



third in bass



fifth in bass

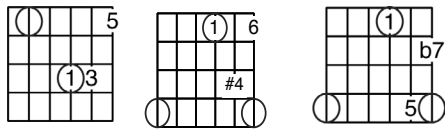


Lydian dominant, I-#IVdim-I7n3 (thirds or sixths ascend: “retain-retain”)

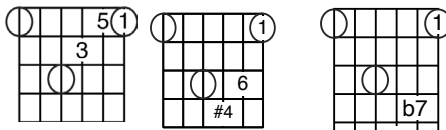
“I-#IVdim-I7n3” indicates a I major chord, a #IV diminished chord, then a I seventh chord without a third (I7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I is 1-3-5, #IV diminished is #4-6-1 and I7 no third is 1-5-b7. Orient the fingerings below by keeping “1” on the same note. In I-#IVdim-I7n3, three moves to sharp four, then to five. Five moves to six, then to flat seven.

Lydian dominant I-#IVdim-I7 no 3: close-voiced on string set 3-2-1

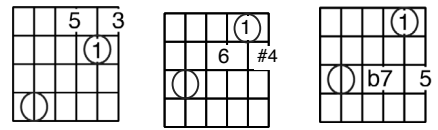
root in bass



third in bass

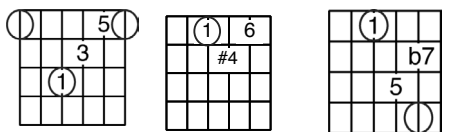


fifth in bass

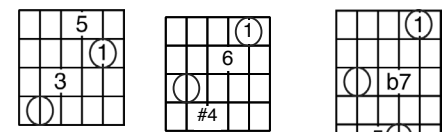


Lydian dominant I-#IVdim-I7 no 3: close-voiced on string set 4-3-2

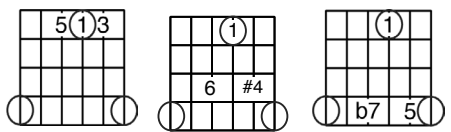
root in bass



third in bass

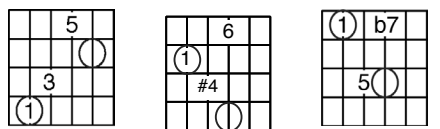


fifth in bass

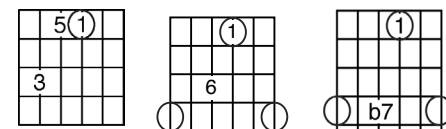


Lydian dominant I-#IVdim-I7 no 3: close-voiced on string set 5-4-3 no 3

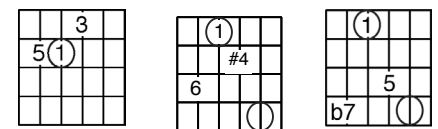
root in bass



third in bass

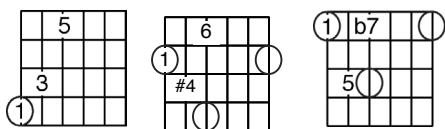


fifth in bass

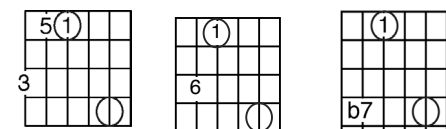


Lydian dominant I-#IVdim-I7 no 3: close-voiced on string set 6-5-4

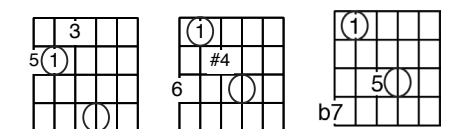
root in bass



third in bass

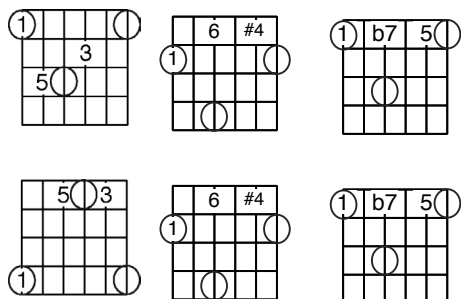


fifth in bass

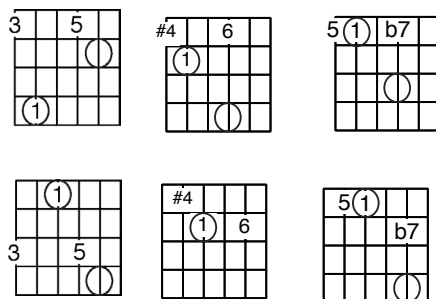


Lydian dominant I-#IVdim-I7 no 3: open-voiced, bass on sixth

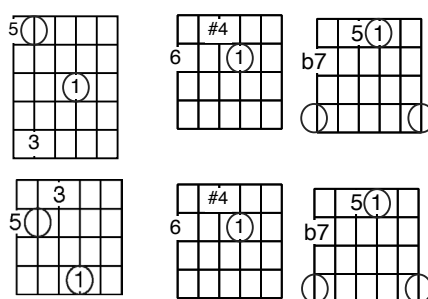
root in bass



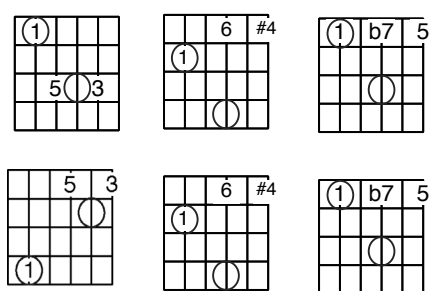
third in bass



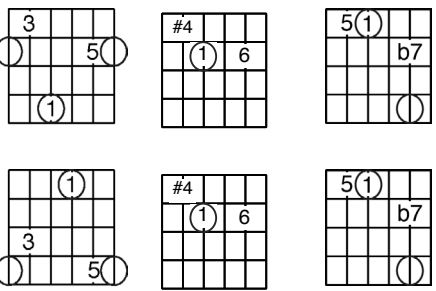
fifth in bass

**Lydian dominant I-#IVdim-I7 no 3: open-voiced, bass on fifth**

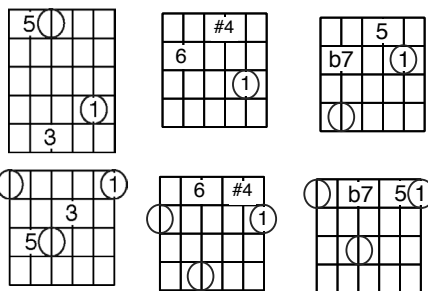
root in bass



third in bass



fifth in bass

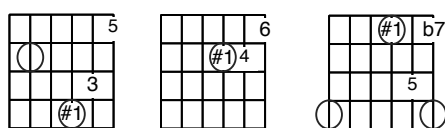


Mixolydian sharp one, #Idim-IVaug-#Idim7n3 (thirds or sixths ascend: “change-change”)

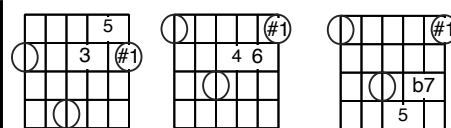
“#Idim-IVaug-#Idim7n3” indicates a #I diminished chord, a IV augmented chord, then a #I diminished seventh chord without a third (#Idim7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: #I diminished is #1-3-5, #IV augmented is 4-6-#1 and I diminished 7 no third is #1-5-b7. Orient the fingerings below by keeping “1” on the same note. In #Idim-IVaug-#Idim7n3, three moves to four, then to five. Five moves to six, then to flat seven.

Mixolydian sharp one #Idim-IVaug-#Idim7 no 3: close-voiced on string set 3-2-1

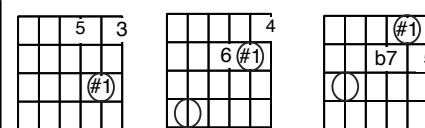
root in bass



third in bass

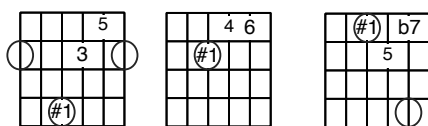


fifth in bass

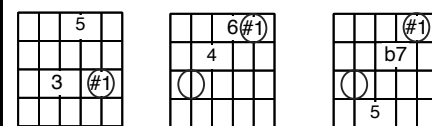


Mixolydian sharp one #Idim-IVaug-#Idim7 no 3: close-voiced on string set 4-3-2

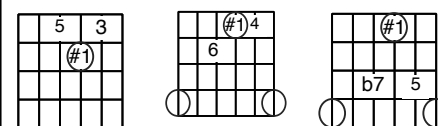
root in bass



third in bass

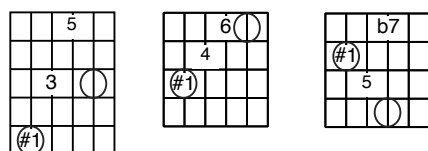


fifth in bass

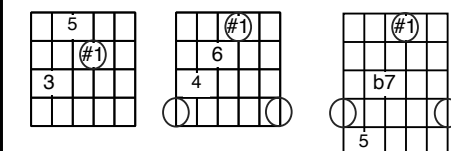


Mixolydian sharp one #Idim-IVaug-#Idim7 no 3: close-voiced on string set 5-4-3 no 3

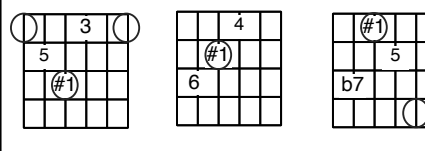
root in bass



third in bass

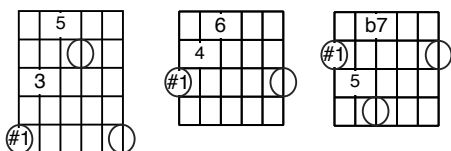


fifth in bass

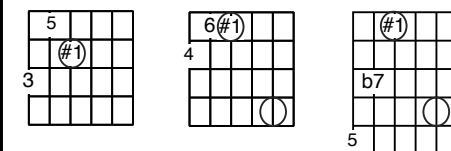


Mixolydian sharp one #Idim-IVaug-#Idim7 no 3: close-voiced on string set 6-5-4

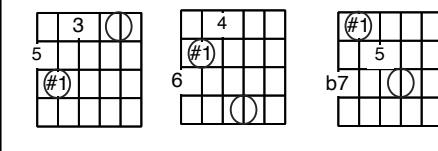
root in bass



third in bass

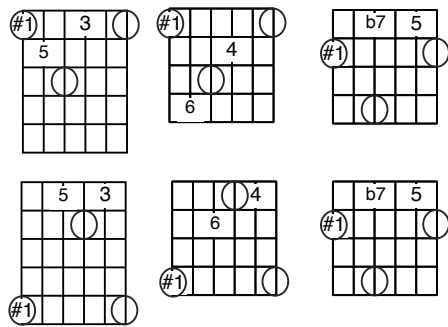


fifth in bass

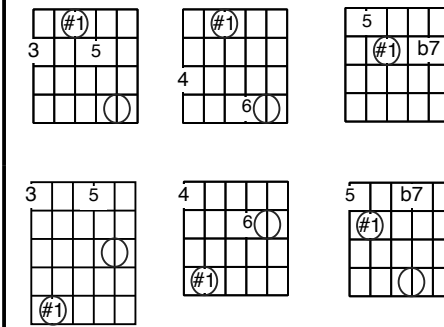


Mixolydian sharp one #ldim-IVaug-#ldim7 no 3: open-voiced, bass on sixth

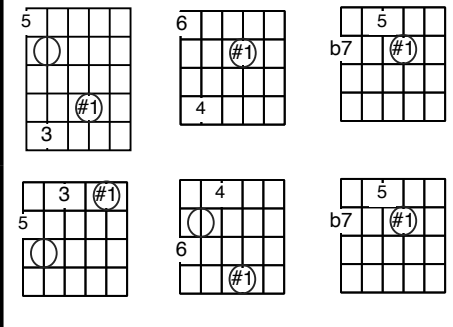
root in bass



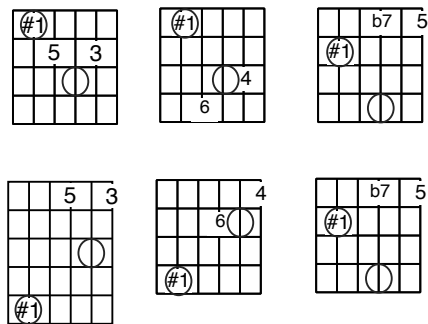
third in bass



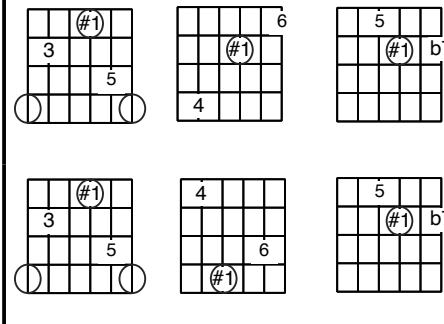
fifth in bass

**Mixolydian sharp one #ldim-IVaug-#ldim7 no 3: open-voiced, bass on fifth**

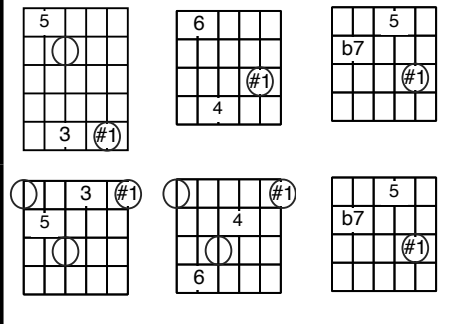
root in bass



third in bass



fifth in bass

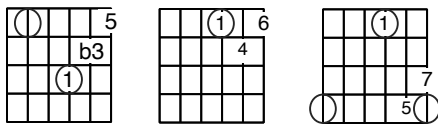


Melodic Minor, Im-IV-Im(ma7)n3 (thirds or sixths ascend: “retain-retain”)

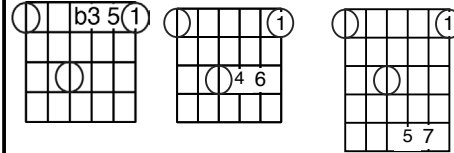
“Im-IV-Im(ma7)n3” indicates a I minor chord, a IV major chord, then a I minor-major seventh chord without a third (Im<ma7>no3). Based on a major scale named after the root of the I chord, the chords use the following scale tones: I minor is 1-b3-5, IV major is 4-6-1 and I minor (major 7) no third is 1-5-7. Orient the fingerings below by keeping “1” on the same note. In Im-IV-Im(ma7)n3, flat three moves to four, then to five. Five moves to six, then to seven.

melodic minor Im-IV-Im(ma7) no 3: close-voiced on string set 3-2-1

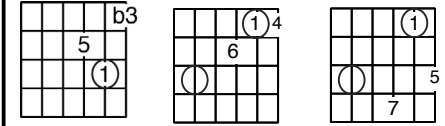
root in bass



third in bass

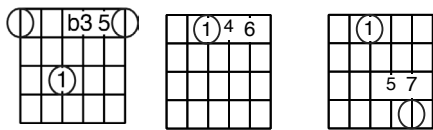


fifth in bass

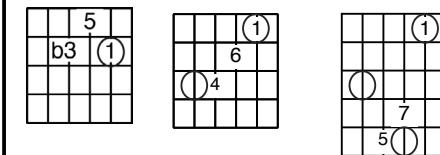


melodic minor Im-IV-Im(ma7) no 3: close-voiced on string set 4-3-2

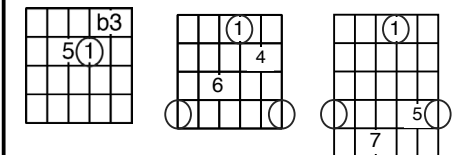
root in bass



third in bass

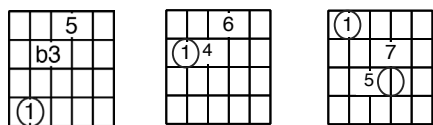


fifth in bass

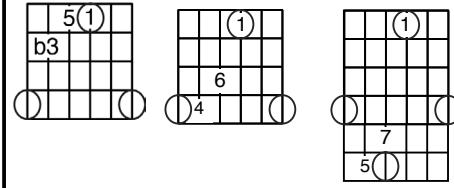


melodic minor Im-IV-Im(ma7) no 3: close-voiced on string set 5-4-3

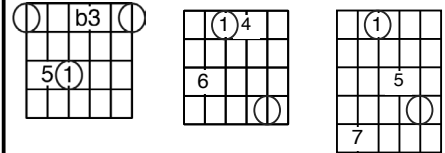
root in bass



third in bass

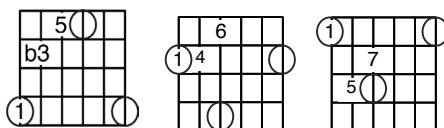


fifth in bass

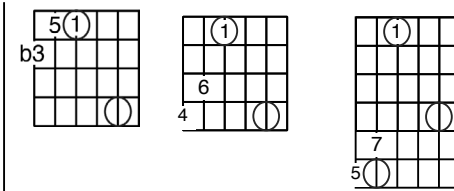


melodic minor Im-IV-Im(ma7) no 3: close-voiced on string set 6-5-4

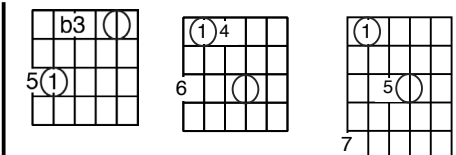
root in bass



third in bass

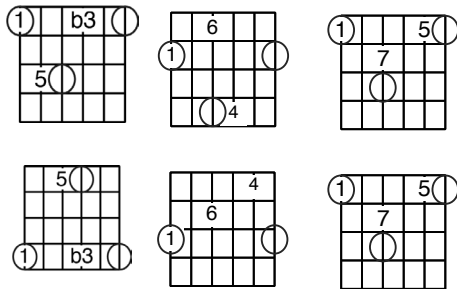


fifth in bass

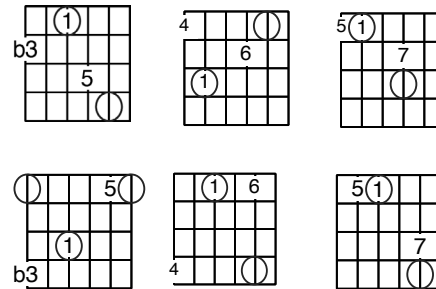


melodic minor Im-IV-Im(ma7) no 3: open-voiced, bass on sixth

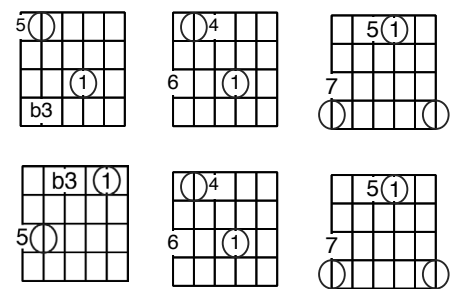
root in bass



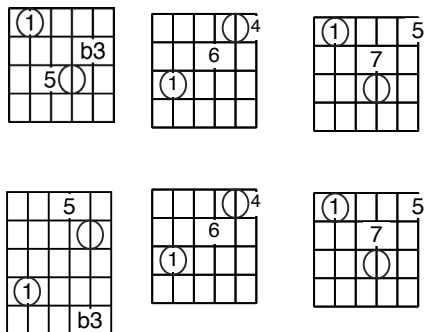
third in bass



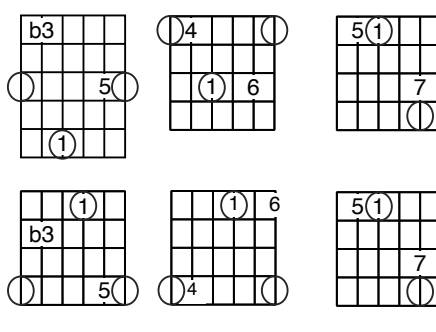
fifth in bass

**melodic minor Im-IV-Im(ma7) no 3: open-voiced, bass on fifth**

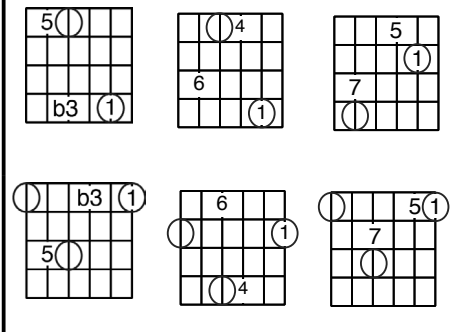
root in bass



third in bass



fifth in bass

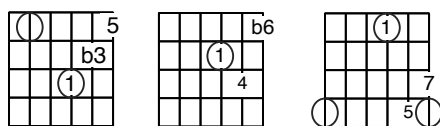


Harmonic Minor, Im-IVm-Im(ma7)n3 (thirds or sixths ascend: “change-change”)

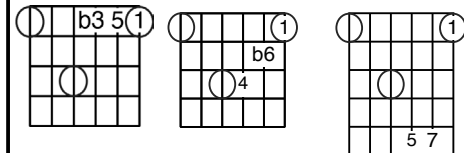
“Im-IVm-Im(ma7)n3” indicates a I minor chord, a IV minor chord, then a I minor-major seventh chord without a third (Im<ma7>no3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I minor is 1-b3-5, IV minor is 4-b6-1 and I minor (major 7) no third is 1-5-7. Orient the fingerings below by keeping “1” on the same note. In Im-IVm-Im(ma7)n3, flat three moves to four, then to five. Five moves to flat six, then to seven.

harmonic minor Im-IVm-Im(ma7) no 3: close-voiced on string set 3-2-1

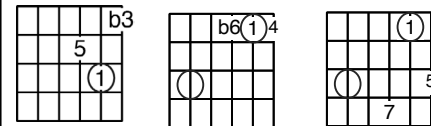
root in bass



third in bass

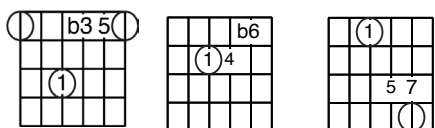


fifth in bass

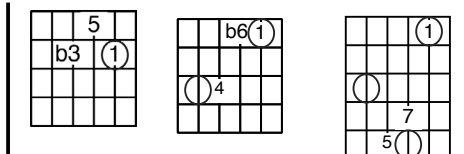


harmonic minor Im-IVm-Im(ma7) no 3: close-voiced on string set 4-3-2

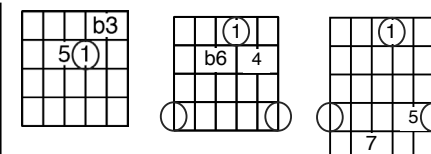
root in bass



third in bass

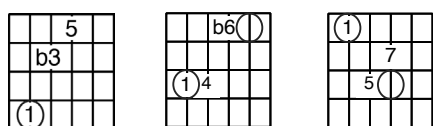


fifth in bass

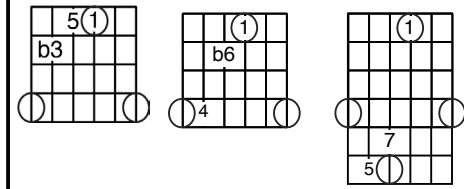


harmonic minor Im-IVm-Im(ma7) no 3: close-voiced on string set 5-4-3

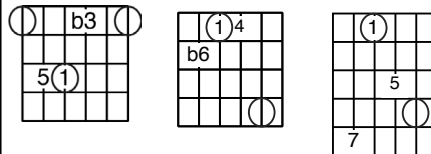
root in bass



third in bass

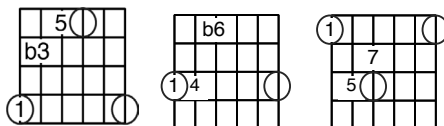


fifth in bass

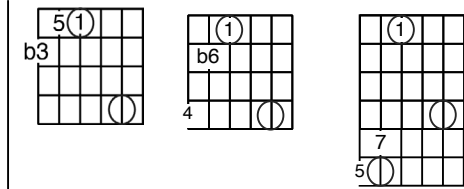


harmonic minor Im-IVm-Im(ma7) no 3: close-voiced on string set 6-5-4

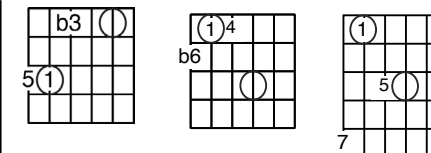
root in bass



third in bass

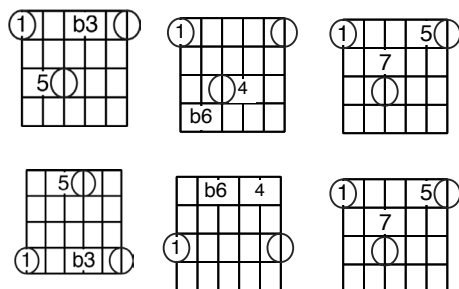


fifth in bass

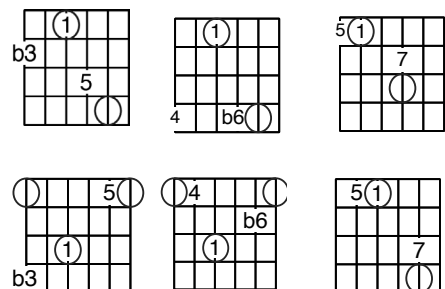


harmonic minor Im-IVm-Im(ma7) no 3: open-voiced, bass on sixth

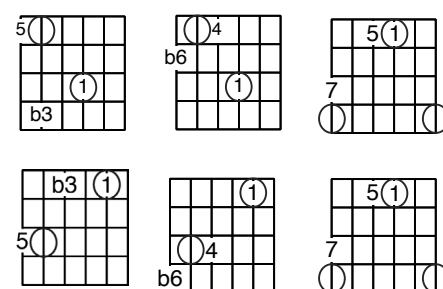
root in bass



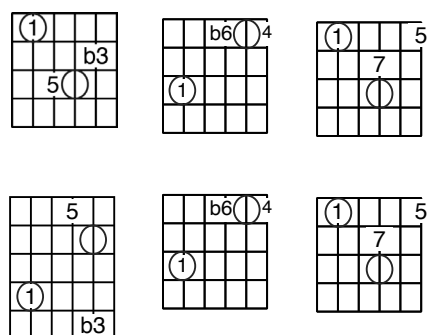
third in bass



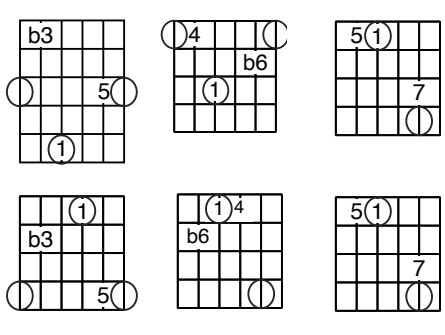
fifth in bass

**harmonic minor Im-IVm-Im(ma7) no 3: open-voiced, bass on fifth**

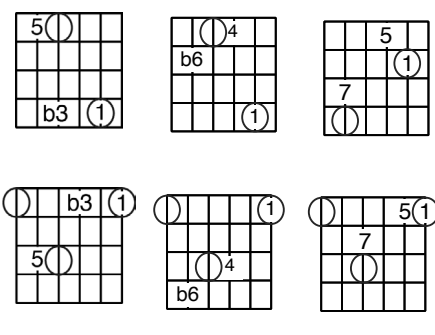
root in bass



third in bass



fifth in bass

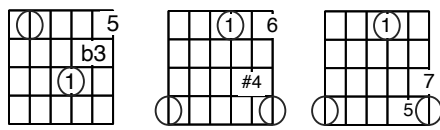


Lydian Diminished, Im-#IVdim-Im(ma7)n3 (thirds or sixths ascend: “change-change”)

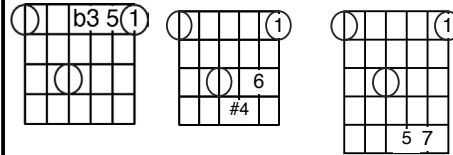
“Im-#IVdim-Im(ma7)n3” indicates a I minor chord, a #IV diminished chord, then a I minor-major seventh chord without a third (Im<ma7>no3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: I minor is 1-b3-5, #IV diminished is #4-6-1 and I minor (major 7) no third is 1-5-7. Orient the fingerings below by keeping “1” on the same note. In Im-#IVdim-Im(ma7)n3, flat three moves to sharp four, then to five. Five moves to six, then to seven.

Lydian diminished I-#IVdim-Im(ma7) no 3: close-voiced on string set 3-2-1

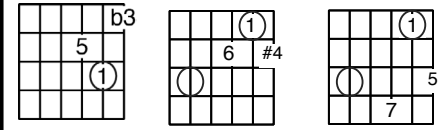
root in bass



third in bass

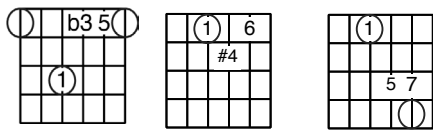


fifth in bass

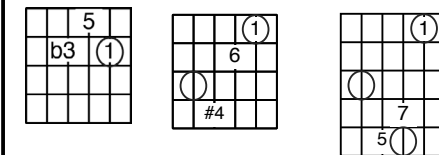


Lydian diminished I-#IVdim-Im(ma7) no 3: close-voiced on string set 4-3-2

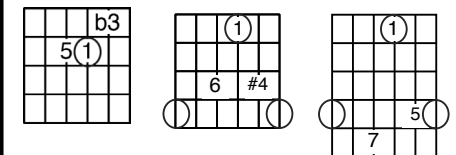
root in bass



third in bass

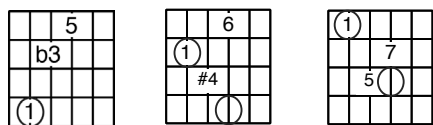


fifth in bass

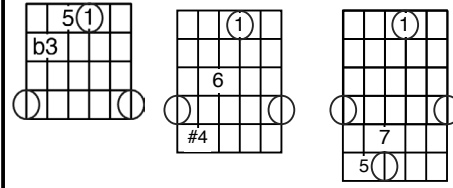


Lydian diminished I-#IVdim-Im(ma7) no 3: close-voiced on string set 5-4-3

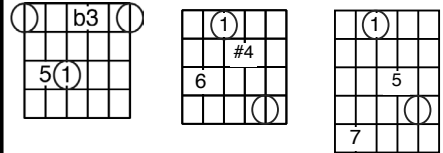
root in bass



third in bass

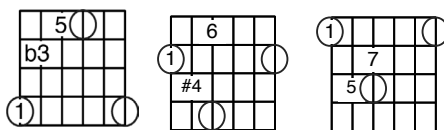


fifth in bass

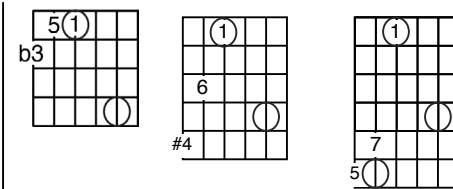


Lydian diminished I-#IVdim-Im(ma7) no 3: close-voiced on string set 6-5-4

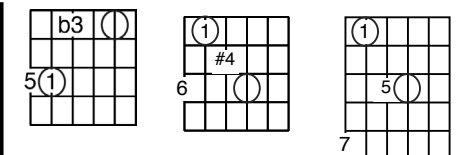
root in bass



third in bass



fifth in bass



Lydian diminished I-#IVdim-Im(ma7) no 3: open-voiced, bass on sixth

root in bass

third in bass

fifth in bass

Diagram showing 18 fretboard positions for the Lydian diminished I-#IVdim-Im(ma7) no 3 chord with the bass on the sixth string. The positions are arranged in two rows of three columns. The first column is 'root in bass', the second is 'third in bass', and the third is 'fifth in bass'. Each position shows a 5-fret fretboard with notes and fingerings indicated.

Lydian diminished I-#IVdim-Im(ma7) no 3: open-voiced, bass on fifth

root in bass

third in bass

fifth in bass

Diagram showing 18 fretboard positions for the Lydian diminished I-#IVdim-Im(ma7) no 3 chord with the bass on the fifth string. The positions are arranged in two rows of three columns. The first column is 'root in bass', the second is 'third in bass', and the third is 'fifth in bass'. Each position shows a 5-fret fretboard with notes and fingerings indicated.

Dorian sharp four, Im-#IVdim-Im7n3 (thirds or sixths ascend: "change-retain")

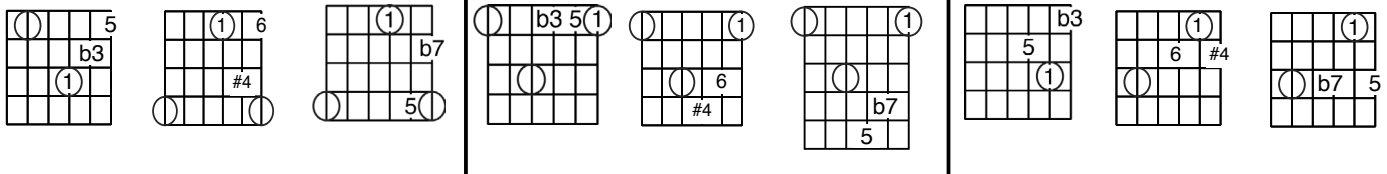
"Im-#IVdim-Im7n3" indicates a I minor chord, a #IV diminished chord, then a I minor seventh chord without a third (I7n3). Based on a major scale named after the root of the I chord, the chords use tone the following scale tones: Im is 1-b3-5, #IVdim is #4-6-1 and Im7 no third is 1 -5-b7. Orient the fingerings below by keeping "1" on the same note. In Im-#IVdim-Im7n3, flat three moves to sharp four, then to five. Five moves to six, then to flat seven.

Dorian sharp four, Im-#IVdim-Im7 no 3: close-voiced on string set 3-2-1

root in bass

third in bass

fifth in bass

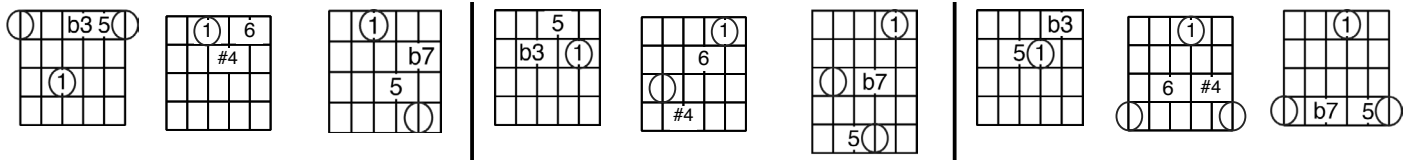


Dorian sharp four, Im-#IVdim-Im7 no 3: close-voiced on string set 4-3-2

root in bass

third in bass

fifth in bass

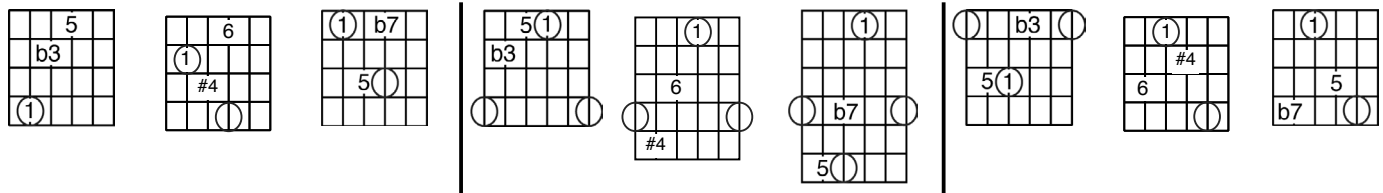


Dorian sharp four, Im-#IVdim-Im7 no 3: close-voiced on string set 5-4-3

root in bass

third in bass

fifth in bass

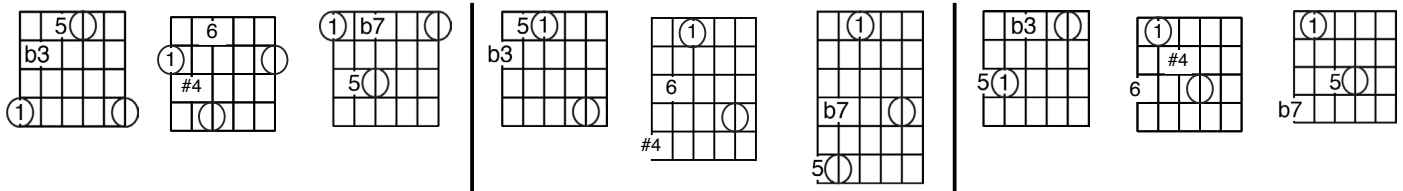


Dorian sharp four, Im-#IVdim-Im7 no 3: close-voiced on string set 6-5-4

root in bass

third in bass

fifth in bass

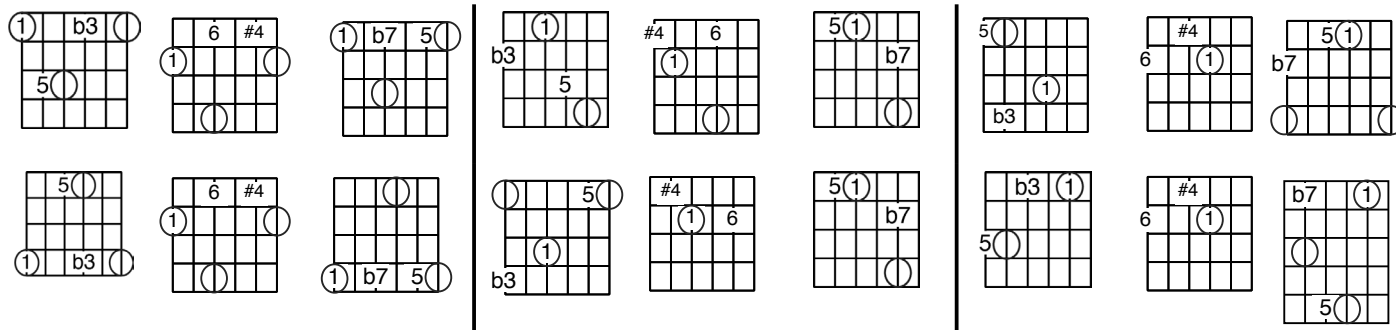


Dorian sharp four, Im-#IVdim-Im7 no 3: open-voiced, bass on sixth

root in bass

third in bass

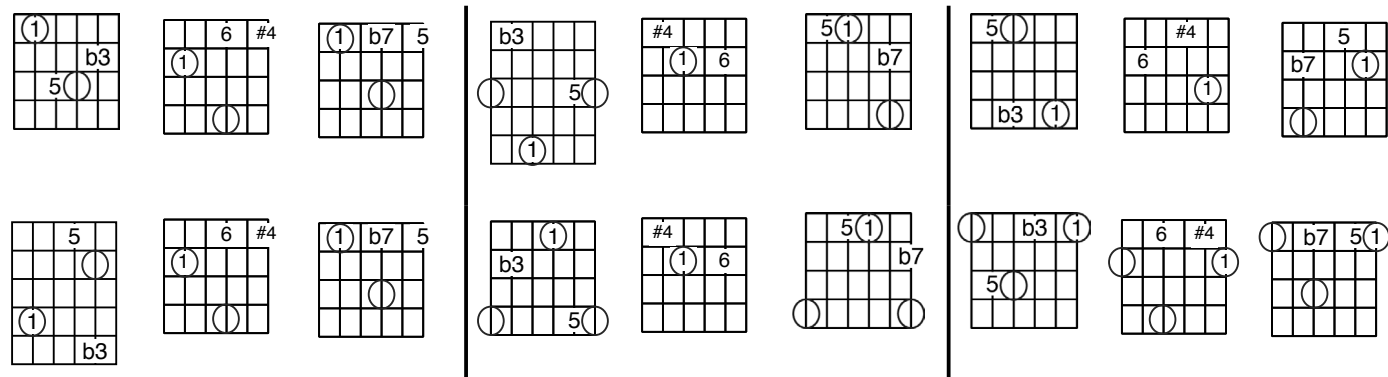
fifth in bass

**Dorian sharp four, Im-#IVdim-Im7 no 3: open-voiced, bass on fifth no 3**

root in bass

third in bass

fifth in bass



Summary of I-IV-I7 Progressions in Barre Chords

major I-IV-I^{ma}7

C VIII	F VIII	C ^{ma} 7 VIII

Dorian I^m-IV-I^m7

C ^m VIII	F VIII	C ^m 7 VIII

Phrygian and Aeolian I^m-IV^m-I^m7

C ^m VIII	F ^m VIII	C ^m 7 VIII

Lydian I-#IVdim-I^{ma}7

C VIII	F [#] dim IX	C ^{ma} 7 VIII

Mixolydian I-IV-I7

C VIII	F VIII	C7 VIII

Locrian & Ae. flat five I^{dim}-IV^m-I^m7b5

C ^{dim} VII	F ^m VIII	C ^m 7b5 VIII

Dorian flat five I^{dim}-IV-I^m7b5

C ^{dim} VIII	F VIII	C ^m 7b5 VIII

Phrygian dominant I-IV^m-I7

C VIII	F ^m VIII	C7 VIII

Lydian dominant I-#IVdim-I7

C VIII	F [#] dim IX	C7 VIII

Mixolydian sharp one #I^{dim}-IV^{aug}-#I^{dim}7

C [#] dim VIII	F ^{aug} VIII	C [#] dim7 VIII

melodic minor I^m-IV-I^m(^{ma}7)

C ^m VIII	F VIII	C ^m (^{ma} 7) VIII

harmonic minor I^m-IV^{dim}-I^m(^{ma}7)

C ^m VIII	F ^m VIII	C ^m (^{ma} 7) VIII

Lydian diminished I^m-#IV^{dim}-I^m(^{ma}7)

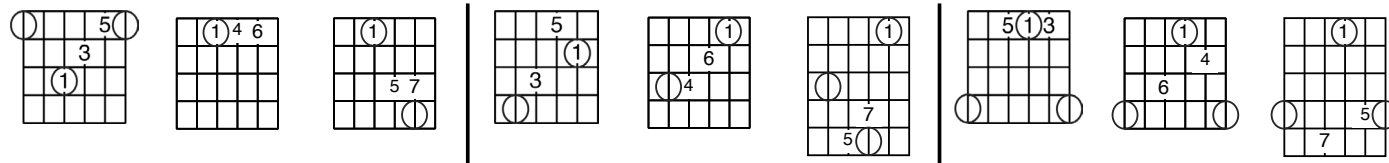
C ^m VIII	F [#] dim IX	C ^m (^{ma} 7) VIII

Dorian sharp four I-#IV^{dim}-I^m7

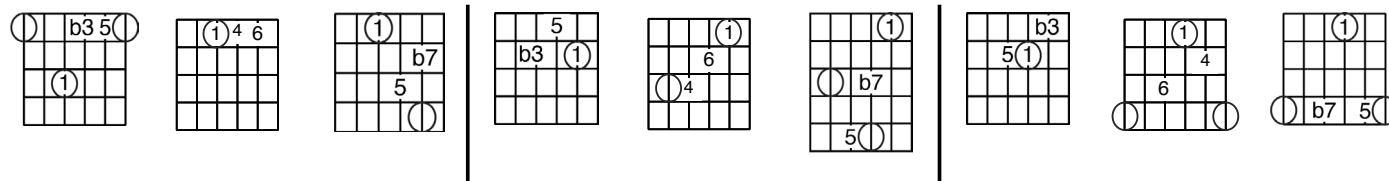
C VIII	F [#] dim IX	C ^m 7 VIII

I-IV-I7 in All Scales on Stringset 432

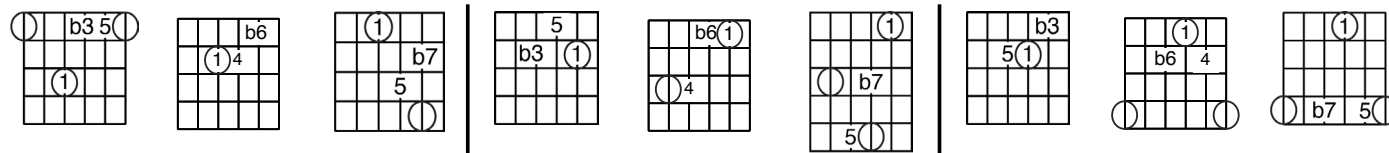
major I-IV-Ima7



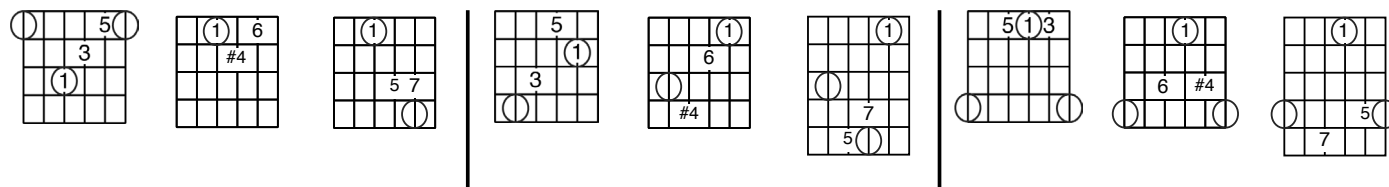
Dorian Im-IV-Im7



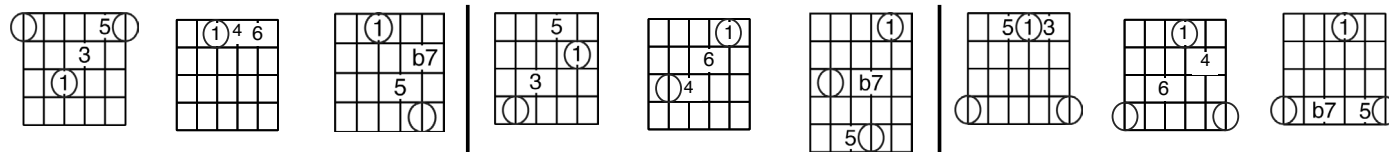
Phrygian and Aeolian Im-IVm-Im7



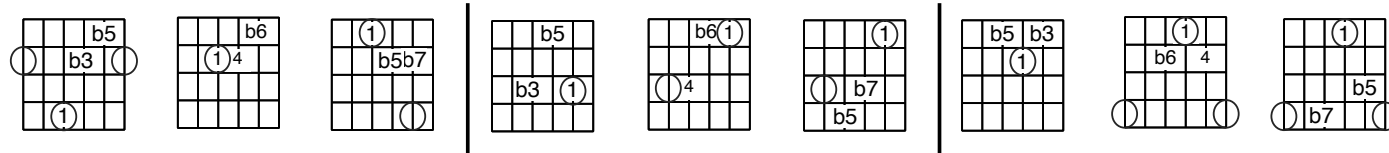
Lydian I-#IVdim-Ima7



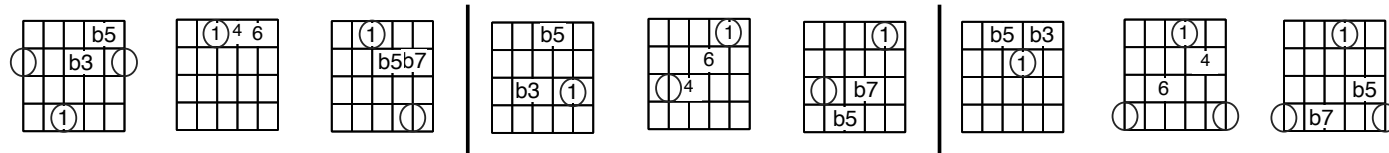
Mixolydian I-IV-I7



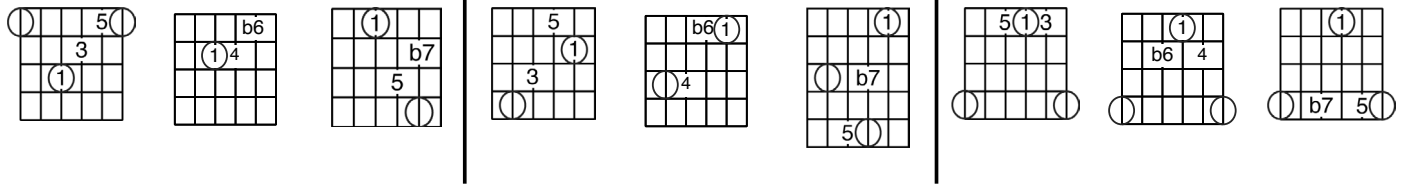
Locrian & Aeol. flat five Idim-IVm-Im7b5



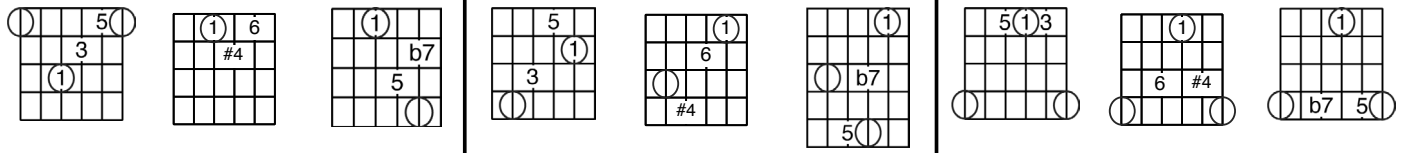
Dorian flat five Idim-IV-Im7b5



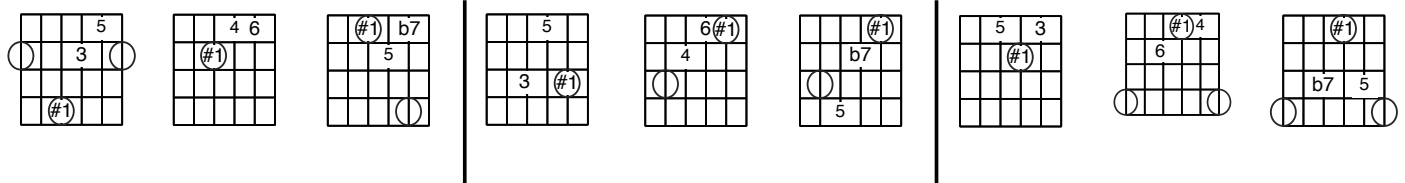
Phrygian dominant I-IVm-17



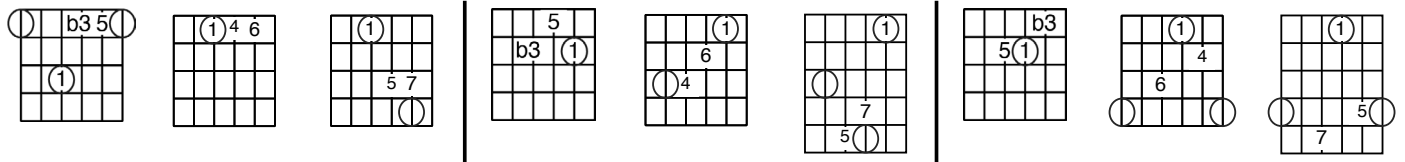
Lydian dominant I-#IVdim-17



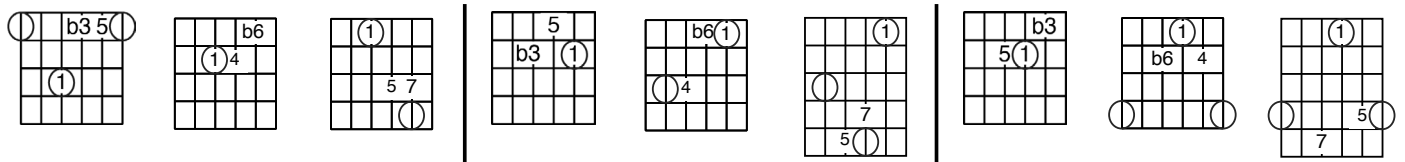
Mixolydian sharp one #Idim-IVaug-#Idim7



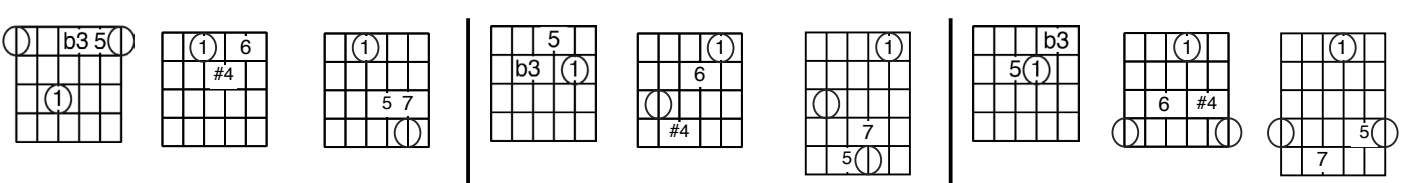
melodic minor Im-IV-Im(ma7)



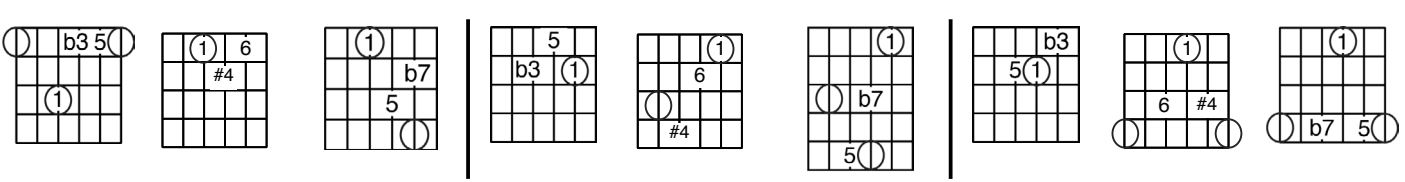
harmonic minor Im-IVm-Im(ma7)



Lydian diminished Im-I#V-dim-Im(ma7)



Dorian sharp four Im-I#V-dim-Im7



Remember to Retain the Root

The most important thing to remember in working out voicings is that note that is the root of the original chord does not change. The remaining voices move up, typically in parallel on adjacent strings.

Notes Other than the Root Move in Thirds or Sixths

The typical [voice leading](#) for this progression retains the root, moves the third and fifth up a step to the fourth and sixth, making a IV chord (IV is 4, 6, and 1). Next, the fourth and sixth each move up another step to the fifth and seventh, making a I7(no third) chord. The I7(no third) chord uses scale tones 1, 5 and 7. "5" and/or "7" may be flat, according to the mode. "5" is sharp in some modes.

The two voices other than the root move in parallel thirds. It is effectively two notes harmonized in thirds over a pedal point. With inversions, these notes other than the original root may move in parallel sixths or tenths (an octave and a third). Remember, this also applies to tenths in open-voiced I-IV-I7, since a tenth is an octave and a third.

I-IV-I7 Can be Used in Different Order

Often songs have used I-IV-I7 in reverse order: I7-IV-I.

Modal I-IV-I7 Progression

The I-IV-I7 chord progression may be based on each of many seven tone scales. Each scale may use different versions of the numbers, such as b7 for Mixolydian, but the numbers remain the same. It is very useful to note the *changes of intervals* in the I-IV-I7 progression particular to each scale. In Mixolydian, for example (I-IV-I7), the two moving notes change interval each time they ascend. They change from I to IV. They change again from IV to I7n3. In Dorian mode, they stay the same from Im to IV, then change from IV to Im7n3. Phrygian and Aeolian are identical, since the I-IV-I7 chord progression does not use scale tone two. Phrygian major is commonly usable, harmonic minor is not.

<u>mode</u> <u>scale</u>	<u>progression</u>	<u>movement of thirds in parent</u>
major (Ionian)	I-IV-Ima7n3	3 minor, 4 major, 5 major
Dorian	Im-IV-Im7n3	4 major, 5 major, 6 minor
Phrygian (same as Aeolian)	Im-IVm-Im7n3	5 major, 6 minor, 7 minor
Lydian	I-IV diminished-Ima7n3	6 minor, 7 minor, 1 major
Mixolydian	I-IV-I7n3	7 minor, 1 major, 2 minor
Aeolian (same as Phrygian)	Im-IVm-Im7n3	1 major, 2 minor, 3 minor
Locrian	I diminished-IVm-Im7b5n3	2 minor, 3 minor, 4 major
Phrygian major	I-IVm-I7n3	5 major, b6 major, b7 major

Using Modal I-IV-I7 for Secondary Roots

Secondary roots are commonly used to create substitute chord progression. You need to know the cycles of thirds and fourths. See [Number And Letter Cycles](#) in [Note Sets, Structures And Design](#).

Using secondary roots on the third or sixths create harmony parts. Secondary roots on the fifth can create harmony parts in the high range or a shift of emphasis to the “IV” chord of “I-IV-I7”.

know the chord type you are starting with

The chord quality of the chord you are enhancing can tell you its type. Major chords can be I, IV or V types; or can be a III major type which usually comes before a VIIm type (with the roots progressing up a perfect fourth).

Chords built on the first step of a major scale are major seventh. Major seventh chords are usually a I type, unless the scale has a sharp four, in which case they are a IV type.

Minor chords can be a IIIm or VIIm type, more commonly treated as a VIIm type. IIIm type is common to blues in major keys, often used in place of a V type. The only modal difference between the IIIIm type (Phrygian mode) and VIIm type (Aeolian mode) is that IIIIm type has a flat two. Since the I, IV, I7 progression doesn't use a “2”, it is the same for IIIIm type and VIIm type. So, you can usually think of IIIIm as VIIm, as far as I, IV, I7 voicings.

secondary roots on the third

Playing a I-IV-I7 progression modally on the third (of the appropriate type) of the original chord makes the original sound like a ninth.

For any scale tone chord, you need to know its numbered type (I type, V type). The secondary root on the third is two consecutive numbers higher, and is the next number *clockwise* in the cycle of thirds (see [Number And Letter Cycles](#)).

secondary roots on the sixth

Playing a I-IV-I7 progression modally on the sixth (of the appropriate type) of the original chord makes the original sound like a sixth. This can only be done on I-IV-V and IIIm chord types, which are the only major scale-tone sixth chords. Sixth chords cannot (are not acceptable) have a flattened or sharpened sixth. Modes III, VI and VII of the major scale have a flat sixth, so are not acceptable.

For any scale tone chord, you need to know its numbered type (I type, V type). The secondary root on the sixth is two consecutive numbers lower, and is the next number *counter-clockwise* in the cycle of thirds (see [Number And Letter Cycles](#)).

For the I, IV and V chords this is the relative major and relative minor relationship. The traditional relative minor of I is VIIm. Modally, the same relationship occurs for IV type chords with a relative IIIm

and for V type chords with a relative IIIm.

IIIm has what could be called a “relative VII diminished”. The “relative diminished” of Dm is B diminished.

secondary roots on the fifth

Most commonly, secondary roots on the fifth can be used to emphasize the *second* chord in the I, IV, I7 progression, the “IV chord”.

In using I-IV-I7 on the fifth of a I type (the original chord being enhanced), for example, it would be “V-I-V7”, and should emphasize the second chord “I”. Restated in letters, I-IV-I7 on the fifth of the I type C major would be G-C-G7 (I-IV-I7 in G, which is mode V of C). This should emphasize the second chord “C”, which is the original chord being enhanced.

Playing a I-IV-I7 progression modally on the fifth (of the appropriate type) of the original chord can make the original sound like an eleventh. The following types work:

original chord type	type on fifth	eleventh version of original
IIIm type	VIIm type	IIIm11
IV type	I type	IVma9#11
V type	IIIm type	V11
VIIm type	IIIIm type	VIIm11
VIIIdim type	IV type	VIIIm11b5b9

The VIIIm11b5b9 is not currently acceptable as a chord, but it works melodically as an arpeggio.

Other Pedal Point Thirds

See the chapter “[Thirds and Sixths](#)”/Chords Implied by Thirds and Sixths.

PEDAL POINT TRIADS

Using Triads to Create the Movement of Voices

While a single chord or is being played or while a bass note is being sustained, a series of triads may be played, making the music more interesting. One or more of the triads represent the current chord played by the accompaniment (or conceived by the soloist if there is no accompaniment). Scale tone triads are typically used in this situation, where some of the triads represent versions of the current chord. Other triads are transitory and move to and between the main chords that represent the current chord.

stepwise root neighbors

If C major is the chord in mind or “target chord”, chords may be played briefly and less emphasized on neighboring stepwise roots of the parent F major scale, like Bb a step below and Dm built a scale above the “C” root of the C chord. Bb and Dm would cause movement of three notes to and from the C major triad. C major triad tones C-E-G progressing to Dm would move all three notes up a scale tone to D-F-A or progressing to Bb would move all three notes (C-E-G) of the C triad to Bb-D-F.

perfect fourth root neighbors

Similarly, chords may be played on roots up or down a fourth from the C root, an F major triad rooted up a fourth or a G minor triad rooted down a fourth. Triads with roots up or down a fourth each cause two notes to move to and from the C-E-G tones of the C triad, changing to F-A-C for the F major triad or to G-Bb-D for the G minor triad.

Subset Triads

Seventh and larger chords have four or more notes and groups of three of those notes can make up a triad. Memorize the scale tone triads shown below in three inversions, in stepwise order, for the parent scale (such as the major scale) that you are using, then learn alternate names for the versions of the current target chord in mind. “nr” means no root. “n3” means no third. “n5” means no fifth.

memorize a few patterns and rules to be able to predict all these pages

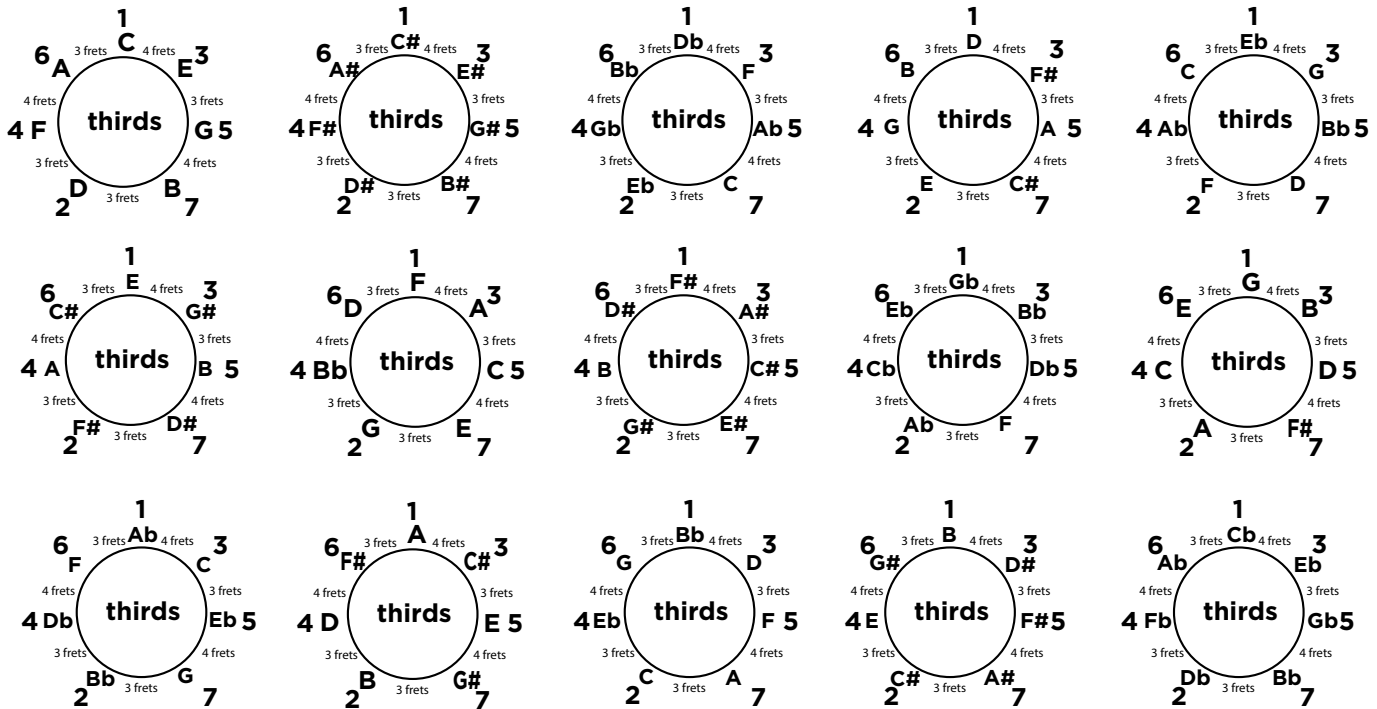
Don't memorize the following pages of subset triads. Instead, memorize the order of thirds to build triads, the three parent scale numbers that make up each triad. From there, learn which parent scale numbered tone is the root, third fifth and sixth of the target chord. Learn the type of chord that always occurs with a triad on the third, the type with a triad on the fifth and the type with a triad on the sixth. Especially see [Secondary Root Triads for Each Scale Tone below](#) (about twenty pages long).

memorize the cycle of thirds

The cycle of thirds is 1-3-5-7-2-4-6-1-3-5, etc. It is a repeating cycle of 1-3-5-7-2-4-6, as expressed by the circle below. Memorize the role of each numbered parent scale tone for root, third, fifth and sixth.

thirds in all keys

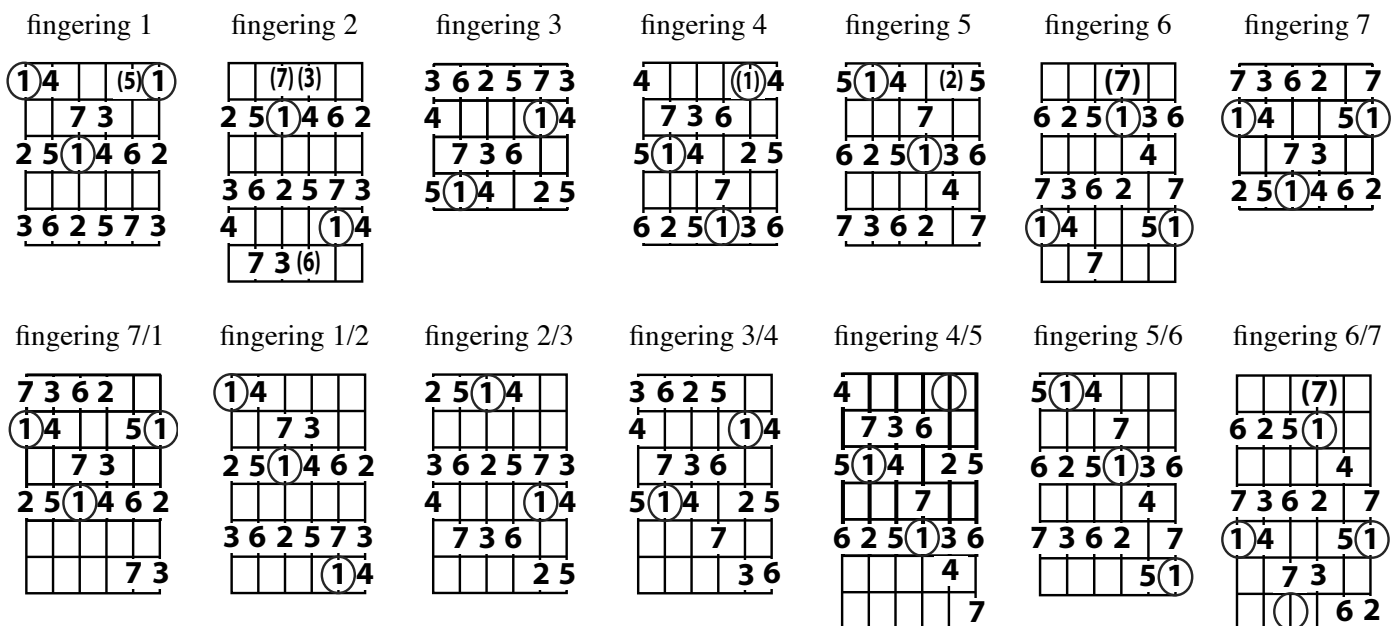
In the enharmonic keys C and Db, F# and Gb, B and Cb, the pitches are the same, but given different names.



memorize the parent scale numbers for each triad

I major is 1-3-5, II minor is 2-4-6, III minor is 3-5-7, IV major is 4-6-1, V major is 5-7-2, VI minor is 6-1-3, VII diminished is 7-2-4.

major scale fingerings



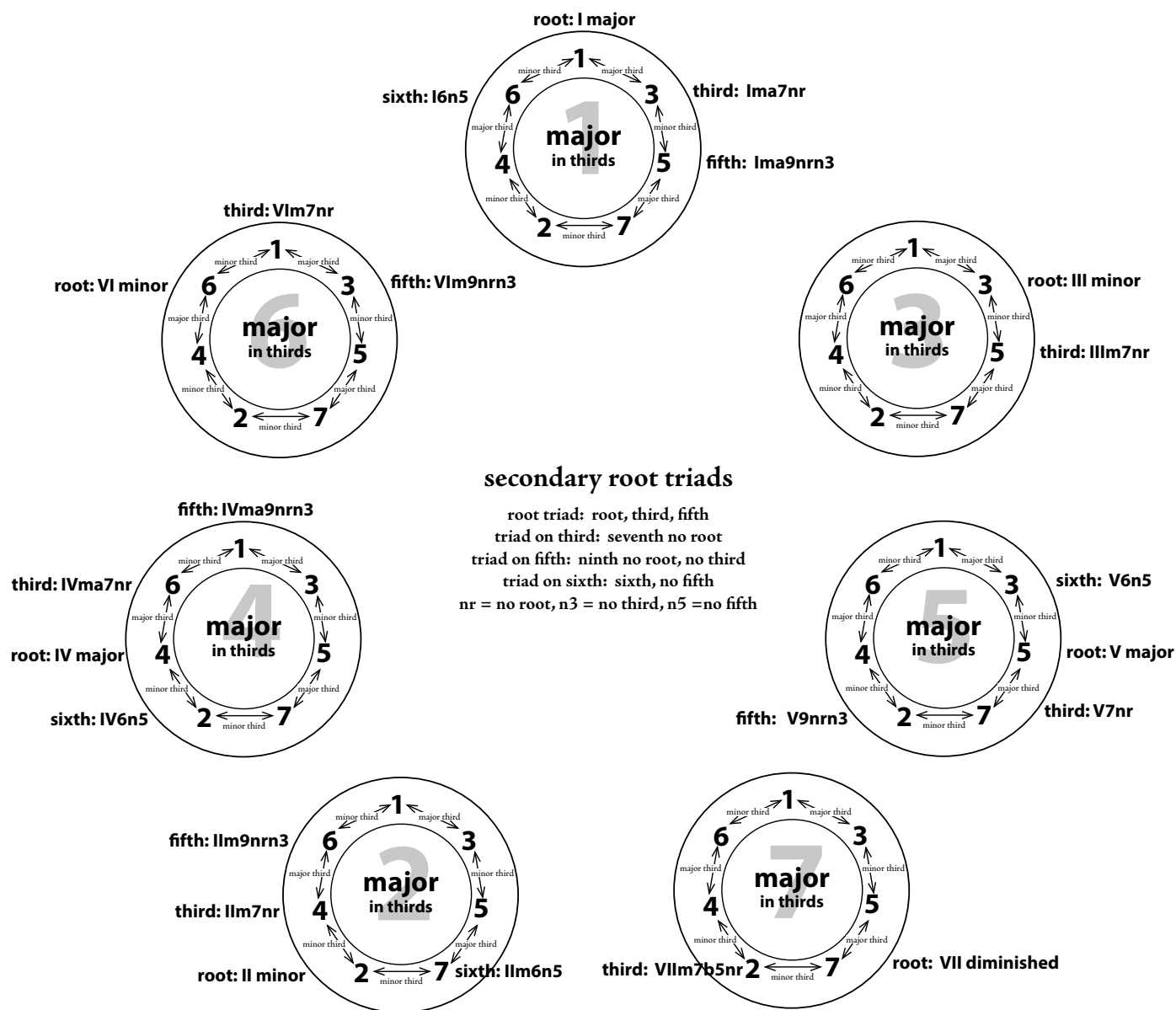
secondary root triads on the third, fifth and sixth of the target chord

nr= no root, n3 = no third, n5= no fifth. The triad on the third of a target chord is the notes of the triad up a third and is the seventh version the target chord without a root (I_{ma}7nr, II_m7nr, III_m7nr, IV_{ma}7nr, V₇nr, VI_m7nr or VII_m7b5nr). The triad on the the fifth of a target chord that can be a ninth (excluding III_m and VII dim. chords) makes a ninth chord with no root and no third (I_{ma}9nrn3, II_m9nrn3, IV_{ma}9nrn3, V₉nrn3 or VI_m9nrn3). With the four major scale tone chords that can be sixth chords (I₆, II_m6, IV₆ and V₆), the triad on the sixth of the target chord is a sixth chord with no fifth (I₆n5, II_m6n5, IV₆n5 or V₆n5).

Lettered examples below are shown in the key of F.

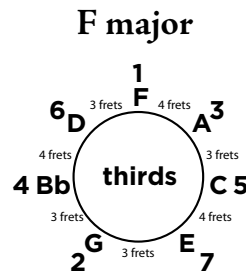
	I major F major acts as chord shown below	II minor G minor acts as chord shown below	III minor A minor acts as chord shown below	IV major Bb major acts as chord shown below	V major C major acts as chord shown below	VI minor D minor acts as chord shown below	VII diminished E diminished acts as chord shown below
I chord	triad on root		triad on third		triad on fifth	triad on sixth	
	I major		I _{ma} 7 no root		I _{ma} 9 no root, no third	I ₆ no 5	
	F major		F _{ma} 7nr		F _{ma} 9nrn3	F ₆ n5	
II chords	triad on root		triad on third		triad on fifth	triad on sixth	
	II minor		II _m 7 no root		II _m 9 no root, no third	II _m 6 no 5	
	G minor		G _m 7nr		G _m 9nrn3	G _m 6n5	
III chords	triad on root		triad on third		triad on fifth	triad on sixth	
	III minor		III _m 7 no root		III _m 9 no root, no third	III _m 6 no 5	
	A minor		A _m 7nr		A _m 9nrn3	A _m 6n5	
IV chords	triad on fifth	triad on sixth	triad on root		triad on third	triad on sixth	
	IV _{ma} 9 no root, no third	IV ₆ no fifth	IV major		IV _{ma} 7 no root	IV ₆ n5	
	Bb _{ma} 9n3	Bb ₆ n5	F major		F _{ma} 7nr	F ₆ n5	
V chords	triad on fifth	triad on sixth	triad on root		triad on third	triad on sixth	
	V ₉ no root, no third	V ₆ no fifth	V major		V ₇ no root	V ₆ n5	
	C ₉ nrn3	C ₆ n5	C major		C ₇ nr	C ₆ n5	
VI chords	triad on third	triad on fifth	triad on root		triad on sixth	triad on third	
	VI _m 7 no root	VI _m 9 no root, no third	VI minor		VI _m 7 no root	VI _m 9 no root, no third	
	D _m 7nr	D _m 9nrn3	D minor		D _m 7nr	D _m 9nrn3	
VII chords	triad on third	triad on fifth	triad on root		triad on sixth	triad on third	
	VII _m 7b5 no root	VII _m 9 no root, no third	VII diminished		VII _m 7b5 no root	VII _m 9 no root, no third	
	B _m 7b5nr	B _m 9nrn3	Bdim		B _m 7b5nr	B _m 9nrn3	

Secondary Root Triads for Each Scale Tone



memorizing the triads and their secondary root function

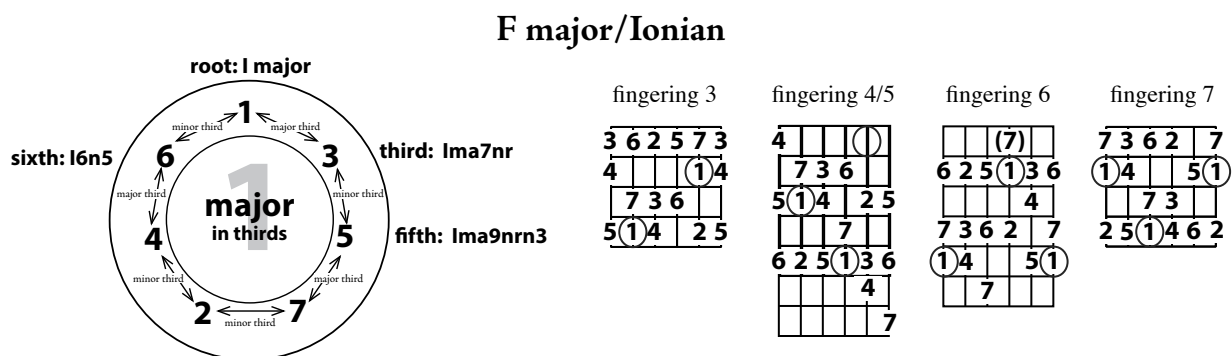
For each of the seven fingerings below play through the list of triads and their function. Start with F major, but then do it later in a variety of keys.



triads on each scale tone, in numbers and letters

F major. Play all the 1-3-5's ascending in order of pitch, then play then think them as F-A-C, for the key of F.
G minor. Play all the 2-4-6's ascending in order of pitch, then play then think them as G-Bb-D, for the key of F.
A minor. Play all the 3-5-7's ascending in order of pitch, then play then think them as A-C-E, for the key of F.
Bb major. Play all the 4-6-1's ascending in order of pitch, then play then think them as Bb-D-F, for the key of F.
C major. Play all the 5-7-2's ascending in order of pitch, then play then think them as C-E-G, for the key of F.
D minor. Play all the 6-1-3's ascending in order of pitch, then play then think them as D-F-A, for the key of F.
E diminished. Play all the 7-2-4's ascending in order of pitch, then play then think them as E-G-Bb, for the key of F.

I major (of the key of F) secondary root triads, in numbers and letters



F major. Play all the 1-3-5's ascending in order of pitch, then play then think them as F-A-C and as F major triad, for the key of F.

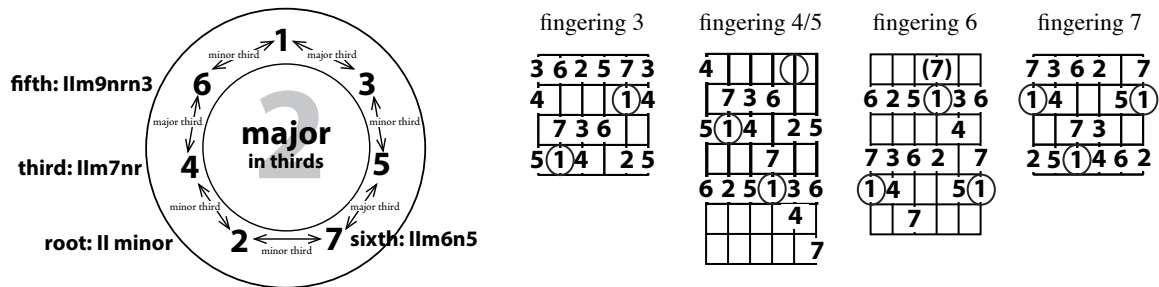
A minor. Play all the 3-5-7's ascending in order of pitch, then play then think them as A-C-E and as Fma7, no root (Ima7nr), for the key of F.

C major. Play all the 5-7-2's ascending in order of pitch, then play then think them as C-E-G and as Fma9 no root, no third (Fma9nrn3), for the key of F.

D minor. Play all the 6-1-3's ascending in order of pitch, then play then think them as D-F-A and as F6, no fifth (IIm6n5), for the key of F.

II minor (of the key of F) secondary root triads, in numbers and letters

G minor/G Dorian



G minor. Play all the 2-4-6's ascending in order of pitch, then play then think them as G-Bb-D and as G minor (II minor) triad, for the key of F.

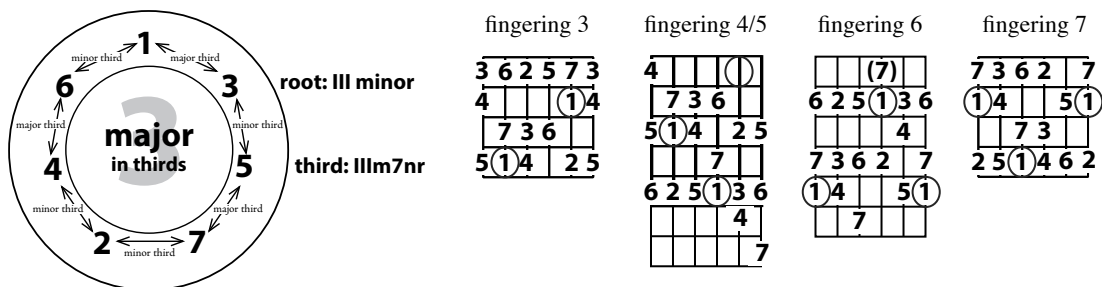
Bb major. Play all the 4-6-1's ascending in order of pitch, then play then think them as Bb-D-F and as Gm7, no root (IIIm7nr), for the key of F.

D minor. Play all the 6-1-3's ascending in order of pitch, then play then think them as D-F-A and as Gm9, no root, no third (IIIm9nrn3), for the key of F.

E diminished. Play all the 7-2-4's (E diminished) ascending in order of pitch, then play then think them as E-G-Bb and as Gm6, no fifth (IIIm6n5), for the key of F.

III minor (of the key of F) secondary root triads, in numbers and letters

A minor/A Phrygian

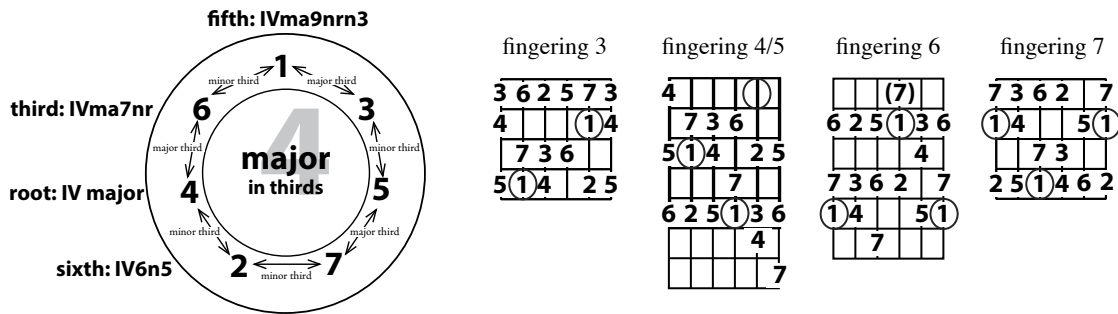


A minor. Play all the 3-5-7's ascending in order of pitch, then play then think them as A-C-E and as A minor (III minor) triad, for the key of F.

C major. Play all the 5-7-2's ascending in order of pitch, then play then think them as C-E-G and as Am7, no root (IIIIm7nr), for the key of F.

IV major (of the key of F) secondary root triads, in numbers and letters

Bb Major/Bb Lydian



Bb major. Play all the 4-6-1's ascending in order of pitch, then play then think them as Bb-D-F and as Bb major (IV major) triad, for the key of F.

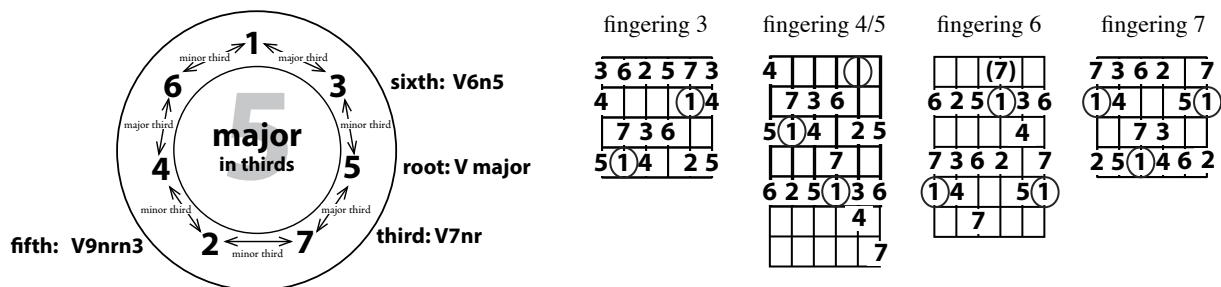
D minor. Play all the 6-1-3's ascending in order of pitch, then play then think them as D-F-A and as Bbma7, no root (IVma7nr), for the key of F.

F major. Play all the 1-3-5's ascending in order of pitch, then play then think them as F-A-C and as Bbma9, no root, no third (IVma9nrn3), for the key of F.

G minor. Play all the 2-4-6's ascending in order of pitch, then play then think them as G-Bb-D and as Bb6, no fifth (IV6n5), for the key of F.

V major (of the key of F) secondary root triads, in numbers and letters

C Major/C Mixolydian



C major. Play all the 5-7-2's ascending in order of pitch, then play then think them as C-E-G and as C major (V major) triad, for the key of F.

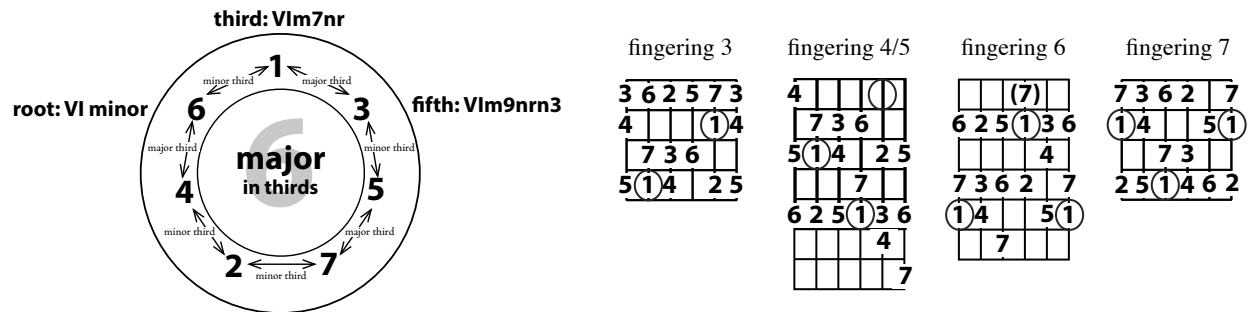
E diminished. Play all the 7-2-4's ascending in order of pitch, then play then think them as E-G-Bb and as C7, no root (V7nr), for the key of F.

G minor. Play all the 2-4-6's ascending in order of pitch, then play then think them as G-Bb-D and as C9, no root, no third (V9nrn3), for the key of F.

A minor. Play all the 3-5-7's ascending in order of pitch, then play then think them as A-C-E and as C6, no fifth (V6n5), for the key of F.

VI minor (of the key of F) secondary root triads, in numbers and letters

D minor/D Aeolian



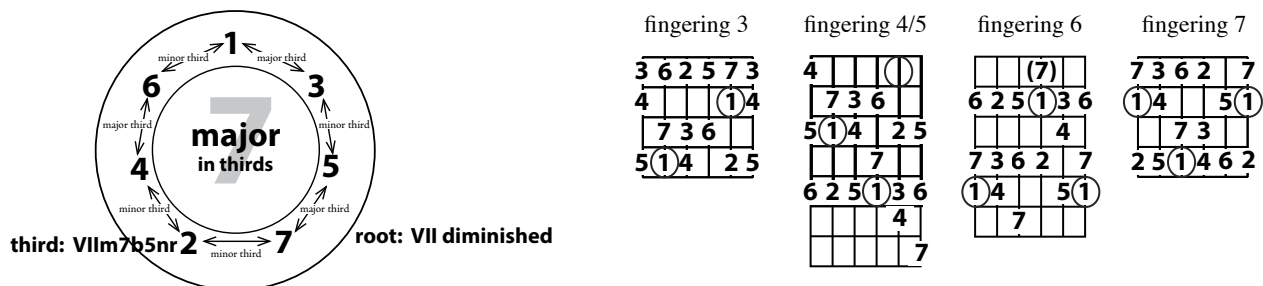
D minor. Play all the 6-1-3's ascending in order of pitch, then play then think them as D-F-A and as D minor (VI minor) triad, for the key of F.

F major. Play all the 1-3-5's ascending in order of pitch, then play then think them as F-A-C and as Dm7, no root (VIm7nr), for the key of F.

A minor. Play all the 3-5-7's ascending in order of pitch, then play then think them as A-C-E and as Dm9, no root, no third (VIm9nrn3), for the key of F.

VII diminished (of the key of F) secondary root triads, in numbers and letters

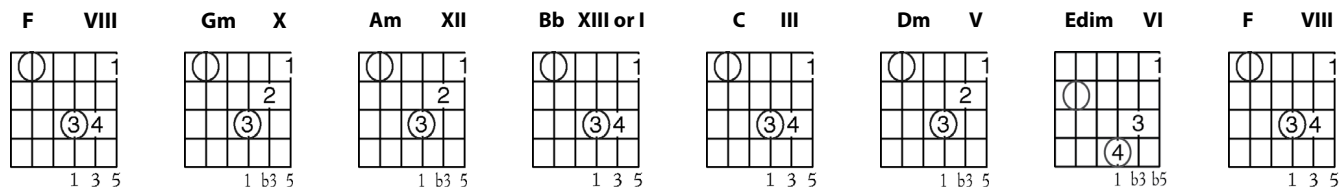
E diminished/E Locrian



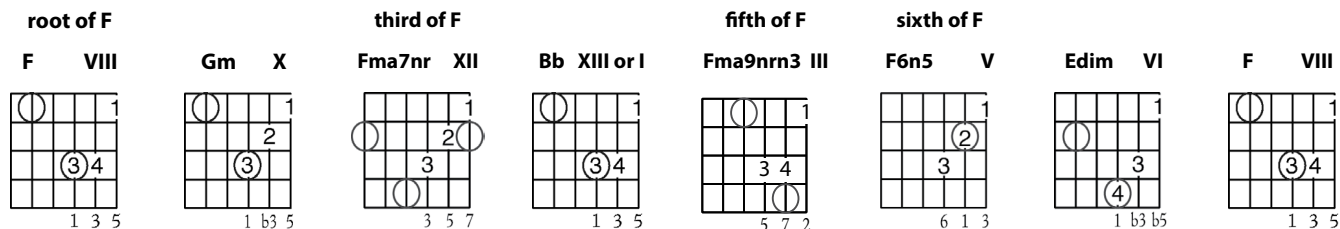
E diminished. Play all the 7-2-4's ascending in order of pitch, then play then think them as E-G-Bb and as E diminished (VII diminished) triad, for the key of F.

G minor. Play all the 2-4-6's ascending in order of pitch, then play then think them as G-Bb-D and as Em7b5, no root (VIm7nr), for the key of F.

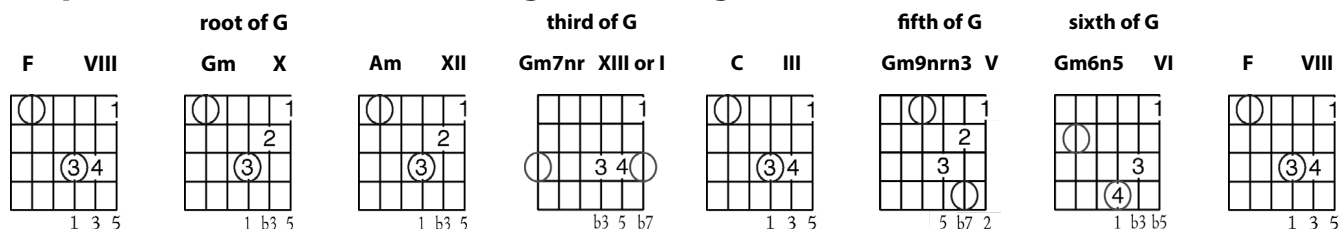
F major triads in root position, on string set 3-2-1. nr= no root, n3 = no third, n5= no fifth.



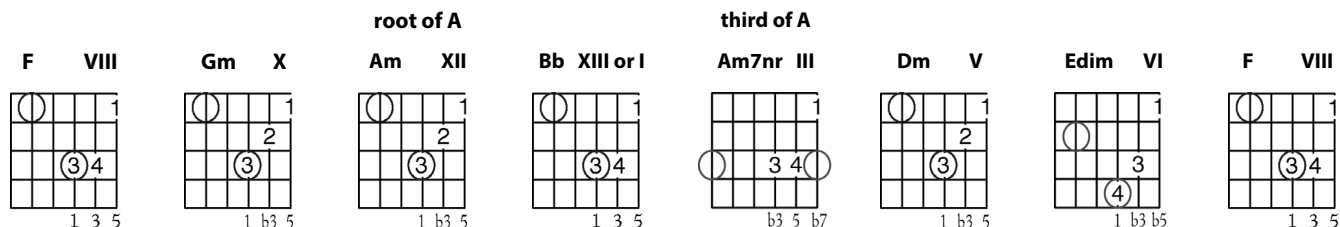
root position triads for use during a Fma7 target chord with "F" root names



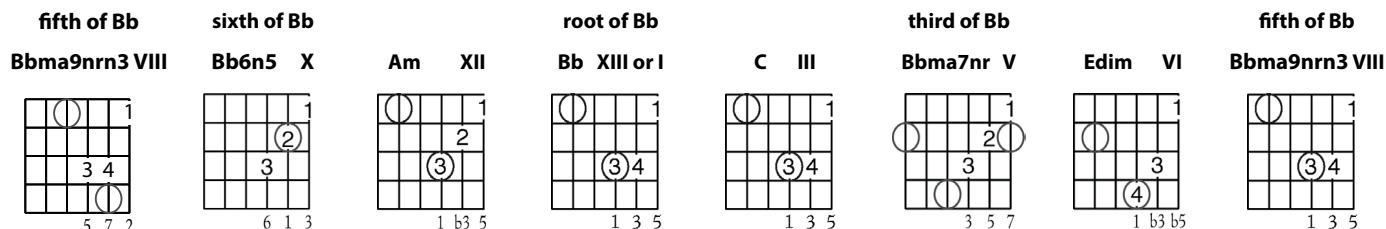
root position triads for use during a Gm7 target chord with "G" root names



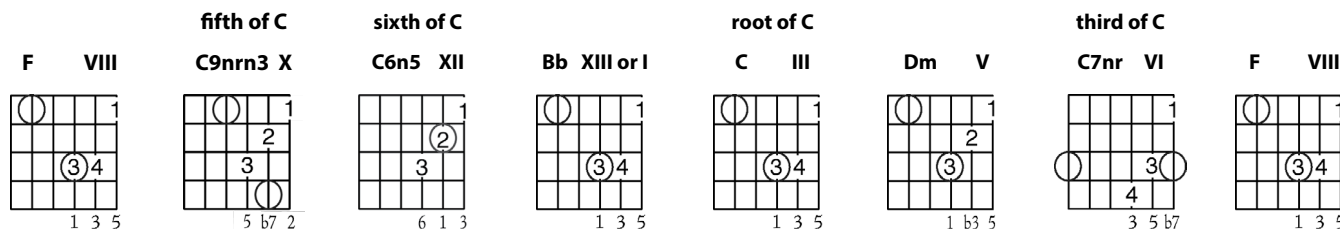
root position triads for use during an Am7 target chord with "A" root names

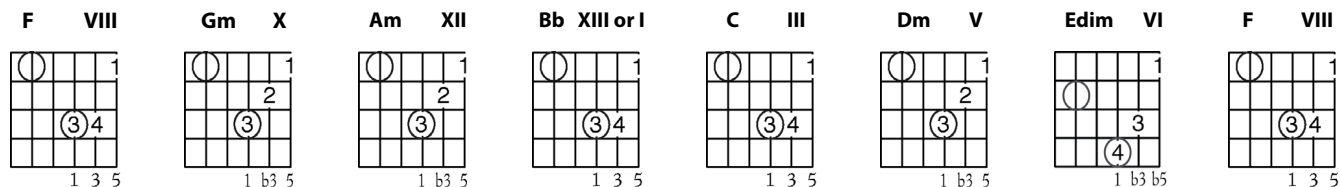
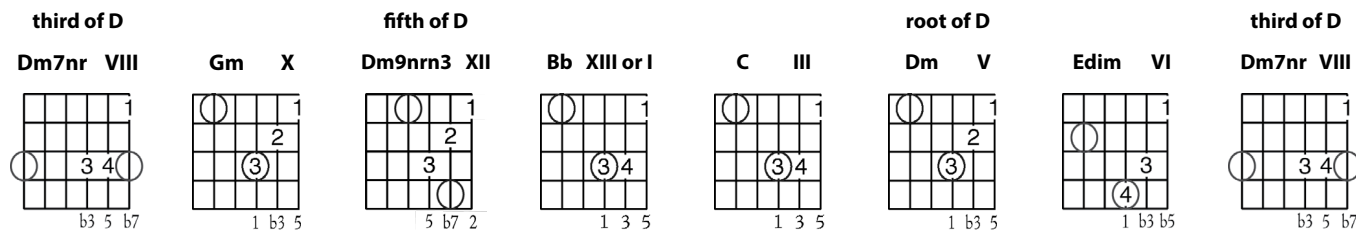
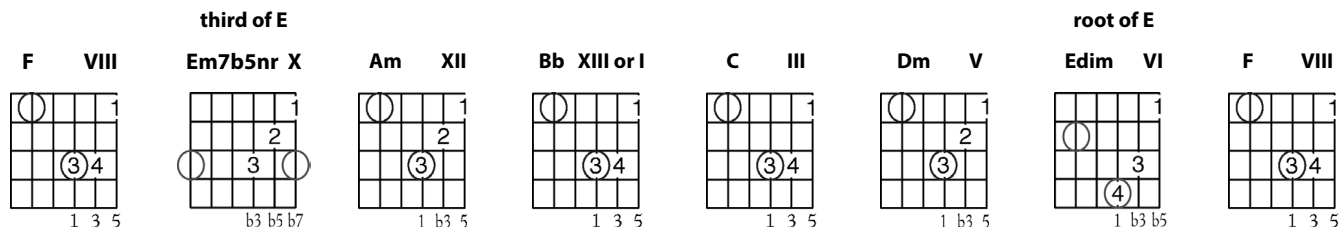
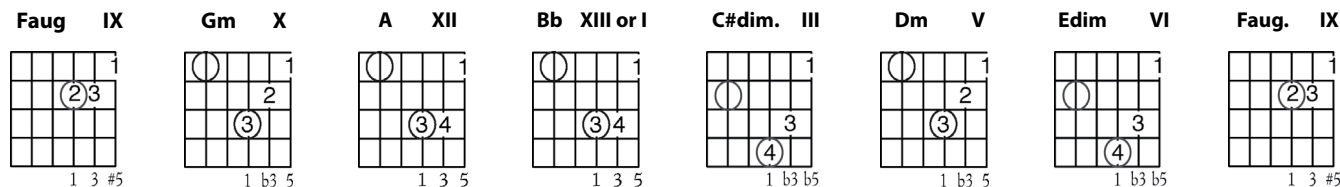
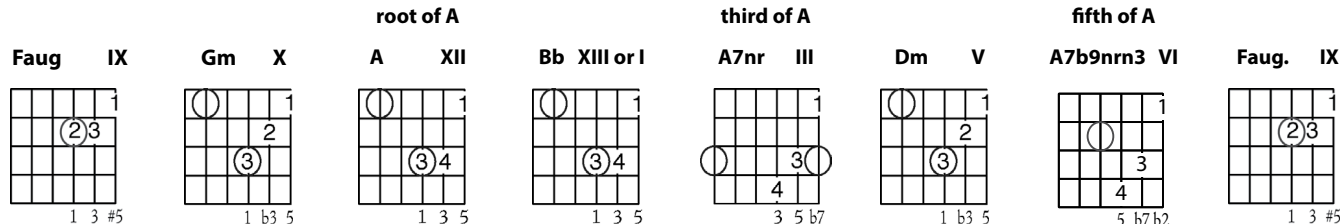


root position triads for use during a Bbma7 target chord with "Bb" root names

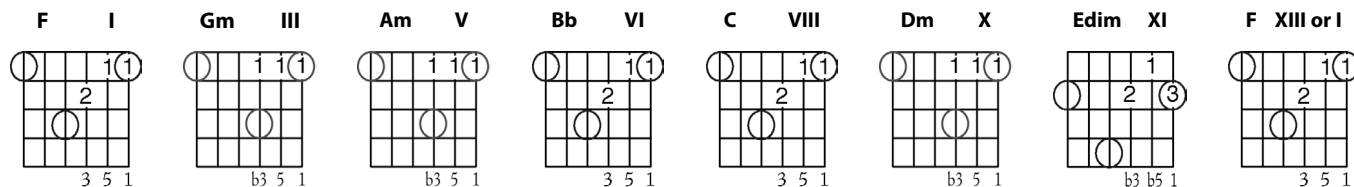


root position triads for use during a C7 target chord with "C" root names

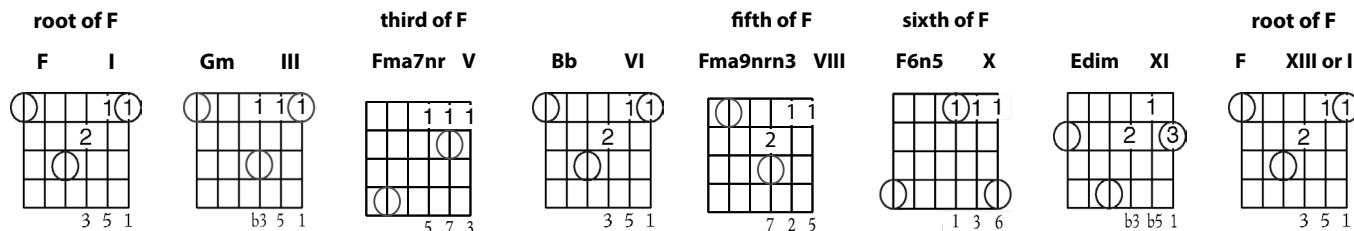


F major scale tone triads in root position, string set 3-2-1**root position triads for use during a Dm7 target chord with "D" root chord names****root position triads for use during a Em7b5 target chord with "E" root names****when the III chord is a secondary dominant, use these:****F major sharp five scale tone triads in root position (D harmonic minor)****root position triads for use during an A7 target chord with "A" root names**

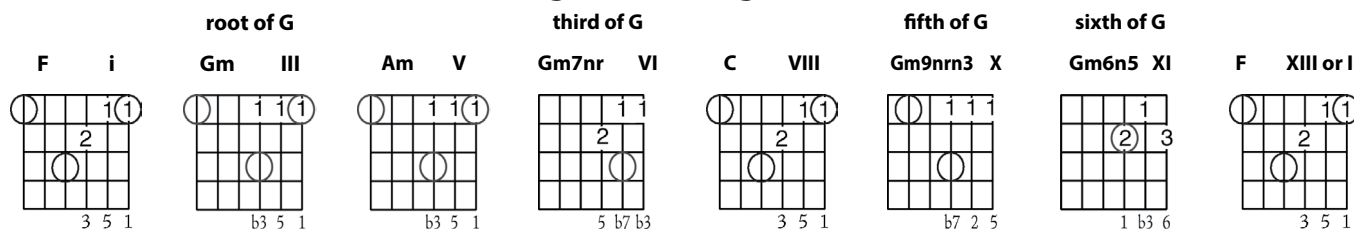
F major scale tone triads in first inversion (third in the bass), string set 3-2-1



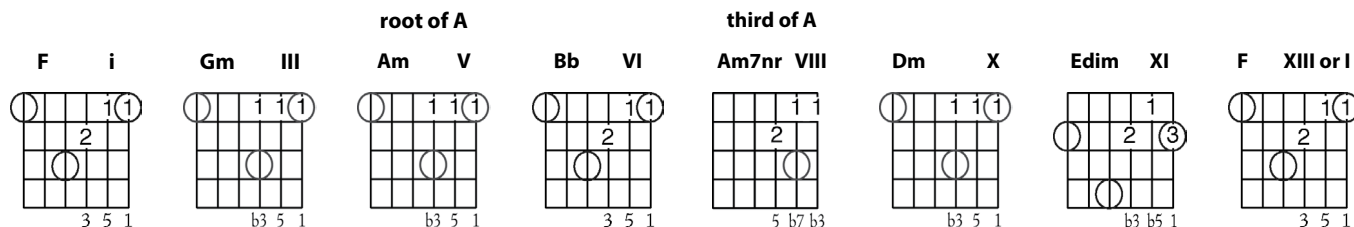
first inversion triads for use during a Fma7 target chord with "F" root names



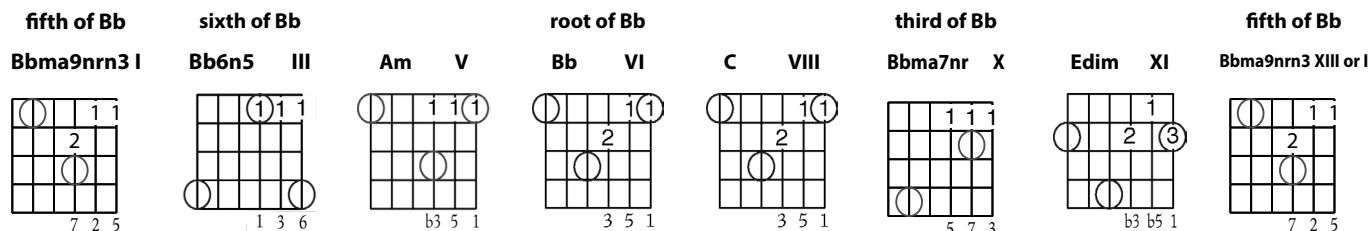
first inversion triads for use during a Gm7 target chord with "G" root names



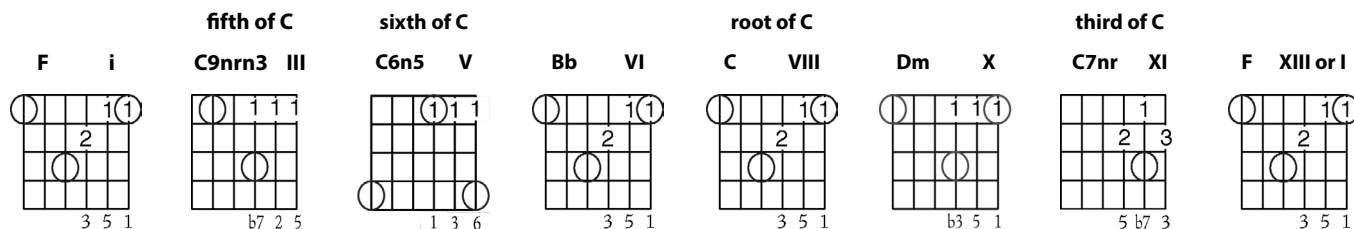
first inversion triads for use during an Am7 target chord with "A" root names

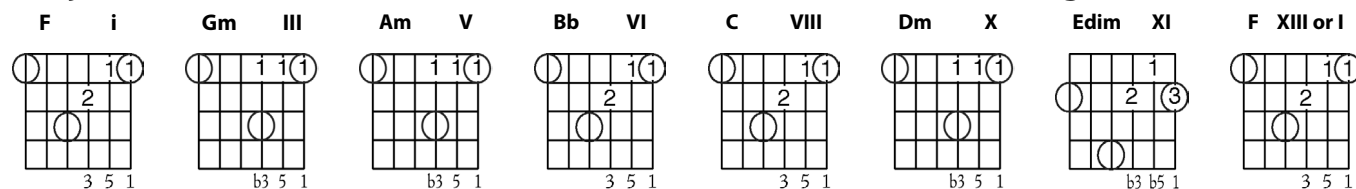
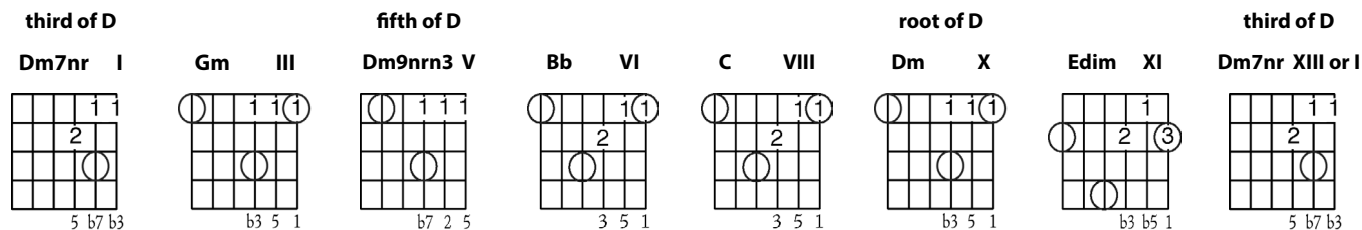
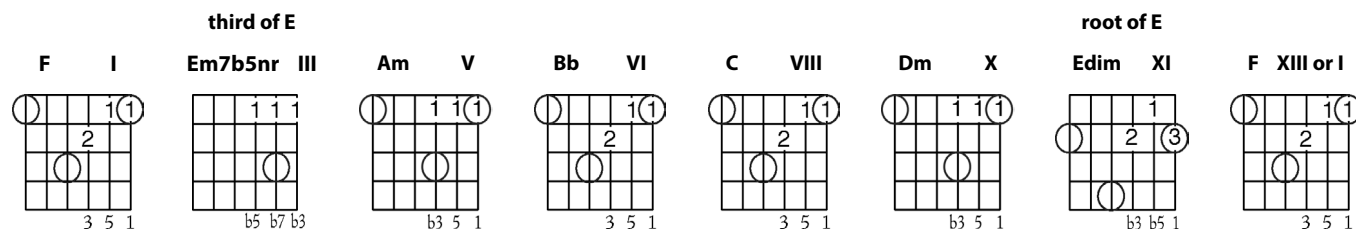


first inversion triads for use during a Bbma7 target chord with "Bb" root names

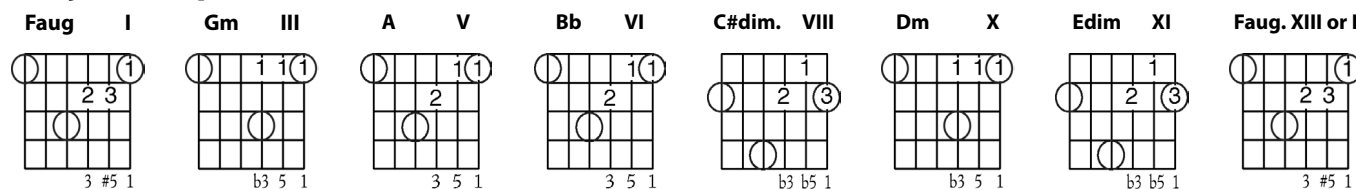
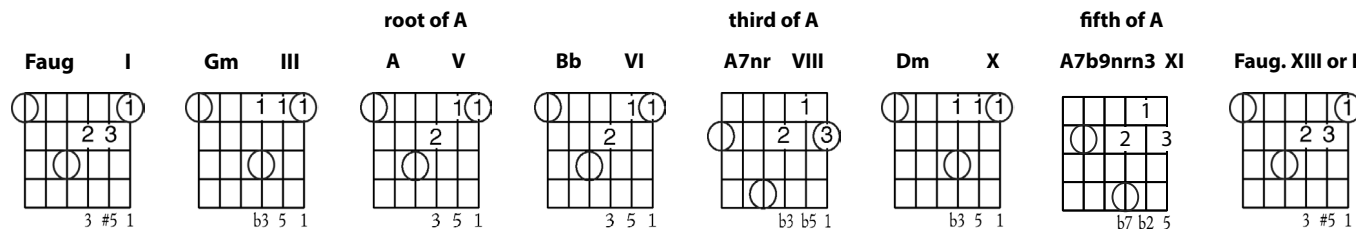


first inversion triads for use during a C7 target chord with "C" root names

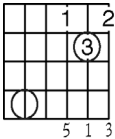
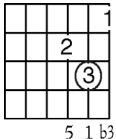
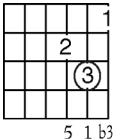
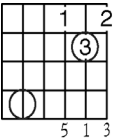
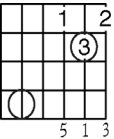
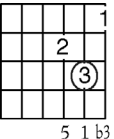
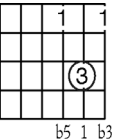
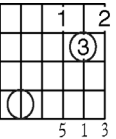


F major scale tone triads in first inversion (third in the bass), string set 3-2-1**first inversion triads for use during a Dm7 target chord with "D" root chord names****first inversion triads for use during a Em7b5 target chord with "E" root names**

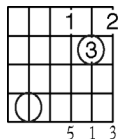
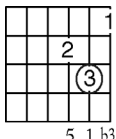
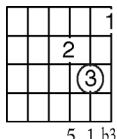
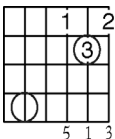
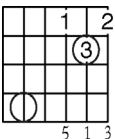
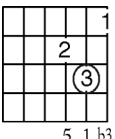
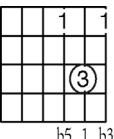
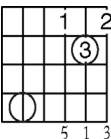
when the III chord is a secondary dominant (III7 or A7), use these:

F major sharp five scale tone triads in first inversion (D harmonic minor)**first inversion triads for use during an A7 target chord with "A" root names**

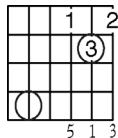
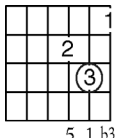
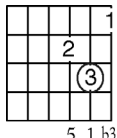
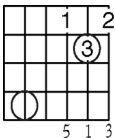
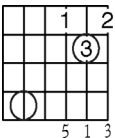
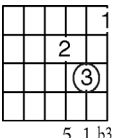
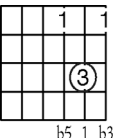
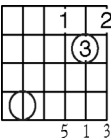
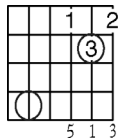
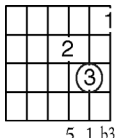
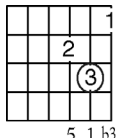
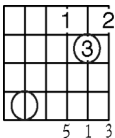
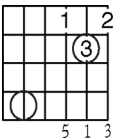
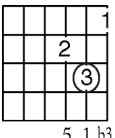
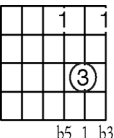
F major scale tone triads in second inversion (third in the bass), string set 3-2-1

F V	Gm VI	Am VIII	Bb X	C XII	Dm XIII or I	Edim III	F V
							

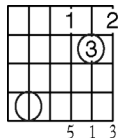
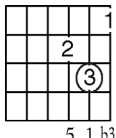
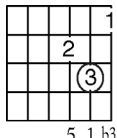
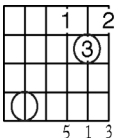
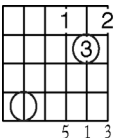
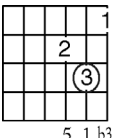
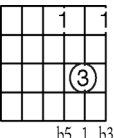
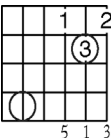
second inversion triads for use during a Fma7 target chord with "F" root names

root of F		third of F		fifth of F		sixth of F		root of F				
F	V	Gm	VII	Fma7nr IX	Bb	X	Fma9nrn3 XII	F6n5 XIII or I	Edim	III	F	V
												

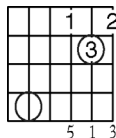
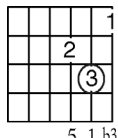
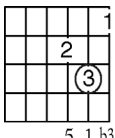
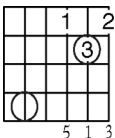
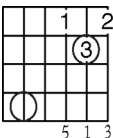
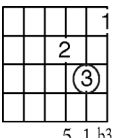
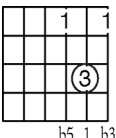
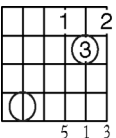
second inversion triads for use during a Gm7 target chord with "G" root names

root of G		third of G		fifth of G		sixth of G								
F	V	Gm	VII	Am	IX	Gm7nr	X	C	XII	Gm9nrn3 XIII or I	Gm6n5	III	F	V
														

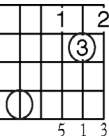
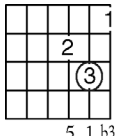
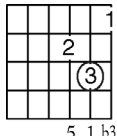
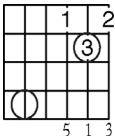
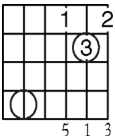
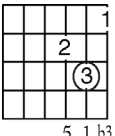
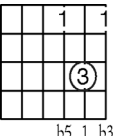
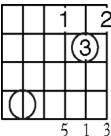
second inversion triads for use during an Am7 target chord with "A" root names

root of A				third of A											
F	V	Gm	VII	Am	VIII	Bb	X	Am7nr	XII	Dm	XIII or I	Edim	III	F	V
															

second inversion triads for use during a Bbma7 target chord with "Bb" root names

fifth of Bb	sixth of Bb		root of Bb		third of Bb		fifth of Bb
Bbma9nrn3 V	Bb6n5 VII	Am VIII	Bb X	C XII	Bbma7nr XII or II	Edim III	Bbma9nrn3 V
							

second inversion triads for use during a C7 target chord with "C" root names

fifth of C		sixth of C		root of C		third of C					
F	V	C9nrn3 VII	C6n5 VIII	Bb	X	C	XII	Dm XIII or I	C7nr III	F	V
											

F major scale tone triads in second inversion (third in the bass), string set 3-2-1

F V	Gm VII	Am IX	Bb X	C XII	Dm XIII or I	Edim III	F V

second inversion triads for use during a Dm7 target chord with "D" root chord names

third of D	fifth of D	root of D	third of D
Dm7nr V	Gm VII	Dm9nrn3 IX	Dm7nr V

second inversion triads for use during a Em7b5 target chord with "E" root names

third of E	root of E
F V	Em7b5nr VII

when the III chord is a secondary dominant, use these:

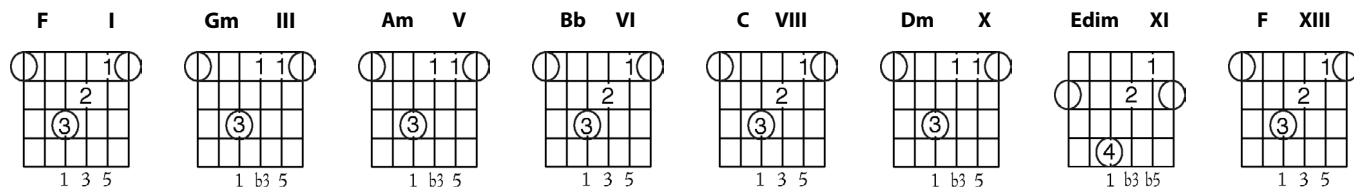
F major sharp five scale tone triads in second inversion (D harmonic minor)

Faug V	Gm VI	A IX	Bb X	C#dim. XII	Dm XIII or I	Edim III	Faug. V

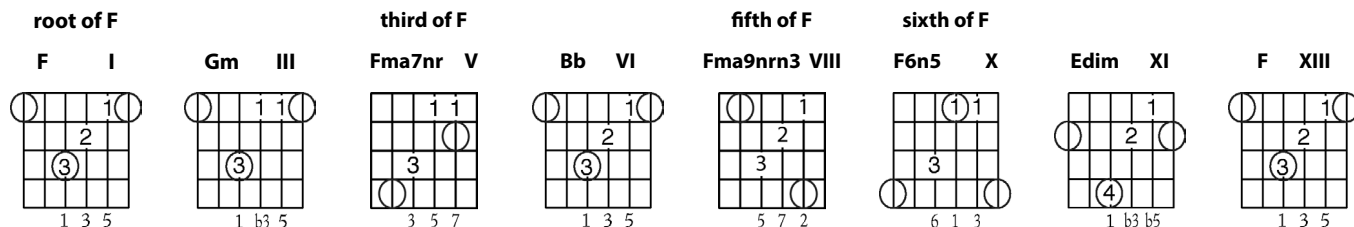
second inversion triads for use during an A7 target chord with "A" root names

root of A	third of A	fifth of A
Faug X	A7nr XII	A7b9nrn3 III

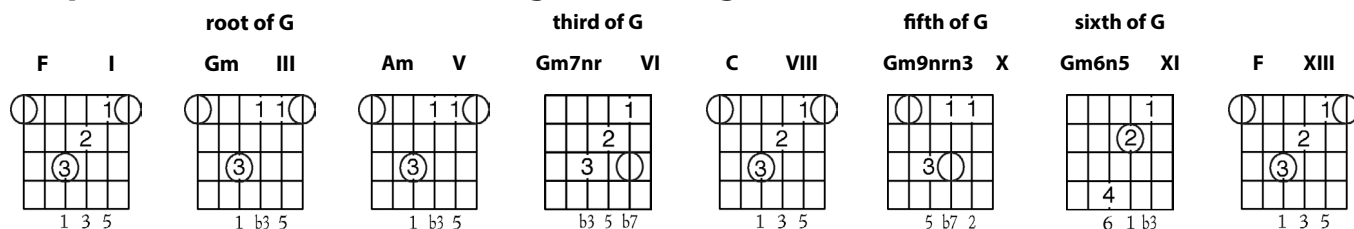
F major triads in root position, on string set 4-3-2. nr= no root, n3 = no third, n5= no fifth.



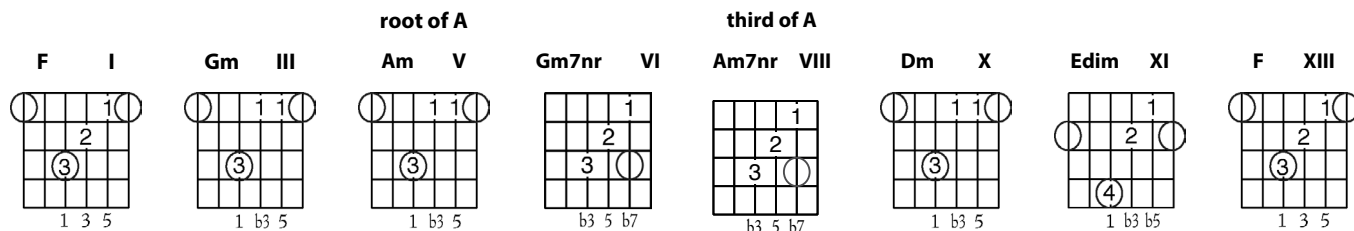
root position triads for use during a Fma7 target chord with "F" root names



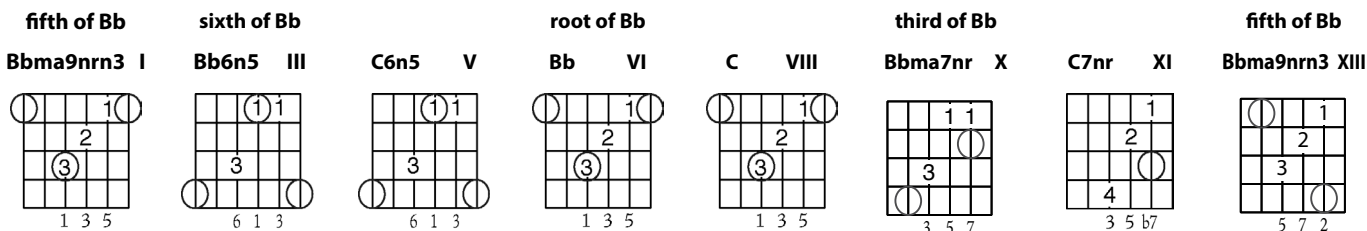
root position triads for use during a Gm7 target chord with "G" root names



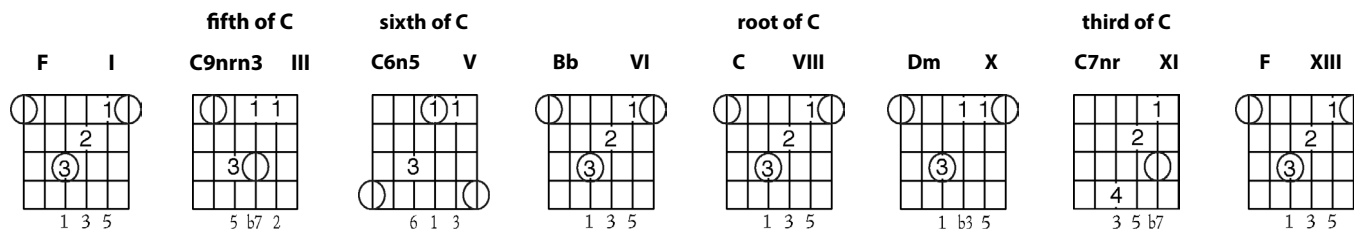
root position triads for use during an Am7 target chord with "A" root names

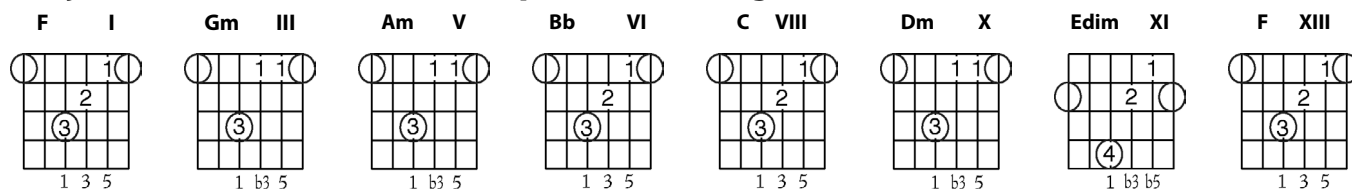
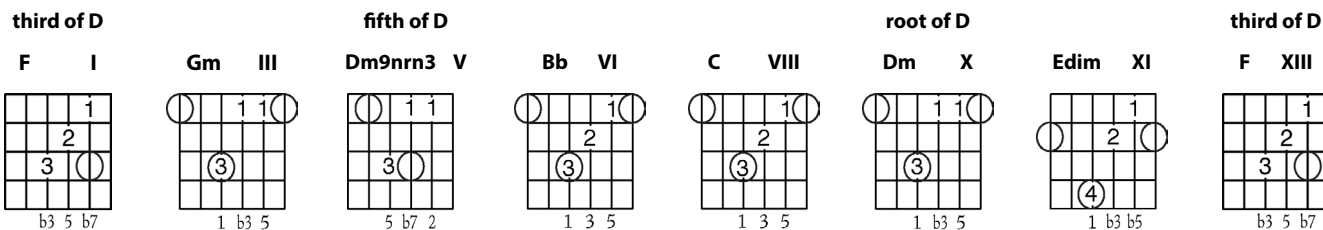
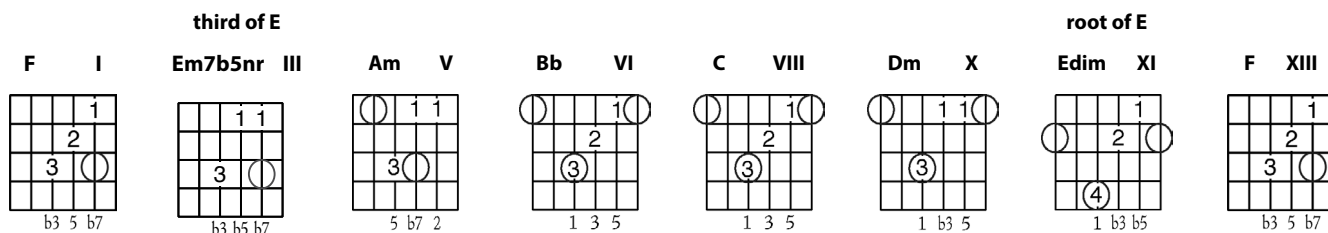
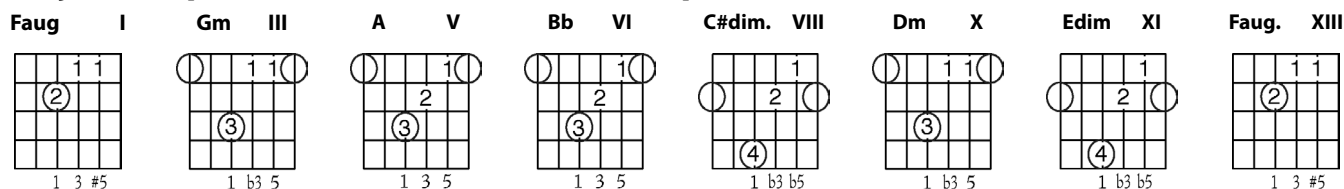
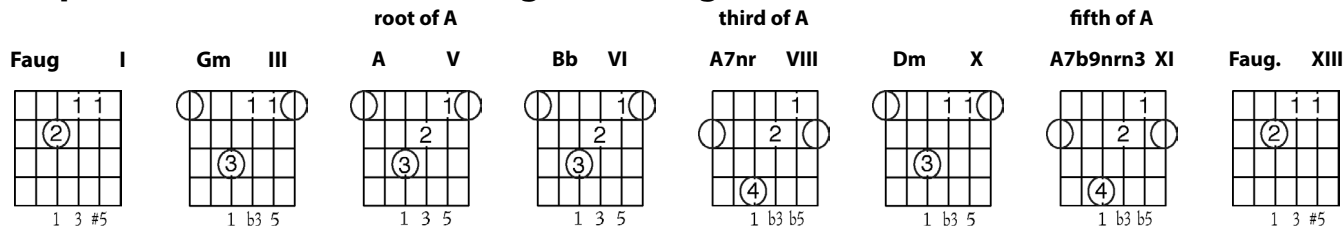


root position triads for use during a Bbma7 target chord with "Bb" root names



root position triads for use during a C7 target chord with "C" root names



F major scale tone triads in root position, string set 4-3-2**root position triads for use during a Dm7 target chord with "D" root chord names****root position triads for use during a Em7b5 target chord with "E" root names****when the III chord is a secondary dominant, use these:****F major sharp five scale tone triads in root position (D harmonic minor)****root position triads for use during an A7 target chord with "A" root names**

F major scale tone triads in first inversion (third in the bass), string set 4-3-2

F	V	Gm	VII	Am	IX	Bb	X	C	XII	Dm	XIV or II	Edim	III	F	V

first inversion triads for use during a Fma7 target chord with "F" root names

root of F		third of F		fifth of F		sixth of F		root of F			
F	V	Gm	VII	Fma7nr IX	Bb	X	Fma9nrn3 XII	F6n5 XIV or II	Edim III	F	V

first inversion triads for use during a Gm7 target chord with "G" root names

root of G		third of G		fifth of G		sixth of G							
F	V	Gm	VII	Am	IX	Gm7nr	X	C	XII	Gm9nrn3 XIV or II	Gm6n5 III	F	V

first inversion triads for use during an Am7 target chord with "A" root names

root of A				third of A											
F	V	Gm	VII	Am	IX	Bb	X	Am7nr	XII	Dm	XIV or II	Edim	III	F	V

first inversion triads for use during a Bbma7 target chord with "Bb" root names

fifth of Bb		sixth of Bb		root of Bb		third of Bb		fifth of Bb							
Bbma9nrn3 V		Bb6n5 VII		Am IX		Bb X		C XII		Bbma7nr XIV or II		Edim III		Bbma9nrn3 V	

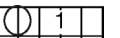
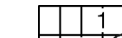


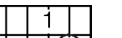
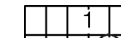
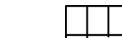

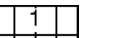
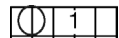


first inversion triads for use during a C7 target chord with "C" root names

fifth of C		sixth of C		root of C		third of C					
F	V	C9nrn3 VII	C6n5 IX	Bb	X	C	XII	Dm XIV or II	C7nr III	F	V

F major scale tone triads in first inversion (third in the bass), string set 4-3-2

F	V	Gm	VII	Am	IX	Bb	X	C	XII	Dm	XIV or II	Edim	III	F	V

first inversion triads for use during a Dm7 target chord with "D" root chord names

third of D		fifth of D		root of D		third of D									
Dm7nr	V	Gm	VII	Dm9nrn3	IX	Bb	X	C	XII	Dm	XIV or II	Edim	III	Dm7nr	V
															

root position triads for use during a Em7b5 target chord with "E" root names

third of E				root of E					
F	V	Em7b5nr VII	Am IX	Bb X	C XII	Dm XIV or II	Edim III	F	V

when the III chord is a secondary dominant (III7 or A7), use these:

F major sharp five scale tone triads in first inversion (D harmonic minor)

Faug	VI	Gm	VII	A	IX	Bb	X	C#dim.	XII	Dm	XIV or II	Edim	III	Faug.	VI

first inversion triads for use during an A7 target chord with "A" root names

Faug		VI	Gm	VII	root of A		A	IX	Bb	X	third of A		A7nr	XII	Dm	XIV or II	A7b9nrn3	III	Faug.	VI

F major scale tone triads in second inversion (fifth in the bass), string set 4-3-2

F X	Gm XI	Am XIII or I	Bb III	C V	Dm VI	Edim VIII	F X

second inversion triads for use during a Fma7 target chord with "F" root names

root of F	third of F	fifth of F	sixth of F				
F X	Gm XI	Fma7n3 XIII or I	Bb III	Fma9nrn3 V	F6n5 VI	Edim VIII	F X

second inversion triads for use during a Gm7 target chord with "G" root names

root of G	third of G	fifth of G	sixth of G				
F X	Gm XI	Am XIII or I	Gm7nr III	C V	Gm9nrn3 VI	Edim VIII	F X

second inversion triads for use during an Am7 target chord with "A" root names

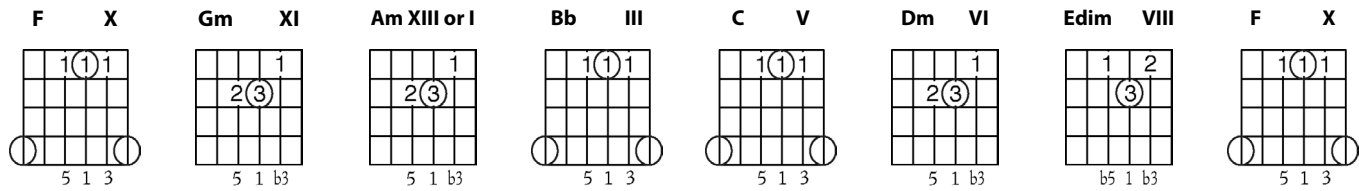
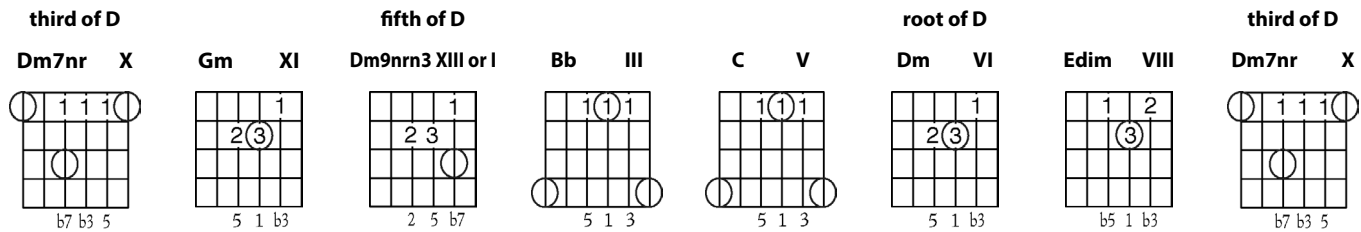
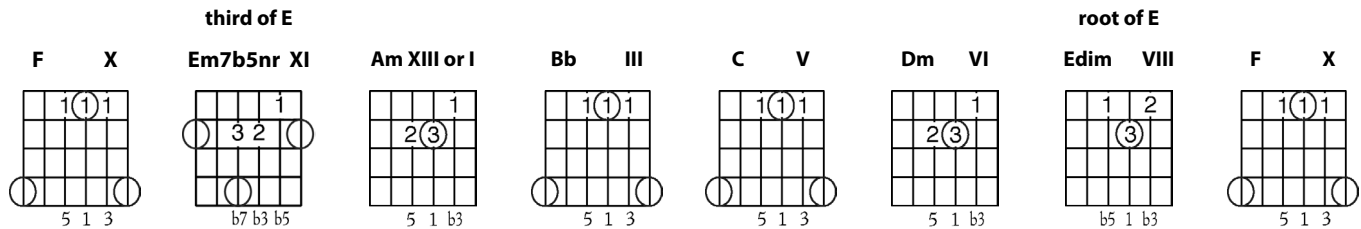
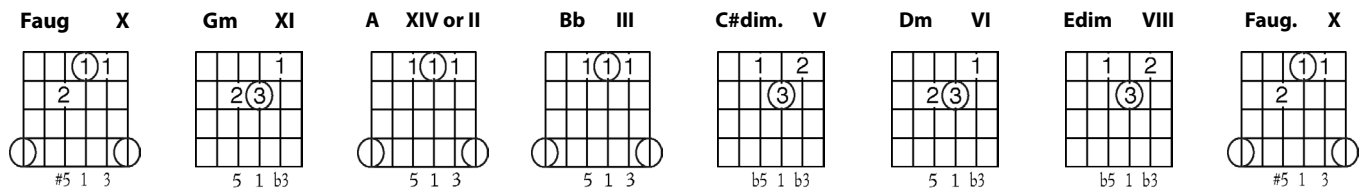
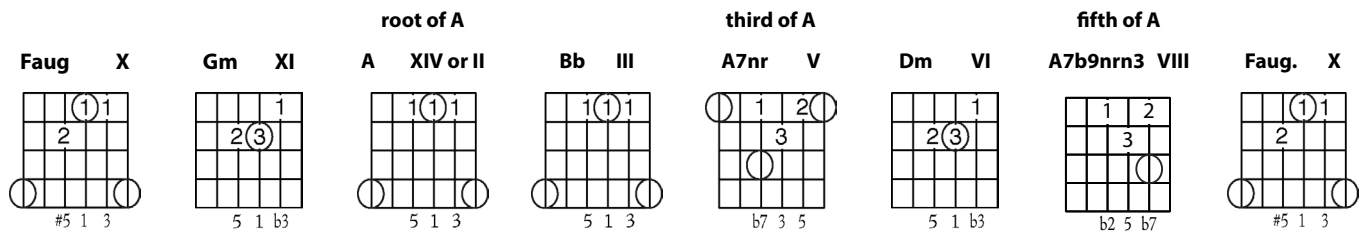
root of A	third of A						
F X	Gm XI	Am XIII or I	Bb III	Am7nr V	Dm VI	Edim VIII	F X

second inversion triads for use during a Bbma7 target chord with "Bb" root names

fifth of Bb	sixth of Bb	root of Bb	third of Bb	fifth of Bb			
Bbma9nrn3 X	Bb6n5 XI	Am XIII or I	Bb III	C V	Bbma7nr VI	Edim VIII	Bbma9nrn3 X

second inversion triads for use during a C7 target chord with "C" root names

fifth of C	sixth of C	root of C	third of C				
F X	C9nrn3 XI	Am XIII or I	Bb III	C V	Dm VI	C7nr VIII	F X

F major scale tone triads in second inversion (fifth in the bass), string set 4-3-2**second inversion triads for use during a Dm7 target chord with "D" root names****second inversion triads for use during a Em7b5 target chord with "E" root names****when the III chord is a secondary dominant, use these:****F major sharp five scale tone triads in second inversion (D harmonic minor)****second inversion triads for use during an A7 target chord with "A" root names**

F major Scale Tone Triads with Roots Ascending in Fourths

III major is a secondard dominant alternative to IIIIm

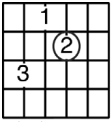
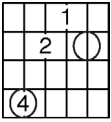
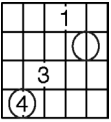
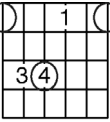
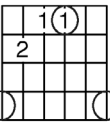
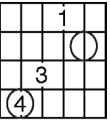
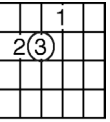
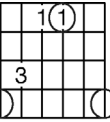
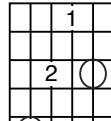
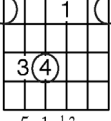
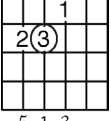
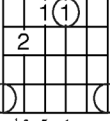
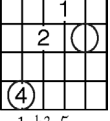
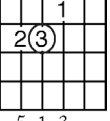
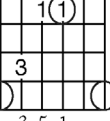
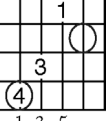
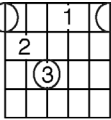
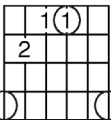
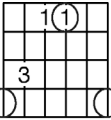
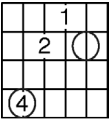
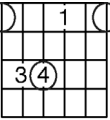
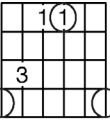
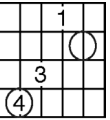
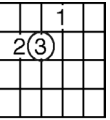
F major scale tone cycle of triads, ascending roots in fourths, string set 3-2-1

VII dim		IIIIm		III major		VIIm		IIIm		V		I		IV	
Edim	III	Am	V	A	V	Dm	V	Gm	VI	C	VIII	F	VIII	Bb	X

F major scale tone cycle of triads, ascending roots in fourths, string set 4-3-2

VII dim		IIIIm		III major		VIIm		IIIm		V		I		IV	
Edim	III	Am	V	A	V	Dm	VI	Gm	VII	C	VIII	F	X	Bb	X

F major scale tone cycle of triads, ascending roots in fourths, string set 5-4-3

VII dim Edim VIII	IIIIm Am IX	III major A IX	VIIm Dm X	IIIm Gm XII	V C XII	I F XIV or II	IV Bb III
							
b3 b5 1	1 b3 5	1 3 5	5 1 b3	b3 5 1	1 3 5	5 1 3	3 5 1
VII dim Edim III	IIIIm Am V	III major A VI	VIIm Dm VII	IIIm Gm VII	V C IX	I F X	IV Bb X
							
1 b3 b5	5 1 b3	5 1 3	b3 5 1	1 b3 5	5 1 3	3 5 1	1 3 5
VII dim Edim XII	IIIIm Am XIV or II	III major A XIV or II	VIIm Dm II	IIIm Gm III	V C V	I F V	IV Bb VII
							
b5 1 b3	b3 5 1	3 5 1	1 b3 5	5 1 b3	3 5 1	1 3 5	5 1 3

Consider Major Scale Tone Triads Over Each Scale Tone

The chords in gray boxes can be emphasized and featured with the repeating pedal bass tone shown in the left column. In slash chords by number, such as IIm7/b7 the numbered tone after the slash is *in the key of the chord root*. With IIm7/b7, the “b7” is in the key of II. Am7/b7 has “G” in the bass, which is b7 in the key of A. “nr” means no root, “n3” means no third, “n5” means no fifth.

BASS	triad (lettered examples are shown in the key of C)						
	I major C major	II minor D minor	III minor E minor	IV major F major	V major G major	VI minor A minor	VII dimin. B dimin.
1	root		third		fifth	sixth	
	I	IIm/b7	IIIIm/b6	IV/5	V/4	VIIm/b3	VIIIdim/b2
	C	Dm/C	Em/C	F/C	G/C	Am/C	Bdim/C
			IIma7nr		IIma9 nrrn3	IIm6n5	dissonant!
			Cma7nr		Cma9 nrrn3	C6n5	
2		root		third		fifth	sixth
	I maj/2	IIm	IIIIm/b7	IV/6	V/5	VIIm/4	VIIIdim/b3
	C/D	Dm	Em7/D	F/D	G/D	Am/D	Bdim/D
	IIm11nrrn3n5			IV6 = IIm7nr		IIm9nrrn3	IIm6n5/b3
	Dm11nrrn3n5			F6 = Dm7nr		Dm9nrrn3	Dm6n5/B
3			root		third		fifth
	I maj/3	IIm/2	IIIIm	IV/7	V/6	VIIm/5	VIIIdim
	C/E	Dm/E	Em	F/E	G/E	Am/E	Bdim/E
				IVma7/7	IIIIm7, V6		III7b9no3
				Fma7/E	Em7 = G6		E7b9no3
4	fifth	sixth		root		third	
	I/4	IIm/b3	IIIIm/b2	IV	V/b7	VIIm/b6	VIIIdim/b2
	C/F	Dm/F	Em/F	F	G/F	Am/F	Bdim/F
	IVma9nrrn3	IV6n5	dissonant!		V7/b7	IVma7	
	Fma9nrrn3	F6n5			G7/F	Fma7	
5		fifth	sixth		root		third
	I/5	IIm/4	IIIIm/b3	IV/2	V	VIIm7/b7	VIIIdim/b6
	C/G	Dm/G	Em/G	F/G	G	Am/G	Bdim/G
		V9nrrn3	V6n5	V11nrrn3n5			V7
		G9nrrn3	G6n5	G11nrrn3n5			G7
6	third		fifth			root	
	I/6	IIm/5	IIIIm/4	IV/3	V/2	VIIm	VIIIdim/b7
	C/A	Dm/A	Em/A	F/A	G/A	Am	Bdim/A
	I6 = VIIm7		VIIm9nrrn3		VIIm11nrrn3n5		VIIm7b5/b7
	C6 = Am7		Am9nrrn3		Am11nrrn3n5		Bm7b5/A
7		third					root
	I/7	IIm/6	IIIIm/5	IV/#4	V/3	VIIm/2	VIIIdim
	C/B	Dm/B	Em/B	F/B	G/B	Am/B	Bdim.
	IIma7/7	IIm6=VIIm7b5		dissonant!			
	Cma7/B	Dm6-Bm7b5					

Consider Harmonic Minor Scale Tone Triads Over Each Scale Tone

The chords in gray boxes can be emphasized and featured with the repeating pedal bass tone shown in the left column. In slash chords by number, such as IIm7b5/b7 the numbered tone after the slash is in the key of the chord root. With IIm7b5/b7, the “b7” is in the key of II. If IIm7b5 is Bm7b5/b7, it has “A” in the bass, which is b7 in the key of B. “nr” means no root. “n3” means no third. “n5” means no fifth.

BASS	triad (lettered examples are shown in the key of A harmonic minor)						
	I minor A minor	II minor B diminished	bIII aug. C aug.	IV minor D minor	V major E major	bVI major F major	VII dimin. G# dimin.
1	root		third			sixth	
	Im	IIm7b5/b7	bIII aug/6	IVm/5	V/4	bVI/3	VII dim/b2
	Am	Bm7b5/A	C aug./A	Dm/A	E/C	Am/C	G#dim/C
			!m(ma7)nr Am(ma7)nr		bIII ma7#5 Cma7#5	I6n5 C6n5	dissonant!
2		root				fifth	sixth
	Im/2	II dim.	bIII aug/7	IVm6/6	V/5	bVI/#4	VII dim/b3
	Am/B	B dim.	Caug/B	Dm6/B	E/B	F/B	
						II7b5b9nrn3 B7b9nrn3	VII dim7n7
b3	sixth		root		third		fifth
	Im/b3	II dim/b2	bIII aug	IVm7/b7	V/b6	bVI/5	VII dim/b3
	Am/C	B dim/C	Caug	Dm7/b7	E/C	F/C	G#dim/C
	bIII 6n5 C6n5	dissonant!			bIII ma7#5/#5nr Cma7#5/#5nr		VII aug/3 G#aug/3
4	fifth	sixth		root		third	
	Im/4	IIm/b3	III m/b2	IV	V/b7	VI m/b6	VII dim/b2
	Am/D	Dm/F	Em/F	F	G/F	Am/F	B dim/F
	IVm9nrn3 Dm9nrn3	IV6n5 F6n5	dissonant!		V7/b7 G7/F	IVma7 Fma7	
5		fifth			root		third
	Im/5	II dim/4	bIII aug/3	IVm/2	V	bVI ma7/7	VII dim/E
	Am/E	B dim/E	Caug/E	Dm/E	E	Fma7/E	G#dim/E
		V7b9nrn3 E7b9nrn3					V7nr E7nr
b6	third			sixth		root	
	Im/b6	II dim/b5	bIII aug/4	IVm/b3	V/b2	bVI	VII dim/b5
	Am/F	B dim/F	Caug/F	Dm/F	E/F	F	G#dim/F
	bVI ma7nr Fma7nr		IVm(ma7)/5	bVI 6n5 F6n5	dissonant!		bVI dim7 Fdim7
7			dim. fourth				root
	Im(ma7)/7	II dim7/6	bIII aug/#5	IVm/#4	V/3	bVI/G#	VII dim or aug.
	Am(ma7)/G#		Caug/G#	Dm/G#	E/G#	F/b3	G#aug G#dim
				dissonant!		dissonant!	

Consider Melodic Minor Scale Tone Triads Over Each Scale Tone

The chords in gray boxes can be emphasized and featured with the repeating pedal bass tone shown in the left column. In slash chords by number, such as II^m7/b7 the numbered tone after the slash is *in the key of the chord root*. With II^m7/b7, the “b7” is in the key of II. Am7/b7 has “G” in the bass, which is b7 in the key of A. Don’t sustain chords that have b2, or 7 the bass. “nr” means no root. “n3” means no third. “n5” means no fifth.

BASS	triad (lettered examples are shown in the key of C melodic minor)						
	I major C minor	II minor D minor	bIII augmented Eb augmented	IV major F major	V major G major	VI diminished A diminished	VII diminished B diminished
1	root		third		fifth	sixth	
	I ^m	II ^m /b7	bIII ^{aug} /6	IV/5	V/4	VI ^{dim} /b3	VII ^{dim} /b2
	C minor	D ^m /C	E ^{aug} /C	F/C	G/C	A ^{dim} /C	B ^{dim} /C
			I ^m (ma7)		C ^m 9(ma7)nrn3	I ^m 6n5	dissonant!
			C ^m (ma7)			C ^m 6n5	
2		root		third			sixth
	I ^m /2	II ^m	bIII ^{aug} /7	IV/6	V/5	VI ^{dim} /4	VII ^{dim} /b3
	C ^m /D	D ^m	E ^{aug} /D	F/D	G/D	A ^{dim} /D	B ^{dim} /D
			bIII ^{ma} 7#5/7	IV6 = II ^m 7		II7b9n3	II ^m 6n5/b3
			E ^b ma7#5/D	F6 = D ^m 7		D7b9n3	D ^m 6n5/B
b3			root		third		
	I ^m /b3	II ^m /2	bIII ^{aug}	IV/b7	V/b6	VI ^{dim} /b5	VII ^{dim}
	C ^m /E ^b	D ^m /E ^b	E ^{aug}	F/E ^b	G/E ^b	A ^{dim} /E ^b	B ^{dim} /E ^b
		dissonant!		IV7/b7	III ^{ma} 7#5		
				F7/E ^b	E ^b ma7#5		
4	fifth	sixth		root		third	
	I ^m /4	II ^m /b3	bIII ^{aug} /2	IV	V/b7	VI ^{dim} /b6	VII ^{dim} /b2
	C ^m /F	D ^m /F	E ^{aug} /F	F	G/F	A ^{dim} /F	B ^{dim} /F
	IV9n3	IV6n5			V7/b7	IV7	
	F9n3	F6n5			G7/F	F7	
5			sixth		root		third
	I ^m /5	II ^m /4	bIII ^{aug} /3	IV/2	V	VI ^{dim} 7/b7	VII ^{dim} /b6
	C ^m /G	D ^m /G	E ^{aug} /G	F/G	G	A ^{dim} /G	B ^{dim} /G
	I ^m 9(ma7)n3	V7sus2	V ^{aug}	V9sus4n5		VI ^m 7b5/b7	V7
	C ^m 9(ma7)n3	G7sus2	G ^{aug}	G9sus4n5		A ^m 7b5/G	G7
6	third		fifth			root	
	I ^m /6	II ^m /5	bIII ^{aug} /#4	IV/3	V/2	VI ^{dim}	VII ^{dim} /b7
	C ^m /A	D ^m /A	E ^{aug} /A	F/A	G/A	A ^{dim}	B ^{dim} /A
	I ^m 6 = VI ^m 7b5		VI ^m 9b5nrn3		VI7sus2/4n5		VII ^m 7b5/b7
	C ^m 6 = A ^m 7b5		A ^m 9b5nrn3		A7sus2/4n5		B ^m 7b5/A
7		third					root
	I ^m /7	II ^m /6	bIII ^{aug} /#5	IV/#4	V/3	VI ^{dim} /2	VII ^{dim}
	C ^m /B	D ^m /B	E ^{aug} /B	F/B	G/B	A ^{dim} /B	B ^{dim} .
	I ^m (ma7)/7	II ^m 6 = VII ^m 7b5		dissonant!			
	C ^m (ma7)/B	D ^m 6-B ^m 7b5					

Combining Major, Harmonic Minor and Melodic Minor Triads

Major and harmonic minor scale-tone triads are frequently combined in the same chord progression.

III major or III7 chords progressing to VI harmonic minor

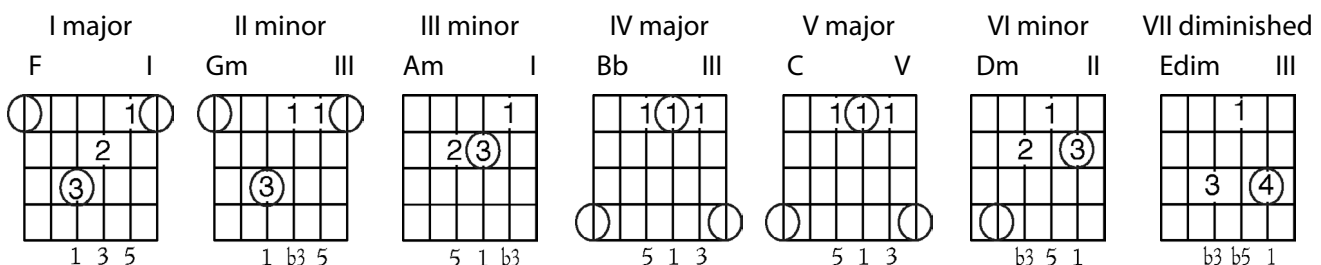
The III chord in a major key is commonly changed from III minor or III^m7 to III major or III⁷, making the III or III⁷ a secondary dominant to progress to the VI^m chord it typically precedes. VI harmonic minor scale is typically used during the III or III⁷ chord (also called III Phrygian dominant). The triads in such a case are modified by sharpening the fifth of the original parent major scale, which makes VI harmonic minor.

VI major or VI7 chords progressing to II melodic minor

The VI chord in a major key is commonly changed from VI minor or VI^m7 to VI major or VI⁷, making the VI or VI⁷ a secondary dominant to progress to the II^m chord it typically precedes. II harmonic minor scale is typically used during the VI or VI⁷ chord (also called VI Phrygian dominant). The triads in such a case are modified by sharpening the tone center ("sharp one") of the original parent major scale, which makes II melodic minor.

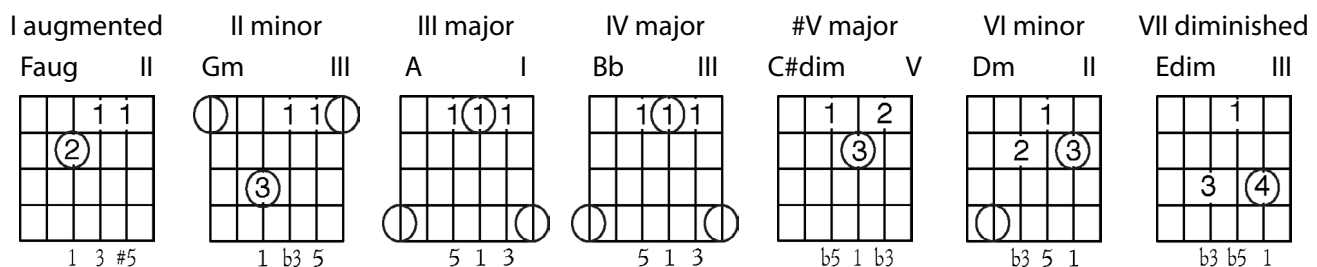
F major scale-tone triads, positions I-III

this is the parent scale for D harmonic minor and G melodic minor



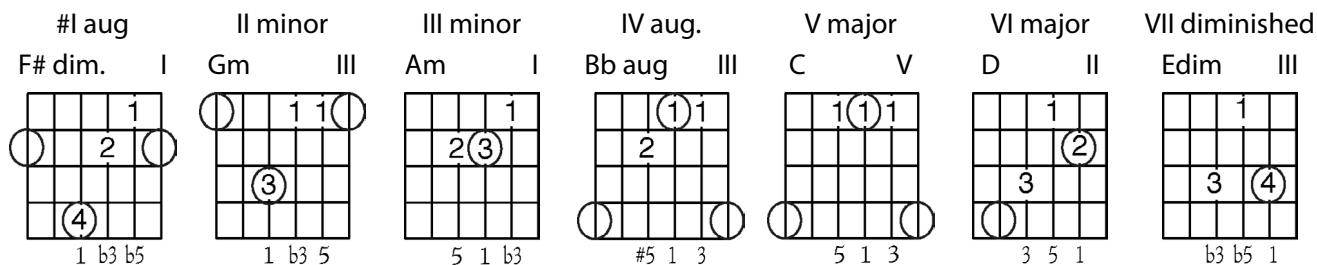
D harmonic minor scale-tone triads, positions I-III

All of the "C" notes, the fifth of F major have been sharpened. The roman numeral names are based on the parent major scale, F major.



G melodic minor scale-tone triads, positions I-III

All of the “F” notes, the tone center (“1”) of F major have been sharpened. The roman numeral names are based on the parent major scale, F major.



Identifying the Changed Scale when You Alter a Note

Sharpening the five of a major scale changes the scale to major sharp five, which is has the same notes as VI harmonic minor. It changes three of the major scale tone triads. V major becomes V diminished. III minor becomes, III major. I major becomes I augmented.

Sharpening the one of a major scale (the tone center, “C” of a C major scale_ changes the scale to major sharp oone, which is has the same notes as II melodic minor. It changes three of the major scale tone triads. I major becomes #I diminished. VI minor becomes, VI major. IV major becomes IV augmented.

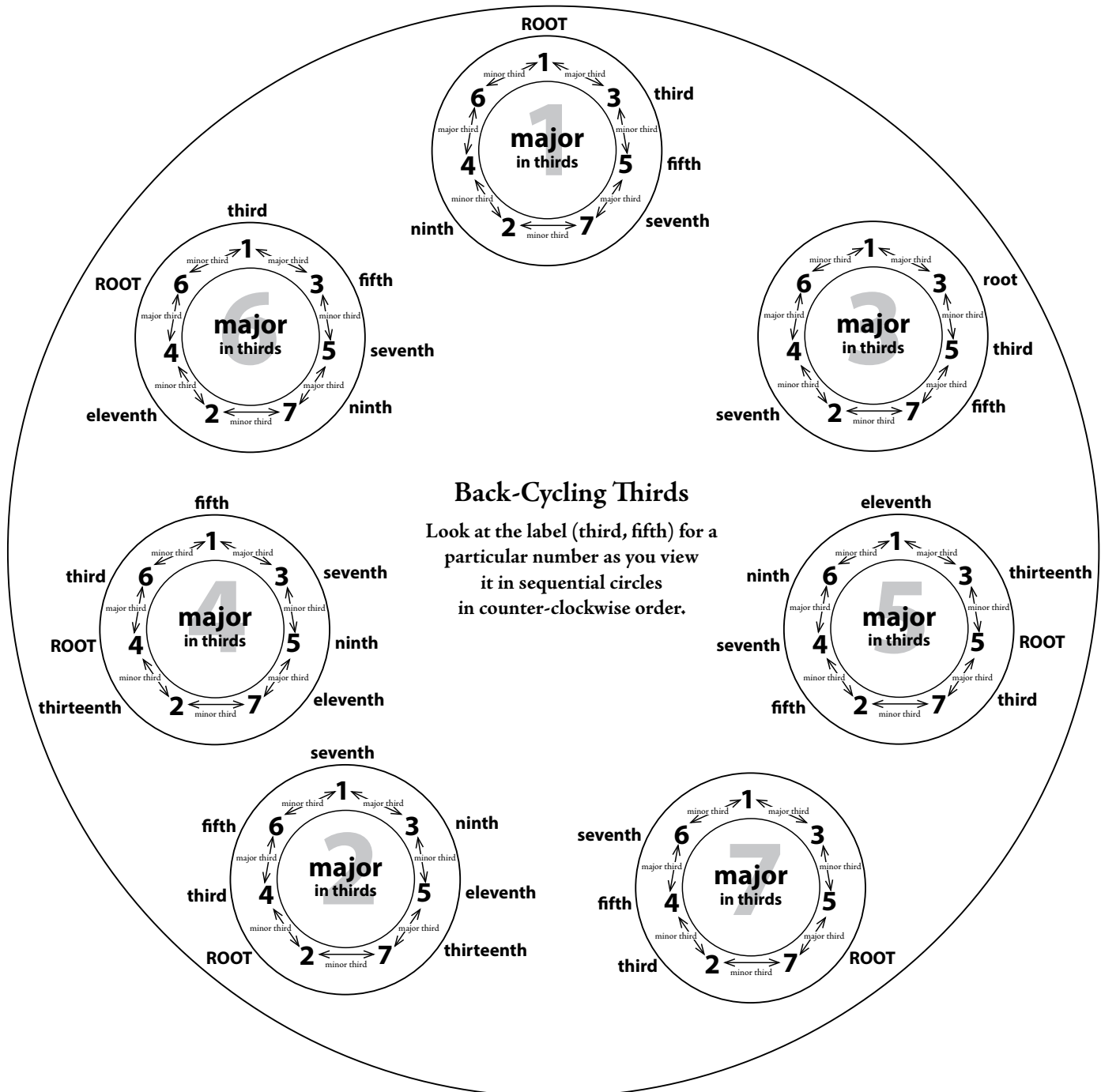
You can comprehend these changes to include other similar changes like flatting the third or sixth of a major scale with *back-cycling thirds*. With back cycling thirds, you can identify the role of a changed note to understand on which triad the changed note sharps the root, on which triad the changed note raises the third and on which triad the changed note raises the fifth. See [Finding the Harmonic Roles of a Particular Scale Tone](#) below. Once you identify the changed chords, you can concieve them in the changed scale, following through by looking at back-cycling thirds in the new scale.

Finding the Harmonic Roles of a Particular Scale Tone

To voice lead melodic tones on a chord progression, you need to recognize when a tone is in a chord and which chord tone it is (root, fifth, etc.). Learn to do this by “back-cycling thirds”, shown below.

back-cycling thirds in the major scale

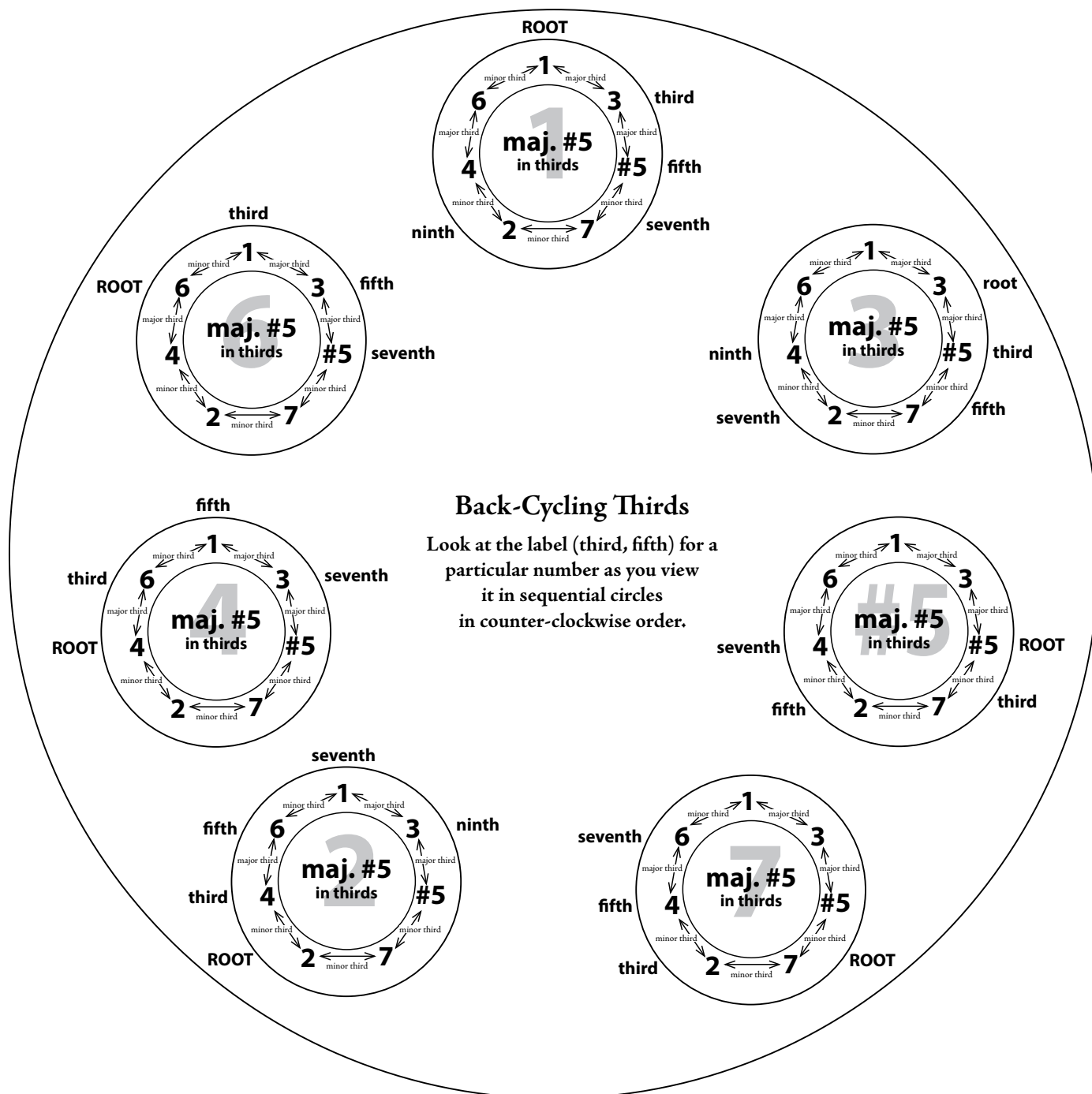
triad..... I major II minor..... III minor IV major V major..... VI minor VII dimin.
 seventh chord Ima7 IIIm7..... IIIIm7 IVma7..... V7..... VIIm7 VIIIm7b5
 ninth chord Ima9 IIIm9..... no chord IVma9..... V9..... VIIm9..... no chord



back-cycling thirds in the major sharp five and harmonic minor scale

Harmonic minor is a mode of major sharp five scale as you can see in this table:

mode names	major #5	Dorian #4	Phryg. dom.	Lydian #2	Mixo. #1	Aeolian nat.7	Locrian nat.6
major #5 scale tones	I	II	III	IV	#V	VI	VII
I major #5 chords	I _{ma} 9#5	II _m 13#11	III ₇ b9(/11)b13	IV _{ma} 7/6(#11)	#V _{dim} 7	VI _m 9(ma7)	VII _m 7b5(/11)
C ma#5 chords	C _{ma} 9/6#5	D _m 13#11	E ₇ b9(/11)b13	F _{ma} 7/6(#11)		A _m 9(ma7)	B _m 7b5(/11)
harmonic minor tones	bIII	IV	V	bVI	VII	I	II
VI har. min. chords	bIII _{ma} 9#5	IV _m 13#11	V ₇ b9(/11)b13	bVI _{ma} 7/6(#11)	VII _{dim} 7	I _m 9(ma7)	II _m 7b5(/11)
A harmonic minor chords	C _{ma} 9/6#5	D _m 13#11	E ₇ b9(/11)b13	F _{ma} 7/6(#11)		A _m 9(ma7)	B _m 7b5(/11)

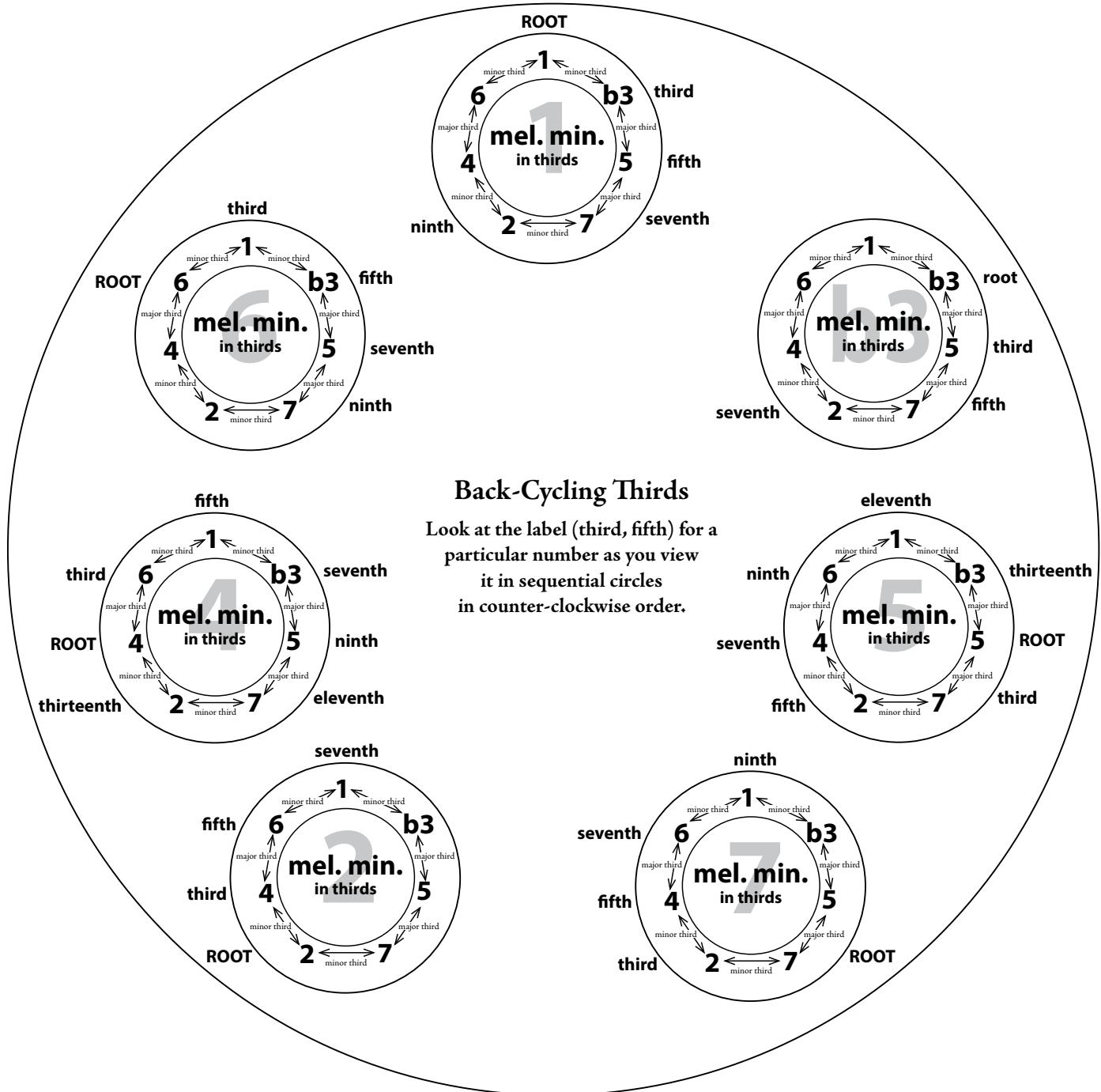


back-cycling thirds in the melodic minor scale

triad..... I minor..... II minor..... bIII aug..... IV major..... V major..... VI dim..... VII dim.

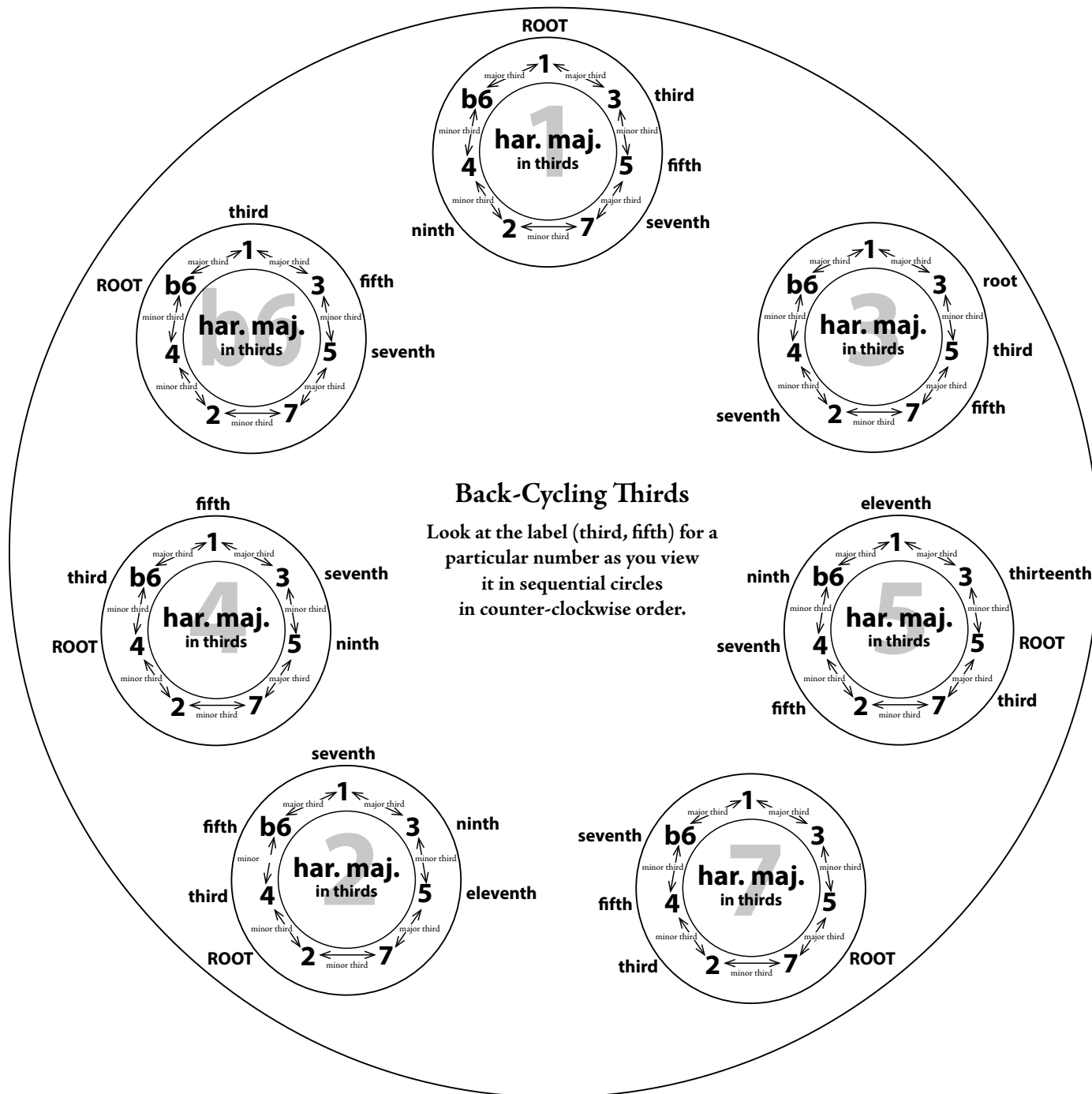
seventh chord Im(ma7) IIm7..... bIIIIma7#5..... IV7..... V7..... VIIm7b5..... VIIIm7b5

ninth chord Im9(ma7) IIm9..... bIIIIma9#5..... IV9..... V9..... VIIm9b5..... VII7#5b5#9b9



back-cycling thirds in the harmonic major scale

triad..... I major II dim. III minor IV major V major bVI aug. VII dim.
 seventh chord Ima7 II m7b5 III m7 IV m(ma7) V7 bV Ima7#5 VII m7b5
 ninth chord Ima9 II m9b5 no chord IV m9(ma7) V9 no chord no chord



Psychedelic Hard Rock Use of bVII, bIII, and bVI Over I

These progressions can draw from roots on the notes of IV minor pentatonic, not to imply playing in the key of IV, but a device to determine the available notes. Examples include Got A Line On You by Spirit, Runnin' with the Devil and Unchained by Van Halen, I Can See for Miles by the Who, the Green Manalishi by Fleetwood Mac, Angel (intro) by Jimi Hendrix

Chord progressions with bIII, bVI and bVII also draw from multi-plagal chord progression. IV-I is a plagal cadence. bVII-IV-I is a double-plagal cadence. bIII-bVII-IV-I is a triple-plagal cadence and bVI-bIII-bVII-IV-I is a quadruple plagal cadence.

	triad (lettered examples are shown in the key of C)		
BASS	bVII major	bIII major	bVI major
1	bVII/C	bIII/C	bVI/C
	Bb/C	Eb/C	Ab/C
	I9sus4n5	Im7	
	C9sus4n5	Cm7	

Triad Neighbors and Roots Up or Down a Fourth

Combine any triad with upper and lower neighbors and with chords with roots up or down a fourth in the chord progression.

establishing the primary chord

Establish the primary chord by stronger emphasis of it and its root with any of the devices listed below. The key the the primary chord root is usually established with more than one device. Each device draws attention to the desired tone center (root of the primary chord). See the chapter [Establishing a Key](#). The devices that can establish a key include:

- ✦ **Using a tonic scale.** Making melody with a scale named after the tone center
- ✦ **Play it louder.** Playing the tone center louder or more often than other notes
- ✦ **Sustain it.** Sustaining the tone center or ending a phrase with it
- ✦ **Pivot tone.** Using the tone center as a pivot tone, where the melody alternates between it and other notes (see [Melodic Cells/Pivot Tone](#))
- ✦ **Establish a tonic chord.** Establishing the tone center by establishing the tonic chord in these ways (see [Establishing the Key With Chord Progression and Cadences](#) and [Modes](#)) :
 - ✦ **Starting with the desired key chord**

- ✦ **Ending with** the desired key chord
- ✦ **More frequent occurrence** of the tonic chord
- ✦ Using the tone center as a **pedal point**, which is a sustained note, usually in the bass (see [Pedal Point Chord Progression](#))
- ✦ **Resolving to the tonic chord with a cadence** (a well-known chord progression used to lead to a tonic chord). See [Secondary Dominant](#).
- ✦ **Scalar chord root movement.** A progression of chord roots up or down a scale to the root of the intended tonic chord.
- ✦ **Dissonance.** Preceding the intended tonic chord by one or more dissonant, tension-producing chords.
- ✦ **Low-pitched tonic root.** Use the root of the main chord in a low range of pitch.
- ✦ **Define a section with it.** Ending or beginning a section with a chord, where sections are typically multiples of four measures. Ending with the desired tonic chord establishes stronger tonality than beginning with it.

primary triad on the root

Combine the primary triad with neighbors on a root up a step, down a step, up a fourth or down a fourth. Emphasize the primary chord with the devices shown above (see [establishing the primary chord](#)) and de-emphasize the chords on roots up or down a step or a fourth.

triads as secondary roots

As many as four triads can be used to represent a larger chord. Ninth chords contain three triads, one on the root, third and fifth. Seventh chords contain two triads, one on the root and one on the fifth. Sixth chords contain two triads, one on the root and one on the fifth.

secondary root triad on the third

For any triad, a secondary root triad can be treated as a primary chord, building an upper harmony of the triad on the third of the triad (build Em on a C triad or Am on an F triad). This treats the triad as if it were a seventh chord on the same root, but without the root. See the chapter [Substitution](#)/Categories of Substitute Chords/1. Shared Thirds: Secondary Roots.

secondary root triad on the sixth

For any triad that can be a sixth chord in the scale it was constructed from, including I, IV, V and IIm chords with major scales, a secondary root triad can be treated as a primary chord of a sixth quality, building a harmony of the triad from the sixth. This treats the triad as if it were a seventh chord built

on the sixth of the key from which the triad was built, but without the root. See the chapter [Substitution/](#)Categories of Substitute Chords/1. Shared Thirds: Secondary Roots.

secondary root triads for major scale tone chords

Lettered examples below are shown in the key of C.

	I major (C major) acts as chord shown below	II minor (D minor) acts as chord shown below	III minor (E minor) acts as chord shown below	IV major (F major) acts as chord shown below	V major (G major) acts as chord shown below	VI minor (A minor) acts as chord shown below	VII diminished (B diminished) acts as chord shown below
I chord	I major C major		IIma7 no root Cma7nr		IIma9 no root, no third Cma9nrn3	IIm6 no 5 C6n5	
II chords		II minor Dm		IIIm7 no root Dm7nr		IIIm9 no root, no third Dm9nrn3	IIIm6 no 5 Dm6n5
III chords			IIIm minor Em		IIIm7 no root Em7nr		
IV chords	IVma9 no root, no third Fma9n3	IV6 no fifth F6n5		IV major F major		IVma7 no root Fma7nr	
V chords		V9 no root, no third G9nrn3	V6 no fifth G6n5		V major G major		V7 no root G7nr
VI chords	VIIm7 no root Am7nr		VIIm9 no root, no third Am9nrn3			VI minor Am	
VII chords		VIIm7b5 no root Bm7b5nr					VII diminished Bdim

PARENT SCALES FOR CADENCES

Major Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	3	4	5	6	7
mode	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
triad tones	major 1-3-5	minor 2-4-6	minor 3-5-7	major 4-6-1	major 5-7-2	minor 6-1-3	dimin. 7-2-4
seventh tones	ma7 1-3-5-7	m7 2-4-6-1	m7 3-5-7-2	ma7 4-6-1-3	7 5-7-2-4	m7 6-1-3-5	m7b5 7-2-4-6
ninth tones	ma9 1-3-5-7-2	m9 2-4-6-1-3	not acceptable	ma9 4-6-1-3-5	9 5-7-2-4-6	m9 6-1-3-5-7	not acceptable
secondary dominant	7 or 9	7 9 or 7#9	7 or 7b9	7 or 9	7, 7#5 or 7#5	7 9 or 7#9	7 or 7b9
key of C#	C#	D#m	E#m	F#	G#	A#m	B#dim.
key of F#	F#	G#m	A#m	B	C#	D#m	E#dim.
key of B	B	C#m	D#m	E	F#	G#m	A#dim.
key of E	E	F#m	G#m	A	B	C#m	D#dim.
key of A	A	Bm	C#m	D	E	F#m	G#dim.
key of D	D	Em	F#m	G	A	Bm	C#dim.
key of G	G	Am	Bm	C	D	Em	F#dim.
key of C	C	Dm	Em	F	G	Am	Bdim.
key of F	F	Gm	Am	Bb	C	Dm	Edim.
key of Bb	Bb	Cm	Dm	Eb	F	Gm	Adim.
key of Eb	Eb	Fm	Gm	Ab	Bb	Cm	Ddim.
key of Ab	Ab	Bbm	Cm	Db	Eb	Fm	Gdim.
key of Db	Db	Ebm	Fm	Gb	Ab	Bbm	Cdim.
key of Gb	Gb	Abm	Bbm	Cb	Db	Ebm	Fdim.
key of Cb	Cb	Dbm	Ebm	Fb	Gb	Abm	Bbdim.

ascending root progression in fourths

	7	3	6	2	5	1	4
mode	Locrian	Phrygian	Aeolian	Dorian	Mixolydian	Ionian	Lydian
triad tones	dimin. 7-2-4	minor 3-5-7	minor 6-1-3	minor 2-4-6	major 5-7-2	major 1-3-5	major 4-6-1
seventh tones	m7b5 7-2-4-6	m7 3-5-7-2	m7 6-1-3-5	m7 2-4-6-1	7 5-7-2-4	ma7 1-3-5-7	ma7 4-6-1-3
ninth tones	not acceptable	not acceptable	m9 6-1-3-5-7	m9 2-4-6-1-3	9 5-7-2-4-6	ma9 1-3-5-7-2	ma9 4-6-1-3-5
secondary dominant	7 or 7b9	7 or 7b9	7 9 or 7#9	7 9 or 7#9	7 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E#m	A#m	D#m	G#	C#	F#
key of F#	E#dim.	A#m	D#m	G#m	C#	F#	B
key of B	A#dim	D#m	G#m	C#m	F#	B	E
key of E	D#dim	G#m	C#m	F#m	B	E	A
key of A	G#dim.	C#m	F#m	Bm	E	A	D
key of D	C#dim.	F#m	Bm	Em	A	D	G
key of G	F#dim.	Bm	Em	Am	D	G	C
key of C	Bdim.	Em	Am	Dm	G	C	F
key of F	Edim.	Am	Dm	Gm	C	F	Bb
key of Bb	Adim.	Dm	Gm	Cm	F	Bb	Eb
key of Eb	Ddim.	Gm	Cm	Fm	Bb	Eb	Ab
key of Ab	Gdim.	Cm	Fm	Bbm	Eb	Ab	Db
key of Db	Cdim.	Fm	Bbm	Ebm	Ab	Db	Gb
key of Gb	Fdim.	Bbm	Ebm	Abm	Db	Gb	Cb
key of Cb	Bbdim.	Ebm	Abm	Dbm	Gb	Cb	Fb

Harmonic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	b3	4	5	b6	7
mode	Aeolian	Locrian natural 6	Major #5	Dorian #4	Phrygian dominant	Lydian #2	Mixolyian #1
1	minor 1-b3-5	dimin. 2-4-b6	augmented b3-5-7	minor 4-b6-1	major 5-7-2	major b6-1-b3	dimin. 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7b5 2-4-b6-1	ma7#5 b3-5-7-2	m7 4-b6-1-b3	7 5-7-2-4	ma7 b6-1-b3-5	7 7-2-4-b6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7-2-4	m9 4-b6-1-b3-5	7b9 5-7-2-4-b6	not acceptable	not acceptable
secondary dominant	7, 7#5, 9 or 7#9	7, 7#5 or 7b9	7, 7#5 or 9	7, 9, 7#9 or 7#11	7#9 or 7#5	7 or 7#9	n/a
key of A#m	A#m	B#dim.	C# aug	D#m	E#	F#	G##dim
key of D#m	D#m	E#dim.	F# aug	G#m	A#	B	C## dim
key of G#m	G#m	A#dim.	B aug	C#m	D#	E	F## dim
key of C#m	C#m	D#dim	E aug	F#m	G#	A	B# dim
key of F#m	F#m	G#dim.	A aug	Bm	C#	D	E# dim
key of Bm	Bm	C#dim.	D aug	Em	F#	G	A# dim
key of Em	Em	F#dim.	G aug	Am	B	C	D# dim
key of Am	Am	Bdim.	C aug	Dm	E	F	G#dim
key of Dm	Dm	Edim.	F aug	Gm	A	Bb	C# dim
key of Gm	Gm	Adim.	Bb aug	Cm	D	Eb	F# dim
key of Cm	Cm	Ddim.	Eb aug	Fm	G	Ab	B dim
key of Fm	Fm	Gdim.	Ab aug	Bbm	C	Db	E dim
key of Bbm	Bbm	Cdim.	Db aug	Ebm	F	Gb	A dim
key of Ebm	Ebm	Fdim.	Gb aug	Abm	Bb	Cb	D dim
key of Abm	Abm	Bbdim.	Cb aug	Dbm	Eb	Fb	G dim

ascending root progression in fourths

	7	b3	b6	2	5	1	4
mode	Mixolyian #1	Major #5	Lydian #2	Locrian natural 6	Phrygian dominant	Aeolian	Dorian #4
triad tones	dimin. 7-2-4	augmented b3-5-7	major b6-1-b3	dimin. 2-4-b6	major 5-7-2	minor 1-b3-5	minor 4-b6-1
seventh tones	7 7-2-4-b6	ma7#5 b3-5-7-2	ma7 b6-1-b3-5	m7b5 2-4-b6-1	7 5-7-2-4	m(ma7) 1-b3-5-7	m7 4-b6-1-b3
ninth tones	not acceptable	ma9#5 b3-5-7-2-4	not acceptable	not acceptable	7b9 5-7-2-4-b6	m9(ma7) 1-b3-5-7-2	m9 4-b6-1-b3-5
secondary dominant	n/a	7, 7#5 or 9	7 or 7#9	7, 7#5 or 7b9	7#9 or 7#5	7, 7#5, 9 or 7#9	7, 9, 7#9 or 7#11
key of A#m	G##dim	C# aug	F#	B#dim.	E#	A#m	D#m
key of D#m	C## dim	F# aug	B	E#dim.	A#	D#m	G#m
key of G#m	F## dim	B aug	E	A#dim.	D#	G#m	C#m
key of C#m	B# dim	E aug	A	D#dim	G#	C#m	F#m
key of F#m	E# dim	A aug	D	G#dim.	C#	F#m	Bm
key of Bm	A# dim	D aug	G	C#dim.	F#	Bm	Em
key of Em	D# dim	G aug	C	F#dim.	B	Em	Am
key of Am	G#dim	C aug	F	Bdim.	E	Am	Dm
key of Dm	C# dim	F aug	Bb	Edim.	A	Dm	Gm
key of Gm	F# dim	Bb aug	Eb	Adim.	D	Gm	Cm
key of Cm	B dim	Eb aug	Ab	Ddim.	G	Cm	Fm
key of Fm	E dim	Ab aug	Db	Gdim.	C	Fm	Bbm
key of Bbm	A dim	Db aug	Gb	Cdim.	F	Bbm	Ebm
key of Ebm	D dim	Gb aug	Cb	Fdim.	Bb	Ebm	Abm
key of Abm	G dim	Cb aug	Fb	Bbdim.	Eb	Abm	Dbm

Melodic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	b3	4	5	6	7
mode	melodic minor	Dorian b2	Phrygian b1	Lydian dominant	Mixolydian b6	Aeolian b5	super Locrian
triad tones	minor 1-b3-5	minor 2-4-6	augmented b3-5-7	major 4-6-1	major 5-7-2	diminished 6-1-3	diminished 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7 2-4-6-1	ma7#5 b3-5-7-2	7 4-6-1-b3	7 5-7-2-4	m7b5 6-1-3-5	7#5, 7b5 or m7b5 7-2 or b3 -4-6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7-2-4	9 4-6-1-b3-5	9 5-7-2-4-6	m9b5 6-1-b3-5-7	9b5, 9#5 7-b3- 4 or 5-6
secondary dominant	7 or 9	7 9 or 7#9	7, 7#5 or 9	7 or 9	7, 7#5 or 7#9	7b5 9 or 7#9	7 with b5, #5, b9 or #9
key of C#m	C#	D#m	E aug	F#	G#	A# dim	B#dim
key of F#m	F#	G#m	A aug	B	C#	D# dim	E#dim.
key of Bm	B	C#m	D aug	E	F#	G# dim	A#dim
key of Em	E	F#m	G aug	A	B	C# dim	D#dim
key of Am	A	Bm	C aug	D	E	F# dim	G#dim.
key of Dm	D	Em	F aug	G	A	B dim	C#dim.
key of Gm	G	Am	Bb aug	C	D	E dim	F#dim.
key of Cm	C	Dm	Eb aug	F	G	A dim	Bdim.
key of Fm	F	Gm	Ab aug	Bb	C	D dim	Edim.
key of Bbm	Bb	Cm	Db aug	Eb	F	G dim	Adim.
key of Ebm	Eb	Fm	Gb aug	Ab	Bb	C dim	Ddim.
key of Abm	Ab	Bbm	Cb aug	Db	Eb	F dim	Gdim.
key of Dbm	Db	Ebm	Fb aug	Gb	Ab	Bb dim	Cdim.
key of Gbm	Gb	Abm	Bbb aug	Cb	Db	Eb dim	Fdim.
key of Cbm	Cb	Dbm	Ebb aug	Fb	Gb	Abm	Bbdim.

ascending root progression in fourths

	7	b3	6	2	5	1	4
mode	Locrian	Phrygian b1	Aeolian b5	Dorian b2	Mixolydian b6	melodic minor	Lydian
triad tones	dimin. 7-2-4	augmented b3-5-7	diminished 6-1-3	minor 2-4-6	major 5-7-2	minor 1-b3-5	major 4-6-1
seventh tones	m7b5 7-2-4-6	ma7#5 b3-5-7-2	m7b5 6-1-3-5	m7 2-4-6-1	7 5-7-2-4	m(ma7) 1-b3-5-7	ma7 4-6-1-3
ninth tones	not acceptable	ma9#5 b3-5-7-2-4	m9b5 6-1-b3-5-7	not acceptable	9 5-7-2-4-6	m9(ma7) 1-b3-5-7-2	ma7 4-6-1-3-5
secondary dominant	7 or 7b9	7, 7#5 or 9	7b5 9 or 7#9	7 9 or 7#9	7, 7#5 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E aug	A# dim	D#m	G#	C#	F#
key of F#	E#dim.	A aug	D# dim	G#m	C#	F#	B
key of B	A#dim	D aug	G# dim	C#m	F#	B	E
key of E	D#dim	G aug	C# dim	F#m	B	E	A
key of A	G#dim.	C aug	F# dim	Bm	E	A	D
key of D	C#dim.	F aug	B dim	Em	A	D	G
key of G	F#dim.	Bb aug	E dim	Am	D	G	C
key of C	Bdim.	Eb aug	A dim	Dm	G	C	F
key of F	Edim.	Ab aug	D dim	Gm	C	F	Bb
key of Bb	Adim.	Db aug	G dim	Cm	F	Bb	Eb
key of Eb	Ddim.	Gb aug	C dim	Fm	Bb	Eb	Ab
key of Ab	Gdim.	Cb aug	F dim	Bbm	Eb	Ab	Db
key of Db	Cdim.	Fb aug	Bbm	Ebm	Ab	Db	Gb
key of Gb	Fdim.	Bbb aug	Ebm	Abm	Db	Gb	Cb
key of Cb	Bbdim.	Ebb aug	Abm	Dbm	Gb	Cb	Fb

Harmonic Major Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	3	4	5	b6	7
mode	major b6	Dorian b5	super Phrygian	Lydian diminished	Mixolydian b2	Aeolian b1	Locrian bb7
triad tones	major 1-3-5 or aug. 1-3-b6	diminished 2-4-b6	minor 3-5-7 or aug. 3-b6-1	minor 4-b6-1 or dim. 4-b6-7	major 5-7-2	augmented b6-1-3 or dim b6-7-2	diminished 7-2-4
seventh tones	ma7 1-3-5-7	m7b5 2-4-b6-1 or dim7 2-4-b6-7	m7 3-5-7-2	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2	7 5-7-2-4	ma7 b6-1-3-#5 or dim7 b6-7-2-4	dim. 7 7-2-4-b6
ninth tones	ma9 1-3-5-7-2	m9b5 2-4-b6-7 or 1-3	not acceptable	m9(ma7) 4-b6-1-3-5	7b9 5-7-2-4-b6	not acceptable	not acceptable
secondary dominant	7 or 9	7b5 or 9b5	7 or 7b9	7 or 9	7b9 or 7#9	7, 7#5, 9 or 7#9	7 or 7b9
key of C#	C#	D# dim	E#m	F#m	G#	A aug or dim	B#dim
key of F#	F#	G# dim	A#m	Bm	C#	D aug or dim	E#dim.
key of B	B	C# dim	D#m	Em	F#	G aug or dim	A#dim
key of E	E	F# dim	G#m	Am	B	C aug or dim	D#dim
key of A	A	B dim	C#m	Dm	E	F aug or dim	G#dim.
key of D	D	E dim	F#m	Gm	A	Bb aug or dim	C#dim.
key of G	G	A dim	Bm	Cm	D	Eb aug or dim	F#dim.
key of C	C	D dim	Em	Fm	G	Ab aug or dim	Bdim.
key of F	F	G dim	Am	Bbm	C	Db aug or dim	Edim.
key of Bb	Bb	C dim	Dm	Ebm	F	Gb aug or dim	Adim.
key of Eb	Eb	F dim	Gm	Abm	Bb	Cb aug or dim	Ddim.
key of Ab	Ab	Bb dim	Cm	Dbm	Eb	Fb aug or dim	Gdim.
key of Db	Db	Eb dim	Fm	Gbm	Ab	Bbb aug or dim	Cdim.
key of Gb	Gb	Ab dim	Bbm	Cbm	Db	Ebb aug or dim	Fdim.
key of Cb	Cb	Db dim	Ebm	Fbm	Gb	Abb aug or dim	Bbdim.

ascending root progression in fourths

	7	3	b6	2	5	1	4
mode	Locrian bb7	super Phrygian	Aeolian b1	Dorian b5	Mixolydian b2	major b6	Lydian diminished
triad tones	diminished 7-2-4	minor 3-5-7 or aug. 3-b6-1	augmented b6-1-3 or dim b6-7-2	diminished 2-4-b6	major 5-7-2	major 1-3-5 or aug. 1-3-b6	minor 4-b6-1 or dim. 4-b6-7
seventh tones	dim. 7 7-2-4-b6	m7 3-5-7-2	ma7 b6-1-3-#5 or dim7 b6-7-2-4	m7b5 2-4-b6-1 or dim7 2-4-b6-7	7 5-7-2-4	ma7 1-3-5-7	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2
ninth tones	not acceptable	not acceptable	not acceptable	m9b5 2-4-b6- 7 or 1-3	7b9 5-7-2-4-b6	ma9 1-3-5-7-2	m9(ma7) 4-b6-1-3-5
secondary dominant	7 or 7b9	7 or 7b9	7, 7#5, 9 or 7#9	7b5 or 9b5	7b9 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E#m	A aug or dim	D# dim	G#	C#	F#m
key of F#	E#dim.	A#m	D aug or dim	G# dim	C#	F#	Bm
key of B	A#dim	D#m	G aug or dim	C# dim	F#	B	Em
key of E	D#dim	G#m	C aug or dim	F# dim	B	E	Am
key of A	G#dim.	C#m	F aug or dim	B dim	E	A	Dm
key of D	C#dim.	F#m	Bb aug or dim	E dim	A	D	Gm
key of G	F#dim.	Bm	Eb aug or dim	A dim	D	G	Cm
key of C	Bdim.	Em	Ab aug or dim	D dim	G	C	Fm
key of F	Edim.	Am	Db aug or dim	G dim	C	F	Bbm
key of Bb	Adim.	Dm	Gb aug or dim	C dim	F	Bb	Ebm
key of Eb	Ddim.	Gm	Cb aug or dim	F dim	Bb	Eb	Abm
key of Ab	Gdim.	Cm	Fb aug or dim	Bb dim	Eb	Ab	Dbm
key of Db	Cdim.	Fm	Bbb aug or dim	Eb dim	Ab	Db	Gbm
key of Gb	Fdim.	Bbm	Ebb aug or dim	Ab dim	Db	Gb	Cbm
key of Cb	Bbdim.	Ebm	Abb aug or dim	Db dim	Gb	Cb	Fbm

NEIGHBOR TONE TRIADS

The Procedure of Finding Neighbor Tone Triads

Play major scale tone triads horizontally on a stringset like 4-3-2 or 3-2-1.

- ✦ First, name the triads with their original names.
- ✦ Chose a triad to feature as a target that will represent the chord you are playing on in a chord progression. Be aware of the step of a major scale or other seven tone scale on which that chord occurs. For example, C major as a V chord in the F major scale.
- ✦ Become aware of the harmonic elaborations that triad. C major could be elaborated to C7, C9, or C6. See the chapter [“All Scale Tone Chords”](#). Start studying the first five sections and acquire enough of knowledge to understand the table of triads, sevenths and ninths on the bottom of the first page of the “All Major Scale Tone Chords” section.

Eventually, you should work your way through the chapter to the last four sections (All Major Scale Tone Chords, All Harmonic Minor Scale Tone Chords, All Melodic Minor Scale Tone Chords, and All Harmonic Major Scale Tone Chords).

- ✦ Learn the mode name for your chosen chord. For the mode names, see the [“Modes”](#) chapter and go to the section “Modes of Four Heptatonic Scales”. C major on step V of an F major scale is C Mixolydian and can be elaborated to C7, C9, C13 or C6.
- ✦ In relation to your target triad (C major triad as V of an F major scale in C Mixolydian), play the triads with roots up a step, down a step, up a fourth and down a fourth. For C major triad in an F major scale, D minor is on the root up a step, Bb major is on the root down a step, F major triad is on a root up a fourth and G minor is on the root down a fourth. It helps to learn back-cycling in fourths to determine the root down a fourth, See the chapter [“Backcycling”](#) and go to the section Back Cycling with Major Scale Tone Fourths.
- ✦ Do the entire set of neighbor tone triads with the target chord in root position, then the first inversion (third in the bass), then second inversion (fifth in the bass).
- ✦ Do the entire set of neighbor tone triad for secondary root on the third. See the chapter [“Substitution”](#) and go to the section “Shared Thirds: Secondary Roots”. If the chord can be a sixth chord (or m6), do it on the sixth. If the chord can be a ninth, also do the neighbor tone triads (roots up and down a step, roots up and down a fourth) on the fifth.

Common Tones Between Target Triads and Neighbor Tone Triads

A target triad has no common notes with the upper and lower stepwise root triads. As the V chord of the F major parent scale, the C major triad has no tones in common with D minor nor Bb major triads.

The lower stepwise root triad and upper root triad have two common notes with one another. For the C target chord in the F major scale, the C major triad has its root “C” in common with the F triad (root up a fourth) and has the “G” note in common with the G minor triad (root down a fourth).

The triads with their roots up and down a fourth from the target triad (F and Gm for the C target triad) share no notes with one another.

Modal Neighbor Tone Triads

In this song example, modal theme and variation is demonstrated on the basis of a I-VIm-IIIm-V chord progression in the key of F. First there are four twenty-bar sections, one in each of four modes in F major: F major (I), D Aeolian (VIm), G Dorian (IIIm) and C Mixolydian (V).

In each mode, upper and lower neighbor root triads are used in the first eight bars, triads with their root up and down a fourth for the next eight bars, followed by four-bar “six-nine” progression that features the triad on the sixth of the mode (Dm/F for F Ionian) and a ninth no root, no third on the fifth of the mode (C/F for F Ionian).

After the four twenty bar sections in the four modes, summary section plays four bars in each of the four modes, in the order I-VIm-IIIm-V, followed by two bars of the Mixolydian “six-nine” progression. Finally, there’s a four-bar ending in F Ionian.

theme and variation

In each of the four twenty-bar modal sections (F Ionian, D Aeolian, G Dorian and C Mixolydian) the accompaniment and melody is relatively the same. All of the comping and melody notes in the F Ionian section were descended two scale tones to form the D Aeolian section. All of the melody and notes of the F Ionian section were ascended one scale tone for the G Dorian section and down four scale tones for the C Mixolydian section.

Many of the chords were inverted to make them easier to fret, most commonly voiced on string set 4-3-2.

Modal Neighbor Tone Triads - [link to video](#)

Swing Eighths

$\text{♩} = 185$

F Ionian (major) stepwise root neighbors
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F Ionian (major) upper and lower fourth root neighbors

F

[illegible]

F Ionian (major) "six-nine" progression

 D_m/F

C/F

D

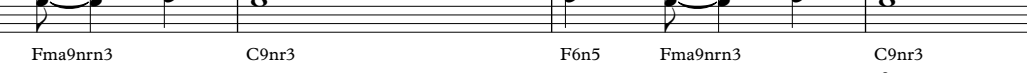
C/F

Dm/F

C/F

 D_m/F

C/F

18. 

D Aeolian (major) stepwise root neighbors

$$D_m$$

22.

Edim Edim C C Edim Edim C Edim

TAB

5 7 5 7 6 5 8 6 8 6 5 9 8 5 6 8 6 8 5 8 5 5 7 5 7 5 8 5 6 8 5 6 5 5 5 7 5 8 5 6 8 5

Modal Neighbor Tone Triads with Improv

[illegible]

D Aeolian "flat six-nine" progression

B \flat /D Am/F B \flat /D Am/D

B \flat /D Am/F B \flat /D Am/D

38

B \flat /D Am B \flat /D Dm9nrn3

B \flat /D Am B \flat /D Dm9nrn3

T 11 10 11 10

A 10 9 10 9

B 12 10 12 10

T 6 5 8 5 5 5

A 6 5 8 5 5 5

B 6 5 8 5 5 5

T 6 5 7 5 5 5

A 6 5 7 5 5 5

B 6 5 7 5 5 5

G Dorian stepwise root neighbors

Gm

Am Am F F Am Am F Am

3 3 3 3

T 11 11 11 11 13 11 13 11 11 11 11 10 11 10 11 11 11 11 13 11 13 11 11 11 11 10 11 13 11

A 12 12 12 12 14 12 12 14 12 12 12 12 12 10 12 12 12 12 14 12 12 14 12 12 12 12 10 12 14 12

B 12 12 12 12 14 12 12 14 12 12 12 12 12 10 12 12 12 12 14 12 12 14 12 12 12 12 10 12 14 12

T 14 15 18 17 17 15 15 15 14 17 17 17 15 18 17 14 15 14 14 14 14 14 14 14 14 14 14 14 14 15

A 17 15 17 18 17 14 15 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17

B 17 15 17 18 17 14 15 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17 17

[illegible]

[illegible]

C Mixolydian stepwise root neighbors

C

Dm Dm Bb Bb Dm Dm Bb Dm

T 8 8 8 8 10 8 8 8 6 8 8 8 10 8 10 8 6 8 10 8

A 10 10 10 10 12 10 10 10 10 10 10 10 12 10 10 10 10 10 10

B 10 10 10 10 12 10 10 10 10 10 10 10 12 10 10 10 10 10 10

T 7 5 5 5 8 6 3 6 5 6 5 8 7 6 7 5 6 5 6 8 7 5 5 7 6 8 5 6 5 6 5 8 7 6 7 5 7 5 7 6 5 7 6 5 6 8

A 7 5 5 5 8 6 3 6 5 6 5 8 7 6 7 5 6 5 6 8 7 5 5 7 6 8 5 6 5 6 5 8 7 6 7 5 7 5 7 6 5 7 6 5 6 8

B 7 5 5 5 8 6 3 6 5 6 5 8 7 6 7 5 6 5 6 8 7 5 5 7 6 8 5 6 5 6 5 8 7 6 7 5 7 5 7 6 5 7 6 5 6 8

[illegible]

C Mixolydian "six-nine" progression

78

Am/C Gm/C Am/C Gm/C

C6n5 C9nrn3 C9nr3 C6n5 C9nrn3 C9nr3

10 8 10 8 10 8 10 8

9 7 9 7 9 7 9 7

10 8 10 8 10 8 10 8

5 8 6 7 8 7 5 7 5 8 7 8

4

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Jazz Blues in G with Neighbor Tone Triads

[link to video](#)

$\frac{4}{4}$ | **G₇** | **C₇** | **G₇** | **G₇** |
 | **C₇** | **C[#]_{o7}** | **G₇** | **E₇** |
 | **A₋₇** | **D₇** | **G₇ E₇** | **A₋₇ D₇** ||

modes and parent scales

target	key mode	parent scale	chord scale	upper step	lower step	up fourth	lower fourth
G7	G Mixolydian	C major	G Mixolydian	Am	F	C	Dm
C7	G Dorian	F major	C Mixolydian	Dm	Bb	F	Gm
D7	G major	G major	D Mixolydian	Em	C	G	Am
C#dim7	G Dorian #4	F major #5	C Mixolydian #1	Dm	Bb	Faug.	Gm
E7 no root = G#dim.	G Mixolydian #1	C major #5	E Phrygian dom.	G#dim	F	Caug.	Dm`
Am7	G major	G major	A Dorian	Bm	G	D	Em

VI (E) Phrygian dominant. In bar eight, we're going to give the impression that bar nine (Am7) will be A harmonic minor (it will actually be A Dorian). We'll use a secondary root by using E7 no root = G# diminished triad. To do this, we'll use E Phrygian dominant for VI (E7) in G major, which comes from a C major scale with a sharp five. VI (E) Phrygian dominant = II (Am) harmonic minor (which will become II Dorian when you get to the IIm chord) .

#IV Mixolydian sharp one (bar seven is C#dim7 which is C7 with a sharp root).

Thinking in key scale by playing I (G) Mixolydian on the I chord (G) and I (G) Dorian on the IV chord (C7). Play upper and lower root neighbor triads and upper and lower fourth root triads as in the example that follows. Note that all of the chords are exactly the same for Mixolydian and Dorian with these progressions, except G major triad changes to G minor triad.

Swing Eighthths

♩ = 130

upper stepwise root neighbors

1 G^7 C^9 G^7 G^7

Am G Am Gm Am G Am G Dm C

6 C^7 $C^{\#07}$ G^7 $E^7(b9)$

Dm C#dim Am G Am G#dim Bm Am

10 Am^7 D^7 G^7 E^7 Am^7 D^7

Em D Am G G#dim Am D F G

lower stepwise root neighbors

14 G^7 C^9 G^7 G^7

F Gm Gm F G F G Bb C

18 C^7 $C^{\#07}$ G^7 $E^7(b9)$

Bb C#dim F G F G#dim G Am

22 Am^7 D^7 G^7 E^7 Am^7 D^7

C D F G G#dim Am D C G

upper fourth root neighbors

26 G^7 C^9 G^7 G^7

C Gm C G C G

30 C^7 $C^{\#07}$ G^7 $E^7(b9)$

Faug C#dim C G Caug G#dim D Am

34 Am^7 D^7 G^7 E^7 Am^7 D^7

G D C G G#dim Am D Dm G

2

lower fourth root neighbors

38 G^7 C^9 G^7 G^7

42 C^7 $C^{\#07}$ G^7 $E^7(b9)$

46 Am^7 D^7 G^7 E^7 Am^7 D^7

lower and upper stepwise root neighbors

50 G^7 C^9 G^7 G^7

54 C^7 $C^{\#07}$ G^7 $E^7(b9)$

58 Am^7 D^7 G^7 E^7 Am^7 D^7

lower and upper fourth root neighbors

62 G^7 C^9 G^7 G^7

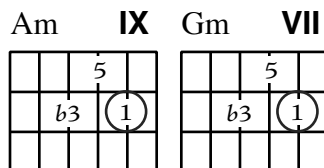
66 C^7 $C^{\#07}$ G^7 $E^7(b9)$

70 Am^7 D^7 G^7 E^7 Am^7 D^7 G^7

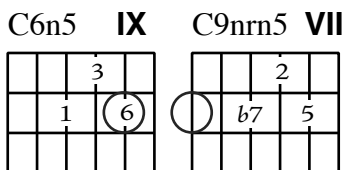
SIX NINE: VI_m-V_m TRIADS WITH PEDAL POINT ONE

Six Nine: VI_m-V_m over One

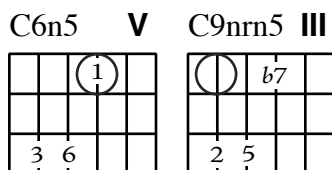
This becomes a sixth to ninth chord change, since VI_m equals I6 no fifth and V_m equals I9 no root, no third. During a C7 chord, the two chord progression C6_n5 to C9_{nrn}3 can be represented by playing Am-Gm.



C6_n5 and C9_{nrn}3 are respectively synonyms for Am and Gm.



Don't voice the note that is the ninth of the I9_{nrn}3 too low. The voicing for the second chord in the example below doesn't do a good job of sounding a ninth chord.



Close-Voiced Six Nine Blues in G

Sheet music for "Close-Voiced Six Nine Blues in G" in 4/4 time. The music is written for guitar, showing a treble clef staff with a key signature of one sharp (F#) and a bass clef staff with a key signature of one sharp (F#). The music is divided into three systems, each with a treble staff and a bass staff. The bass staff includes a TAB (Tuning) line and a B (Bass) line. The chords are indicated above the treble staff.

System 1:

- Chords: G⁷, G⁶, G⁹, G⁶, G⁹, G⁶, G⁹, G⁶, G⁹, G⁷, G⁶, G⁹, G⁶, G⁹, G⁶, G⁹, G⁶, G⁹.
- TAB: 10 10, 7 9, 5 7, 8 9, 6 7, 9 7, 10 8, 12 10, 10 10, 7 9, 5 7, 8 9, 6 7, 9 7, 10 8, 12 10.

System 2:

- Chords: C⁷, C⁶, C⁹, C⁶, C⁹, C⁶, C⁹, C⁶, C⁹, G⁷, G⁶, G⁹, G⁶, G⁹, G⁶, G⁹, G⁶, G⁹.
- TAB: 8 8, 5 5, 3 3, 5 7, 3 5, 5 7, 3 5, 7 5, 8 6, 10 10, 7 9, 5 7, 8 9, 6 7, 9 7, 10 8, 12 10.

System 3:

- Chords: D⁷, D⁶, D⁹, D⁶, D⁹, D⁶, D⁹, D⁶, D⁹, G⁷, G⁶, G⁹, G⁶, G⁹, G⁶, G⁹, G⁶, G⁹.
- TAB: 10 10, 10 12, 8 11, 12 10, 12 11, 10 12, 10 12, 11 10, 12 10, 14 12, 12 14, 12 14, 7 8, 5 7, 8 9, 6 7, 9 7, 10 8, 12 10.

Six Nine Blues #1 in G

Diagram 1: G6 (III) and G9 (I) fretboard diagrams. G6 (III) shows notes 1, 2, 4, 3, 6, 1. G9 (I) shows notes 1, 2, 4, 2, 5, b7.

Diagram 2: G6 (III) and G9 (I) fretboard diagrams. G6 (III) shows notes 1, 2, 4, 3, 6, 1. G9 (I) shows notes 1, 2, 4, 2, 5, b7.

Musical notation for the first system (4/4 time):

Staff 1 (Melody): G6 (III) | G9 (I) | G6 (III) | G9 (I) |

Staff 2 (Bass): S | S | S | S |

Staff 3 (T): 4 | 4 | 4 | 4 |

Staff 4 (A): 4 | 4 | 4 | 4 |

Staff 5 (B): 3 5 7 5 7 | 3 5 7 5 7 | 3 5 7 5 7 | 3 5 7 5 7 |

Diagram 3: C6 (V) and C9 (III) fretboard diagrams. C6 (V) shows notes 1, 3, 6, 1, 3. C9 (III) shows notes 1, 3, 5, b7, 9.

Diagram 4: G6 (III) and G9 (I) fretboard diagrams. G6 (III) shows notes 1, 2, 4, 3, 6, 1. G9 (I) shows notes 1, 2, 4, 2, 5, b7.

Musical notation for the second system (4/4 time):

Staff 1 (Melody): C6 (V) | C9 (III) | G6 (III) | G9 (I) |

Staff 2 (Bass): S | S | S | S |

Staff 3 (T): 4 | 4 | 4 | 4 |

Staff 4 (A): 4 | 4 | 4 | 4 |

Staff 5 (B): 3 5 7 5 7 | 3 5 7 5 7 | 3 5 7 5 7 | 3 5 7 5 7 |

Diagram 5: C6 (V) and C9 (III) fretboard diagrams. C6 (V) shows notes 1, 3, 6, 1, 3. C9 (III) shows notes 1, 3, 5, b7, 9.

Diagram 6: D6 (III) and D9 (I) fretboard diagrams. D6 (III) shows notes 1, 2, 3, 3, 6, 1. D9 (I) shows notes 1, 2, 3, 9, 5, b7.

Musical notation for the third system (4/4 time):

Staff 1 (Melody): D6 (III) | C9 (III) | G6 (III) | D9 (I) |

Staff 2 (Bass): S | S | S | S |

Staff 3 (T): 4 | 4 | 4 | 4 |

Staff 4 (A): 4 | 4 | 4 | 4 |

Staff 5 (B): 5 7 9 7 9 | 3 5 7 5 7 | 3 5 7 5 7 | 3 5 7 5 7 |

Six Nine Blues #2 in G

G6 IV G9 II

	2	
3	4	

1 3 6

	2	
3	4	

b7 2 5

T 4/4

A 4/4

B 4/4

C6 III C9 III C6 III C9 III G6 IV G6 IV

	3	3	3		

1 3 6

	1	1	1		

b7 2 5

	3	3	3		

1 3 6

	1	1	1		

b7 2 5

	2	
3	4	

1 3 6

	2	
3	4	

1 3 6

T 4/4

A 4/4

B 4/4

D6 III Eb9 II D9 I G6 IV G9 II

		1
2	3	

3 1 6

		1
2	3	

2 b7 5

		1
2	3	

2 b7 5

	2	
3	4	

1 3 6

	2	
3	4	

b7 2 5

	2	
3	4	

1 3 6

T 4/4

A 4/4

B 4/4

2. G6 IV

	2	
3	4	

1 3 6

T 4/4

A 4/4

B 4/4

Six Nine Blues #3 in G

Swing Eighths

Chord diagrams and fingering for the first system:

- G6 VII:

			1
		2	
		3	

 6 1 3
- G9 V:

			1
		2	
		3	

 5 b7 2
- G6 VII:

			1
		2	
		3	

 6 1 3
- G9 V:

			1
		2	
		3	

 5 b7 2

Chord diagrams and fingering for the second system:

- C6 VIII:

			1
		2	
		3	

 3 6 1
- C9 VI:

			1
		2	
		3	

 2 5 b7
- G6 VII:

			1
		2	
		3	

 6 1 3
- G9 V:

			1
		2	
		3	

 5 b7 2

Chord diagrams and fingering for the third system:

- D6 X:

			1
		2	
		3	

 3 6 1
- C9 VIII:

			1
		2	
		3	

 b7 3 5 2
- F6 V:

			1
		2	
		3	

 6 1 3
- F#6 VI:

			1
		2	
		3	

 6 1 3
- G6 VII:

			1
		2	
		3	

 6 1 3
- D7#9 IV:

			1
		2	3
		4	

 1 3 b7 #2

The musical score is written in 4/4 time with a key signature of one sharp (F#). The melody is in the treble clef, and the bass line is in the bass clef. The score is divided into three systems, each with a treble and bass staff. The first system includes a 'Swing Eighths' tempo marking. The second system includes a 'Swing Eighths' tempo marking. The third system includes a 'Swing Eighths' tempo marking. The score includes various chords and fingering, as detailed in the chord diagrams above.

Six Nine Blues #4 in G

[illegible]

Six Nine Blues #5 in G

Swing Eighths

First System:

Chords: F X, G6 IX, G9 VII, F X, G6 IX, G9 VII

Diagram 1 (F X):

1	1
3	

 3 5 1

Diagram 2 (G6 IX):

1	1
2	

 1 3 6

Diagram 3 (G9 VII):

1	1
2	
b7 2 5	

Diagram 4 (F X):

1	1
3	

 3 5 1

Diagram 5 (G6 IX):

1	1
2	

 1 3 6

Diagram 6 (G9 VII):

1	1
2	
b7 2 5	

Second System:

Chords: Bb X, C6 IX, C9 VII, F X, G6 IX, G9 VII

Diagram 7 (Bb X):

1	
	2
3	

 3 5 1

Diagram 8 (C6 IX):

1	
2	3

 1 3 6

Diagram 9 (C9 VII):

1	
2	3
b7 2 5	

Diagram 10 (F X):

1	1
3	

 3 5 1

Diagram 11 (G6 IX):

1	1
2	

 1 3 6

Diagram 12 (G9 VII):

1	1
2	
b7 2 5	

Third System:

Chords: D6, C7 X, G6, D7 IX

Diagram 13 (C7 X):

1	
	2
3	

 1 5 b7

Diagram 14 (D7 IX):

1	
2	
3 b7	

Fourth System:

Chords: F X, G6 IX

Diagram 15 (F X):

1	1
3	

 3 5 1

Diagram 16 (G6 IX):

1	1
2	

 1 3 6

SCALE-TONE TRIADS OF FOUR HEPTATONIC SCALES

Major Scale Tone Triads on Strings 3-2-1

stepwise root position (roots on the third string)

I major 1-3-5 C III	II minor 2-4-6 Dm V	III minor 3-5-7 Em VII	IV major 4-6-1 F VIII	V major 5-7-2 G X	VI minor 6-1-3 Am XII	VII diminished 7-2-4 B dim. XIII or I	I major 1-3-5 C III
1 3 5	1 b3 5	1 b3 5	1 3 5	1 3 5	1 b3 5	1 b3 b5	1 3 5

stepwise first inversion (third in the bass, root on the first string)

I major 3-5-1 C VIII	II minor 4-6-2 Dm X	III minor 5-7-3 Em XII	IV major 6-1-4 F I	V major 7-2-5 G III	VI minor 1-3-6 Am V	VII diminished 2-4-7 B dim. VI	I major 3-5-1 C VIII
3 5 1	b3 5 1	b3 5 1	3 5 1	3 5 1	b3 5 1	b3 b5 1	3 5 1

stepwise second inversion (fifth in the bass, root on the second string)

I major 5-1-3 C XII	II minor 6-2-4 Dm I	III minor 7-3-5 Em III	IV major 1-4-6 F V	V major 2-5-7 G VII	VI minor 3-6-1 Am VIII	VII diminished 4-7-2 B dim. X	I major 5-1-3 C XII
5 1 3	5 1 b3	5 1 b3	5 1 3	5 1 3	5 1 b3	b5 1 b3	5 1 3

major scale tone triad roots ascending in perfect fourths (7-3-6-2-5-1-4), strings 3-2-1, 21-chord cycle

VII diminished 7-2-4 B dim. XIII or I 	III minor 7-3-5 Em XV or III 	VI minor 1-3-6 Am V 	II minor 2-4-6 Dm V 	V major 2-5-7 G VII 	I major 3-5-1 C VIII 	IV major 4-6-1 F VIII
VII diminished 4-7-2 B dim. X 	III minor 5-7-3 Em XII 	VI minor 6-1-3 Am XII 	II minor 6-2-4 Dm XIII or I 	V major 7-2-5 G III 	I major 1-3-5 C III 	IV major 1-4-6 F V
VII diminished 2-4-7 B dim. VI 	III minor 3-5-7 Em VII 	VI minor 3-6-1 Am VIII 	II minor 4-6-2 Dm X 	V major 5-7-2 G X 	I major 5-1-3 C XII 	IV major 6-1-4 F XIII or I

quartal triads on strings 3-2-1

1-4-7	2-5-1	3-6-2	4-7-3	5-1-4	6-2-5	7-3-6	1-4-7
Csus4 I	Dsus4 II	Esus4 IV	Fsus#4 V	Gsus4 VII	Asus4 IX	Bdim.sus4 X	Csus4 XII

Major Scale Tone Triads on Strings 4-3-2

stepwise root position triads (roots on the fourth string)

I major 1-3-5 C VIII	II minor 2-4-6 Dm X	III minor 3-5-7 Em XII	IV major 4-6-1 F I	V major 5-7-2- G III	VI minor 6-1-3 Am V	VII diminished 7-2-4 B dim. VI	I major 1-3-5 C VIII

stepwise first inversion triads (third in the bass, root on the second string)

I major 3-5-1 C I	II minor 4-6-2 Dm II	III minor 5-7-3 Em IV	IV major 6-1-4 F V	V major 7-2-5 G VII	VI minor 1-3-6 Am IX	VII diminished 2-4-7 B dim. X	I major 3-5-1 C XII

stepwise second inversion triads (fifth in the bass, root on the third string)

I major 5-1-3 C V	II minor 6-2-4 Dm VI	III minor 7-3-5 Em VIII	IV major 1-4-6 F X	V major 2-5-7 G III	VI minor 3-6-1 Am I	VII diminished 4-7-2 B dim. III	I major 5-1-3 C V

major scale tone triad roots ascending in perfect fourths (7-3-6-2-5-1-4), strings 4-3-2, 21-chord cycle

VII diminished 7-2-4 B dim. VI	III minor 7-3-5 Em VIII	VI minor 1-3-6 Am IX	II minor 2-4-6 Dm X	V major 2-5-7 G III	I major 3-5-1 C XII	IV major 4-6-1 F XIII or I
1 b3 b5	5 1 b3	b3 5 1	1 b3 5	5 1 3	3 5 1	1 3 5
VII diminished 4-7-2 B dim. III	III minor 5-7-3 Em IV	VI minor 6-1-3 Am V	II minor 6-2-4 Dm VI	V major 7-2-5 G VII	I major 1-3-5 C VIII	IV major 1-4-6 F X
b5 1 b3	b3 5 1	1 b3 5	5 1 b3	3 5 1	1 3 5	5 1 3
VII diminished 2-4-7 B dim. X	III minor 3-5-7 Em XII	VI minor 3-6-1 Am XIII or I	II minor 4-6-2 Dm II	V major 5-7-2- G III	I major 5-1-3 C V	IV major 6-1-4 F V
b3 b5 1	1 b3 5	5 1 b3	b3 5 1	1 3 5	5 1 3	3 5 1

quartal triads on strings 4-3-2

1-4-7	2-5-1	3-6-2	4-7-3	5-1-4	6-2-5	7-3-6	1-4-7
Csus4 V	Dsus4 VII	Esus4 IX	Fsus#4 X	Gsus4 XII	Asus4 II	Bdim.sus4 III	Csus4 V
5 1 4	5 1 4	5 1 4	5 1 #4	5 1 4	5 1 4	b5 1 4	5 1 4

Major Scale Tone Triads on Strings 5-4-3

stepwise root position (roots on the fifth string)

I major 1-3-5 C XII	II minor 2-4-6 Dm II	III minor 3-5-7 Em IV	IV major 4-6-1 F V	V major 5-7-2 G VII	VI minor 6-1-3 Am IX	VII diminished 7-2-4 B dim. X	I major 1-3-5 C XII

stepwise first inversion (third in the bass, root on the third string)

I major 3-5-1 C V	II minor 4-6-2 Dm VII	III minor 5-7-3 Em IX	IV major 6-1-4 F X	V major 7-2-5 G XII	VI minor 1-3-6 Am II	VII diminished 2-4-7 B dim. III	I major 3-5-1 C V

stepwise second inversion (fifth in the bass, root on the fourth string)

I major 5-1-3 C VIII	II minor 6-2-4 Dm X	III minor 7-3-5 Em XII	IV major 1-4-6 F I	V major 2-5-7 G III	VI minor 3-6-1 Am V	VII diminished 4-7-2 B dim. VI	I major 5-1-3 C VIII

major scale tone triad roots ascending in perfect fourths (7-3-6-2-5-1-4), strings 5-4-3, 21-chord cycle

VII diminished 7-2-4 B dim. X 	III minor 7-3-5 Em XII 	VI minor 1-3-6 Am XIV or II 	II minor 2-4-6 Dm II 	V major 2-5-7 G III 	I major 3-5-1 C V 	IV major 4-6-1 F V
VII diminished 4-7-2 B dim. VI 	III minor 5-7-3 Em IX 	VI minor 6-1-3 Am IX 	II minor 6-2-4 Dm X 	V major 7-2-5 G XII 	I major 1-3-5 C XII 	IV major 1-4-6 F XIII or I
VII diminished 2-4-7 B dim. III 	III minor 3-5-7 Em IV 	VI minor 3-6-1 Am V 	II minor 4-6-2 Dm VII 	V major 5-7-2 G VII 	I major 5-1-3 C VIII 	IV major 6-1-4 F X

quartal triads on strings 5-4-3

1-4-7	2-5-1	3-6-2	4-7-3	5-1-4	6-2-5	7-3-6	1-4-7
Csus4 X	Dsus4 XII	Esus4 II	Fsus#4 III	Gsus4 V	Asus4 VII	Bdim.sus4 VIII	Csus4 V

Major Scale Tone Triads on Strings 6-5-4

on strings 6-5-4, the fingerings would be relatively the same as on strings 5-4-3

Major Sharp Five Scale Tone Triads on Strings 3-2-1

(put the tone center one VIm for harmonic minor)

stepwise root position (roots on the third string)

I augmented 1-3-#5 C aug. IV	II minor 2-4-6 Dm V	III major 3-#5-7 E VI	IV major 4-6-1 F VIII	#V diminished #5-7-2 G# dim. X	VI minor 6-1-3 Am XII	VII diminished 7-2-4 B dim. XIII or I	I augmented 1-3-#5 C aug. IV

stepwise first inversion (third in the bass, root on the first string)

I augmented 3-#5-1 C aug. VIII	II minor 4-6-2 Dm X	III major #5-7-3 E XII	IV major 6-1-4 F XIII or I	#V diminished 7-2-#5 G# dim. III	VI minor 1-3-6 Am V	VII diminished 2-4-7 B dim. VI	I augmented 3-#5-1 C aug. VIII

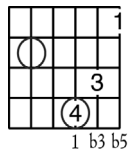
stepwise second inversion (fifth in the bass, root on the second string)

I augmented #5-1-3 C aug. XII	II major 6-2-4 Dm XIII or I	III major 7-3-#5 E IV	IV major 1-4-6 F V	#V diminished 2-#5-7 G# dim. VII	VI minor 3-6-1 Am VIII	VII diminished 4-7-2 B dim. X	I augmented #5-1-3 C aug. XII

major sharp five scale tone triad roots ascending in perfect fourths (7-3-6-2-#5-1-4), strings 3-2-1, 21-chord cycle

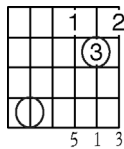
VII diminished
7-2-4

B dim. XIII ot I



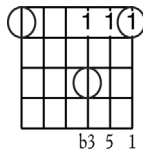
III major
73#5

E IV



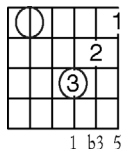
VI minor
1-3-6

Am V



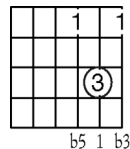
II minor
2-4-6

Dm V



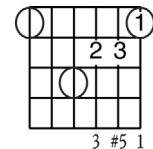
#V diminished
2#57

G# dim. VII



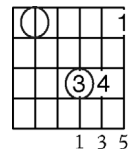
I augmented
3-#5-1

C aug. VIII



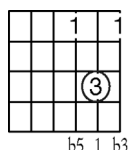
IV major
4-6-1

F VIII



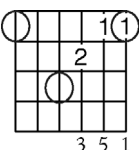
VII diminished
472

B dim. X



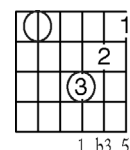
III major
#5-7-3

E XII



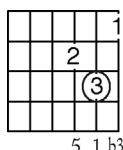
VI minor
6-1-3

Am XII



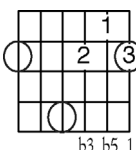
II major
6-2-4

Dm XIII or I



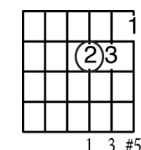
#V diminished
7-2-#5

G# dim. III



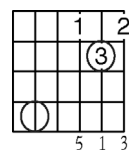
I augmented
1-3-#5

C aug. IV



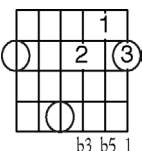
IV major
1-4-6

F V



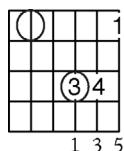
VII diminished
2-4-7

B dim. VI



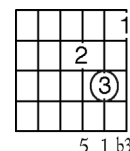
III major
3-#5-7

E VI



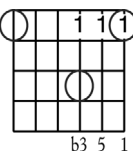
VI minor
3-6-1

Am VIII



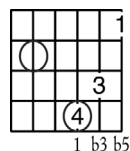
II minor
4-6-2

Dm X



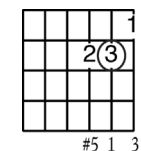
#V diminished
#5-7-2

G# dim. X



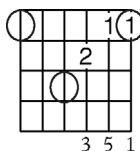
I augmented
#5-1-3

C aug. XII



IV major
6-1-4

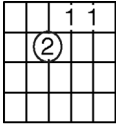
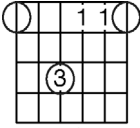
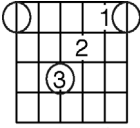
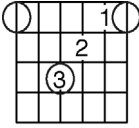
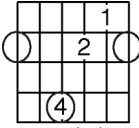
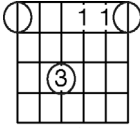
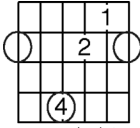
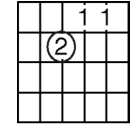
F XIII or I



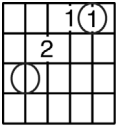
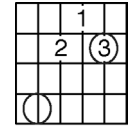
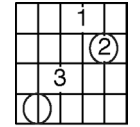
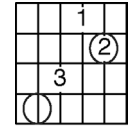
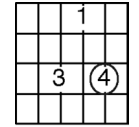
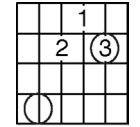
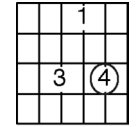
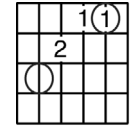
Major Sharp Five Scale Tone Triads on Strings 4-3-2

(put the tone center on VI^m for harmonic minor)

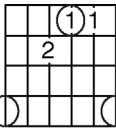
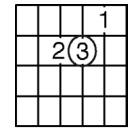
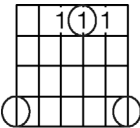
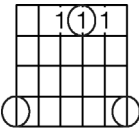
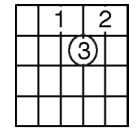
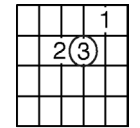
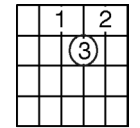
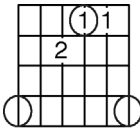
stepwise root position (roots on the fourth string)

I augmented 1-3-#5 C aug. IX	II minor 2-4-6 D ^m X	III major 3-#5-7 E XII	IV major 4-6-1 F XIII or I	#V diminished #5-7-2 G# dim. III	VI minor 6-1-3 A ^m V	VII diminished 7-2-4 B dim. VI	I augmented 1-3-#5 C aug. IX
							
1 3 #5	1 b3 5	1 3 5	1 3 5	1 b3 b5	1 b3 5	1 b3 b5	1 3 #5

stepwise first inversion (third in the bass, root on the second string)

I augmented 3-#5-1 C aug. I	II minor 4-6-2 D ^m II	III major #5-7-3 E IV	IV major 6-1-4 F V	#V diminished 7-2-#5 G# dim. VII	VI minor 1-3-6 A ^m IX	VII diminished 2-4-7 B dim. X	I augmented 3-#5-1 C aug. XIII or I
							
3 #5 1	b3 5 1	3 5 1	3 5 1	b3 b5 1	b3 5 1	b3 b5 1	3 #5 1

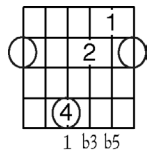
stepwise second inversion (fifth in the bass, root on the third string)

I augmented #5-1-3 C aug. V	II minor 6-2-4 D ^m VI	III major 7-3-#5 E IX	IV major 1-4-6 F X	#V diminished 2-#5-7 G# dim. XII	VI minor 3-6-1 A ^m XIII or I	VII diminished 4-7-2 B dim. III	I augmented #5-1-3 C aug. V
							
#5 1 3	5 1 b3	5 1 3	5 1 3	b5 1 b3	5 1 b3	b5 1 b3	#5 1 3

major scale tonetriad roots ascending in perfect fourths (7-3-6-2-#5-1-4), strings 4-3-2, 21-chord cycle

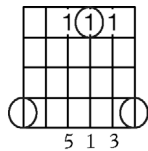
VII diminished
7-2-4

B dim. VI



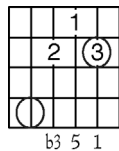
III major
7-3-#5

E IX



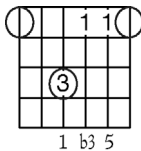
VI minor
1-3-6

Am IX



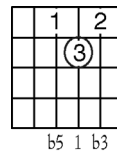
II minor
2-4-6

Dm X



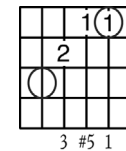
#V diminished
2-#5-7

G# dim. XII



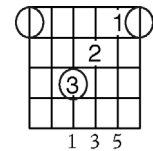
I augmented
3-#5-1

C aug. I



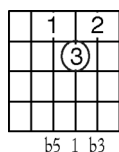
IV major
4-6-1

F XIII or I



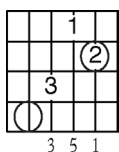
VII diminished
4-7-2

B dim. III



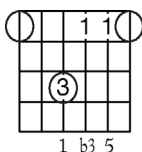
III major
#5-7-3

E IV



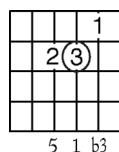
VI minor
6-1-3

Am V



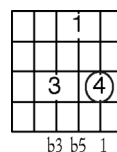
II minor
6-2-4

Dm VI



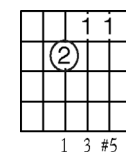
#V diminished
7-2-#5

G# dim. VII



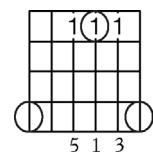
I augmented
1-3-#5

C aug. IX



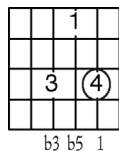
IV major
1-4-6

F X



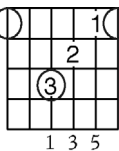
VII diminished
2-4-7

Bdim. X



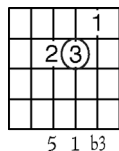
III major
3-#5-7

E XII



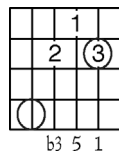
VI minor
3-6-1

Am XIII or I



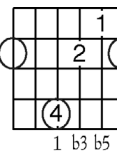
II minor
4-6-2

Dm II



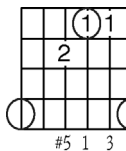
#V diminished
#5-7-2

G# dim. III



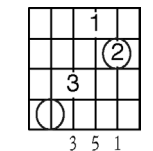
I augmented
#5-1-3

C aug. V



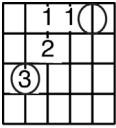
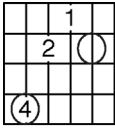
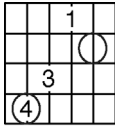
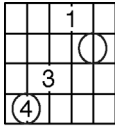
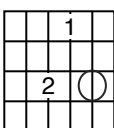
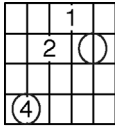
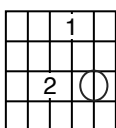
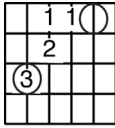
IV major
6-1-4

F V

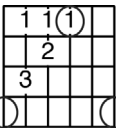
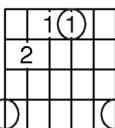
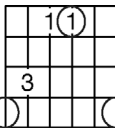
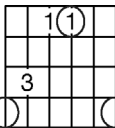
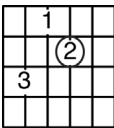
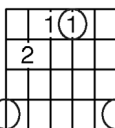
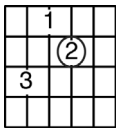
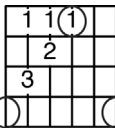


Major Sharp Five Scale Tone Triads on Strings 5-4-3

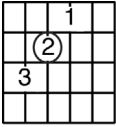
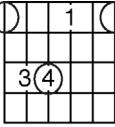
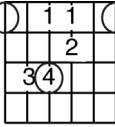
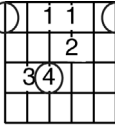
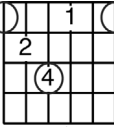
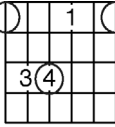
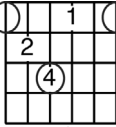
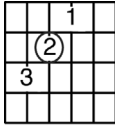
stepwise root position (roots on the fifth string)

I augmented 1-3-#5 C aug. I	II minor 2-4-6 Dm II	III major 3-#5-7 E IV	IV major 4-6-1 F V	#V diminished #5-7-2 G# dim. VII	VI minor 6-1-3 Am IX	VII diminished 7-2-4 B dim. X	I augmented 1-3-#5 C aug. XIII or I
							
1 3 #5	1 b3 5	1 3 5	1 3 5	1 b3 b5	1 b3 5	1 b3 b5	1 3 #5

stepwise first inversion (third in the bass, root on the third string)

I augmented 3-#5-1 C aug. V	II minor 4-6-2 Dm VII	III major #5-7-3 E IX	IV major 6-1-4 F X	#V diminished 7-2-#5 G# dim. XII	VI minor 1-3-6 Am XIV or II	VII diminished 2-4-7 B dim. III	I augmented 3-#5-1 C aug. V
							
3 #5 1	b3 5 1	3 5 1	3 5 1	b3 b5 1	b3 5 1	b3 b5 1	3 #5 1

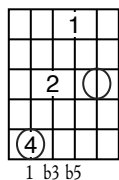
stepwise second inversion (fifth in the bass, root on the fourth string)

I augmented #5-1-3 C aug. IX	II minor 6-2-4 Dm X	III major 7-3-#5 E XII	IV major 1-4-6 F XIII or I	#V diminished 2-#5-7 G# dim. IV	VI minor 3-6-1 Am V	VII diminished 4-7-2 B dim. VII	I augmented #5-1-3 C aug. IX
							
#5 1 3	5 1 b3	5 1 3	5 1 3	b5 1 b3	5 1 b3	b5 1 b3	#5 1 3

major sharp five scale tone triad roots ascending in perfect fourths (7-3-6-2-#5-1-4), strings 5-4-3, 21-chord cycle

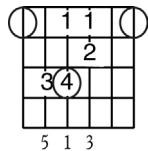
VII diminished
7-2-4

B dim. X



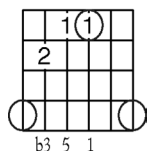
III major
7-3-#5

E XII



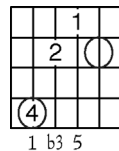
VI minor
1-3-6

Am XIV or II



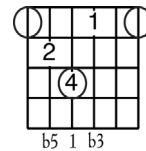
II minor
2-4-6

Dm II



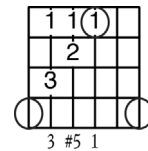
#V diminished
2-#5-7

G# dim. IV



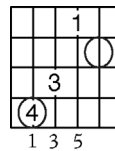
I augmented
3-#5-1

C aug. V



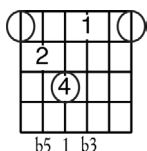
IV major
4-6-1

F V



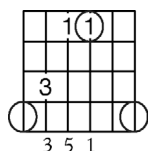
VII diminished
4-7-2

B dim. VII



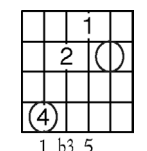
III major
#5-7-3

E IX



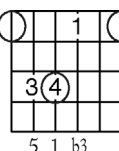
VI minor
6-1-3

Am IX



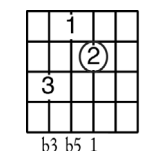
II minor
6-2-4

Dm X



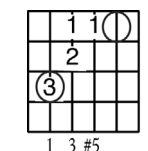
#V diminished
7-2-#5

G# dim. XII



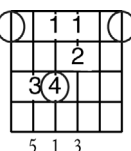
I augmented
1-3-#5

C aug. I



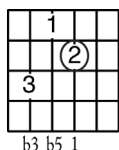
IV major
1-4-6

F XIII or I



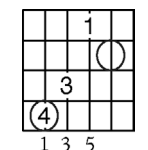
VII diminished
2-4-7

B dim. III



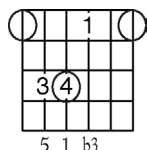
III major
3-#5-7

E IV



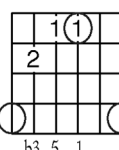
VI minor
3-6-1

Am V



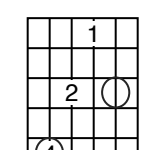
II minor
4-6-2

Dm VII



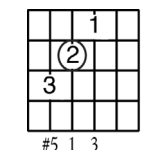
#V diminished
#5-7-2

G# dim. VII



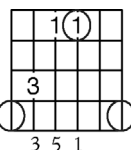
I augmented
#5-1-3

C aug. IX



IV major
6-1-4

F X



Major Sharp Five Scale Tone Triads on Strings 6-5-4

on strings 6-5-4, the fingerings would be relatively the same as on strings 5-4-3

Melodic Minor Scale Tone Triads on Strings 3-2-1

stepwise root position (roots on the third string)

I minor 1-b3-5 Cm III	II minor 2-4-6 Dm V	bIII augmented b3-5-7 Eb aug. VII	IV major 4-6-1 F VIII	V major 5-7-2 G X	VI diminished 6-1-b3 A dim. XI	VII diminished 7-2-4 B dim. XIII or I	I minor 1-b3-5 Cm III
1 b3 5	1 b3 5	1 3 #5	1 3 5	1 3 5	1 b3 b5	1 b3 b5	1 b3 5

stepwise first inversion (third in the bass, root on the first string)

I minor b3-5-1 Cm VIII	II minor 4-6-2 Dm X	bIII augmented 5-7-b3 Eb aug. XI	IV major 6-1-4 F XIII or I	V major 7-2-5 G III	VI diminished 1-b3-6 A dim. IV	VII diminished 2-4-7 B dim. VI	I minor b3-5-1 Cm VIII
b3 5 1	b3 5 1	3 #5 1	3 5 1	3 5 1	b3 b5 1	b3 b5 1	b3 5 1

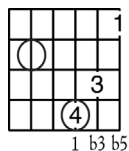
stepwise second inversion (fifth in the bass, root on the second string)

I minor 5-1-b3 Cm XI	II minor 6-2-4 Dm XIII or I	bIII augmented 7-b3-5 Eb aug. III	IV major 1-4-6 F V	V major 2-5-7 G VII	VI diminished b3-6-1 A dim. VIII	VII diminished 4-7-2 B dim. X	I minor 5-1-b3 Cm XI
5 1 b3	5 1 b3	#5 1 3	5 1 3	5 1 3	b5 1 b3	b5 1 b3	5 1 b3

major scale tone triad roots ascending in perfect fourths (7-b3-6-2-5-1-4), strings 3-2-1, 21-chord cycle

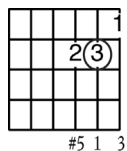
VII diminished
7-2-4

B dim. XIII or I



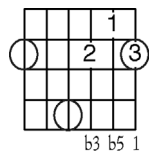
bIII augmented
7-b3-5

Eb aug. III



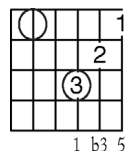
VI diminished
1-b3-6

A dim. IV



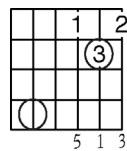
II minor
2-4-6

Dm V



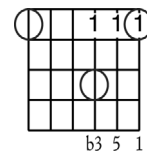
V major
2-5-7

G VII



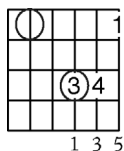
I minor
b3-5-1

Cm VIII



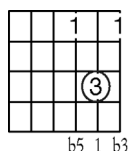
IV major
4-6-1

F VIII



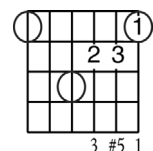
VII diminished
4-7-2

B dim. X



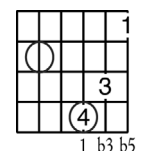
bIII augmented
5-7-b3

Eb aug. XI



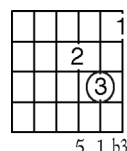
VI diminished
6-1-b3

A dim. XI



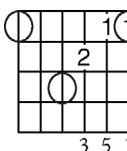
II minor
6-2-4

Dm XIII or I



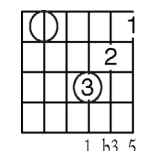
V major
7-2-5

G III



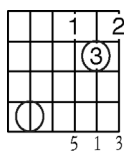
I minor
1-b3-5

Cm III



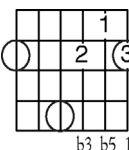
IV major
1-4-6

F V



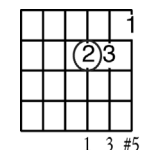
VII diminished
2-4-7

B dim. VI



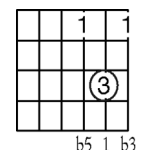
bIII augmented
b3-5-7

Eb aug. VII



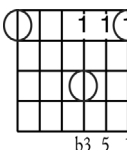
VI diminished
b3-6-1

A dim. VIII



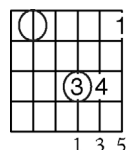
II minor
4-6-2

Dm X



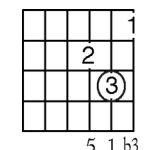
V major
5-7-2

G X



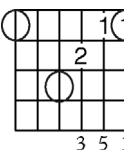
I minor
5-1-b3

Cm XI



IV major
6-1-4

F XIII or I



Melodic Minor Scale Tone Triads on Strings 4-3-2

stepwise root position (roots on the fourth string)

I minor 1-b3-5 Cm VIII	II minor 2-4-6 Dm X	bIII augmented b3-5-7 Eb aug. XII	IV major 4-6-1 F XIII or I	V major 5-7-2 G III	VI diminished 6-1-b3 A dim. IV	VII diminished 7-2-4 B dim. VI	I minor 1-b3-5 Cm VIII
1 b3 5	1 b3 5	1 3 #5	1 3 5	1 3 5	1 b3 b5	1 b3 b5	1 b3 5

stepwise first inversion (third in the bass, root on the second string)

I minor b3-5-1 Cm XII	II minor 4-6-2 Dm XIV or II	bIII augmented 5-7-b3 Eb aug. IV	IV major 6-1-4 F V	V major 7-2-5 G VI	VI diminished 1-b3-6 A dim. VIII	VII diminished 2-4-7 B dim. X	I minor b3-5-1 Cm XII
b3 5 1	b3 5 1	3 #5 1	3 5 1	3 5 1	b3 b5 1	b3 b5 1	b3 5 1

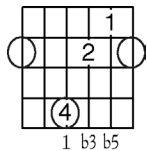
stepwise second inversion (fifth in the bass, root on the third string)

I minor 5-1-b3 Cm IV	II minor 6-2-4 Dm VI	bIII augmented 7-b3-5 Eb aug. VIII	IV major 1-4-6 F X	V major 2-5-7 G XII	VI diminished b3-6-1 A dim. XIII or I	VII diminished 4-7-2 B dim. III	I minor 5-1-b3 Cm IV
5 1 b3	5 1 b3	#5 1 3	5 1 3	5 1 3	b5 1 b3	b5 1 b3	5 1 b3

major scale tone triad roots ascending in perfect fourths (7-b3-6-2-5-1-4), strings 4-3-2, 21-chord cycle

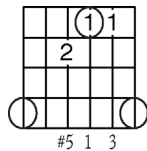
VII diminished
7-2-4

B dim. VI



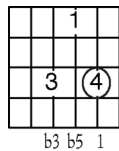
bIII augmented
7-b3-5

Eb aug. VIII



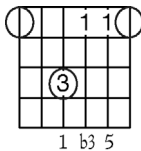
VI diminished
1-b3-6

A dim. VIII



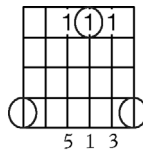
II minor
2-4-6

Dm X



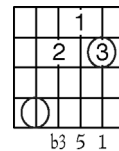
V major
2-5-7

G XII



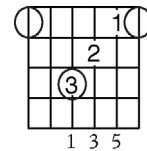
I minor
b3-5-1

Cm XII



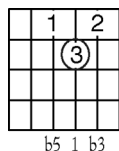
IV major
4-6-1

F XIII or I



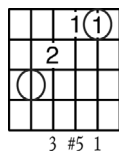
VII diminished
4-7-2

B dim. III



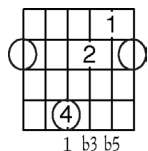
bIII augmented
5-7-b3

Eb aug. IV



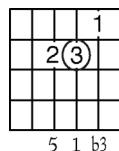
VI diminished
6-1-b3

A dim. IV



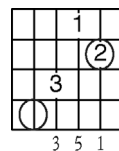
II minor
6-2-4

Dm VI



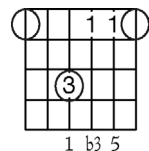
V major
7-2-5

G VI



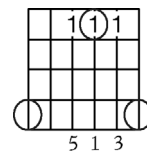
I minor
1-b3-5

Cm VIII



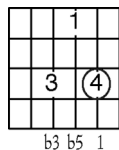
IV major
1-4-6

F X



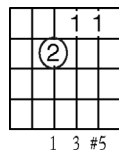
VII diminished
2-4-7

B dim. X



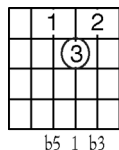
bIII augmented
b3-5-7

Eb aug. XII



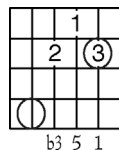
VI diminished
b3-6-1

A dim. XIII or I



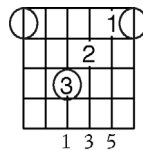
II minor
4-6-2

Dm XIV or II



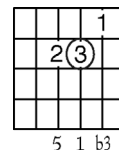
V major
5-7-2

G III



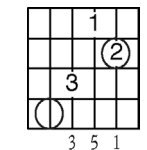
I minor
5-1-b3

Cm IV



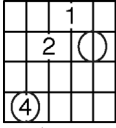
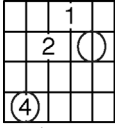
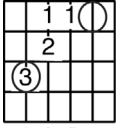
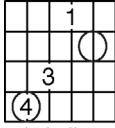
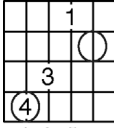
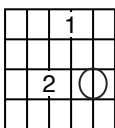
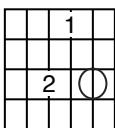
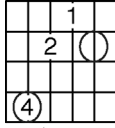
IV major
6-1-4

F V

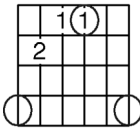
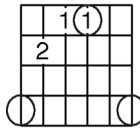
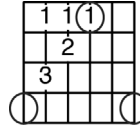
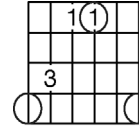
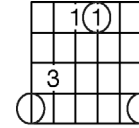
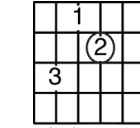
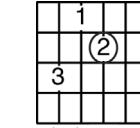
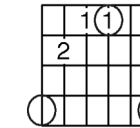


Melodic Minor Scale Tone Triads on Strings 5-4-3

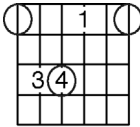
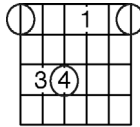
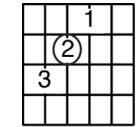
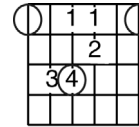
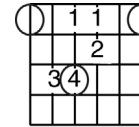
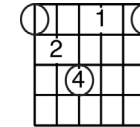
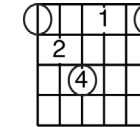
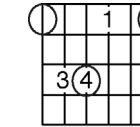
stepwise root position (roots on the fifth string)

I minor 1-b3-5 Cm XII	II minor 2-4-6 Dm XIV or II	bIII augmented b3-5-7 Eb aug. IV	IV major 4-6-1 F V	V major 5-7-2 G VII	VI diminished 6-1-b3 A dim. VIII	VII diminished 7-2-4 B dim. X	I minor 1-b3-5 Cm XII
							
1 b3 5	1 b3 5	1 3 #5	1 3 5	1 3 5	1 b3 b5	1 b3 b5	1 b3 5

stepwise first inversion (third in the bass, root on the third string)

I minor b3-5-1 Cm V	II minor 4-6-2 Dm VII	bIII augmented 5-7-b3 Eb aug. VIII	IV major 6-1-4 F X	V major 7-2-5 G XII	VI diminished 1-b3-6 A dim. XIII or I	VII diminished 2-4-7 B dim. III	I minor b3-5-1 Cm V
							
b3 5 1	b3 5 1	3 #5 1	3 5 1	3 5 1	b3 b5 1	b3 b5 1	b3 5 1

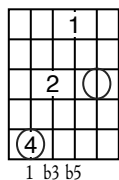
stepwise second inversion (fifth in the bass, root on the fourth string)

I minor 5-1-b3 Cm VIII	II minor 6-2-4 Dm D	bIII augmented 7-b3-5 Eb aug. XII	IV major 1-4-6 F XIII or I	V major 2-5-7 G III	VI diminished b3-6-1 A dim. V	VII diminished 4-7-2 B dim. VII	I minor 5-1-b3 Cm VIII
							
5 1 b3	5 1 b3	#5 1 3	5 1 3	5 1 3	b5 1 b3	b5 1 b3	5 1 b3

major scale tone triad roots ascending in perfect fourths (7-b3-6-2-5-1-4), strings 5-4-3, 21-chord cycle

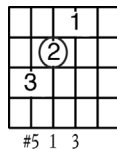
VII diminished
7-2-4

B dim. X



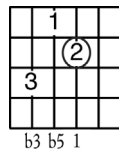
bIII augmented
7-b3-5

Eb aug. XII



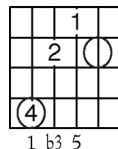
VI diminished
1-b3-6

A dim. XIII or I



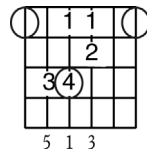
II minor
2-4-6

Dm XIV or II



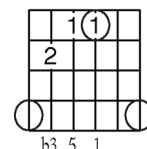
V major
2-5-7

G III



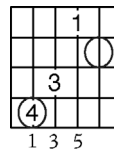
I minor
b3-5-1

Cm V



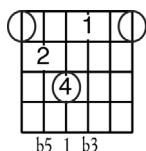
IV major
4-6-1

F V



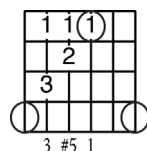
VII diminished
4-7-2

B dim. VII



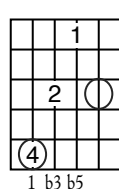
bIII augmented
5-7-b3

Eb aug. VIII



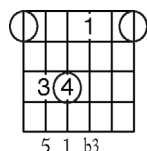
VI diminished
6-1-b3

A dim. VIII



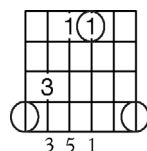
II minor
6-2-4

Dm D



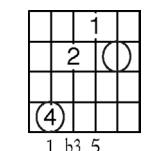
V major
7-2-5

G XII



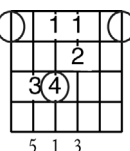
I minor
1-b3-5

Cm XII



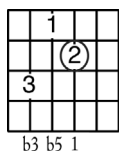
IV major
1-4-6

F XIII or I



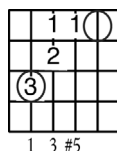
VII diminished
2-4-7

B dim. III



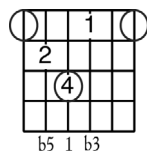
bIII augmented
b3-5-7

Eb aug. IV



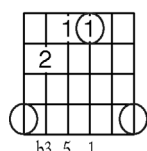
VI diminished
b3-6-1

A dim. V



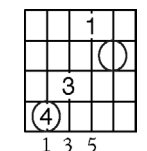
II minor
4-6-2

Dm VII



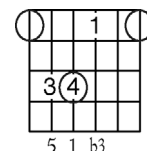
V major
5-7-2

G VII



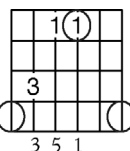
I minor
5-1-b3

Cm VIII



IV major
6-1-4

F X

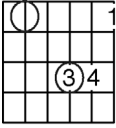
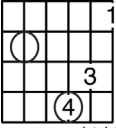
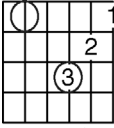
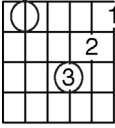
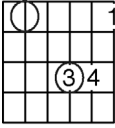
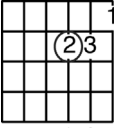
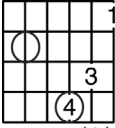
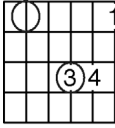


Melodic Minor Scale Tone Triads on Strings 6-5-4

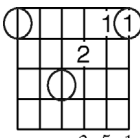
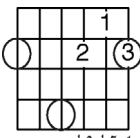
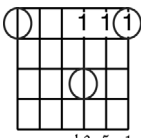
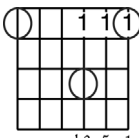
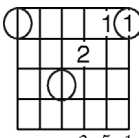
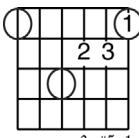
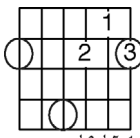
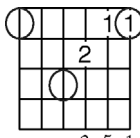
on strings 6-5-4, the fingerings would be relatively the same as on strings 5-4-3

Harmonic Major Scale Tone Triads on Strings 3-2-1

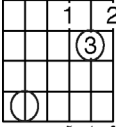
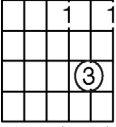
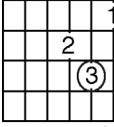
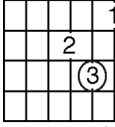
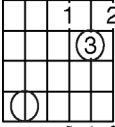
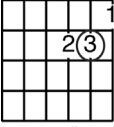
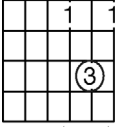
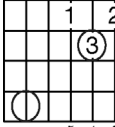
stepwise root position (roots on the third string)

I major 1-3-5 C III	II diminished 2-4-b6 D dim. IV	III minor 3-5-7 Em VII	IV minor 4-b6-1 Fm VIII	V major 5-7-2 G X	bVI augmented b6-1-3 Ab aug. XII	VII diminished 7-2-4 B dim. XIII or I	I major 1-3-5 C III
							

stepwise first inversion (third in the bass, root on the first string)

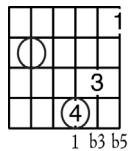
I major 3-5-1 C VIII	II diminished 4-b6-2 D dim. IX	III minor 5-7-3 Em XII	IV minor b6-1-4 Fm XIII or I	V major 7-2-5 G III	bVI augmented 1-3-b6 Ab aug. IV	VII diminished 2-4-7 B dim. VI	I major 3-5-1 C VIII
							

stepwise second inversion (fifth in the bass, root on the second string)

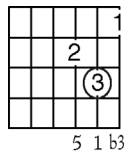
I major 5-1-3 C XII	II diminished b6-2-4 D dim. XIII or I	III minor 7-3-5 Em III	IV minor 1-4-b6 Fm IV	V major 2-5-7 G VII	bVI augmented 3-b6-1 Ab aug. VIII	VII diminished 4-7-2 B dim. X	I major 5-1-3 C XII
							

major scale tone triad roots ascending in perfect fourths (7-3-b6-2-5-1-4), strings 3-2-1, 21-chord cycle

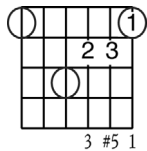
VII diminished
7-2-4
B dim. XIII or I



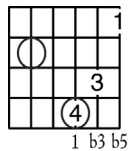
III minor
7-3-5
Em III



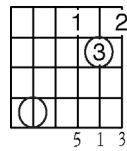
bVI augmented
1-3-b6
Ab aug. IV



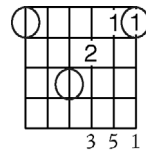
II diminished
2-4-b6
D dim. IV



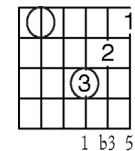
V major
2-5-7
G VII



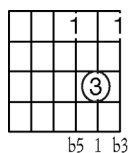
I major
3-5-1
C VIII



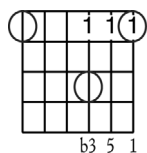
IV minor
4-b6-1
Fm VIII



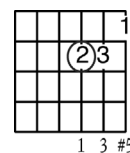
VII diminished
4-7-2
B dim. X



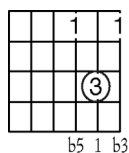
III minor
5-7-3
Em XII



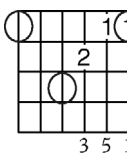
bVI augmented
b6-1-3
Ab aug. XII



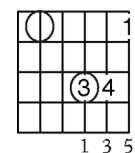
II diminished
b6-2-4
D dim. XIII or I



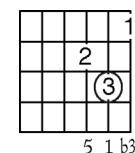
V major
7-2-5
G III



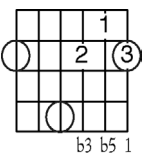
I major
1-3-5
C III



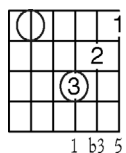
IV minor
1-4-b6
Fm IV



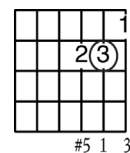
VII diminished
2-4-7
B dim. VI



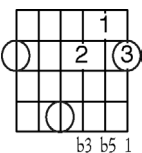
III minor
3-5-7
Em VII



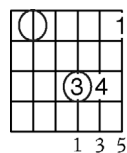
bVI augmented
3-b6-1
Ab aug. VIII



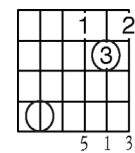
II diminished
4-b6-2
D dim. IX



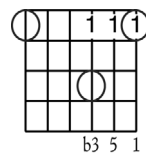
V major
5-7-2
G X



I major
5-1-3
C XII

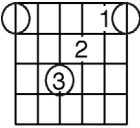
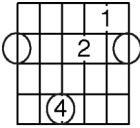
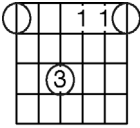
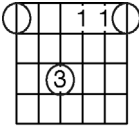
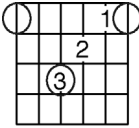
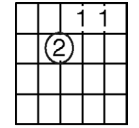
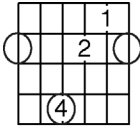
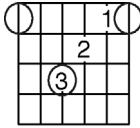


IV minor
b6-1-4
Fm XIII or I

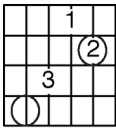
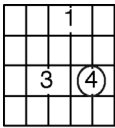
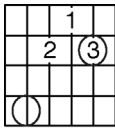
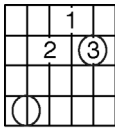
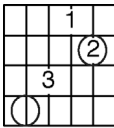
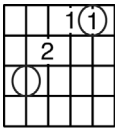
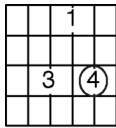
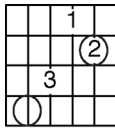


Harmonic Major Scale Tone Triads on Strings 4-3-2

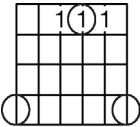
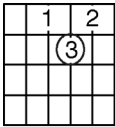
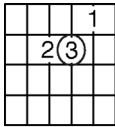
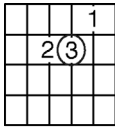
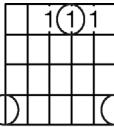
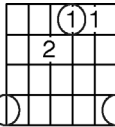
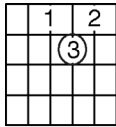
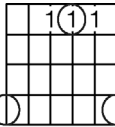
stepwise root position (roots on the fourth string)

I major 1-3-5 C VIII	II diminished 2-4-b6 D dim. IX	III minor 3-5-7 Em XII	IV minor 4-b6-1 Fm XIII or I	V major 5-7-2 G III	bVI augmented b6-1-3 Ab aug. V	VII diminished 7-2-4 B dim. VI	I major 1-3-5 C VIII
							
1 3 5	1 b3 b5	1 b3 5	1 b3 5	1 3 5	1 3 #5	1 b3 b5	1 3 5

stepwise first inversion (third in the bass, root on the second string)

I major 3-5-1 C XII	II diminished 4-b6-2 D dim. XIII or I	III minor 5-7-3 Em IV	IV minor b6-1-4 Fm V	V major 7-2-5 G VII	bVI augmented 1-3-b6 Ab aug. IX	VII diminished 2-4-7 B dim. X	I major 3-5-1 C XII
							
3 5 1	b3 b5 1	b3 5 1	b3 5 1	3 5 1	3 #5 1	b3 b5 1	3 5 1

stepwise second inversion (fifth in the bass, root on the third string)

I major 5-1-3 C V	II diminished b6-2-4 D dim. VI	III minor 7-3-5 Em VIII	IV minor 1-4-b6 Fm IX	V major 2-5-7 G XII	bVI augmented 3-b6-1 Ab aug. XIII or I	VII diminished 4-7-2 B dim. III	I major 5-1-3 C V
							
5 1 3	b5 1 b3	5 1 b3	5 1 b3	5 1 3	#5 1 3	b5 1 b3	5 1 3

major scale tone triad roots ascending in perfect fourths (7-3-b6-2-5-1-4), strings 4-3-2, 21-chord cycle

<p>VII diminished 7-2-4 B dim. VI</p> <p>1 b3 b5</p>	<p>III minor 7-3-5 Em VIII</p> <p>5 1 b3</p>	<p>bVI augmented 1-3-b6 Ab aug. IX</p> <p>3 #5 1</p>	<p>II diminished 2-4-b6 D dim. IX</p> <p>1 b3 b5</p>	<p>V major 2-5-7 G XII</p> <p>5 1 3</p>	<p>I major 3-5-1 C XII</p> <p>3 5 1</p>	<p>IV minor 4-b6-1 Fm XIII or I</p> <p>1 b3 5</p>
<p>VII diminished 4-7-2 B dim. III</p> <p>b5 1 b3</p>	<p>III minor 5-7-3 Em IV</p> <p>b3 5 1</p>	<p>bVI augmented b6-1-3 Ab aug. V</p> <p>1 3 #5</p>	<p>II diminished b6-2-4 D dim. VI</p> <p>b5 1 b3</p>	<p>V major 7-2-5 G VII</p> <p>3 5 1</p>	<p>I major 1-3-5 C VIII</p> <p>1 3 5</p>	<p>IV minor 1-4-b6 Fm IX</p> <p>5 1 b3</p>
<p>VII diminished 2-4-7 B dim. X</p> <p>b3 b5 1</p>	<p>III minor 3-5-7 Em XII</p> <p>1 b3 5</p>	<p>bVI augmented 3-b6-1 Ab aug. XIII or I</p> <p>#5 1 3</p>	<p>II diminished 4-b6-2 D dim. XIII or I</p> <p>b3 b5 1</p>	<p>V major 5-7-2 G III</p> <p>1 3 5</p>	<p>I major 5-1-3 C V</p> <p>5 1 3</p>	<p>IV minor b6-1-4 Fm V</p> <p>b3 5 1</p>

Harmonic Major Scale Tone Triads on Strings 5-4-3

stepwise root position (roots on the fifth string)

I major 1-3-5 C XII	II diminished 2-4-b6 D dim. XIII or I	III minor 3-5-7 Em IV	IV minor 4-b6-1 Fm V	V major 5-7-2 G VII	bVI augmented b6-1-3 Ab aug. IX	VII diminished 7-2-4 B dim. X	I major 1-3-5 C XII
1 3 5	1 b3 b5	1 b3 5	1 b3 5	1 3 5	1 3 #5	1 b3 b5	1 3 5

stepwise first inversion (third in the bass, root on the third string)

I major 3-5-1 C V	II diminished 4-b6-2 D dim. VI	III minor 5-7-3 Em IX	IV minor b6-1-4 Fm X	V major 7-2-5 G XII	bVI augmented 1-3-b6 Ab aug. XIII or I	VII diminished 2-4-7 B dim. III	I major 3-5-1 C V
3 5 1	b3 b5 1	b3 5 1	b3 5 1	3 5 1	3 #5 1	b3 b5 1	3 5 1

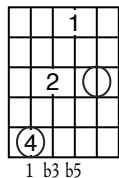
stepwise second inversion (fifth in the bass, root on the fourth string)

I major 5-1-3 C VIII	II diminished b6-2-4 D dim. X	III minor 7-3-5 Em XII	IV minor 1-4-b6 Fm XIII or I	V major 2-5-7 G III	bVI augmented 3-b6-1 Ab aug. V	VII diminished 4-7-2 B dim. VII	I major 5-1-3 C VIII
5 1 3	b5 1 b3	5 1 b3	5 1 b3	5 1 3	#5 1 3	b5 1 b3	5 1 3

major scale tone triad roots ascending in perfect fourths (7-3-b6-2-5-1-4), strings 5-4-3, 21-chord cycle

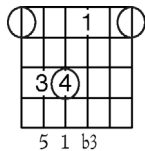
VII diminished
7-2-4

B dim. X



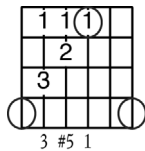
III minor
7-3-5

Em XII



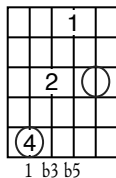
bVI augmented
1-3-b6

Ab aug. XIII or I



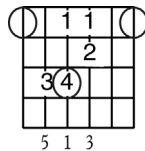
II diminished
2-4-b6

D dim. XIII or I



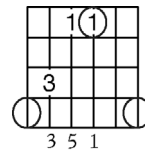
V major
2-5-7

G III



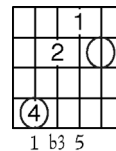
I major
3-5-1

C V



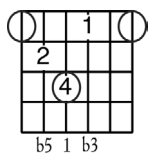
IV minor
4-b6-1

Fm V



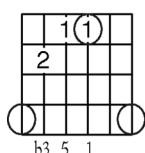
VII diminished
4-7-2

B dim. VII



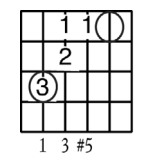
III minor
5-7-3

Em IX



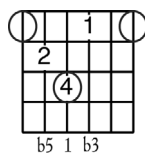
bVI augmented
b6-1-3

Ab aug. IX



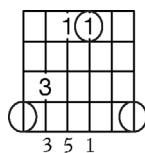
II diminished
b6-2-4

D dim. X



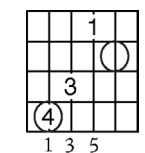
V major
7-2-5

G XII



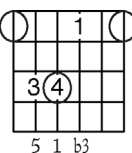
I major
1-3-5

C XII



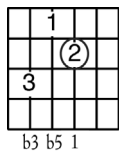
IV minor
1-4-b6

Fm XIII or I



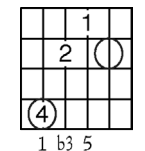
VII diminished
2-4-7

B dim. III



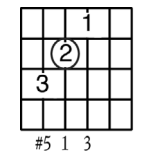
III minor
3-5-7

Em IV



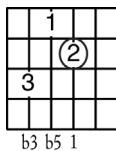
bVI augmented
3-b6-1

Ab aug. V



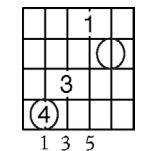
II diminished
4-b6-2

D dim. VI



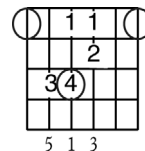
V major
5-7-2

G VII



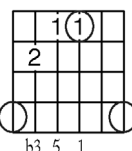
I major
5-1-3

C VIII



IV minor
b6-1-4

Fm X



Harmonic Major Scale Tone Triads on Strings 6-5-4

on strings 6-5-4, the fingerings would be relatively the same as on strings 5-4-3

MODAL TRIAD IMPROV AND CLUSTER PLAYING

The Power of Triads

Triads can be extremely useful in improvising both melody and accompaniment parts. You need to intimately know the graphic structures on the fretboard and how to intuitively use them. You can learn to use them in more complex relationships like a composer and arranger, but to do so you must have a thorough understanding of the theory *and* be able to think [theory summaries](#).

Here are a couple of examples of theory summaries:

If you have a good theoretical knowledge of blues improv, you know that you should generally flat the third of the key when making melody on a IV7 chord, since it is constructed with 4-6-1-b3 of the key.

In improvising on a jazz blues, during the later part of IV7 before I7 (F7 before C7), IV (F) Mixolydian sharp one (F#) creates V harmonic minor and suggests the Vm part of the I7 chord. See [Melodically Superimposed Cadences/Harmonic Minor Cadences](#).

Learning Linear Triads by String Set

do it yourself

Learn to construct the linear sets of triads yourself. Don't just learn by rote. Use the sets of fingerings in this course as a confirmation, but learn to conceive and build the sets yourself.

learn to build triad arcs

In [Scale Tone Arpeggios And Pentatonics/Building Triad Arcs](#), you can go through a set of the seven major scale in-position fingerings and get an overview of the full-fretboard triad structure. Highly recommended.

string sets and triad inversions

For each inversion on each string set (4-3-2 or 3-2-1), build the library of triads for the heptatonic (seven-tone scale) you are using. For the major scale, you'll need major, minor and diminished. On the string you have chosen each step of the scale will represent the root of a chord. The three inversions are generically 1-3-5, 3-5-1 and 5-1-3 (by "generically", I mean the "3's" may be flat and the "5's" may be flat or sharp).

range of positions and choosing a string for the roots

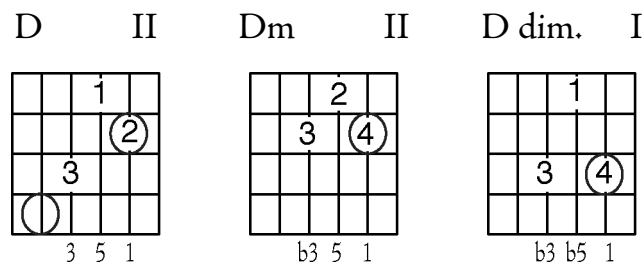
“Position” can refer to a area of the fretboard in relation to the index finger in single-note playing of scales or arpeggios. Generally, the number of the fret at which the first finger is hovering is the number of the position.

Start by playing sets of triads in stepwise order from about positions III to XV. Choose a string on which to play the roots of the chords, starting in III position area. Play the chosen major scale on that string in single notes from the lowest fretted note up an octave (twelve frets). Determine the lowest pitch in that scale that can be part of a triad in the scale without an open string.

build a library of the chord types

During the course of playing triads on each step of the scale, you’ll need the types of triads that occur in that scale. In major scale, for example, you’ll major, minor and diminished. Make a version of those on the first scale tone you have chosen on the second string to build a library of types.

Choosing the second string for an F major scale, the note “D” on the third fret is the sixth step of the scale. During the course of playing the F major scale tone triads on string set 432 in ascending order, you will need major, minor and diminished triads. Build one of each type on the note “D”, so you’ll know the fingerings for those types as you construct the set of triad fingerings.



tracking the scale

Think the location of each scale tone as you ascend the chosen string in alphabetical order, building a triad on each step named after the note. Think the roots by scale-tone number with the appropriate quality. I, IV and V are major. II, III and VI are minor. VII is diminished. Keep your focus on the scale numbers, which I call “tracking the scale. Here are a couple of examples:

C major scale, root on third string: Am has its root on second fret and is in first position (without open strings) and is a VIIm chord.

D major scale, root on second string: C# is on the second string, and would be scale tone seven. Play the three types of C# chords, major minor and diminished. The major and minor can be played without and open string, but C# diminished would require the third string open. So, start with the next higher scale tone “D”, which can be played in second position.

learn all three inversions

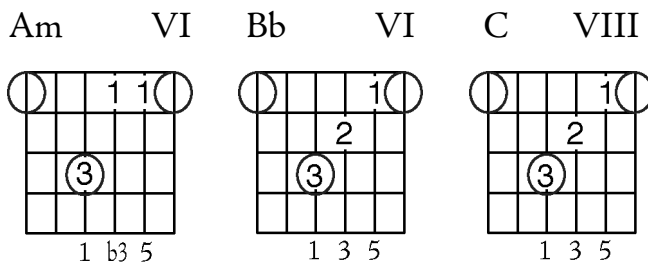
Learn all three inversions in one key before going to another. Build your memories of graphic sequences and fingerings first, before explicit memory of the chord names. Then you'll be able to improvise with the chords in a range of a few frets without having to know their names.

In a small range of frets, combine the fingerings. For example, in F, from fifth to tenth position, string set 4-3-2, play triads with roots on each string in ascending order:

fourth string roots 3-4-5

(circled roots)

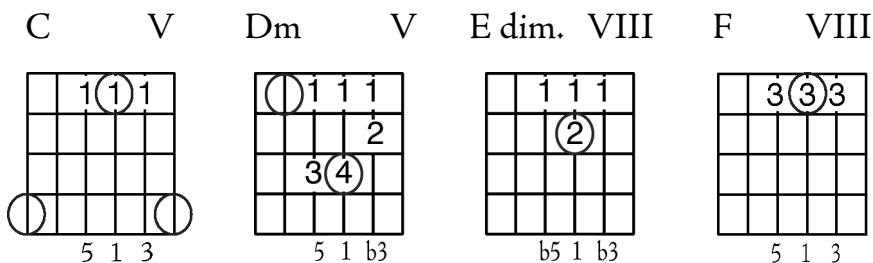
generic order of voices 1-3-5



third string roots 5-6-7-1

(circled roots)

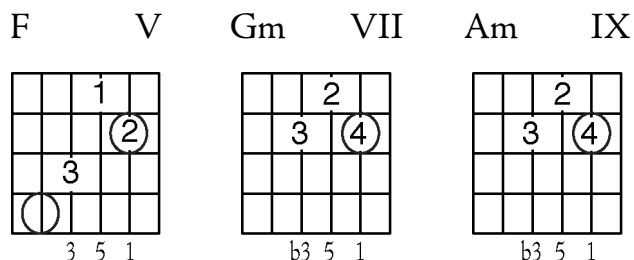
generic order of voices 5-1-3



second string roots 1-2-3

(circled roots)

generic order of voices 3-5-1



multiple scales for the same progression

In many American music styles like blues, multiple parent scales are necessary. See [Modes/Modes Of I-IV-V Blues](#) and [Modes on Jazz Blues](#). In the same chord progression, a C7 chord may use the F major parent scale for melody and accompaniment parts, while a F7 chord may use a Bb major scale. You would need to know the sets of triads for both scales to improvise effectively. You often will have to deal with many major scales (or other seven tone scales). You also will have to learn to think of all these scales in terms of the note named after the key, which is modal. Though this is learnable, it is so complicated that at first you should learn the sets of triads (or other scale tone structures) and use them with aural intuition before detailed analysis.

Using Pedal Point Conceptually

While improvising over any chord, you can conceive a pedal point with the root of that chord or with its [secondary roots](#). In improvisational music, there can be many versions of the current chord. A dominant seventh chord, such as C7, could be depicted as C (major triad) C7, C9, C13, C7/6 or C6. This can be done in chords, arpeggios or single note melody that is based on the chords and arpeggios.

duality chords

Duality tones are discussed in [Tonal Themes And Schemes](#). They are notes common to both the current chord and a key scale (a scale named after the current key). *Duality chords* are an even closer relationship. They are notes common to the current chord and some version of the tonic chord. They always involve chord synonyms, two or more chords that have different names but the same notes, like Am7 and C6.

aural improv with duality chords

As you improvise aurally (by ear) using a key scale that contains all the notes of the current chord, you will find some triads or thirds (two note chords that are major or minor third intervals) that sound consonant with the current chord, making some apparent version of it. It doesn't matter so much what the name is, just that it sounds good. So, you don't need to burden your mind and distract yourself from your expression and creativity. You can name the chords later, or not. Like Duke Ellington said "if it sounds good, it is good."

I remember a Miles Davis quote that went something like "there are no wrong notes in jazz". What did he mean? That you can indiscriminately play any note at any time? Not exactly. He meant that any "unintended" note can be molded into good thematic material and then repeated with theme and variation to validate it.

My friend says his wife, who is a film director, asks anyone to scribble anything on a piece of paper, they she draws around it to make something beautiful and meaningful. Steve Allen used to have a regular segment in his late night variety show where he asked five (I can't remember) audience members to each come up and choose a note near the center of the piano. He would then immediately compose a song around the sequence of notes! I thought that was really cool. He was obviously an accomplished pianist. Wikipedia, for what its worth, says he wrote over 14,000 songs.

When you find a note, a third or triad that sounds well over the current chord, emphasize it by repeating it, sustaining it, accenting it or otherwise drawing attention to it. It is some kind of duality chord that you can name later (or not).

When you come across a note, a third or a triad that doesn't seem to be part of the current chord, don't emphasize it. Major scale tone I, IIIm, IV or V type chords each have four strong triad subsets. They can each be a ninth chord, so they have a triad subset on their root third or fifth. Ima9, for example is

made up of tones 1-3-5-7 and 9(2). The 1-3-5 part is a I major triad. The 3-5-7 part is a III minor triad. The 5-7-2 part is a V major triad.

I, II^m IV and V each also have a sixth in their mode. In the key of D, the II minor chord in the key of C, for example, the sixth tone from “D” is “B”, its sixth. So it can be Dm⁶ (1-b3-5-6 of D), using all notes of the C major scale.

If you are playing on one of these chords that has many possible versions, it will have many triad subsets. So, you can emphasize many different triads based on its parent scale.

Since chords are typically built with every other note of a scale, roots of triads that are not part of the current chord are usually one scale step away from triads that are part of the current chord. Let’s say you are playing on Cma⁹ in the key of “C”, which consists of 1-3-5-7-2 of the C major scale. You play the notes of Dm, which is 2-4-6. The “4” in that chord creates a soft dissonance against the Cma⁹. By going one step up the scale, the root (“E”, 3 of C) of the Em triad is part of the Cma⁹. Em is 3-5-7 and Cma⁹ is 1-3-5-7-2. If go one step down the scale from the root “D” of Dm to the root “C” of C major triad, obviously that is part of Cma⁹, also. So....if you are playing on big chord like a ninth that can have a sixth, the root of any dissonant triad is likely one scale step away, up or down, from a consonant one that you can emphasize.

Small Structures Connect to Larger Ones

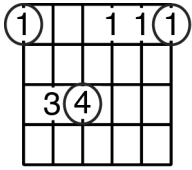
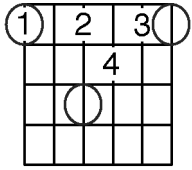
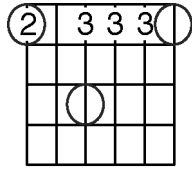
When you’re using pedal point thirds, one of the notes will often be an interval of a third or fourth that creates a triad when combined with the pedal point. When that happens, you can take the pivotal opportunity to use the triad to begin a pedal point triad series.

When pedal point triads are part of a seventh or larger chord, you can segue into an arpeggio structure representing the larger chord.

Chord Archetypes

- **The Chord Serial Number System**
- **Seventh Chords with Root or Fifth in the Bass**
- **4,320 Variations of a Triad**
- **Fingering Families of Seven Seventh Chord Types**
- **Fingering Families of Twenty Quadrad Types**
- **Three & Four-Note Chord Duplicates by String Set**
- **Memorize Full-Fretboard Chord Tones**

THE CHORD SERIAL NUMBER SYSTEM

chord name	Cm	VIII	C7	VIII	Cm7	VIII
chord fingering						
	1 5 1 b3 5 1		1 b7 3 5		1 b7 b3 5	
serial number	151b351		10b7350		10b7b350	
serial number with fingers	151b351/134111		10b7350/102430		10b7b350/203330	

chord serial numbers

In the chord serial number system, the number 157300 represents chord tones in order from the sixth (largest) to first (smallest) string. Each number represents a major scale tone in the key of the chord root. The number “0” (zero) indicates that a string is not played. If a number is flatted or sharped, it indicates an altered major scale tone in the key of the chord root. The large circles on chord diagrams in this course show the location of the chord root (note after which the chord is named, such as the Bb root of a Bbma7 chord). When the large circle is empty, it shows the location of a chord root that is not played in the chord, as a point of reference.

The numbers 151b351 would represent the tones one, five, one, flat three, five, one, from the sixth string (largest) to the first string. In the key of “C”, these notes would be C-G-C-Eb-G-C. See the first diagram above.

The numbers 10b7350 would represent the tones one on the sixth string, no note on the fifth string, flat seven on the fourth string, three on the third string, five on the second string and no note on the first string. In the key of “C”, these notes would be C-(no note)-Bb-E-G-(no note). See the middle diagram above.

The serial number system applies to all fretted chords only, not open string chords. “1” represents the root, “3” the third, “5” the fifth and “7” the seventh of the chord. Zeros (“0”) represent a string that is not to be sounded.

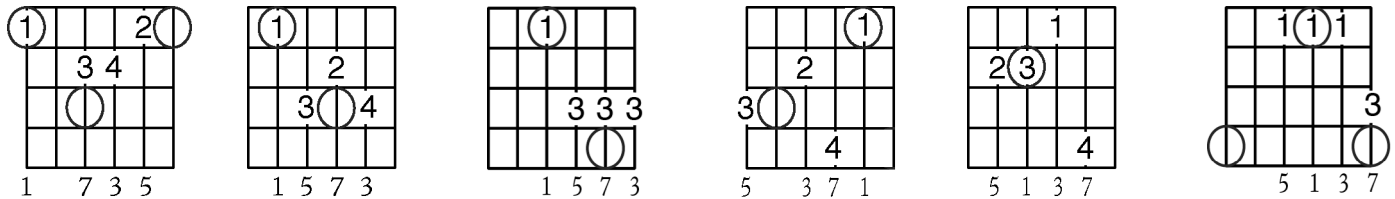
chord serial numbers with finger numbers

The serial numbers can be appended with numbers for the fingers. In this case, the serial number is followed by a forward slash, then numbers to represent the fretting hand fingers in order from the sixth to first string. When a string is not fretted, a zero is shown. The first chord above would be 157300/142300 and the second chord would be 001357/004321. Notice that these are not hyphenated: “157300” indicates six numbers, which would be written with hyphens as “1-5-7-3-0-0”. “157300” does not indicate “one hundred fifty seven thousand, three hundred.

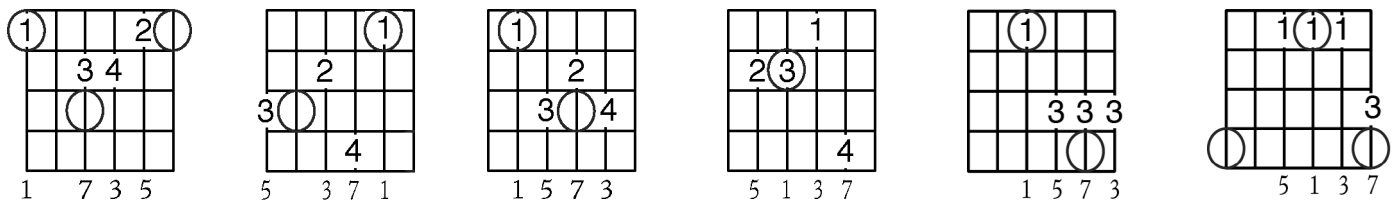
SEVENTH CHORDS WITH ROOT OR FIFTH IN THE BASS

memorize these archetypal major seventh chord fingerings

Notice that the first three fingerings have roots (labeled "1" below the string) in the bass, and the last three have fifths (labeled "5" below the string) in the bass.

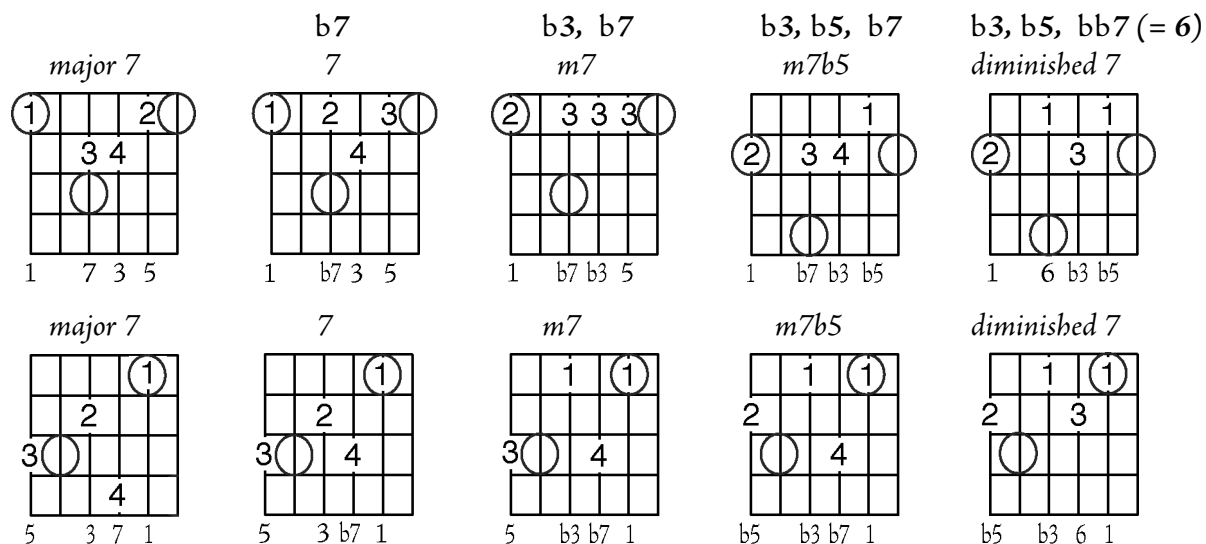


Each pair of fingerings below are on the same string set. For example, the first two chords are fingered on strings 6, 4, 3 and 2. For each pair of chords, the first has the root in the bass and the second has the fifth in the bass.



creating five versions from each archetypal seventh chord fingering

Modify the first fingering in each row by accumulatively flattening the seventh, third, fifth. Then flat the seventh again (double-flatted), leaving the third and fifth flat. These modifications are shown progressively in each row, from left to right.



<p><i>major 7</i></p> <p>1 5 7 3</p>	<p><i>7</i></p> <p>1 5 b7 3</p>	<p><i>m7</i></p> <p>1 5 b7 b3</p>	<p><i>m7b5</i></p> <p>1 b5 b7 b3</p>	<p><i>diminished 7</i></p> <p>1 b5 6 b3</p>
<p><i>major 7</i></p> <p>5 1 3 7</p>	<p><i>7</i></p> <p>5 1 3 b7</p>	<p><i>m7</i></p> <p>5 1 b3 b7</p>	<p><i>m7b5</i></p> <p>b5 1 b3 b7</p>	<p><i>diminished 7</i></p> <p>b5 1 b3 6</p>
<p><i>major 7</i></p> <p>1 5 7 3</p>	<p><i>7</i></p> <p>1 5 b7 3</p>	<p><i>m7</i></p> <p>1 5 b7 b3</p>	<p><i>m7b5</i></p> <p>1 b5 b7 b3</p>	<p><i>diminished 7</i></p> <p>1 b5 6 b3</p>
<p><i>major 7</i></p> <p>5 1 3 7</p>	<p><i>7</i></p> <p>5 1 3 b7</p>	<p><i>m7</i></p> <p>5 1 b3 b7</p>	<p><i>m7b5</i></p> <p>b5 1 b3 b7</p>	<p><i>diminished 7</i></p> <p>b5 1 b3 6</p>

4,320 VARIATIONS OF A TRIAD

Quadrad And Tertian Defined

A quadrad is a four-note chord. A tertian chord is constructed in thirds, by an every-other-note pattern in a seven-tone scale. A tertian quadrad is a four-note chord constructed in thirds. Tertian quadrads are commonly called seventh chords. Confusingly, the term seventh chord is also used as an abbreviation of the dominant seventh chord, with the numeric formula based on a major scale with the same letter name: 1, 3, 5, b7 (see Change Quality below). Sixth, minor sixth, major add nine and minor add nine are quadrads, but not tertian. They are add-tone chords.

Access To 3,888 Seventh Chord Fingerings

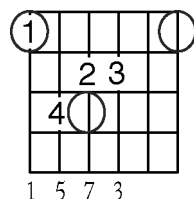
Most seventh chords can be derived by making the modifications described below to the 157300 and 135700 seventh chord fingerings. "Chord serial numbers" such as 157300 were defined earlier in [The Chord Serial Number System](#). There are:

1. 20 qualities
2. four options inverting the chord on the same string set (strings on which the chord is fretted)
3. three options (averaged) by changing string set
4. three options by inversion (raising the fifth or seventh an octave)
5. three options by omitting the root or fifth.

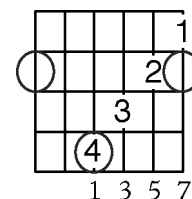
Primary Chord Archetypes

Two primary chord archetypes are shown here. Other versions on different strings could be used, but these show the basic of the structures well. Performing the five variations above to one of the primary chord archetypes below provides 2,160 chord fingerings. Applying the the variations to both of the primary chord archetypes below provides 4,320 chord fingerings. A third or half of them are practical to use, but this is a very efficient way to access them: get quick at following the construction path rather than just rote memorization.

major 7
serial number 157300



major 7
serial number 001357



Change Quality (20 options)

There are eighteen quadrad qualities in use. A chord root is the letter name after which a chord is named. The letter name expressing the chord root may be followed by a flat or sharp, showing that it is a half step above or below a natural letter name. Natural letter names are those with not sharp or flat. When a natural needed for clarity, the symbol “ \natural ” can be used to represent natural.

A chord formula is a numerical expression in relation to a major scale named after the chord root. The chord formula may require flats or sharps before numbers to show where chord tones are half steps (one-fret intervals) above or below chord tones.

Quadrad Formulas by Chord Family

<u>major</u>	<u>dominant</u>	<u>minor</u>	<u>diminished</u>
major 7 (ma7) = 1-3-5-7	7 (dominant seventh) = 1-3-5-b7	minor seventh = 1-b3-5-b7	diminished seventh (= m6b5) = 1-b3-5-bb7 (= 6)
ma7b5 = 1-3-b5-7	7b5 = 1-3-b5-b7		m7b5 = 1-b3-b5-b7
ma7#5 = 1-3-#5-7	7#5 = 1-3-#5-b7		
6 (ma6) = 1-3-5-6		m6 = 1-b3-5-6	
	7sus.4 = 1-4-5-b7	m(ma7) = 1-b3-5-7	
	7sus.2 = 1-2-5-b7		

Quadrad Formulas, Written Forms and Spoken Forms

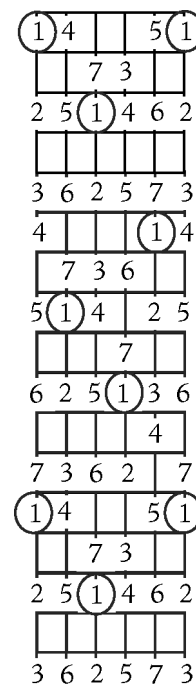
<u>written</u>	<u>formula</u>	<u>spoken</u>	<u>other written forms</u>
ma7	1-3-5-7	major seventh	Δ, Δ7, maj7, M7
7	1-3-5-b7	dominant seventh	dom.7
m7	1-b3-5-b7	minor seventh	mi7, min.7, -7
m7b5	1-b3-b5-b7	minor seventh or half-diminished	mi7b5, min7b5, Ø7
m7#5 (rare)	1-b3-#5-b7	minor seventh sharp five	mi7#5, min7#5
dim.7	1-b3-b5-bb7 (= 6)	diminished seventh	°7, m6b5
ma7b5	1-3-b5-7	major seventh flat five	Δ7b5, maj7b5
ma7#5	1-3-#5-7	major seventh sharp five	Δ7b5, maj7#5
7b5	1-3-b5-b7	(dominant) seventh flat five	dom.7b5
7#5	1-3-#5-b7	(dominant) seventh sharp five	dom.7#5
6	1-3-5-6	(major) sixth	ma6, M6
m6	1-b3-5-6	minor sixth	mi6, min6
7sus.4	1-4-5-b7	(dominant) seventh suspended fourth	dom.7sus4
7sus.2	1-2-5-b7	(dominant) seventh suspended second	dom.7sus4
ma7sus4	1-4-5-7	major seventh suspended fourth	Δ7sus4, maj7sus4, M7sus4
ma7sus2	1-2-5-7	major seventh suspended second	Δ7sus2, maj7sus2, M7sus2
m(ma7)	1-b3-5-7	minor, major seventh	m([♭] 7)
dim(ma7) rare	1-b3-b5-7	diminished, major seventh	dim([♭] 7), °(ma7)
add 9	1-2-3-5	major, add nine	/9
m add 9	1-2-b3-5	minor, add nine	m/9

Find Chord Tones With Major Scale Fingerings

Use the seven in-position major scale fingerings shown below to find chord tones. The circled number should be placed on the note that names the chord root. The remaining numbers correspond to the chord formula.

If a formula designates a flatted note, move the location for that numbered tone one fret toward the head of the guitar. If a formula designates a sharped note, move the location for that numbered tone one fret toward the bridge of the guitar.

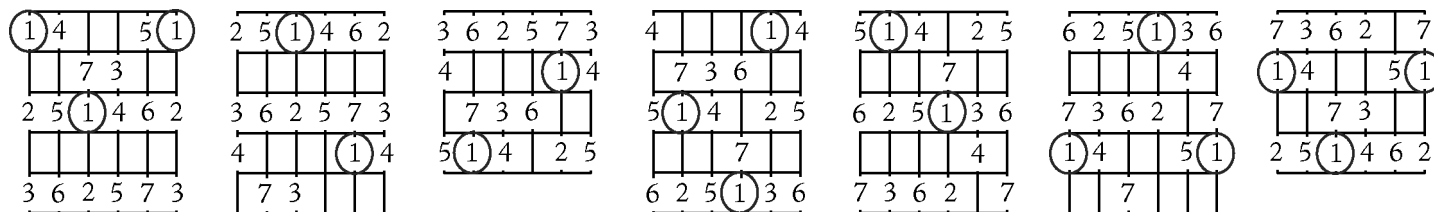
When a note is out of reach, it can be moved to the next larger or smaller string as necessary. Notes duplicate on adjacent strings four or five frets away (not counting the fret on which you begin). When a note becomes out of reach toward the head of the guitar, it can be moved up five frets toward the guitar body on the next larger string (four frets from the second to third string). When a note becomes out of reach toward the body of the guitar, it can be moved down five frets toward the head of the guitar on the next smaller string (four frets from the third to second string). These relationships can be seen on the full-fretboard diagram at the right.



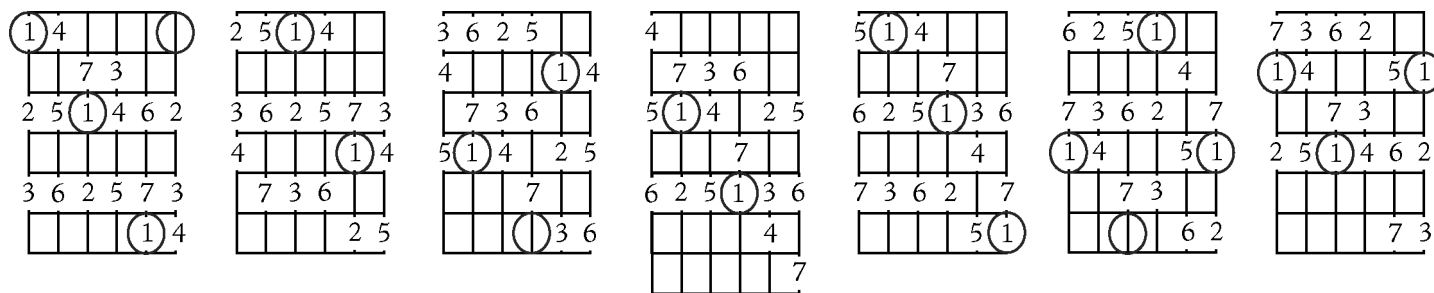
For a more detailed description of chord construction, read the [Encyclopedia Of Chord Fingering](#).

In-Position Major Scale Fingerings

In playing a scale where there are duplicate notes on strings two and three, play either note (not both).

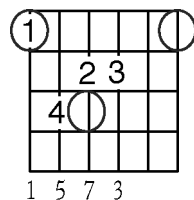


Three Note Per String Major Scale Fingerings

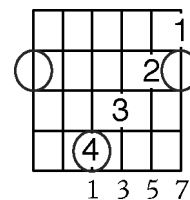


Begin With 157300 and 135700, Modify to Most Seventh Chord Fingerings

major 7
serial number 157300

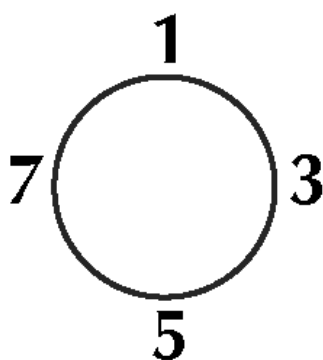


major 7
serial number 001357



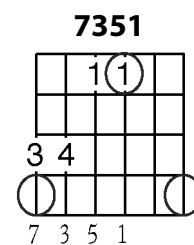
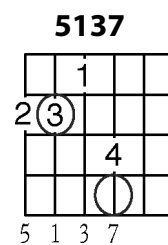
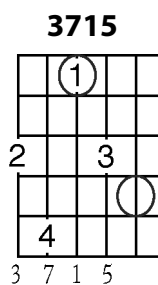
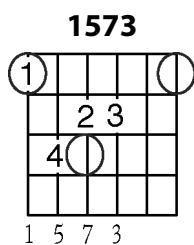
Inversions on the Same String Set (four options)

With inversions on the same string set, each chord tone is moved up the neck on the same string to the next higher chord tone. “1” moves up to “3”, “3” moves up to “5”, “5” moves up to “7” and “7” moves up to “1”. This can be illustrated by clockwise movement on this inversion cycle:

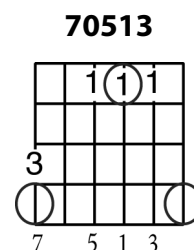
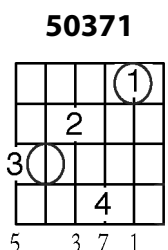
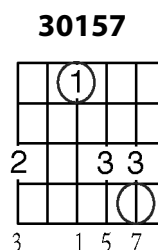
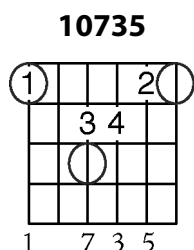


Examples of these inversions are shown below:

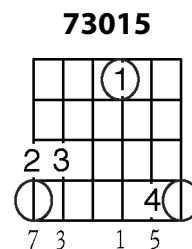
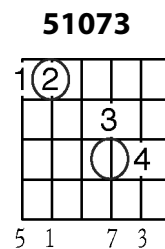
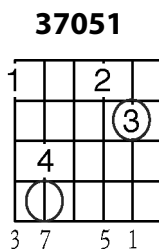
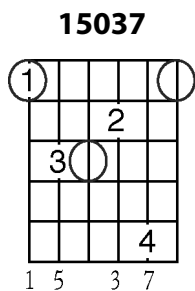
1573 primary chord



1573, fifth up an octave

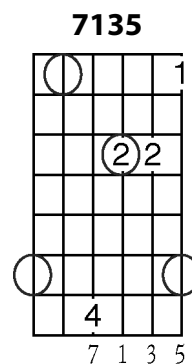
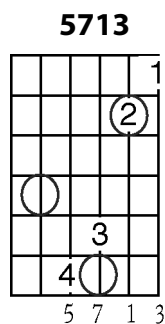
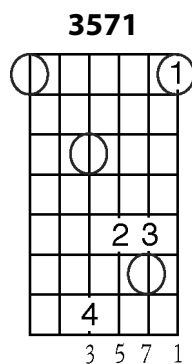
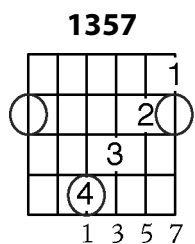


1573, seventh up an octave



1357 primary chord

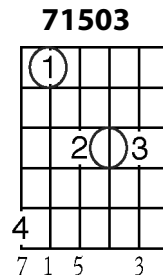
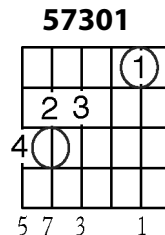
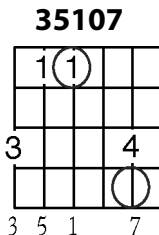
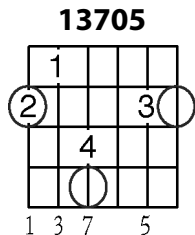
some of these are impractical to finger



1357, fifth up an octave

and next to highest note moved to next larger string

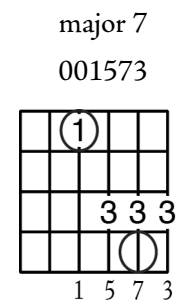
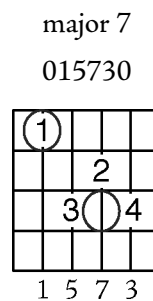
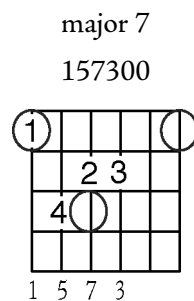
some of these are only usable in other qualities



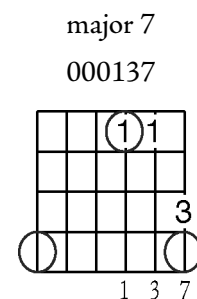
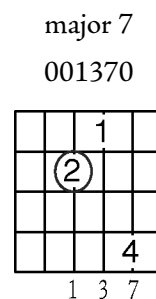
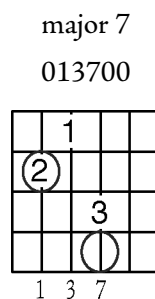
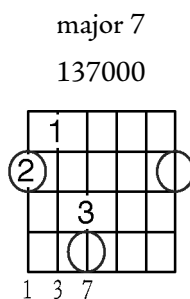
Change String Set (two, three or four options)

It seems most organized to begin with the chord on the largest set of strings, then move each note in the chord to the next smaller string. Remember, when changing string set by moving all notes to the next smaller string, any note moving from the third string to the second string must relatively be moved up one fret.

In the set of chords below, the first chord has scale tones 1-5-7-3 respectively on strings 6-5-4-3. As the tones are moved to strings 5-4-3-2 in the next diagram, the note labeled “3” below the diagrams moves from the third to second string and must move relatively one fret higher than the other notes. This is due to the fact that notes repeat at five fret intervals between each pair of strings (not counting the fret on which you begin), *except* between the third and second string, where notes repeat at four fret intervals. This relationship is evident in the tuning method of comparing each string fretted at the fifth fret to the same note on the next smaller string open, *except* the third string is fretted at the fourth fret and compared to the second string open.



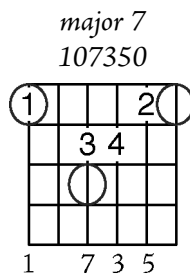
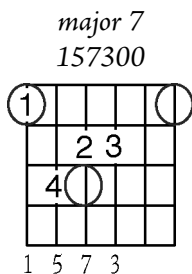
In the next set of chords below, the first chord has scale tones 1-3-7 respectively on strings 6-5-4. Moving the notes to strings 5-4-3 requires no change, since there is no issue regarding changing notes from the third to second string. As the tones are moved from strings 5-4-3 to strings 4-3-2 in the next diagram, the note labeled “7” below the diagrams moves from the third to second string and must move relatively one fret higher (closer to the guitar body) than the other notes. In the last two diagrams, the note labeled “3” moves from the third to second string relatively one fret higher (closer to the guitar body). This last move may look as if the notes labeled “1” and “7” have moved down a fret (toward the head of the guitar), which they are. It is *relatively* the same thing.



Invert (three options)

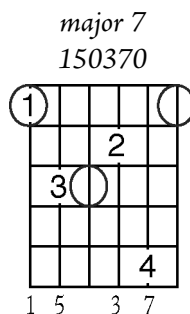
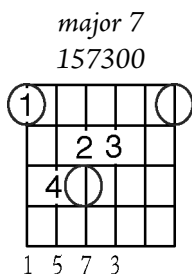
raise the fifth one octave

In the diagrams below, the fifth of the first chord has been moved up an octave in the second chord. The second chord can then be modified to all of the various qualities, inversions on the same string set and changing string sets.



raise the seventh one octave

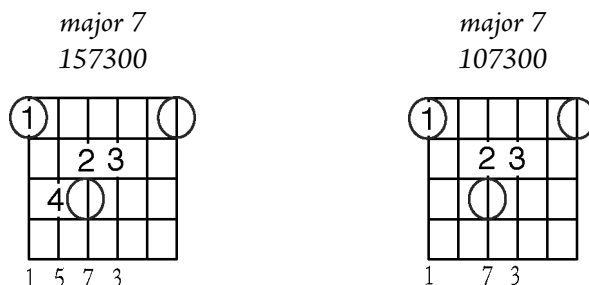
In the diagrams below, the seventh of the first chord has been moved up an octave in the second chord. The second chord can then be modified to all of the various qualities, inversions on the same string set and changing string sets.



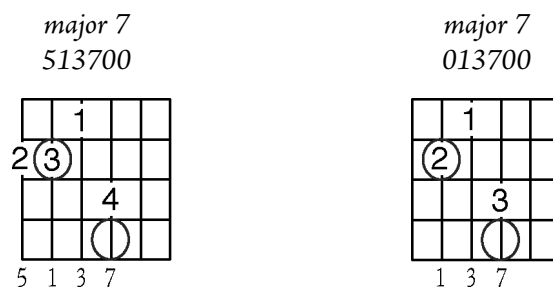
Omit the Root or the Fifth: Three Note Seventh Chords

omit the fifth

This is the original 157300 chord and its variation without a fifth.

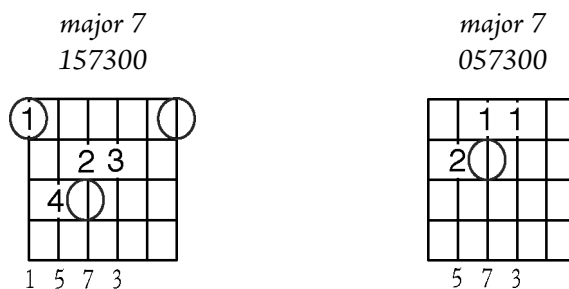


The 107300 chord can be modified to many seventh chord types. This family (with 107300 and variations with altered "7" and "3") can be used where a chord with a b5 or #5 is specified, but where the altered fifth is not essential. The version below begins with an inversion of the original 157300 chord (above) on the second string set. Notice that each tone of the 513700 chord has moved up one chord tone (see the previous section: Inversion on the Same String Set).



Omit The Root

This is the original 157300 chord and its variation without a root.



Voice Leading

Voice leading is a designed movement for each of the notes in a chord to a designated note in the next chord. Conservative voice leading is usually best, where each note moves to the closest note in the next chord. If a note can remain in the next chord, it should. Notes that must change are routed to the closest note, spanning the smallest interval possible.

Conservative Voice Leading

With conservative voice leading for major scale-tone chord progression with roots ascending in fourths, the root and third of the current chord remain to become the fifth and seventh of the next chord, respectively. The fifth descends to become the root of the next chord. The seventh descends to become the third of the next chord. See [Voice Leading/Descend Five and Seven Voicings](#).

FINGERING FAMILIES OF SEVEN SEVENTH CHORD TYPES

Going down the column of four chords in each string set plays ascending inversions.

String Set 6-4-3-2 (drop 3 voicing)

	major 7	7 (dominant)	minor 7	minor 7b5	diminished 7	7#5	7b5
root in bass 107350							
third in bass 301570							
fifth in bass 503710							
7th in bass 705130							

String Set 5-4-3-2 (drop 2 voicing)

	major 7	7 (dominant)	minor 7	minor 7b5	diminished 7	7#5	7b5
root in bass 015730							
third in bass 037150							
fifth in bass 051370							
7th in bass 073510							

String Set 4-3-2-1 (drop 2 voicing)

	major 7	7 (dominant)	minor 7	minor 7b5	diminished 7	7#5	7b5
root in bass 001573							
third in bass 003715							
fifth in bass 005137							
7th in bass 007351							

String Set 5-3-2-1 (drop 3 voicing)

	major 7	7 (dominant)	minor 7	minor 7b5	diminished 7	7#5	7b5
root in bass 010735							
third in bass 030157							
fifth in bass 050371							
7th in bass 070513							

String Set 6-5-4-3 (drop 2 voicing)

	major 7	7 (dominant)	minor 7	minor 7b5	diminished 7	7#5	7b5
root in bass 157300							
third in bass 371500							
fifth in bass 513700							
7th in bass 735100							

See the first five chords in each of these families in arpeggios in [Prime Scales, Chords and Arpeggios/](#)
[Quadrant Arpeggios](#).

FINGERING FAMILIES OF 20 QUADRAD TYPES

107350 Family of 20 Quadrad Types (drop 3 voicing)

	major 7	7	m7	m7b5	dim. 7	7#5	7b5
formula	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7	1-b3-5-6	1-3-#5-b7	1-3-b5-b7
root in bass 107350, or 106350							
third in bass 301570 or 301560							
fifth in bass 503710 or 503610							
7th in bass 705130 or 605130							
	6	m6	add9	m add9	m(ma7)	dim(ma7)	m7#5
formula	1-3-5-6	1-b3-5-6	1-2-3-5	1-2-b3-5	1-b3-5-7	1-b3-b5-7	1-b3-#5-b7
root in bass 107350 or 106350, 102350							
third in bass 301570 or 301560, 301502							
fifth in bass 503710 or 503610, 523010							
7th in bass 705130 or sixth in bass 605130			"2" is not usable in the bass				

	ma7#5	ma7b5	7sus4	7sus2	ma7sus4	ma7sus2
formula	1-2-3#-5-7	1-3-b5-7	1-4-5-b7	1-2-5-b7	1-4-5-7	1-2-5-7
root in bass 107350, or 106350, 102350						
third in bass 301570 or 401570				"2" is not usable in the bass		
fifth in bass 503710 or 504710, 502710						
7th in bass 705130, 705140, 705120					"7" is not usable in the bass with sus4	
					"7" is not usable in the bass with sus2	

015730 Family of 20 Quadrad Types (drop 2 voicing)

	major 7	7	m7	m7b5	dim. 7	7#5	7b5
formula	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7	1-b3-5-6	1-3-#5-b7	1-3-b5-b7
root in bass 015730 or 015630							
third in bass 037150 or 036150							
fifth in bass 051370 or 051360							
7th in bass 073510 or 063510							
	6	m6	add9	m add9	m(ma7)	dim(ma7)	m7#5
formula	1-3-5-6	1-b3-5-6	1-2-3-5	1-2-b3-5	1-b3-5-7	1-b3-b5-7	1-b3-#5-b7
root in bass 015730 015630 or 015230							
third in bass 037150 or 036150			out of reach	out of reach			
fifth in bass 051370 or 051360			out of reach	out of reach			
7th in bass 073510 or sixth in bass 063510			"2" is not usable in the bass	"2" is not usable in the bass			

	ma7#5	ma7b5	7sus4	7sus2	ma7sus4	ma7sus2		
formula	1-2-3#-5-7	1-3-b5-7	1-4-5-b7	1-2-5-b7	1-4-5-7	1-2-5-7		
root in bass 015730, 015740 or 015630	 1 #5 7 3	 1 b5 7 3	 1 5 b7 4	 1 5 b7 2	 1 5 7 4	 1 5 7 2		
third in bass 037150, 047150 or 036150	 3 7 1 #5	 3 7 1 b5	 4 b7 1 5	"2" is not usable in the bass		 4 7 1 5	"2" is not usable in the bass	
fifth in bass 051370, 051470, or 051270	 #5 1 3 7	 b5 1 3 7	 5 1 4 b7	 5 1 2 b7	 5 1 4 7	 5 1 2 7		
7th in bass 073510, 074510 or 072510	 7 3 #5 1	 7 3 b5 1	 b7 4 5 1	 b7 2 5 1	 7 4 5 1	 7 2 5 1		

001573 Family of 20 Quadrad Types (drop 2 voicing)

	major 7	7	m7	m7b5	dim. 7	7#5	7b5
formula	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7	1-b3-5-6	1-3-#5-b7	1-3-b5-b7
root in bass 001573 or 001563							
third in bass 003715 or 003615							
fifth in bass 005137 or 006137							
7th in bass 007351 or 006351							
	6	m6	add9	m add9	m(ma7)	dim(ma7)	m7#5
formula	1-3-5-6	1-b3-5-6	1-2-3-5	1-2-b3-5	1-b3-5-7	1-b3-b5-7	1-b3-#5-b7
root in bass 001573 001563 or 001523			out of reach	out of reach			
third in bass 003715 or 003615			out of reach	out of reach			
fifth in bass 005137 or 005136			out of reach	out of reach			
7th in bass 007351 or sixth in bass 006351			"2" is not usable in the bass	"2" is not usable in the bass			

	ma7#5	ma7b5-7	7sus4	7sus2	ma7sus4	ma7sus2
formula	1-2-3#-5-7	1-3-b5-7	1-4-5-b7	1-2-5-b7	1-4-5-7	1-2-5-7
root in bass						
third in bass				"2" is not usable in the bass		"2" is not usable in the bass
fifth in bass						
7th in bass						

157300 Family of 20 Quadrad Types (drop 2 voicing)

	major 7	7	m7	m7b5	dim. 7	7#5	7b5
formula	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7	1-b3-5-6	1-3-#5-b7	1-3-b5-b7
root in bass							
third in bass							
fifth in bass							
7th in bass							
	6	m6	add9	m add9	m(ma7)	dim(ma7)	m7#5
formula	1-3-5-6	1-b3-5-6	1-2-3-5	1-2-b3-5	1-b3-5-7	1-b3-b5-7	1-b3-#5-b7
root in bass							
third in bass						out of reach	
fifth in bass			out of reach	out of reach		out of reach	
7th in bass			"2" is not usable in the bass	"2" is not usable in the bass			

	ma7#5	ma7b5	7sus4	7sus2	ma7sus4	ma7sus2
formula	1-2-3#-5-7	1-3-b5-7	1-4-5-b7	1-2-5-b7	1-4-5-7	1-2-5-7
root in bass 157300, 157400 or 156300						
third in bass 371500, 471500 or 361500		out of reach		"2" is not usable in the bass		"2" is not usable in the bass
fifth in bass 513700, 514700, or 512700						
7th in bass 735100, 745100 or 725100						

THREE & FOUR NOTE CHORD DUPLICATES BY STRING SET

Comparing fingerings in order *down* a column, any note on the second string moves toward the head of the guitar on the third string in the next fingering below. Comparing fingerings in order *up* a column, any note on the third string moves toward the body of the guitar on the second string in the next fingering above.

Root Position Triads

chord →	major	minor	diminished	augmented	sus2	sus4
formula →	1-3-5	1-b3-5	1-b3-b5	1-3-#5	1-2-5	1-4-5
string set ↓						
3-2-1 generic 000135						
4-3-2 generic 001350						
5-4-3 generic 013500						
6-5-4 generic 135000						

First Inversion Triads

chord →	major	minor	diminished	augmented	sus2	sus4
formula →	3-5-1	b3-5-1	b3-b5-1	3-#5-1	2-5-1	4-5-1
string set ↓						
3-2-1 generic 000351						
4-3-2 generic 003510						
5-4-3 generic 035100						
6-5-4 generic 351000						

Second Inversion Triads

chord →	major	minor	diminished	augmented	sus2	sus4
formula →	5-1-3	5-1-b3	b5-1-b3	#5-1-3	5-1-2	5-1-4
string set ↓						
3-2-1 generic 000513						
4-3-2 generic 005130						
5-4-3 generic 051300						
6-5-4 generic 513000						

1573 Seventh Chords

chord →	major 7	(dominant) 7	minor 7	m7b5	7b5	7#5	m(ma7)
formula →	1-5-7-3	1-5-b7-3	1-5-b7-b3	1-b5-b7-b3	1-b5-b7-3	1-#5-b7-3	1-5-7-b3
string set ↓							
4-3-2-1							
generic 001573							
5-4-3-2							
generic 015730							
6-5-4-3							
generic 157300							

5137 Seventh Chords

chord →	major 7	(dominant) 7	minor 7	m7b5	7b5	7#5	m(ma7)
formula →	5-1-3-7	5-1-3-b7	5-1-b3-b7	b5-1-b3-b7	b5-1-3-b7	#5-1-3-b7	5-1-b3-7
string set ↓							
4-3-2-1							
generic 005137							
5-4-3-2							
generic 051370							
6-5-4-3							
generic 513700							

1735 Seventh Chords

chord →	major 7	(dominant) 7	minor 7	m7b5	7b5	7#5	m(ma7)
formula →	1-7-3-5	1-b7-3-5	1-b7-b3-5	1-b7-b3-b5	1-b7-3-b5	1-b7-3-#5	1-7-b3-5
string set ↓							
5-3-2-1 generic 010735							
6-4-3-2 generic 107350							

1357 Seventh Chords

chord →	major 7	(dominant) 7	minor 7	m7b5	7b5	7#5	m(ma7)
formula →	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7	1-3-b5-b7	1-3-#5-b7	1-b3-5-7
string set ↓							
4-3-2-1 generic 001357							
5-4-3-2 generic 013570							
6-5-4-3 generic 135700					unreachable		

MEMORIZE FULL-FRETBOARD CHORD TONES

Visualize Fifths (roots and fifths)

By visualizing full-fretboard perfect fifths, you can choose any adjacent pair of notes (making a fourth or fifth) and add to them to create triads and seventh chords. If a chord has a $\sharp 3$ and $\sharp 7$, or $b3$ and $b7$, those notes are a perfect fifth from on another also, so they can be visualized as such.

By visualizing full-fretboard diminished fifths, you can choose any adjacent pair of notes (making a fourth or fifth) and add to them to create diminished triads and minor seventh flat five chords.

If a chord has a $\sharp 3$ and $b7$ (dominant seventh type chords), or $b3$ and $\sharp 7$ (minor major seventh chords), those notes are a diminished fifth from on another also, so they can be visualized as such.

Dominant seventh chords are easy to construct, since the interval from the third to the flatted seventh is the same when it is inverted. That is, the interval up or down from $\sharp 3$ to $b7$ is the same, and the interval up or down from $b7$ to $\sharp 3$ is the same.

Visualize Serial Intervals

Stacked major seconds. Six of them make $9b5\sharp 5$ = whole tone scale

Stacked minor thirds. Four of them make a diminished seventh chord

Stacked major thirds. Three of them make an augmented triad.

Stacked perfect fourths (each analyzed from lower pitch, up):

three notes: $7sus4n5$, $sus4$, $sus2$

four notes: $m7/11\sharp 5$, $7sus4$, $sus2/4$, $6sus2$

five notes: unusable chord, $m7/11$, instable root, instable root, $ma6/9$

Notice that the stacked perfect fifths shown below create the same lists of chords as the stacked perfect fourths in reverse order.

Stacked perfect fifths (each analyzed from lower pitch, up):

three notes: $sus2$, $sus4$, $7sus4n5$

four notes: $6sus2$, $sus2/4$, $7sus4$, $m7/11n5$

five notes: $ma6/9$, instable root, instable root, $m7/11$, unusable chord

Scale-Tone Seventh Chord Progression

- **Start With Three-Note Seventh and Sixth Chords**
- **Constructing Scale-Tone Seventh Chords**
- **Major Scale-Tone Stepwise Seventh Chords**
- **Perfect Fourth Cadences**
- **Major Scale-Tone Sevenths in Fourths**
- **Seventh Chords, Stepwise and Fourths in Five Octave Shapes**
- **Major Sharp Five Scale-Tone Stepwise Seventh Chords**
- **Melodic Minor Scale-Tone Stepwise Seventh Chords**

START WITH THREE-NOTE SEVENTH AND SIXTH CHORDS

Before fingering and voicing four, five and six-note chords, play basic blues and jazz progressions as Freddy Green did with Count Basie, using three-note seventh chords. Learn the theory of construction later, but first just play some chord progressions. Learn the root in the bass versions first, then fifth in the bass. See the examples that follow.

Fingering Library

root in the bass (root position)

	major seventh	dominant 7	major 6	minor 7	m7b5	dim. 7	m6
	1-3-5-7	1-3-5-b7	1-3-5-6	1-b3-5-b7	1-b3-b5-b7		
root on sixth string, no fifth of chord					use m7 no 5 ←	use m6 no 5 →	
root on fifth string, no fifth of chord					use m7 no 5 ←	use m6 no 5 →	
root on fourth string, no fifth of chord					use m7 no 5 ←	use m6 no 5 →	
root on third string, no fifth of chord					use m7 no 5 ←	use m6 no 5 →	

fifth in the bass (second inversion)

	major seventh	dominant 7	major 6	minor 7	m7b5	dim. 7	m6
	1-3-5-7	1-3-5-b7	1-3-5-6	1-b3-5-b7	1-b3-b5-b7	1-b3-b5-6	1-b3-5-6
fifth on the sixth string, no root							
fifth on the fifth string, no root							
fifth on the fourth string, no root							

third in the bass (first inversion) - no root

	major seventh	dominant 7	major 6	minor 7	m7b5	dim. 7	m6
	1-3-5-7	1-3-5-b7	1-3-5-6	1-b3-5-b7	1-b3-b5-b7	1-b3-b5-6	1-b3-5-6
third on the sixth string, no root							
third on the fifth string, no root							
third on the fourth string, no root							
third on the third string, no root							

third in the bass (first inversion) - no fifth

	major seventh	dominant 7	major 6	minor 7	m7b5	dim. 7	m6
	1-3-5-7	1-3-5-b7	1-3-5-6	1-b3-5-b7	1-b3-b5-b7	1-b3-b5-6	1-b3-5-6
third on the sixth string, no fifth					use m7 no 5 ←	use m6 no 5 →	
third on the fifth string, no fifth					use m7 no 5 ←	use m6 no 5 →	
third on the fourth string, no fifth					use m7 no 5 ←	use m6 no 5 →	
third on the third string, no fifth					use m7 no 5 ←	use m6 no 5 →	

seventh or sixth in the bass (third inversion) - no root

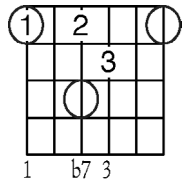
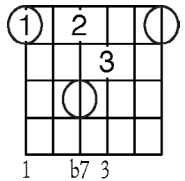
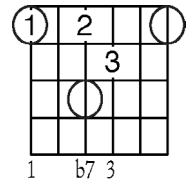
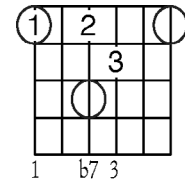
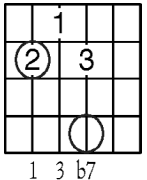
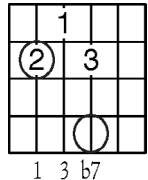
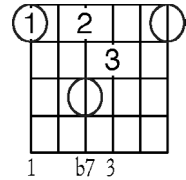
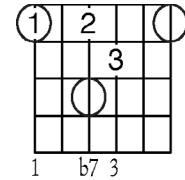
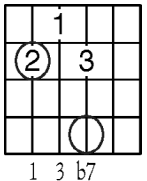
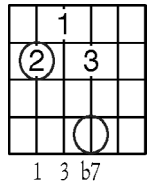
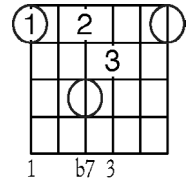
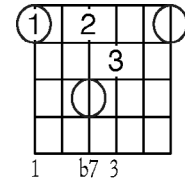
	major seventh	dominant 7	major 6	minor 7	m7b5	dim. 7	m6
	1-3-5-7	1-3-5-b7	1-3-5-6	1-b3-5-b7	1-b3-b5-b7	1-b3-b5-6	1-b3-5-6
seventh on the sixth string, no root							
seventh on the fifth string, no root							
seventh on the fourth string, no root							
seventh on the third string, no root							

seventh or sixth in the bass (third inversion) - no fifth

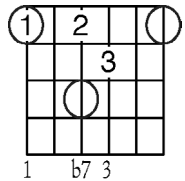
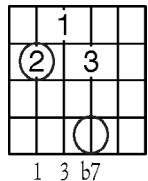
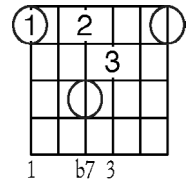
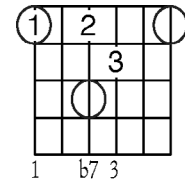
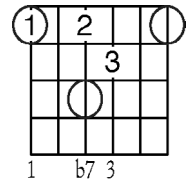
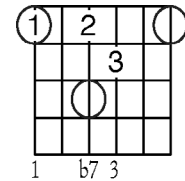
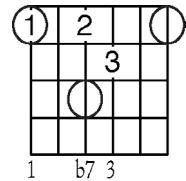
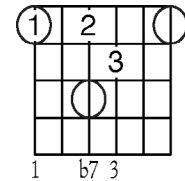
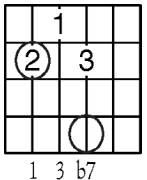
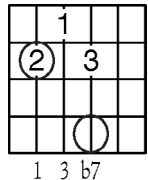
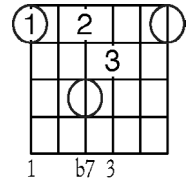
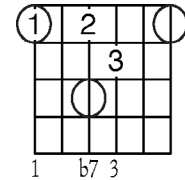
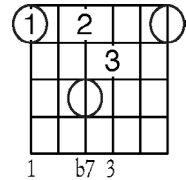
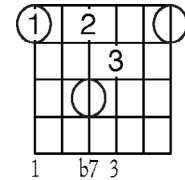
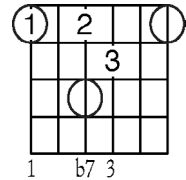
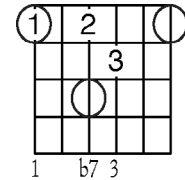
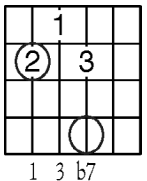
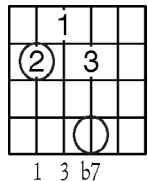
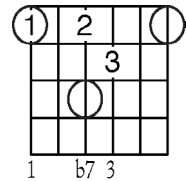
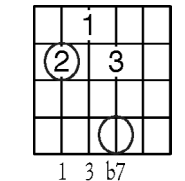
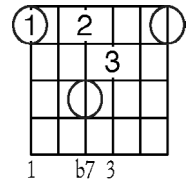
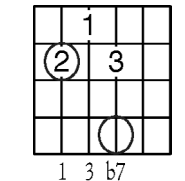
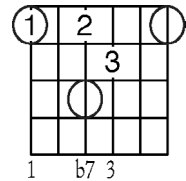
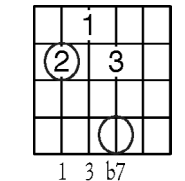
	major seventh	dominant 7	major 6	minor 7	m7b5	dim. 7	m6
	1-3-5-7	1-3-5-b7	1-3-5-6	1-b3-5-b7	1-b3-b5-b7	1-b3-b5-6	1-b3-5-6
seventh on the sixth string, no fifth					use m7 no 5 ←	use m6 no 5 →	
seventh on the fifth string, no fifth					use m7 no 5 ←	use m6 no 5 →	
seventh on the fourth string, no fifth					use m7 no 5 ←	use m6 no 5 →	
seventh on the third string, no fifth					use m7 no 5 ←	use m6 no 5 →	

Twelve Bar Blues

version 1-roots in bass

C7			
			
F7			
			
G7			
			

version 2-roots in bass

C7		F7		C7		C7	
							
F7		C7		C7		C7	
							
G7		F7		C7		G7	
							

Eight Bar Gospel Blues

Diagram 1: $1\ 3\ b7$ C^7

Diagram 2: $1\ b7\ 3$ F^7

Diagram 3: $1\ 6\ b3$ $F^{\#}7$

5 C^7 A^7 Dm^7 G^7 C^7 F^7 C^7 G^7

Swing Blues (jazz blues)

E form, key of G

open $E\ A\ D\ G\ B\ E$

III $G\ C\ F\ D\ G$

V $A\ D\ G\ C\ E\ A$

VII $B\ E\ A\ D\ B$

IX $C\ F\ G\ C$

XII $E\ A\ D\ G\ B\ E$

Diagram 1: $1\ b7\ 3$ G^7

Diagram 2: $1\ 3\ b7$ C^7

Diagram 3: $1\ b7\ 3$ G^7

Diagram 4: $1\ 3\ b7$ C^7

Diagram 5: $1\ b3\ 6$ $C^{\#}7$

Diagram 6: $1\ b7\ 3$ G^7

Diagram 7: $1\ 3\ b7$ E^7

Diagram 8: $1\ b7\ b3$ A^m7

Diagram 9: $1\ 3\ b7$ D^7

Diagram 10: $1\ b7\ 3$ G^7

Diagram 11: $1\ 3\ b7$ E^7

Diagram 12: $1\ b7\ b3$ A^m7

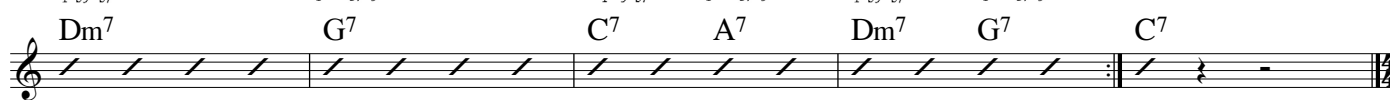
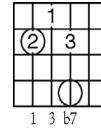
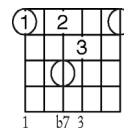
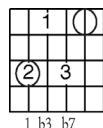
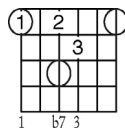
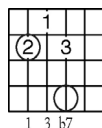
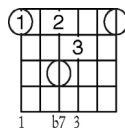
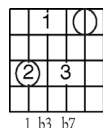
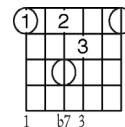
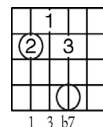
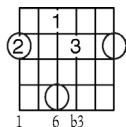
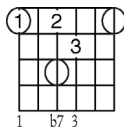
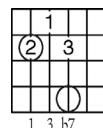
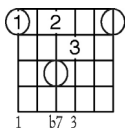
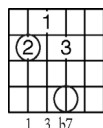
Diagram 13: $1\ 3\ b7$ D^7

Diagram 14: $1\ b7\ 3$ G^7

A^m7 D^7 G^7 E^7 A^m7 D^7 G^7

A form, key of C

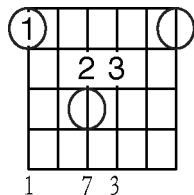
open	E	A	D	G	B	E
I	F				C	F
III	G	C	F		D	G
V	A	D	G	C	E	A
VII	B	E	A	D		B
IX	C	F		G	C	
XI	D	G	C	F	A	D
XII	E	A	D	G	B	E



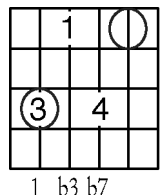
(I Got) Rhythm Changes

classic I VIm IIIm V derived from I Got Rhythm and hundred of other songs

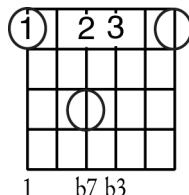
Bbma7 (Ima7)



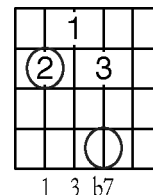
Gm7 (VIm7)



Cm7 (IIIm7)



F7 (V7)



full song

A

3 F B E A C F G C F D G B A D G C E A B E A D B C F G C B E D G C F A D E A D G B E F C F B E A G C F D G A D G C E A

5 Bbma7 Gm7 Cm7 F7 Bbma7 Gm7 Cm7 F9

7 Bbma7 Bb7 Eb6 Eo7

15 Dm7 G7 Cm7 F7 Bbma7 F7 Bbma7

B

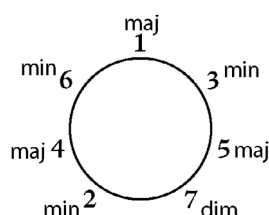
17 Am7 D9 Dm7 G7 Gm7 C7 Cm7 F7

repeat section A

CONSTRUCTING MAJOR SCALE-TONE SEVENTH CHORDS

the tertian cycle

The traditional method of building chords with the major scale is to use every-other note. Pairs of notes in this cycle such as 13, 24, 35, 46, 57, 61, are said to be an interval of a scale-tone third. The continuous cycle of thirds is called the *tertian cycle*. This makes use of the number cycle shown below:



tertian quadrads

Four notes in a row from this cycle, such as 1357, 2461, 3572, etc., form a major scale-tone seventh chord. Four note chords can be called *quadrads*. Four note chords specifically constructed in thirds (such as 1357) can be called *tertian quadrads*, but are more typically called *scale-tone seventh chords*. The term *seventh chord* is ambiguously used to refer to the family of seventh chords of various qualities. Major seventh, minor seventh, dominant seventh, etc., are collectively referred to as “seventh chords” also. Sad, but true.

major scale-tone seventh chords by roman numeral

Roman numerals (I, II, III, IV, etc.) are used to number the steps of a major scale one which chords are built. The letter name of a chord is a letter A through G, and may be followed by a sharp or flat, indicating its modification up or down a half step (one fret). To make a chord progression transposable (changable to other keys) and to compare it to other progressions, names are replaced with roman numerals. The description of the chord quality that followed the letter name remains the same. In the key of F (where Bb is the fourth step of the F major scale), Bbma7b5 would be written as IVma7b5.

major scale tone	1	2	3	4	5	6	7
major scale tones	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-6
quality	ma7	m7	m7	ma7	7	m7	m7b5
formula on root	1-3-5-7	1-b3-5-b7	1-b3-5-b7	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7
roman numeral name	Ima7	IIIm7	IIIIm7	IVma7	V7	VIIm7	VIIIm7b5
literal name in F	Fma7	Gm7	Am7	Bbma7	C7	Dm7	Em7b5
literal name in Bb	Bbma7	Cm7	Dm7	Ebma7	F7	Gm7	Am7b5

MAJOR SCALE-TONE STEPWISE SEVENTH CHORDS

See Voice Leading/[Drop Voicing](#) and [Seventh Chord Inversions by String Set](#). It is up to you to place these stepwise progressions in a key. The chord roots (letter names that name each chord) are shown by the large circles. In each row of this section, use the sequence of circled notes to form a major scale from steps one through seven.

String Set 5432 - Drop Two Voicings

root position (root in the bass) - 015730

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5
1 5 7 3	1 5 b7 b3	1 5 b7 b3	1 5 7 3	1 5 b7 3	1 5 b7 b3	1 b5 b7 b3

first inversion (third in the bass) - 037150

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5
3 7 1 5	b3 b7 1 5	b3 b7 1 5	3 7 1 5	3 b7 1 5	b3 b7 1 5	b3 b7 1 b5

second inversion (fifth in the bass) - 051370

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5
5 1 3 7	5 1 b3 b7	5 1 b3 b7	5 1 3 7	5 1 3 b7	5 1 b3 b7	b5 1 b3 b7

String Set 4321 - Drop Two Voicings

See Voice Leading/[Drop Voicing](#) and [Seventh Chord Inversions by String Set](#). It is up to you to place these stepwise progressions in a key. The chord roots (letter names that name each chord) are shown by the large circles. In each row of this section, use the sequence of circled notes to form a major scale from steps one through seven.

root position (root in the bass) - 001573

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5

first inversion (third in the bass) - 003715

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5

second inversion (fifth in the bass) - 005130

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5

Combine Root Position D Form (001573) and A Form (015730)

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5
F ^{ma} 7 III	G ^m 7 V	A ^m 7 VII	B ^b m ^a 7 VIII	C7 III	D ^m 7 V	E ^m 7b5 VII

String Set 6543 - Drop Two Voicings

See Voice Leading/[Drop Voicing](#) and [Seventh Chord Inversions by String Set](#). It is up to you to place these stepwise progressions in a key. The chord roots (letter names that name each chord) are shown by the large circles. In each row of this section, use the sequence of circled notes to form a major scale from steps one through seven.

root position (root in the bass) - 157300

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V ⁷	VI ^m 7	VII ^m 7 ^b 5
1 5 7 3	1 5 b7 b3	1 5 b7 b3	1 5 7 3	1 5 b7 3	1 5 b7 b3	1 b5 b7 b3

first inversion (third in the bass) - 371500

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V ⁷	VI ^m 7	VII ^m 7 ^b 5
3 7 1 5	b3 b7 1 5	b3 b7 1 5	3 7 1 5	3 b7 1 5	b3 b7 1 5	b3 b7 1 b5

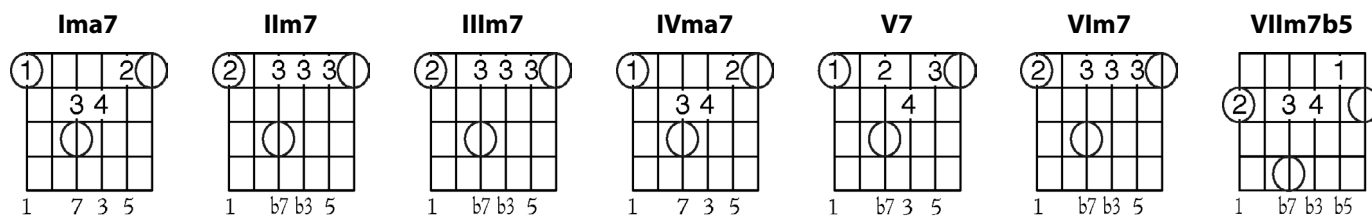
second inversion (fifth in the bass) - 513700

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V ⁷	VI ^m 7	VII ^m 7 ^b 5
5 1 3 7	5 1 b3 b7	5 1 b3 b7	5 1 3 7	5 1 3 b7	5 1 b3 b7	b5 1 b3 b7

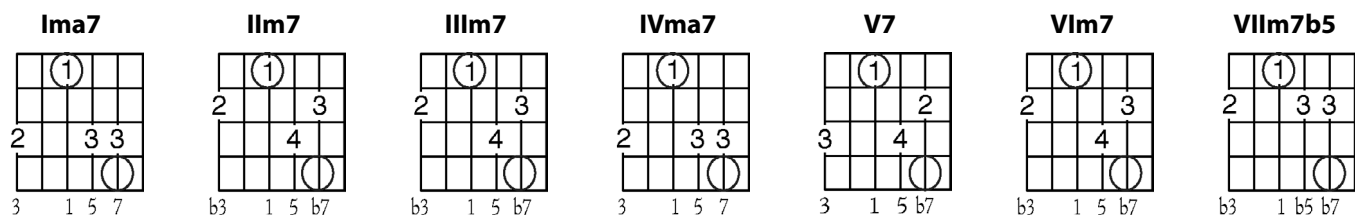
String Set 6432 - Drop Three Voicings

See Voice Leading/[Drop Voicing](#) and [Seventh Chord Inversions by String Set](#). It is up to you to place these stepwise progressions in a key. The chord roots (letter names that name each chord) are shown by the large circles. In each row of this section, use the sequence of circled notes to form a major scale from steps one through seven.

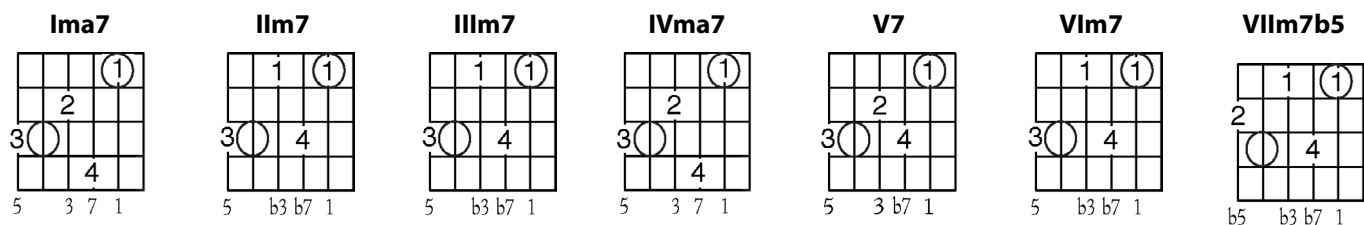
root position (root in the bass) - 107350



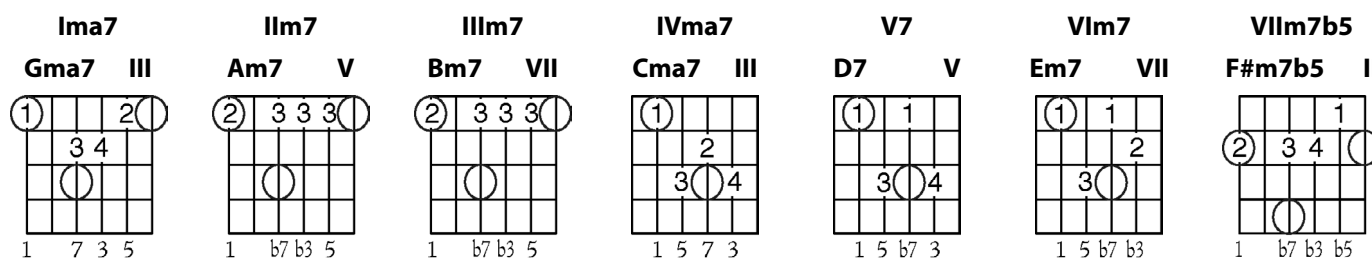
first inversion (third in the bass) - 301570



second inversion (fifth in the bass) - 503710



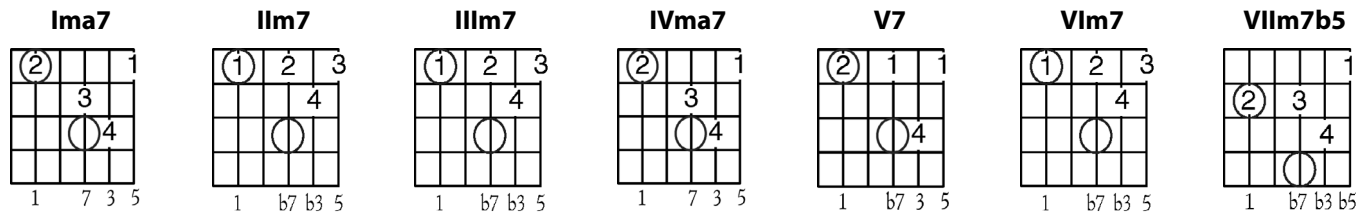
Combine Root Position E Form (107350) and A Form (015730)



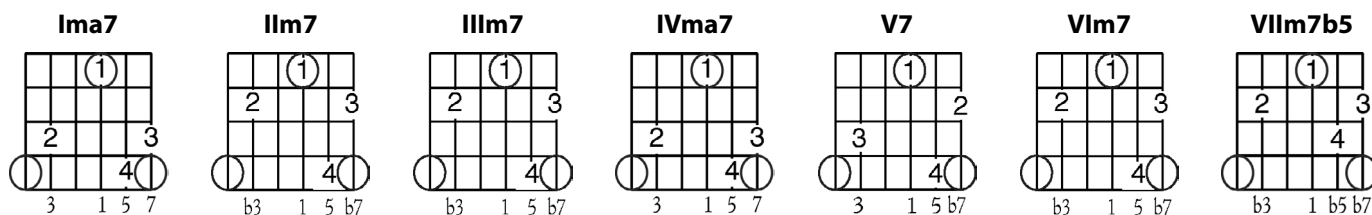
String Set 5321 - Drop Three Voicings

See Voice Leading/[Drop Voicing](#) and [Seventh Chord Inversions by String Set](#). It is up to you to place these stepwise progressions in a key. The chord roots (letter names that name each chord) are shown by the large circles. In each row of this section, use the sequence of circled notes to form a major scale from steps one through seven.

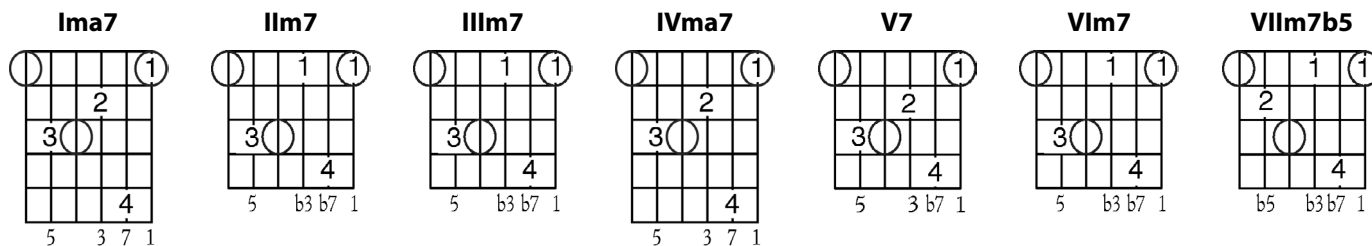
root position (root in the bass) - 010735



first inversion (third in the bass) - 030157



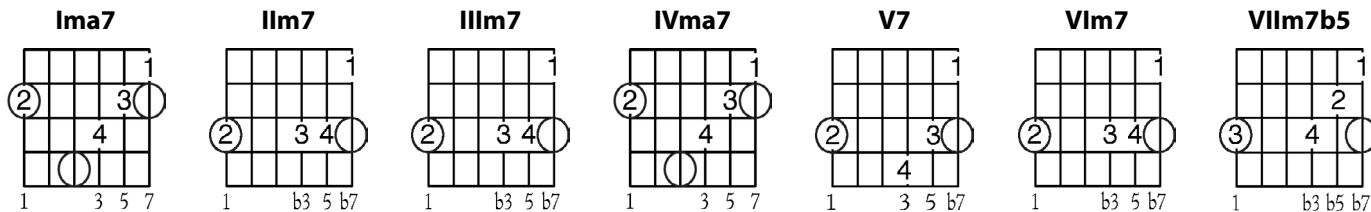
second inversion (fifth in the bass) - 050371



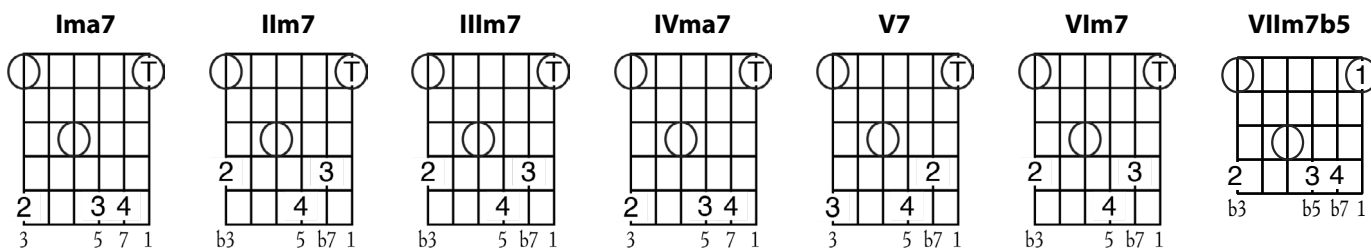
String Set 6321 - Drop Four Voicings

See Voice Leading/[Drop Voicing](#) and [Seventh Chord Inversions by String Set](#). It is up to you to place these stepwise progressions in a key. The chord roots (letter names that name each chord) are shown by the large circles. In each row of this section, use the sequence of circled notes to form a major scale from steps one through seven.

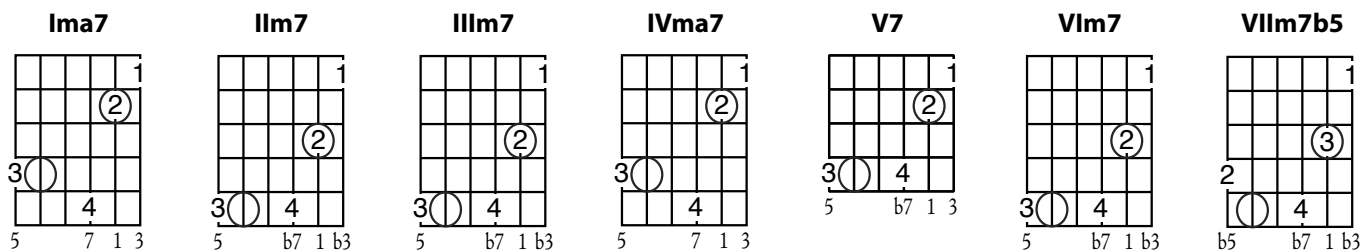
root position (root in the bass) - 100357



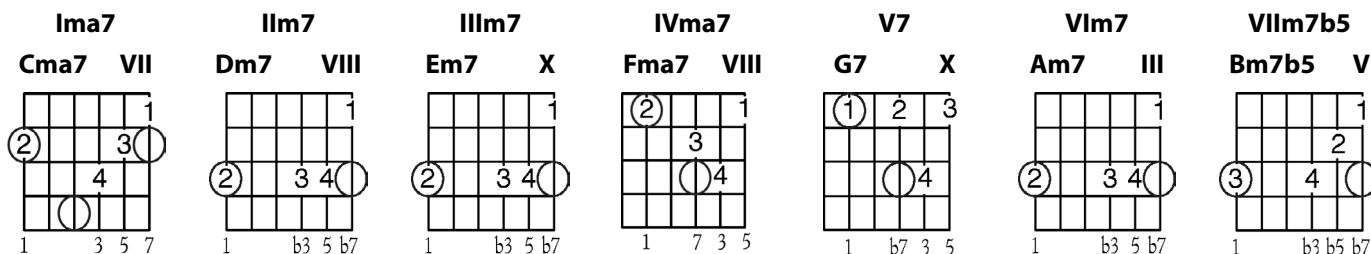
first inversion (third in the bass) - 300571 (first string thumb fretting!)



second inversion (fifth in the bass) - 500713



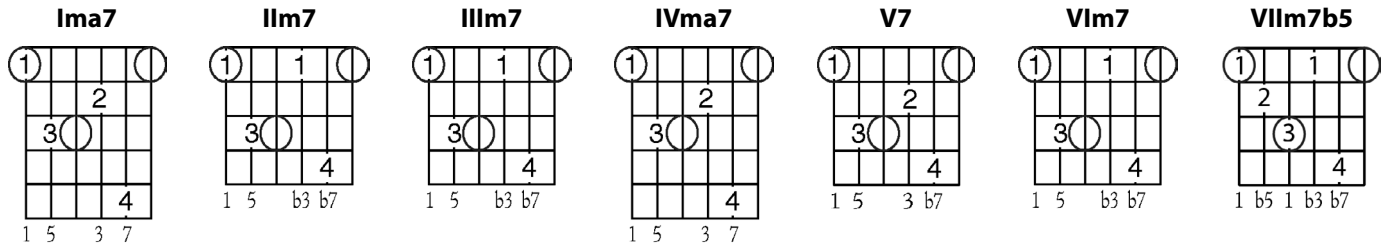
Combine Root Position G/E Form (100357) and A Form (010735)



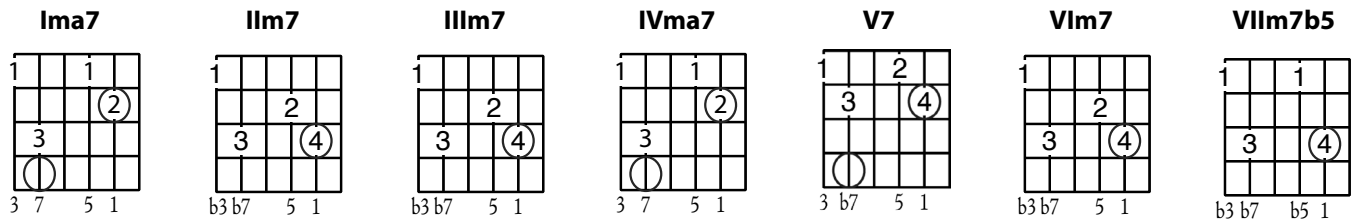
String Set 6532 - Drop Two and Four Voicings

See Voice Leading/[Drop Voicing](#) and [Seventh Chord Inversions by String Set](#). It is up to you to place these stepwise progressions in a key. The chord roots (letter names that name each chord) are shown by the large circles. In each row of this section, use the sequence of circled notes to form a major scale from steps one through seven.

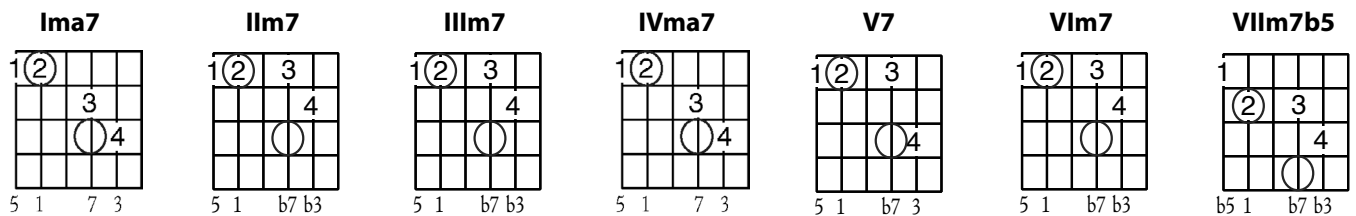
root position (root in the bass) - 150370 (VIIIm7b5 has a doubled root for easier fretting)



first inversion (third in the bass) - 370510



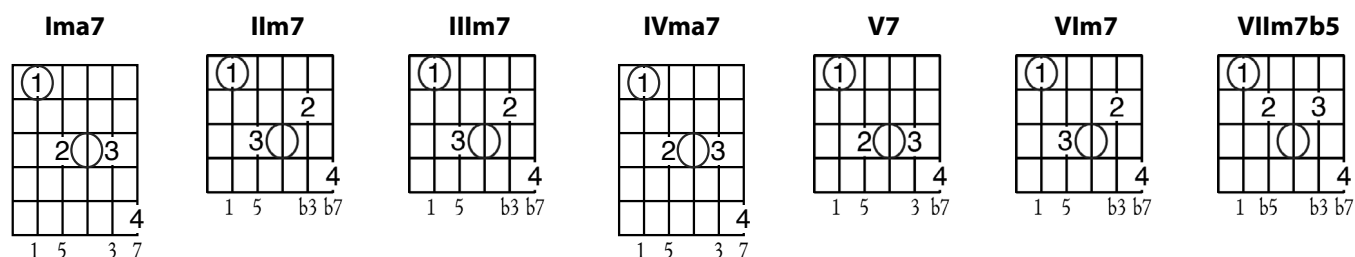
second inversion (fifth in the bass) - 510730



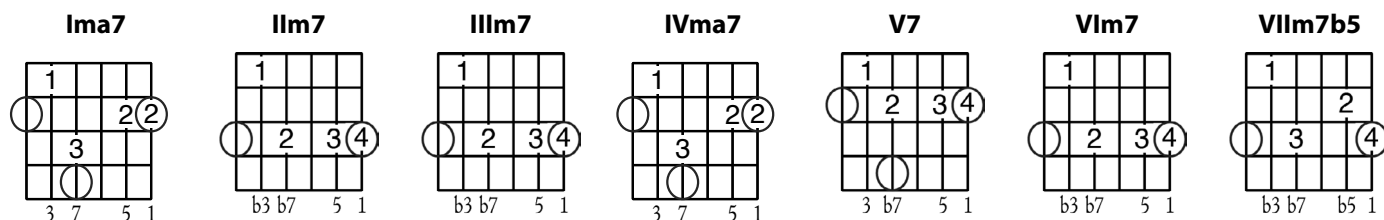
String Set 5421 - Drop Two and Four Voicings

See Voice Leading/[Drop Voicing](#) and [Seventh Chord Inversions by String Set](#). It is up to you to place these stepwise progressions in a key. The chord roots (letter names that name each chord) are shown by the large circles. In each row of this section, use the sequence of circled notes to form a major scale from steps one through seven.

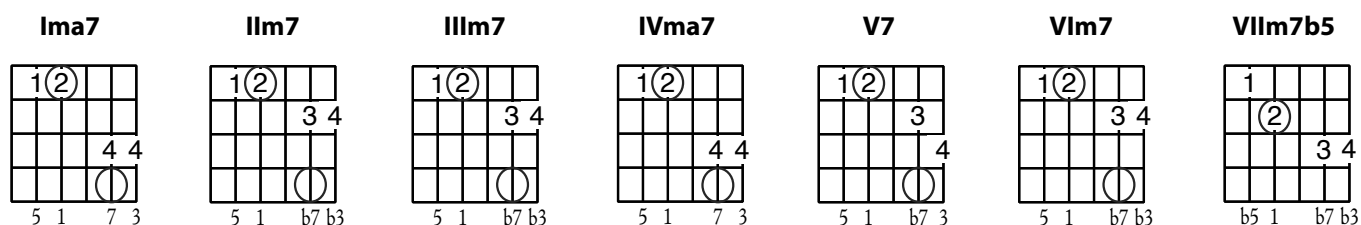
root position (root in the bass) - 015037



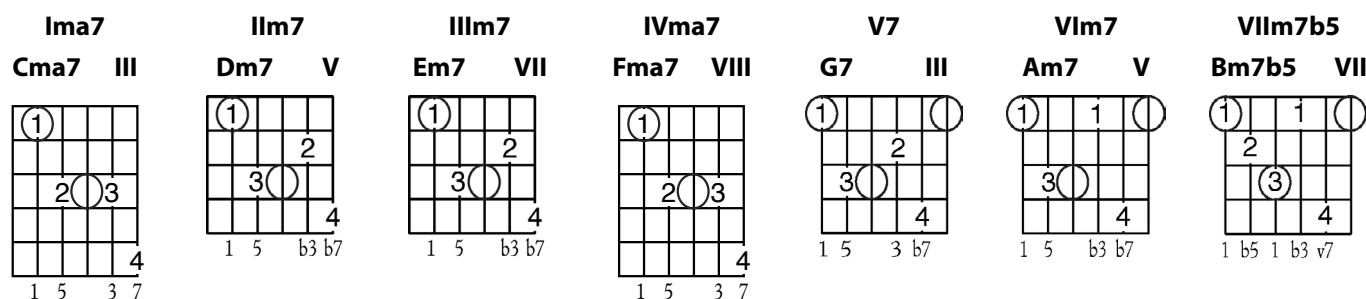
first inversion (third in the bass) - 037051



second inversion (fifth in the bass) - 051073



Combine Root Position A Form (015037) and E Form (150370)



PERFECT FOURTH CADENCES

Harmonic cadences are devices to establish a chord as the expected ending chord, and therefore its root as the tone center. This can be established for the piece of music as a whole, and for secondary and temporary tone centers during the piece.

The oldest cadence in music history is “V to I”, where the chord on the fifth step of the key scale (called the **dominant**) leads to the chord on the first step of the key scale. This chord on the fifth of the scale of the intended tonic is commonly a dominant seventh type chord (or altered dominant seventh in jazz). When the intended tonic is not the first step of the parent major scale, the the seventh type chord on the fifth of the intended tonic is called a *secondary dominant*. See [Secondary Dominant](#).

In jazz, a [flat five substitute](#) chord replaces the chord on the fifth with one a flat fifth above or below the root of the chord on the fifth of the tonic. The note a flat fifth above or below any given note is the same note. The [flat five substitute](#) becomes a chord built on the upper chromatic neighbor to the tonic, on the root up a half step (one fret) from the root of the intended tonic chord.

The 7-3-6-2-5-1-4 Series of Perfect Fourths

This is the most common structural source for cadences. The major scale is the only scale whose notes can be ordered in a continuous series of seven perfect fourths.

Four-note scale-tone chords constructed in thirds can accurately be called *major scale-tone tertian quadrads*, but are commonly called *major scale-tone seventh chords*.

Major Scale-Tone Seventh Chords in Perfect Fourths, 3-Note Voicings

roots in bass on strings 6 & 5, trade three and seven, no fifth

VIIIm7b5 F#m7(b5)nr XIV 1 b7 b3	III7 B7 XIII 1 3 b7	VIIm7 Em7 XII 1 b7 b3	IIm7 Am7 X 1 b3 b7	V7 D7 X 1 b7 3	IIma7 Gma7 IX 1 3 7	IVma7 Cma7 VIII 1 7 3
F#m7(b5) VII 1 b3 b7	B7 VII 1 b7 3	Em7 V 1 b3 b7	Am7 V 1 b7 b3	D7 IV 1 3 b7	Gma7 III 1 7 3	Cma7 II 1 3 7

roots in bass on strings 6 & 5, trade three and seven, no fifth

F#m7(b5) IX 1 b7 b3	B7 VIII 1 3 b7	Em7 VII 1 b7 b3	Am7 V 1 b3 b7	D7 V 1 b7 3	Gma7 IV 1 3 7	Cma7 III 1 7 3
F#m7(b5) II or XIV 1 b3 b7	B7 XIV 1 b7 3	Em7 XII 1 b3 b7	Am7 XII 1 b7 b3	D7 XI 1 3 b7	Gma7 X 1 7 3	Cma7 IX 1 3 7

Recognizing II-V-I Cadences in Chord Progressions

Memorize letter names in perfect fourths. The sequence is B-E-A-D-G-C-F with every note flat, followed by B-E-A-D-G-C-F (all natural), then B-E-A-D-G-C-F with all notes sharp, as shown below.

the perfect fourth series

B#-E#-A#-D#-G#-C#-F#-B-E-A-D-G-C-F-Bb-Eb-Ab-Db-Gb-Cb-Fb

Any consecutive seven of the letters in the perfect fourth series constitutes the numbered tones “7-3-6-2-5-1-4” for a particular major scale. Notice that “1” is the next to last letter in the series, so the major scale for any seven consecutive letters would be the next to last letter (reading left to right).

“II-V-I” would be the fourth through sixth letters of any consecutive seven letters, where the sixth letter is “1”. Go through a jazz fake book and look for “II-V-I” occurring multiple times in the same piece. The “II-V-I’s” will often occur in many keys in the same song. Next, you’ll need to determine whether those “II-V-I’s” are major or minor.

Recognizing II-V-I cadences is a beginning. You’ll then look for longer sequences of fourths in the “7-3-6-2-5-1-4” order: VIIIm7b-IIIIm7 (usually III7)-VIm7-IIIm7-V7-Ima7-IVma7.

Major II-V-I Cadences

In major mode, “IIIm7-V7-Ima7” is a “II-V-I” cadence. IIIm7 may be IIIm9 or other versions of IIIm7 that include 2, 4 or 6 in the key of the chord root. V7 may be V9, or other versions that include 2, 4 or 6 in the key of the chord root. Ima7 may be Ima9, I6, or other versions that include 2 or 6.

Minor II-V-I Cadences

In minor mode, “IIIm7b5-V7-Im7” (Bm7b5-E7-Am7) is a “II-V-I” cadence. Their origin is VIIIm7b5-III7-VIm7 of the parent major scale (C major scale), where the key is established on VI minor. The chord roots are then re-numbered, so VIIIm7b5 becomes IIIm7b5 ((Bm7b5))=, III7 becomes V7 (E7) and VIm7 becomes Im7. The III7 chord (functioning as V7) may optionally have #5, b9 or #9.

II V I Cadences of Four Parent Scale Types

major scale	IIIm13	V13	Ima9
harmonic minor scale	IIIm7b5	V7b9b13	Im
melodic minor scale	IIIm7b5	V9b13	Im
harmonic major scale	IIIm13b9	V9b13	Ima9

other options:

melodic minor VIIb5#5b9#9 for the II chord, harmonic minor V and Im
V13b9#9#11 using half/whole diminished scale

IIm7-V7

The most common cadence in jazz is IIm7 to V7 in major mode. Here are some of the better fingerings for the key of G, where IIm7 is Am7 and V7 is D7.

10b7b350 and inversions, descend five and seven

Am7 V	D7 III	Am7 VII	D7 VII	Am7 X	D7 X	Am7 XIII	D7 XII

10b7b350 to 015b730 and inversions

Am7 V	D7 V	Am7 VII	D7 VII	Am7 X	D7 XI	Am7 I	D7 II

015b7b30 and inversions, descend five and seven

Am7 XII	D7 XI	Am7 II	D7 II	Am7 V	D7 V	Am7 IX	D7 VII

015b7b30 and 3015b70 and inversions

Am7 XII	D7 XII	Am7 II	D7 III	Am7 V	D7 VII	Am7 IX	D7 X

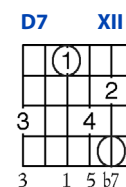
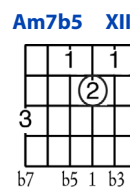
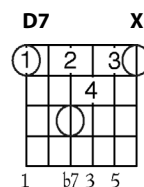
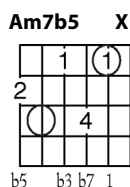
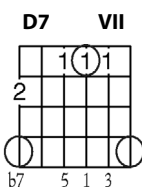
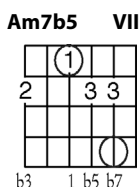
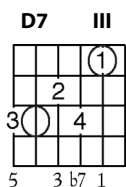
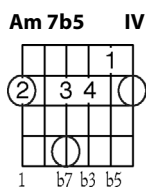
010b7b35 descend five and seven

Am7 XII	D7 X	Am7 II	D7 III	Am7 V	D7 V	Am7 VIII	D7 VII

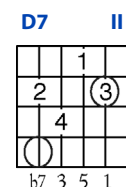
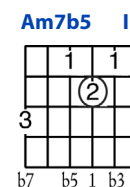
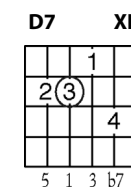
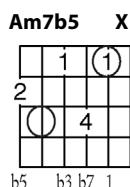
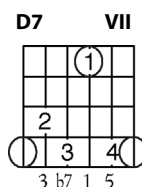
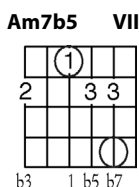
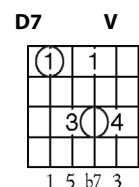
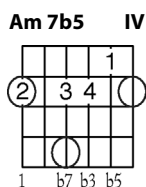
IIm7b5-V7

The minor version of the II-V cadence is IIm7b5 to V7 (optional #5, b9, #9). Its origin is VIIIm7b5-III7 of its parent major scale. Here are some of the better fingerings for the key of G minor, where IIm7b5 is Am7b5 and V7 is D7.

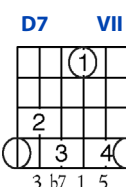
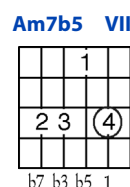
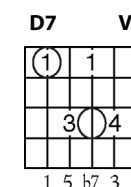
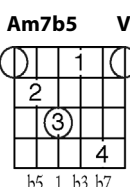
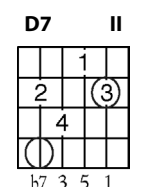
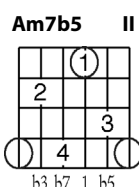
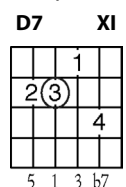
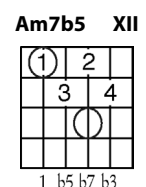
10b7b350 and inversions, descend five and seven



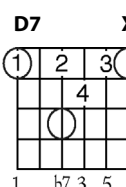
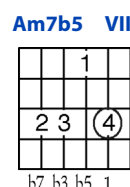
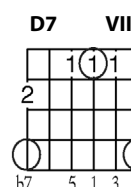
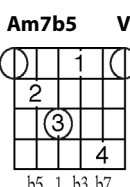
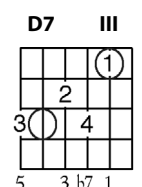
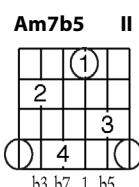
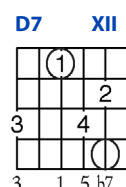
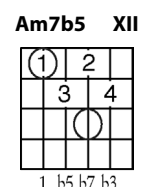
10b7b350 to 015b730 and inversions



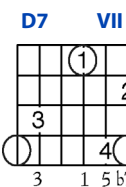
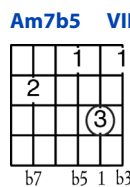
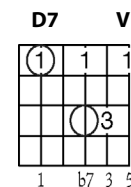
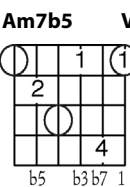
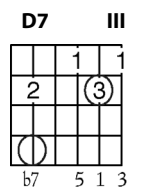
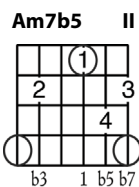
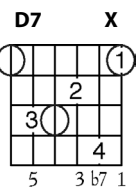
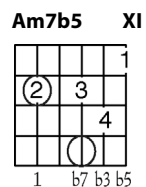
015b7b30 and inversions, descend five and seven



015b7b30 and 3015b70 and inversions



010b7b35 descend five and seven



MAJOR SCALE-TONE SEVENTHS IN FOURTHS

Major Scale-Tone Sevenths in Fourths, Bass on Strings Six and Five (five to seven-position span)

root in the bass, alternating strings six & five - 107350 (drop 3) & 015730 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Bm7b5 VI 1 b7 b3 b5	IIIm7 Em7 VII 1 5 b7 b3	VIIm7 Am7 V 1 b7 b3 5	IIIm7 Dm7 V 1 5 b7 b3	V7 G7 III 1 b7 3 5	IIm7 Cma7 III 1 5 7 3	IVma7 Fma7 I or XIII 1 7 3 5
Bm7b5 XIV 1 b5 b7 b3	Em7 XII 1 b7 b3 5	Am7 XII 1 5 b7 b3	Dm7 X 1 b7 b3 5	G7 X 1 5 b7 3	Cma7 VIII 1 7 3 5	Fma7 VIII 1 5 7 3

secondary dominant

VII7 B7 VII 1 b7 3 5	III7 E7#9 VI 1 3 b7 #2	VI7 A7 V 1 b7 3 5	II7 D7 V 1 5 b7 3	V7 alt G7#5 III 1 b7 3 #5	I7 C7 III 1 5 b7 3	IV7 F7 I or XIII 1 b7 3 5
B7 XIV 1 5 b7 3	E7 XII 1 b7 3 5	A7 XII 1 5 b7 3	D7 X 1 b7 3 5	G7#9 IX 1 3 b7 #2	C7 VIII 1 b7 3 5	F7 VIII 1 5 b7 3

flat five substitute

IV7 for VIIIm7b5 F7 VIII 1 5 b7 3	bVII7 for III7 Bb7 VI 1 b7 3 5	bII7 for VIIm7 Eb7 VI 1 5 b7 3	bVI7 for IIIm7 Ab7 IV 1 b7 3 5	bII7 for V7 Db7 IV 1 5 b7 3	bV7 for IIm7 Gb7 II 1 b7 3 5	bI7 for IVma7 Cb7 II or XIV 1 5 b7 3
F7 XIII 1 b7 3 5	Bb7 VI 1 5 b7 3	Eb7 XI 1 b7 3 5	Ab7 IX 1 5 b7 3	Db7 IX 1 b7 3 5	Gb7 IX 1 5 b7 3	Cb7 VII 1 b7 3 5

root in the bass, on strings six & five - 107350 & 015730 with secondary dominants

VIIIm7b5 Bm7b5 VI 1 b7 b3 b5	VII7 B7 VII 1 b7 3 5	IIIIm7 Em7 VII 1 5 b7 b3	III7 E7#9 VI 1 3 b7 #2	VIIm7 Am7 V 1 b7 b3 5	VI7 A7 V 1 b7 3 5	IIIm7 Dm7 V 1 5 b7 b3
II7 D7 V 1 5 b7 3	V7 G7 III 1 b7 3 5	V7 alt G7#5 III 1 b7 3 #5	IIma7 Cma7 III 1 5 7 3	I7 C7 III 1 5 b7 3	IVma7 Fma7 I 1 7 3 5	IV7 F7 I 1 b7 3 5
VIIIm7b5 Bm7b5 XIV 1 b5 b7 b3	VII7 B7 XIV 1 5 b7 3	IIIIm7 Em7 XII 1 b7 b3 5	III7 E7 XII 1 b7 3 5	VIIm7 Am7 XII 1 5 b7 b3	VI7 A7 XII 1 5 b7 3	IIIm7 Dm7 X 1 b7 b3 5
II7 D7 X 1 b7 3 5	V7 G7 X 1 5 b7 3	V7 alt G7#9 IX 1 3 b7 #2	IIma7 Cma7 VIII 1 7 3 5	I7 C7 VIII 1 b7 3 5	IVma7 Fma7 VIII 1 5 7 3	IV7 F7 VIII 1 5 b7 3

root in the bass, on strings six & five - 107350 and 015730 with flat five substitutes

VIIIm7b5 Bm7b5 VI 	IV7 for VIIIm7b5 F7 VIII 	IIIIm7 Em7 VII 	bVII7 for III7 Bb7 VI 	VIIm7 Am7 V 	bIII7 for VIIm7 Eb7 VI 	IIIm7 Dm7 V
bVI7 for IIIm7 Ab7 IV 	V7 G7 III 	bII7 for V7 Db7 IV 	IIma7 Cma7 III 	bV7 for IIma7 Gb7 II 	IVma7 Fma7 I 	VII7 for IVma7 Cb7 II
VIIIm7b5 Bm7b5 XIV 	IV7 for VIIIm7b5 F7 XIII 	IIIIm7 Em7 XII 	bVII7 for III7 Bb7 VI 	VIIm7 Am7 XII 	bIII7 for VIIm7 Eb7 XI 	IIIm7 Dm7 X
bVI7 for IIIm7 Ab7 IX 	V7 G7 X 	bII7 for V7 Db7 IX 	IIma7 Cma7 VIII 	bV7 for IIma7 Gb7 IX 	IVma7 Fma7 VIII 	bI7 for IVma7 Cb7 VII

root in the bass, alternating strings six & five - 107350 (drop 3) & 013710 (doubled root)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Bm7b5 VI 1 b7 b3 b5	IIIIm7 Em7 V 1 b3 b7 1	VIIm7 Am7 V 1 b7 b3 5	IIIm7 Dm7 III 1 b3 b7 1	V7 G7 III 1 b7 3 5	IIma7 Cma7 I 1 3 7 1	IVma7 Fma7 I or XIII 1 7 3 5
Bm7 (no b5) XII 1 b3 b7 1	Em7 XII 1 b7 b3 5	Am7 X 1 b3 b7 1	Dm7 X 1 b7 b3 5	G7 VIII 1 3 b7 1	Cma7 VIII 1 7 3 5	Fma7 VI 1 3 7 1

secondary dominant

VII7 B7 VII 1 b7 3 5	III7 E7 V 1 3 b7 1	VI7 A7 V 1 b7 3 5	II7 D7 III 1 3 b7 1	V7 alt G7b5 II 1 b7 3 5	I7 C7 I 1 3 b7 1	IV7 F7 I 1 b7 3 5
B7 XII 1 3 b7 1	E7 XII 1 b7 3 5	A7 X 1 3 b7 1	D7 X 1 b7 3 5	G7b9 IX 1 3 b7 b2	C7 VIII 1 b7 3 5	F7 VI 1 3 b7 1

flat five substitute

IV7 for VIIIm7b5 F7 VI 1 3 b7 1	bVII7 for III7 Bb7 VI 1 b7 3 5	bII7 for VIIm7 Eb7 IV 1 3 b7 1	bVI7 for IIIm7 Ab7 IV 1 b7 3 5	bII7 for V7 Db7 II 1 3 b7 1	bV7 for IIma7 Gb7 II 1 b7 3 5	bI7 for IVma7 Cb7 XII 1 3 b7 1
F7 XIII 1 b7 3 5	Bb7 XI 1 3 b7 1	Eb7 XI 1 b7 3 5	Ab7 IX 1 3 b7 1	Db7 IX 1 b7 3 5	Gb7 VII 1 3 b7 1	Cb7 VII 1 b7 3 5

root in the bass, strings six & five - 107350 (drop 3) & 013710 (doubled root) with secondary dominants

VIIIm7b5 Bm7b5 VI 	VII7 B7 VII 	IIIIm7 Em7 V 	III7 E7 V 	VIIm7 Am7 V 	VI7 A7 V 	IIIm7 Dm7 III
II7 D7 III 	V7 G7 III 	V7 alt G7b5 II 	IIma7 Cma7 I 	I7 C7 I 	IVma7 Fma7 I 	IV7 F7 I
VIIIm7b5 Bm7 (no b5) XII 	VII7 B7 XII 	IIIIm7 Em7 XII 	III7 E7 XII 	VIIm7 Am7 X 	VI7 A7 X 	IIIm7 Dm7 X
II7 D7 X 	V7 G7 VIII 	V7 alt G7b9 IX 	IIma7 Cma7 VIII 	I7 C7 VIII 	IVma7 Fma7 VI 	IV7 F7 VI

root in the bass, strings six & five - 107350 (drop 3) & 013710 (doubled root)**with flat five substitutes**

VIIIm7b5 Bm7b5 VI 1 b7 b3 b5	IV7 for VIIIm7b5 F7 VI 1 3 b7 1	IIIIm7 Em7 V 1 b3 b7 1	bVII7 for III7 Bb7 VI 1 b7 3 5	VIm7 Am7 V 1 b7 b3 5	bIII7 for VIm7 Eb7 IV 1 3 b7 1	IIIm7 Dm7 III 1 b3 b7 1
bVI7 for IIIm7 Ab7 IV 1 b7 3 5	V7 G7 III 1 b7 3 5	bII7 for V7 Db7 II 1 3 b7 1	IIma7 Cma7 I 1 3 7 1	bV7 for IIma7 Gb7 II 1 b7 3 5	IVma7 Fma7 I 1 7 3 5	bi7 for IVma7 Cb7 XII 1 3 b7 1
VIIIm7b5 Bm7 (no b5) XII 1 b3 b7 1	IV7 for VIIIm7b5 F7 XIII 1 b7 3 5	IIIIm7 Em7 XII 1 b7 b3 5	bVII7 for III7 Bb7 XI 1 3 b7 1	VIm7 Am7 X 1 b3 b7 1	bIII7 for VIm7 Eb7 XI 1 b7 3 5	IIIm7 Dm7 X 1 b7 b3 5
bVI7 for IIIm7 Ab7 IX 1 3 b7 1	V7 G7 VIII 1 3 b7 1	bII7 for V7 Db7 IX 1 b7 3 5	IIma7 Cma7 VIII 1 7 3 5	bV7 for IIma7 Gb7 VII 1 3 b7 1	IVma7 Fma7 VI 1 3 7 1	bi7 for IVma7 Cb7 VII 1 b7 3 5

third in the bass, alternating strings six & five- 301570 (drop 3) & 037150 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Bm7b5 IX b3 1 b5 b7	IIIm7 Em7 IX b3 b7 1 5	VIIm7 Am7 VII b3 1 5 b7	IIIm7 Dm7 VII b3 b7 1 5	V7 G7 V 3 1 5 b7	IIma7 Cma7 V 3 7 1 5	IVma7 Fma7 III 3 1 5 7
Bm7 (no b5) IV b3 b7 1 b5	Em7 II b3 1 5 b7	Am7 II b3 b7 1 5	Dm7 XII b3 1 5 b7	G7 XII 3 b7 1 5	Cma7 X 3 1 5 7	Fma7 X 3 7 1 5

secondary dominant

VII7 B7 IX 3 1 5 b7	III7 E7 IX 3 b7 1 5	VI7 A7 VII 3 1 5 b7	II7 D7 VII 3 b7 1 5	V7 alt G7b9 VI 3 b2 5 b7	I7 C7 V 3 b7 1 5	IV7 F7 III 3 1 5 b7
B7 IV 3 b7 1 5	E7 II 3 1 5 b7	A7 II 3 b7 1 5	D7 XII 3 1 5 b7	G7b9 XIII 3 b7 b2 5	C7 X 3 1 5 b7	F7 X 3 b7 1 5

flat five substitute

IV7 for VIIIm7b5 F7 X 3 b7 1 5	bVII7 for III7 Bb7 VIII 3 1 5 b7	bII7 for VIIm7 Eb7 VII 3 b7 1 5	bVI7 for IIIm7 Ab7 VI 3 1 5 b7	bII7 for V7 Db7 VI 3 b7 1 5	bV7 for IIma7 Gb7 IV 3 1 5 b7	bI7 for IVma7 Cb7 II 3 b7 1 5
F7 III 3 1 5 b7	Bb7 III 3 b7 1 5	Eb7 I 3 1 5 b7	Ab7 I 3 b7 1 5	Db7 XI 3 1 5 b7	Gb7 XI 3 b7 1 5	Cb7 VII 3 1 5 b7

third in the bass, alternating strings six & five- 301570 (drop 3) & 037150 (drop 2) with secondary dominants

VIIIm7b5 Bm7b5 IX 	VII7 B7 IX 	IIIIm7 Em7 IX 	III7 E7 IX 	VIIm7 Am7 VII 	VI7 A7 VII 	IIIm7 Dm7 VII
II7 D7 VII 	V7 G7 V 	V7 alt G7b9 VI 	IIma7 Cma7 V 	I7 C7 V 	IVma7 Fma7 III 	IV7 F7 III
VIIIm7b5 Bm7 (no b5) IV 	VII7 B7 IV 	IIIIm7 Em7 II 	III7 E7 II 	VIIm7 Am7 II 	VI7 A7 II 	IIIm7 Dm7 XII
II7 D7 XII 	V7 G7 XII 	V7 alt G7b9 XIII 	IIma7 Cma7 X 	I7 C7 X 	IVma7 Fma7 X 	IV7 F7 X

third in the bass, alternating strings six & five- 301570 (drop 3) & 037150 (drop 2) with flat five substitutes

VIIIm7b5 Bm7b5 IX b3 1 b5 b7	IV7 for VIIIm7b5 F7 X 3 b7 1 5	IIIIm7 Em7 IX b3 b7 1 5	bVII7 for III7 Bb7 VIII 3 1 5 b7	VIm7 Am7 VII b3 1 5 b7	bIII7 for VIm7 Eb7 VII 3 b7 1 5	IIIm7 Dm7 VII b3 b7 1 5
bVI7 for IIIm7 Ab7 VI 3 1 5 b7	V7 G7 V 3 1 5 b7	bII7 for V7 Db7 VI 3 b7 1 5	IIm7 Cma7 V 3 7 1 5	bV7 for IIm7 Gb7 IV 3 1 5 b7	IVma7 Fma7 III 3 1 5 7	bl7 for IVma7 Cb7 II 3 b7 1 5
VIIIm7b5 Bm7 (no b5) IV b3 b7 1 b5	IV7 for VIIIm7b5 F7 III 3 1 5 b7	IIIIm7 Em7 II b3 1 5 b7	bVII7 for III7 Bb7 III 3 b7 1 5	VIm7 Am7 II b3 b7 1 5	bIII7 for VIm7 Eb7 I 3 1 5 b7	IIIm7 Dm7 XII b3 1 5 b7
bVI7 for IIIm7 Ab7 I 3 b7 1 5	V7 G7 XII 3 b7 1 5	bII7 for V7 Db7 XI 3 1 5 b7	IIm7 Cma7 X 3 1 5 7	bV7 for IIm7 Gb7 XI 3 b7 1 5	IVma7 Fma7 X 3 7 1 5	bl7 for IVma7 Cb7 VII 3 1 5 b7

fifth in the bass, alternating strings six & five - 503710 (drop 3) & 051370 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Bm7b5 XII b5 b3 b7 1	IIIm7 Em7 XII 5 1 b3 b7	VIIm7 Am7 X 5 b3 b7 1	IIIm7 Dm7 X 5 1 b3 b7	V7 G7 VIII 5 3 b7 1	IIm7 Cma7 I 5 1 3 7	IVma7 Fma7 VI 5 3 7 1
Bm7 (no b5) VII b5 1 b3 b7	Em7 V 5 b3 b7 1	Am7 V 5 1 b3 b7	Dm7 III 5 b3 b7 1	G7 IV 5 1 3 b7	Cma7 I 5 3 7 1	Fma7 II 5 1 3 7

secondary dominant

VII7 B7 XII 5 3 b7 1	III7 E7 XIII 5 1 3 b7	VI7 A7 X 5 3 b7 1	II7 D7 XI 5 1 3 b7	V7 alt G7b5 VIII b5 3 b7 1	I7 C7 IX 5 1 3 b7	IV7 F7 VI 5 3 b7 1
B7 VIII 5 1 3 b7	E7 V 5 3 b7 1	A7 VI 5 1 3 b7	D7 III 5 3 b7 1	G7b5 IV b5 1 3 b7	C7 I 5 3 b7 1	F7 II 5 1 3 b7

flat five substitute

IV7 for VIIIm7b5 F7 XIV 5 1 3 b7	bVII7 for III7 Bb7 XI 5 3 b7 1	bII7 for VIIm7 Eb7 XII 5 1 3 b7	bVI7 for IIIm7 Ab7 IX 5 3 b7 1	bII7 for V7 Db7 X 5 1 3 b7	bV7 for IIm7 Gb7 VII 5 3 b7 1	bI7 for IVma7 Cb7 VIII 5 1 3 b7
F7 VI 5 3 b7 1	Bb7 VII 5 1 3 b7	Eb7 IV 5 3 b7 1	Ab7 V 5 1 3 b7	Db7 II 5 3 b7 1	Gb7 III 5 1 3 b7	Cb7 XII 5 3 b7 1

fifth in the bass, alternating strings six & five - 503710 (drop 3) & 051370 (drop 2) with secondary dominants

<p>VIIIm7b5 Bm7b5 IX</p>	<p>VII7 B7 XII</p>	<p>IIIIm7 Em7 IX</p>	<p>III7 E7 XIII</p>	<p>VIIm7 Am7 VII</p>	<p>VI7 A7 X</p>	<p>IIIm7 Dm7 VII</p>
<p>II7 D7 XI</p>	<p>V7 G7 V</p>	<p>V7 alt G7b5 VIII</p>	<p>IIma7 Cma7 V</p>	<p>I7 C7 IX</p>	<p>IVma7 Fma7 III</p>	<p>IV7 F7 VI</p>
<p>VIIIm7b5 Bm7 (no b5) IV</p>	<p>VII7 B7 VIII</p>	<p>IIIIm7 Em7 II</p>	<p>III7 E7 V</p>	<p>VIIm7 Am7 II</p>	<p>VI7 A7 VI</p>	<p>IIIm7 Dm7 XII</p>
<p>II7 D7 III</p>	<p>V7 G7 XII</p>	<p>V7 alt G7b5 IV</p>	<p>IIma7 Cma7 X</p>	<p>I7 C7 I</p>	<p>IVma7 Fma7 X</p>	<p>IV7 F7 II</p>

fifth in the bass, alternating strings six & five - 503710 (drop 3) & 051370 (drop 2) with flat five substitutes

VIIIm7b5 Bm7b5 IX 	IV7 for VIIIm7b5 F7 XIV 	IIIIm7 Em7 IX 	bVII7 for III7 Bb7 XI 	VIm7 Am7 VII 	bIII7 for VIm7 Eb7 XII 	IIIm7 Dm7 VII
bVI7 for IIIm7 Ab7 IX 	V7 G7 V 	bII7 for V7 Db7 X 	IIma7 Cma7 V 	bV7 for IIma7 Gb7 VII 	IVma7 Fma7 III 	bi7 for IVma7 Cb7 VIII
VIIIm7b5 Bm7 (no b5) IV 	IV7 for VIIIm7b5 F7 VI 	IIIIm7 Em7 II 	bVII7 for III7 Bb7 VII 	VIm7 Am7 II 	bIII7 for VIm7 Eb7 IV 	IIIm7 Dm7 XII
bVI7 for IIIm7 Ab7 V 	V7 G7 XII 	bII7 for V7 Db7 II 	IIma7 Cma7 X 	bV7 for IIma7 Gb7 III 	IVma7 Fma7 X 	bi7 for IVma7 Cb7 XII

Major Scale-Tone Sevenths in Fourths, Bass on Strings Five and Four (five to seven-position span)

root in the bass, alternating strings five & four - 010735 (drop 3) & 001573 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Bm7b5 XIII 	IIIIm7 Em7 XIV 	VIIm7 Am7 XII 	IIIm7 Dm7 XII 	V7 G7 X 	IIma7 Cma7 X 	IVma7 Fma7 VIII
Bm7b5 IX 	Em7 VII 	Am7 VII 	Dm7 V 	G7 V 	Cma7 III 	Fma7 III or XV

secondary dominant

VII7 B7 II 	III7 E7 II 	VI7 A7 XII 	II7 D7 XII 	V7 alt G7b5 IX 	I7 C7 X 	IV7 F7 VIII
B7 IX 	E7 VII 	A7 VII 	D7 V 	G7b5 V 	C7 III 	F7 III

flat five substitute

IV7 for VIIIm7b5 F7 III 	bVII7 for III7 Bb7 XIII 	bII7 for VIIm7 Eb7 XIII 	bVI7 for IIIm7 Ab7 XI 	bII7 for V7 Db7 XI 	bV7 for IIma7 Gb7 IX 	bI7 for IVma7 Cb7 IX
F7 VIII 	Bb7 VIII 	Eb7 VI 	Ab7 VI 	Db7 IV 	Gb7 IV 	Cb7 II

root in the bass, alternating strings five & four - 010735 (drop 3) & 001573 (drop 2) with secondary dominants

VIIIm7b5 Bm7b5 XIII 1 b7 b3 b5	VII7 B7 II 1 b7 3 5	IIIIm7 Em7 XIV 1 5 b7 b3	III7 E7 II 1 5 b7 3	VIIm7 Am7 XII 1 b7 b3 5	VI7 A7 XII 1 b7 3 5	IIIm7 Dm7 XII 1 5 b7 b3
II7 D7 XII 1 5 b7 3	V7 G7 X 1 b7 3 5	V7 alt G7b5 IX 1 b7 b3 b5	IIma7 Cma7 X 1 5 7 3	I7 C7 X 1 5 b7 3	IVma7 Fma7 VIII 1 7 3 5	IV7 F7 VIII 1 b7 3 5
VIIIm7b5 Bm7b5 IX 1 b5 b7 b3	VII7 B7 IX 1 5 b7 3	IIIIm7 Em7 VII 1 b7 b3 5	III7 E7 VII 1 b7 3 5	VIIm7 Am7 VII 1 5 b7 b3	VI7 A7 VII 1 5 b7 3	IIIm7 Dm7 V 1 b7 b3 5
II7 D7 V 1 b7 3 5	V7 G7 V 1 5 b7 3	V7 alt G7b5 V 1 b5 b7 3	IIma7 Cma7 III 1 7 3 5	I7 C7 III 1 b7 3 5	IVma7 Fma7 III 1 5 7 3	IV7 F7 III 1 5 b7 3

root in the bass, alternating strings five & four - 010735 (drop 3) & 001573 (drop 2) with flat five substitutes

VIIIm7b5 Bm7b5 XIII 1 b7 b3 b5	IV7 for VIIIm7b5 F7 III 1 5 b7 3	IIIIm7 Em7 XIV 1 5 b7 b3	bVII7 for III7 Bb7 XIII 1 b7 3 5	VIm7 Am7 XII 1 b7 b3 5	bIII7 for VIm7 Eb7 XIII 1 5 b7 3	IIIm7 Dm7 XII 1 5 b7 b3
bVI7 for IIIm7 Ab7 XI 1 b7 3 5	V7 G7 X 1 b7 3 5	bII7 for V7 Db7 XI 1 5 b7 3	IIm7 Cma7 X 1 5 7 3	bV7 for IIm7 Gb7 IX 1 b7 3 5	IVma7 Fma7 VIII 1 7 3 5	bl7 for IVma7 Cb7 IX 1 5 b7 3
VIIIm7b5 Bm7b5 IX 1 b5 b7 b3	IV7 for VIIIm7b5 F7 VIII 1 b7 3 5	IIIIm7 Em7 VII 1 b7 b3 5	bVII7 for III7 Bb7 VIII 1 5 b7 3	VIm7 Am7 VII 1 5 b7 b3	bIII7 for VIm7 Eb7 VI 1 b7 3 5	IIIm7 Dm7 V 1 b7 b3 5
bVI7 for IIIm7 Ab7 VI 1 5 b7 3	V7 G7 V 1 5 b7 3	bII7 for V7 Db7 IV 1 b7 3 5	IIm7 Cma7 III 1 7 3 5	bV7 for IIm7 Gb7 IV 1 5 b7 3	IVma7 Fma7 III 1 5 7 3	bl7 for IVma7 Cb7 II 1 b7 3 5

root in the bass, alternating strings five & four - 010735 (drop 2) & 001371 (doubled root)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIm7b5 Bm7b5 XIII 1 b7 b3 b5	IIIIm7 Em7 XII 1 b3 b7 1	VIIm7 Am7 XII 1 b7 b3 5	IIIm7 Dm7 X 1 b3 b7 1	V7 G7 X 1 b7 3 5	IIma7 Cma7 VIII 1 3 b7 1	IVma7 Fma7 VIII 1 7 3 5
Bm7b5 (no 5) VII 1 b3 b7 1	Em7 VII 1 b7 b3 5	Am7 V 1 b3 b7 1	Dm7 V 1 b7 b3 5	G7 III 1 3 b7 1	Cma7 III 1 7 3 5	Fma7 I or XIII 1 3 b7 1

secondary dominant

VII7 B7 XIV 1 b7 3 5	III7 E7 XII 1 3 b7 1	VI7 A7 XII 1 b7 3 5	II7 D7 X 1 3 b7 1	V7 alt G7b9 X 1 b7 3 5	I7 C7 VIII 1 3 b7 1	IV7 F7 VIII 1 b7 3 5
B7 VII 1 3 b7 1	E7 VII 1 b7 3 5	A7 V 1 3 b7 1	D7 V 1 b7 3 5	G7 III 1 3 b7 1	C7 III 1 b7 3 5	F7 I 1 3 b7 1

flat five substitute

IV7 for VIIm7b5 F7 XIII 1 3 b7 1	bVII7 for III7 Bb7 XIII 1 b7 3 5	bIII7 for VIIm7 Eb7 XI 1 3 b7 1	bVI7 for IIIm7 Ab7 XI 1 b7 3 5	bII7 for V7 Db7 IX 1 3 b7 1	bV7 for Ima7 Gb7 IX 1 b7 3 5	bI7 for IVma7 Cb7 VII 1 3 b7 1
F7 VIII 1 b7 3 5	Bb7 VI 1 3 b7 1	Eb7 VI 1 b7 3 5	Ab7 IV 1 3 b7 1	Db7 IV 1 b7 3 5	Gb7 II 1 3 b7 1	Cb7 XII 1 b7 3 5

root in the bass, alternating strings five & four - 010735 (drop 2) & 001371 (doubled root) with secondary dominants

<p>VIIIm7b5 Bm7b5 XIII</p> <p>1 b7 b3 b5</p>	<p>VII7 B7 XIV</p> <p>1 b7 3 5</p>	<p>IIIIm7 Em7 XII</p> <p>1 b3 b7 1</p>	<p>III7 E7 XII</p> <p>1 3 b7 1</p>	<p>VIIm7 Am7 XII</p> <p>1 b7 b3 5</p>	<p>VI7 A7 XII</p> <p>1 b7 3 5</p>	<p>IIIm7 Dm7 X</p> <p>1 b3 b7 1</p>
<p>II7 D7 X</p> <p>1 3 b7 1</p>	<p>V7 G7 X</p> <p>1 b7 3 5</p>	<p>V7 alt G7b9 X</p> <p>1 b7 3 5</p>	<p>IIma7 Cma7 VIII</p> <p>1 3 b7 1</p>	<p>I7 C7 VIII</p> <p>1 3 b7 1</p>	<p>IVma7 Fma7 VIII</p> <p>1 7 3 5</p>	<p>IV7 F7 VIII</p> <p>1 b7 3 5</p>
<p>VIIIm7b5 Bm7b5 (no 5) VII</p> <p>1 b3 b7 1</p>	<p>VII7 B7 VII</p> <p>1 3 b7 1</p>	<p>IIIIm7 Em7 VII</p> <p>1 b7 b3 5</p>	<p>III7 E7 VII</p> <p>1 b7 3 5</p>	<p>VIIm7 Am7 V</p> <p>1 b3 b7 1</p>	<p>VI7 A7 V</p> <p>1 3 b7 1</p>	<p>IIIm7 Dm7 V</p> <p>1 b7 b3 5</p>
<p>II7 D7 V</p> <p>1 b7 3 5</p>	<p>V7 G7 III</p> <p>1 3 b7 1</p>	<p>V7 alt G7 III</p> <p>1 3 b7 1</p>	<p>IIma7 Cma7 III</p> <p>1 7 3 5</p>	<p>I7 C7 III</p> <p>1 b7 3 5</p>	<p>IVma7 Fma7 I</p> <p>1 3 b7 1</p>	<p>IV7 F7 I</p> <p>1 3 b7 1</p>

root in the bass, alternating strings five & four - 010735 (drop 2) & 001371 (doubled root) with flat five substitutes

VIIIm7b5 Bm7b5 XIII 1 b7 b3 b5	IV7 for VIIIm7b5 F7 XIII 1 3 b7 1	IIIIm7 Em7 XII 1 b3 b7 1	bVII7 for III7 Bb7 XIII 1 b7 3 5	VIm7 Am7 XII 1 b7 b3 5	bIII7 for VIm7 Eb7 XI 1 3 b7 1	IIIm7 Dm7 X 1 b3 b7 1
bVI7 for IIIm7 Ab7 XI 1 b7 3 5	V7 G7 X 1 b7 3 5	bII7 for V7 Db7 IX 1 3 b7 1	IIma7 Cma7 VIII 1 3 b7 1	bV7 for IIma7 Gb7 IX 1 b7 3 5	IVma7 Fma7 VIII 1 7 3 5	bi7 for IVma7 Cb7 VII 1 3 b7 1
VIIIm7b5 Bm7b5 (no 5) VII 1 b3 b7 1	IV7 for VIIIm7b5 F7 VIII 1 b7 3 5	IIIIm7 Em7 VII 1 b7 b3 5	bVII7 for III7 Bb7 VI 1 3 b7 1	VIm7 Am7 V 1 b3 b7 1	bIII7 for VIm7 Eb7 VI 1 b7 3 5	IIIm7 Dm7 V 1 b7 b3 5
bVI7 for IIIm7 Ab7 IV 1 3 b7 1	V7 G7 III 1 3 b7 1	bII7 for V7 Db7 IV 1 b7 3 5	IIma7 Cma7 III 1 7 3 5	bV7 for IIma7 Gb7 II 1 3 b7 1	IVma7 Fma7 I 1 3 b7 1	bi7 for IVma7 Cb7 XII 1 b7 3 5

third in the bass, alternating strings five & four - 030157 (drop 3) & 003715 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Em7b5 IX b3 1 b5 b7	IIIm7 Am7 X b3 b7 1 5	VIIm7 Dm7 VII b3 1 5 b7	IIIm7 Gm7 VIII b3 b7 1 5	V7 C7 V 3 1 5 b7	IIm7 Fma7 VI 3 7 1 5	IVma7 Bbma7 III 3 1 5 7
Em7b5 V b3 b7 1 b5	Am7 II b3 1 5 b7	Dm7 III b3 b7 1 5	Gm7 XII b3 1 5 b7	C7 XIII 3 b7 1 5	Fma7 X 3 1 5 7	Bbma7 XI 3 7 1 5

secondary dominant

VII7 E7 IX 3 1 5 b7	III7 A7 X 3 b7 1 5	VI7 D7 VII 3 1 5 b7	II7 G7 VIII 3 b7 1 5	V7 alt C7b9 VI 3 b2 5 b7	I7 F7 VI 3 b7 1 5	IV7 Bb7 III 3 1 5 b7
E7 V 3 b7 1 5	A7 II 3 1 5 b7	D7 III 3 b7 1 5	G7 XII 3 1 5 b7	C7b9 XIII 3 b7 b2 5	F7 X 3 1 5 b7	Bb7 XI 3 b7 1 5

flat five substitute

IV7 for VIIIm7b5 Bb7 XI 3 b7 1 5	bVII7 for III7 Eb7 VIII 3 1 5 b7	bIIIm7 for VIIm7 Ab7 IX 3 b7 1 5	bVI7 for IIIm7 Db7 VI 3 1 5 b7	bIIIm7 for V7 Gb7 VII 3 b7 1 5	bV7 for IIm7 Cb7 IV 3 1 5 b7	bI7 for IVma7 Fb7 V 3 b7 1 5
Bb7 III 3 1 5 b7	Eb7 IV 3 b7 1 5	Ab7 XIII 3 1 5 b7	Db7 XIV 3 b7 1 5	Gb7 XI 3 1 5 b7	Cb7 XII 3 b7 1 5	Fb7 IX 3 1 5 b7

third in the bass, alternating strings five & four - 030157 (drop 3) & 003715 (drop 2) with secondary dominants

VIIIm7b5 Em7b5 IX 	VII7 E7 IX 	IIIIm7 Am7 X 	III7 A7 X 	VIIm7 Dm7 VII 	VI7 D7 VII 	IIIm7 Gm7 VIII
II7 G7 VIII 	V7 C7 V 	V7 alt C7b9 VI 	IIma7 Fma7 VI 	I7 F7 VI 	IVma7 Bbma7 III 	IV7 Bb7 III
VIIIm7b5 Em7b5 V 	VII7 E7 V 	IIIIm7 Am7 II 	III7 A7 II 	VIIm7 Dm7 III 	VI7 D7 III 	IIIm7 Gm7 XII
II7 G7 XII 	V7 C7 XIII 	V7 alt C7b9 XIII 	IIma7 Fma7 X 	I7 F7 X 	IVma7 Bbma7 XI 	IV7 Bb7 XI

third in the bass, alternating strings five & four - 030157 (drop 3) & 003715 (drop 2) with secondary dominants

VIIIm7b5 Em7b5 IX b3 1 b5 b7	IV7 for VIIIm7b5 Bb7 XI 3 b7 1 5	IIIIm7 Am7 X b3 b7 1 5	bVII7 for III7 Eb7 VIII 3 1 5 b7	VIm7 Dm7 VII b3 1 5 b7	bIII7 for VIm7 Ab7 IX 3 b7 1 5	IIIm7 Gm7 VIII b3 b7 1 5
bVI7 for IIIm7 Db7 VI 3 1 5 b7	V7 C7 V 3 1 5 b7	bII7 for V7 Gb7 VII 3 b7 1 5	IIma7 Fma7 VI 3 7 1 5	bV7 for IIma7 Cb7 IV 3 1 5 b7	IVma7 Bbma7 III 3 1 5 7	bi7 for IVma7 Fb7 V 3 b7 1 5
VIIIm7b5 Em7b5 V b3 b7 1 b5	IV7 for VIIIm7b5 Bb7 III 3 1 5 b7	IIIIm7 Am7 II b3 1 5 b7	bVII7 for III7 Eb7 IV 3 b7 1 5	VIm7 Dm7 III b3 b7 1 5	bIII7 for VIm7 Ab7 XIII 3 1 5 b7	IIIm7 Gm7 XII b3 1 5 b7
bVI7 for IIIm7 Db7 XIV 3 b7 1 5	V7 C7 XIII 3 b7 1 5	bII7 for V7 Gb7 XI 3 1 5 b7	IIma7 Fma7 X 3 1 5 7	bV7 for IIma7 Cb7 XII 3 b7 1 5	IVma7 Bbma7 XI 3 7 1 5	bi7 for IVma7 Fb7 IX 3 1 5 b7

fifth in the bass, alternating strings five & four - 050371 (drop 3) & 005137 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Em7b5 XII b5 b3 b7 1	IIIIm7 Am7 XIII 5 1 b3 b7	VIIm7 Dm7 X 5 b3 b7 1	IIIm7 Gm7 XI 5 1 b3 b7	V7 C7 VIII 5 3 b7 1	IIma7 Fma7 X 5 1 3 7	IVma7 Bbma7 VI 5 3 7 1
Em7b5 VIII b5 1 b3 b7	Am7 V 5 b3 b7 1	Dm7 VI 5 1 b3 b7	Gm7 III 5 b3 b7 1	C7 V 5 1 3 b7	Fma7 I 5 3 7 1	Bbma7 III 5 1 3 7

secondary dominant

VII7 E7 XII 5 3 b7 1	III7 A7 XIV 5 1 3 b7	VI7 D7 X 5 3 b7 1	II7 G7 XII 5 1 3 b7	V7 alt C7b9 IX 5 3 b7 b2	I7 F7 X 5 1 3 b7	IV7 Bb7 VI 5 3 b7 1
E7 IX 5 1 3 b7	A7 V 5 3 b7 1	D7 VII 5 1 3 b7	G7 III 5 3 b7 1	C7b9 V 5 b2 3 b7	F7 I 5 3 b7 1	Bb7 III 5 1 3 b7

flat five substitute

IV7 for VIIIm7b5 Bb7 XV 5 1 3 b7	bVII7 for III7 Eb7 XI 5 3 b7 1	bIII7 for VIIm7 Ab7 XIII 5 1 3 b7	bVI7 for IIIm7 Db7 IX 5 3 b7 1	bII7 for V7 Gb7 XI 5 1 3 b7	bV7 for Ima7 Cb7 VII 5 3 b7 1	bI7 for IVma7 Fb7 IX 5 1 3 b7
Bb7 VI 5 3 b7 1	Eb7 VIII 5 1 3 b7	Ab7 IV 5 3 b7 1	Db7 VI 5 1 3 b7	Gb7 II 5 3 b7 1	Cb7 IV 5 1 3 b7	Fb7 XII 5 3 b7 1

fifth in the bass, alternating strings five & four - 050371 (drop 3) & 005137 (drop 2) **with secondary dominants**

<p>VIIIm7b5 Em7b5 XII</p>	<p>VII7 E7 XII</p>	<p>IIIIm7 Am7 XIII</p>	<p>III7 A7 XIV</p>	<p>VIIm7 Dm7 X</p>	<p>VI7 D7 X</p>	<p>IIIm7 Gm7 XI</p>
<p>II7 G7 XII</p>	<p>V7 C7 VIII</p>	<p>V7 alt C7b9 IX</p>	<p>IIma7 Fma7 X</p>	<p>I7 F7 X</p>	<p>IVma7 Bbma7 VI</p>	<p>IV7 Bb7 VI</p>
<p>VIIIm7b5 Em7b5 VIII</p>	<p>VII7 E7 IX</p>	<p>IIIIm7 Am7 V</p>	<p>III7 A7 V</p>	<p>VIIm7 Dm7 VI</p>	<p>VI7 D7 VII</p>	<p>IIIm7 Gm7 III</p>
<p>II7 G7 III</p>	<p>V7 C7 V</p>	<p>V7 alt C7b9 V</p>	<p>IIma7 Fma7 I</p>	<p>I7 F7 I</p>	<p>IVma7 Bbma7 III</p>	<p>IV7 Bb7 III</p>

fifth in the bass, alternating strings five & four - 050371 (drop 3) & 005137 (drop 2) with flat five substitutes

VIIIm7b5 Em7b5 XII 	IV7 for VIIIm7b5 Bb7 XV 	IIIm7 Am7 XIII 	bVII7 for III7 Eb7 XI 	VIIm7 Dm7 X 	bII7 for VIIm7 Ab7 XIII 	IIIm7 Gm7 XI
bVI7 for IIIm7 Db7 IX 	V7 C7 VIII 	bII7 for V7 Gb7 XI 	IIm7 Fma7 X 	bV7 for IIm7 Cb7 VII 	IVma7 Bbma7 VI 	bI7 for IVma7 Fb7 IX
VIIIm7b5 Em7b5 VIII 	IV7 for VIIIm7b5 Bb7 VI 	IIIm7 Am7 V 	bVII7 for III7 Eb7 VIII 	VIIm7 Dm7 VI 	bII7 for VIIm7 Ab7 IV 	IIIm7 Gm7 III
bVI7 for IIIm7 Db7 VI 	V7 C7 V 	bII7 for V7 Gb7 II 	IIm7 Fma7 I 	bV7 for IIm7 Cb7 IV 	IVma7 Bbma7 III 	bI7 for IVma7 Fb7 XII

Major Scale-Tone Sevenths in Fourths, Descend Five and Seven

The remaining progressions this section are “Descend Five and Seven” voicings, where the root and the fifth of each chord are retained in the next chord, while the fifth and seventh of each chord descend one scale tone in the next chord. The following voice leading occurs:

- ✦ The root of each chord is retained and becomes the fifth of the next chord
- ✦ The third of each chord is retained and becomes the seventh of the next chord
- ✦ The fifth of each chord descends to become the root of the next chord
- ✦ The seventh of each chord descends to become the third of the next chord

See Voice Leading/[Descend Five and Seven](#).

Major Scale-Tone Sevenths in Fourths, Descend Five and Seven, Bass on Sixth String (five to seven-fret span)

alternating root & fifth in bass on sixth string - 107350 (drop 3) & 503710 (drop 3)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Bm7b5 VI 	IIIIm7 Em7 V 	VIIm7 Am7 V 	IIIm7 Dm7 III 	V7 G7 III 	IIma7 Cma7 I 	IVma7 Fma7 I or XIII
Bm7b5 XII 	Em7 XII 	Am7 X 	Dm7 X 	G7 VIII 	Cma7 VIII 	Fma7 VI

secondary dominant

VII7 B7 VII 	III7 E7 V 	VI7 A7 V 	II7 D7 III 	V7 alt G7#5 III 	I7 C7 I 	IV7 F7 I or XIII
B7 XII 	E7 XII 	A7 X 	D7 X 	G7b9 IX 	C7 VIII 	F7 VI

flat five substitute

IV7 for VIIIm7b5 F7 VI 	bVII7 for III7 Bb7 VI 	bIII7 for VIIm7 Eb7 IV 	bVI7 for IIIm7 Ab7 IV 	bII7 for V7 Db7 II 	bV7 for IIma7 Gb7 II or XIV 	bI7 for IVma7 Cb7 XII
F7 I 	Bb7 XI 	Eb7 XI 	Ab7 IX 	Db7 IX 	Gb7 VII 	Cb7 VII

alternating root & fifth in bass on sixth string - 107350 & 015730 with secondary dominants

VIIIm7b5 Bm7b5 VI 	VII7 B7 VII 	IIIIm7 Em7 V 	III7 E7 V 	VIIm7 Am7 V 	VI7 A7 V 	IIIm7 Dm7 III
II7 D7 III 	V7 G7 III 	V7 alt G7#5 III 	IIma7 Cma7 I 	I7 C7 I 	IVma7 Fma7 I 	IV7 F7 I or XIII
VIIIm7b5 Bm7b5 XII 	VII7 B7 XII 	IIIIm7 Em7 XII 	III7 E7 XII 	VIIm7 Am7 X 	VI7 A7 X 	IIIm7 Dm7
II7 D7 X 	V7 G7 X 	V7 alt G7b9 IX 	IIma7 Cma7 VIII 	I7 C7 VIII 	IVma7 Fma7 VI 	IV7 F7 VI

alternating root & fifth in bass on sixth string - 107350 & 015730 with flat five substitutes

VIIIm7b5 Bm7b5 VI 	IV7 for VIIIm7b5 F7 VI 	IIIm7 Em7 V 	bVII7 for III7 Bb7 VI 	VIIm7 Am7 V 	bIII7 for VIIm7 Eb7 IV 	IIIm7 Dm7 III
bVI7 for IIIm7 Ab7 IV 	V7 G7 III 	bII7 for V7 Db7 II 	IIma7 Cma7 I 	bV7 for Ima7 Gb7 II 	IVma7 Fma7 I or XIII 	bI7 for IVma7 Cb7 XII
VIIIm7b5 Bm7b5 XII 	IV7 for VIIIm7b5 F7 XIII 	IIIm7 Em7 XII 	bVII7 for III7 Bb7 XI 	VIIm7 Am7 X 	bIII7 for VIIm7 Eb7 XI 	IIIm7 Dm7
bVI7 for IIIm7 Ab7 IX 	V7 G7 X 	bII7 for V7 Db7 IX 	IIma7 Cma7 VIII 	bV7 for Ima7 Gb7 VII 	IVma7 Fma7 VI 	VII7 for IVma7 Cb7 VII

alternating third & seventh in bass on sixth string - 301570 (drop 3) & 705130 (drop 3)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Bm7b5 IX	IIIIm7 Em7 VIII	VIIm7 Am7 VII	IIIm7 Dm7 VI	V7 G7 V	IIma7 Cma7 V	IVma7 Fma7 III
Bm7b5 III	Em7 II	Am7 I or XIII	Dm7 XII	G7 XII	Cma7 X	Fma7 X

secondary dominant

VII7 B7 IX	III7 E7 IX	VI7 A7 VII	II7 D7 VII	V7 alt G7b9 VI	I7 C7 V	IV7 F7 III
B7 II V	E7 II	A7 II	D7 XII	G7b9 XII	C7 X	F7 X

flat five substitute

IV7 for VIIIm7b5 F7 X	bVII7 for III7 Bb7 VIII	bII7 for VIIm7 Eb7 VIII	bVI7 for IIIm7 Ab7 VI	bII7 for V7 Db7 VI	bV7 for IIma7 Gb7 IV	bI7 for IVma7 Cb7 IV
F7 III	Bb7 III	Eb7 XIII	Ab7 XIII	Db7 XI	Gb7 XI	Cb7 IX

alternating third & seventh in bass on sixth string - 301570 (drop 3) & 705130 (drop 3) with secondary dominants

VIIIm7b5 Bm7b5 IX b3 1 b5 b7	VII7 B7 IX 3 1 5 b7	IIIIm7 Em7 VIII b7 5 1 b3	III7 E7 IX b7 5 1 3	VIIm7 Am7 VII b3 1 5 b7	VI7 A7 VII 3 1 5 b7	IIIm7 Dm7 VI b7 5 1 b3
II7 D7 VII b7 5 1 3	V7 G7 V 3 1 5 b7	V7 alt G7b9 VI 3 b2 5 b7	IIma7 Cma7 V 7 5 1 3	I7 C7 b7 5 1 3	IVma7 Fma7 III 3 1 5 7	IV7 F7 III 3 1 5 b7
VIIIm7b5 Bm7b5 III b7 b5 1 b3	VII7 B7 IV b7 5 1 3	IIIIm7 Em7 II b3 1 5 b7	III7 E7 II 3 1 5 b7	VIIm7 Am7 I b7 5 1 b3	VI7 A7 II or XIV b7 5 1 3	IIIm7 Dm7 XII b3 1 5 b7
II7 D7 XII 3 1 5 b7	V7 G7 XII b7 5 1 3	V7 alt G7b9 XII b7 5 b2 3	IIma7 Cma7 X 3 1 5 7	I7 C7 X 3 1 5 b7	IVma7 Fma7 X 7 5 1 3	IV7 F7 X b7 5 1 3

alternating third & seventh in bass on sixth string - 301570 (drop 3) & 705130 (drop 3) with flat five substitutes

VIIIm7b5 Bm7b5 IX b3 1 b5 b7	IV7 for VIIIm7b5 F7 X b7 5 1 3	IIIIm7 Em7 VIII b7 5 1 b3	bVII7 for III7 Bb7 VIII 3 1 5 b7	VIIm7 Am7 VII b3 1 5 b7	bIII7 for VIIm7 Eb7 VIII b7 5 1 3	IIIm7 Dm7 VI b7 5 1 b3
bVI7 for IIIm7 Ab7 VI 3 1 5 b7	V7 G7 V 3 1 5 b7	bII7 for V7 Db7 VI b7 5 1 3	IIm7 Cma7 V 7 5 1 3	bV7 for IIm7 Gb7 IV 3 1 5 b7	IVma7 Fma7 III 3 1 5 7	bI7 for IVma7 Cb7 IV b7 5 1 3
VIIIm7b5 Bm7b5 III b7 b5 1 b3	IV7 for VIIIm7b5 F7 III 3 1 5 b7	IIIIm7 Em7 II b3 1 5 b7	bVII7 for III7 Bb7 III b7 5 1 3	VIIm7 Am7 I b7 5 1 b3	bIII7 for VIIm7 Eb7 I or XIII 3 1 5 b7	IIIm7 Dm7 XII b3 1 5 b7
bVI7 for IIIm7 Ab7 XIII b7 5 1 3	V7 G7 XII b7 5 1 3	bII7 for V7 Db7 XI 3 1 5 b7	IIm7 Cma7 X 3 1 5 7	bV7 for IIm7 Gb7 XI b7 5 1 3	IVma7 Fma7 X 7 5 1 3	bI7 for IVma7 Cb7 IX 3 1 5 b7

alternating root & fifth in the bass on sixth string - 157300 (drop 2) & 513700 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Em7b5 XII 1 b5 b7 b3	IIIIm7 Am7 X 5 1 b3 b7	VIIm7 Dm7 X 1 5 b7 b3	IIIm7 Gm7 VIII 5 1 b3 b7	V7 C7 VIII 1 5 b7 3	IIma7 Fma7 VII 5 1 3 7	IVma7 Bbma7 VI 1 5 7 3
Em7b5 V b5 1 b3 b7	Am7 V 1 5 b7 b3	Dm7 III 5 1 b3 b7	Gm7 III 1 5 b7 b3	C7 II or XIV 5 1 3 b7	Fma7 XIII 1 5 7 3	Bbma7 XII 5 1 3 7

secondary dominant

VII7 E7 XII 1 5 b7 3	III7 A7 XI 5 1 3 b7	VI7 D7 X 1 5 b7 3	II7 G7 IX 5 1 3 b7	V7 alt C7#9 VII 1 3 b7 #2	I7 F7 VII 5 1 3 b7	IV7 Bb7 VI 1 5 b7 3
E7 VI 5 1 3 b7	A7 V 1 5 b7 3	D7 IV 5 1 3 b7	G7 III 1 5 b7 3	C7b9 XIV b5 b2 3 b7	F7 XIII 1 5 b7 3	Bb7 XII 5 1 3 b7

flat five substitute

IV7 for VIIIm7b5 Bb7 XI 5 1 3 b7	bVII7 for III7 Eb7 XI 1 5 b7 3	bIII7 for VIIm7 Ab7 IX 5 1 3 b7	bVI7 for IIIm7 Db7 IX 1 5 b7 3	bII7 for V7 Gb7 IX 5 1 3 b7	bV7 for Ima7 Cb7 VII 1 5 b7 3	bI7 for IVma7 Fb7 VII 5 1 3 b7
Bb7 VI 1 5 b7 3	Eb7 IV 5 1 3 b7	Ab7 IV 1 5 b7 3	Db7 XV 5 1 3 b7	Gb7 XIV 1 5 b7 3	Cb7 XIII 5 1 3 b7	Fb7 XII 1 5 b7 3

alternating root & fifth in the bass on sixth string - 157300 (drop 2) & 513700 (drop 2) with secondary dominants

VIIIm7b5 Em7b5 XII 1 b5 b7 b3	VII7 E7 XII 1 5 b7 3	IIIIm7 Am7 X 5 1 b3 b7	III7 A7 XI 5 1 3 b7	VIIm7 Dm7 X 1 5 b7 b3	VI7 D7 X 1 5 b7 3	IIIm7 Gm7 VIII 5 1 b3 b7
II7 G7 IX 5 1 3 b7	V7 C7 VIII 1 5 b7 3	V7 alt C7#9 VII 1 3 b7 #2	IIma7 Fma7 VII 5 1 3 7	I7 F7 VII 5 1 3 b7	IVma7 Bbma7 VI 1 5 7 3	IV7 Bb7 VI 1 5 b7 3
VIIIm7b5 Em7b5 V b5 1 b3 b7	VII7 E7 VI 5 1 3 b7	IIIIm7 Am7 V 1 5 b7 b3	III7 A7 V 1 5 b7 3	VIIm7 Dm7 III 5 1 b3 b7	VI7 D7 IV 5 1 3 b7	IIIm7 Gm7 III 1 5 b7 b3
II7 G7 III 1 5 b7 3	V7 C7 II or XIV 5 1 3 b7	V7 alt C7b9 XIV b5 b2 3 b7	IIma7 Fma7 XIII 1 5 7 3	I7 F7 XIII 1 5 b7 3	IVma7 Bbma7 XII 5 1 3 7	IV7 Bb7 XII 5 1 3 b7

alternating root & fifth in the bass on sixth string - 157300 (drop 2) & 513700 (drop 2) with flat five substitutes

VIIIm7b5 Em7b5 XII 1 b5 b7 b3	IV7 for VIIIm7b5 Bb7 XI 5 1 3 b7	IIIIm7 Am7 X 5 1 b3 b7	bVII7 for III7 Eb7 XI 1 5 b7 3	VIIm7 Dm7 X 1 5 b7 b3	bIII7 for VIIm7 Ab7 IX 5 1 3 b7	IIIm7 Gm7 VIII 5 1 b3 b7
bVI7 for IIIm7 Db7 IX 1 5 b7 3	V7 C7 VIII 1 5 b7 3	bII7 for V7 Gb7 IX 5 1 3 b7	IIm7 Fma7 VII 5 1 3 7	bV7 for IIm7 Cb7 VII 1 5 b7 3	IVma7 Bbma7 VI 1 5 7 3	bI7 for IVma7 Fb7 VII 5 1 3 b7
VIIIm7b5 Em7b5 V b5 1 b3 b7	IV7 for VIIIm7b5 Bb7 VI 1 5 b7 3	IIIIm7 Am7 V 1 5 b7 b3	bVII7 for III7 Eb7 IV 5 1 3 b7	VIIm7 Dm7 III 5 1 b3 b7	bIII7 for VIIm7 Ab7 IV 1 5 b7 3	IIIm7 Gm7 III 1 5 b7 b3
bVI7 for IIIm7 Db7 XV 5 1 3 b7	V7 C7 XIV 5 1 3 b7	bII7 for V7 Gb7 XIV 1 5 b7 3	IIm7 Fma7 XIII 1 5 7 3	bV7 for IIm7 Cb7 XIII 5 1 3 b7	IVma7 Bbma7 XII 5 1 3 7	bI7 for IVma7 Fb7 XII 1 5 b7 3

alternating third & seventh in bass on sixth string - 371500 (drop 2) & 735100 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Em7b5 XIV b3 b7 1 b5	IIIIm7 Am7 XIV b7 b3 5 1	VIIm7 Dm7 XII b3 b7 1 5	IIIm7 Gm7 XII b7 b3 5 1	V7 C7 X 3 b7 1 5	IIma7 Fma7 X 7 3 5 1	IVma7 Bbma7 VIII 3 7 1 5
Em7b5 VIII b7 b3 b5 1	Am7 VII b3 b7 1 5	Dm7 VII b3 b7 5 1	Gm7 V b3 b7 1 5	C7 V b7 3 5 1	Fma7 III 3 7 1 5	Bbma7 III 7 3 5 1

secondary dominant

VII7 E7 II 3 b7 1 5	III7 A7 II b7 3 5 1	VI7 D7 XII 3 b7 1 5	II7 G7 XII b7 3 5 1	V7 alt C7b9 XI 3 b7b2 5	I7 F7 X b7 3 5 1	IV7 Bb7 V III 3 b7 1 5
E7 IX b7 3 5 1	A7 VII 3 b7 1 5	D7 VII b7 3 5 1	G7 V 3 b7 1 5	C7b9 V b7 3 5 b2	F7 III 3 b7 1 5	Bb7 III b7 3 5 1

flat five substitute

IV7 for VIIIm7b5 Bb7 III b7 3 5 1	bVII7 for III7 Eb7 XIII 3 b7 1 5	bIII7 for VIIm7 Ab7 XIII b7 3 5 1	bVI7 for IIIm7 Db7 XI 3 b7 1 5	bII7 for V7 Gb7 XI b7 3 5 1	bV7 for IIma7 Cb7 IX 3 b7 1 5	bI7 for IVma7 Fb7 IX b7 3 5 1
Bb7 VIII 3 b7 1 5	Eb7 VIII b7 3 5 1	Ab7 VI 3 b7 1 5	Db7 VI b7 3 5 1	Gb7 IV 3 b7 1 5	Cb7 IV b7 3 5 1	Fb7 II 3 b7 1 5

alternating third & seventh in bass on sixth string - 371500 (drop 2) & 735100 (drop 2) with secondary dominants

VIIIm7b5 Em7b5 XIV b3 b7 1 b5	VII7 E7 II 3 b7 1 5	IIIIm7 Am7 XIV b7 b3 5 1	III7 A7 II b7 3 5 1	VIIm7 Dm7 XII b3 b7 1 5	VI7 D7 XII 3 b7 1 5	IIIm7 Gm7 XII b7 b3 5 1
II7 G7 XII b7 3 5 1	V7 C7 X 3 b7 1 5	V7 alt C7b9 XI 3 b7 b2 5	IIma7 Fma7 X 7 3 5 1	I7 F7 X b7 3 5 1	IVma7 Bbma7 VIII 3 7 1 5	IV7 Bb7 V III 3 b7 1 5
VIIIm7b5 Em7b5 VIII b7 b3 b5 1	VII7 E7 IX b7 3 5 1	IIIIm7 Am7 VII b3 b7 1 5	III7 A7 VII 3 b7 1 5	VIIm7 Dm7 VII b7 b3 5 1	VI7 D7 VII b7 3 5 1	IIIm7 Gm7 V b3 b7 1 5
II7 G7 V 3 b7 1 5	V7 C7 V b7 3 5 1	V7 alt C7b9 V b7 3 5 b2	IIma7 Fma7 III 3 7 1 5	I7 F7 III 3 b7 1 5	IVma7 Bbma7 III 7 3 5 1	IV7 Bb7 III b7 3 5 1

alternating third & seventh in bass on sixth string - 371500 (drop 2) & 735100 (drop 2) with flat five substitutes

VIIIm7b5 Em7b5 XIV b3 b7 1 b5	IV7 for VIIIm7b5 Bb7 III b7 3 5 1	IIIIm7 Am7 XIV b7 b3 5 1	bVII7 for III7 Eb7 XIII 3 b7 1 5	VIIm7 Dm7 XII b3 b7 1 5	bIII7 for VIIm7 Ab7 XIII b7 3 5 1	IIIm7 Gm7 XII b7 b3 5 1
bVI7 for IIIm7 Db7 XI 3 b7 1 5	V7 C7 X 3 b7 1 5	bII7 for V7 Gb7 XI b7 3 5 1	IIma7 Fma7 X 7 3 5 1	bV7 for IIma7 Cb7 IX 3 b7 1 5	IVma7 Bbma7 VIII 3 7 1 5	bi7 for IVma7 Fb7 IX b7 3 5 1
VIIIm7b5 Em7b5 VIII b7 b3 b5 1	IV7 for VIIIm7b5 Bb7 VIII 3 b7 1 5	IIIIm7 Am7 VII b3 b7 1 5	bVII7 for III7 Eb7 VIII b7 3 5 1	VIIm7 Dm7 VII b7 b3 5 1	bIII7 for VIIm7 Ab7 VI 3 b7 1 5	IIIm7 Gm7 V b3 b7 1 5
bVI7 for IIIm7 Db7 VI b7 3 5 1	V7 C7 V b7 3 5 1	bII7 for V7 Gb7 IV 3 b7 1 5	IIma7 Fma7 III 3 7 1 5	bV7 for IIma7 Cb7 IV b7 3 5 1	IVma7 Bbma7 III 7 3 5 1	bi7 for IVma7 Fb7 II 3 b7 1 5

Major Scale-Tone Sevenths in Fourths, Descend Five and Seven, Bass on Fifth String (five to seven-fret span)

alternating root & fifth in bass on fifth string - 015730 (drop 2) & 051370 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIm7b5 Em7b5 VII 1 b5 b7 b3	IIIIm7 Am7 V 5 1 b3 b7	VIIm7 Dm7 V 1 5 b7 b3	IIIm7 Gm7 III 5 1 b3 b7	V7 C7 III 1 5 b7 3	IIma7 Fma7 II 5 1 3 7	IVma7 Bbma7 I or XIII 1 5 7 3
Em7b5 XII b5 1 b3 b7	Am7 XII 1 5 b7 b3	Dm7 X 5 1 b3 b7	Gm7 X 1 5 b7 b3	C7 IX 5 1 3 b7	Fma7 VIII 1 5 7 3	Bbma7 VII 5 1 3 7

secondary dominant

VII7 E7 VII 1 5 b7 3	III7 A7 VI 5 1 3 b7	VI7 D7 V 1 5 b7 3	II7 G7 IV 5 1 3 b7	V7 alt C7#9 II 1 3 b7 #9	I7 F7 II 5 1 3 b7	IV7 Bb7 I 1 5 b7 3
E7 XIII 5 1 3 b7	A7 XII 1 5 b7 3	D7 XI 5 1 3 b7	G7 X 1 5 b7 3	C7b9 IX 5 b2 3 b7	F7 VIII 1 5 b7 3	Bb7 VII 5 1 3 b7

flat five substitute

IV7 for VIIm7b5 Bb7 VII 5 1 3 b7	bVII7 for III7 Eb7 VI 1 5 b7 3	bII7 for VIIm7 Ab7 V 5 1 3 b7	bVI7 for IIIm7 Db7 IV 1 5 b7 3	bII7 for V7 Gb7 III 5 1 3 b7	bV7 for IIma7 Cb7 II 1 5 b7 3	bl7 for IVma7 Fb7 I 5 1 3 b7
Bb7 XIII 1 5 b7 3	Eb7 XII 5 1 3 b7	Ab7 XI 1 5 b7 3	Db7 X 5 1 3 b7	Gb7 IX 1 5 b7 3	Cb7 VIII 5 1 3 b7	Gb7 VII 1 5 b7 3

alternating root & fifth in bass on fifth string - 015730 & 051370 with secondary dominants

VIIIm7b5 Em7b5 VII 1 b5 b7 b3	VII7 E7 VII 1 5 b7 3	IIIIm7 Am7 V 5 1 b3 b7	III7 A7 VI 5 1 3 b7	VIIm7 Dm7 V 1 5 b7 b3	VI7 D7 V 1 5 b7 3	IIIm7 Gm7 III 5 1 b3 b7
II7 G7 IV 5 1 3 b7	V7 C7 III 1 5 b7 3	V7 alt C7#9 II 1 3 b7 #9	IIma7 Fma7 II 5 1 3 7	I7 F7 II 5 1 3 b7	IVma7 Bbma7 I 1 5 7 3	IV7 Bb7 I or XIII 1 5 b7 3
VIIIm7b5 Em7b5 XII b5 1 b3 b7	VII7 E7 XIII 5 1 3 b7	IIIIm7 Am7 XII 1 5 b7 b3	III7 A7 XII 1 5 b7 3	VIIm7 Dm7 X 5 1 b3 b7	VI7 D7 XI 5 1 3 b7	IIIm7 Gm7 X 1 5 b7 b3
II7 G7 X 1 5 b7 3	V7 C7 IX 5 1 3 b7	V7 alt C7b9 IX 5 b2 3 b7	IIma7 Fma7 VIII 1 5 7 3	I7 F7 VIII 1 5 b7 3	IVma7 Bbma7 VII 5 1 3 7	IV7 Bb7 VII 5 1 3 b7

alternating root & fifth in bass on the fifth string - 015730 & 051370 with flat five substitutes

VIIIm7b5 Em7b5 VII 1 b5 b7 b3	IV7 for VIIIm7b5 Bb7 VII 5 1 3 b7	IIIm7 Am7 V 5 1 b3 b7	bVII7 for III7 Eb7 VI 1 5 b7 3	VIIm7 Dm7 V 1 5 b7 b3	bIII7 for VIIm7 Ab7 V 5 1 3 b7	IIIm7 Gm7 III 5 1 b3 b7
bVI7 for IIIm7 Db7 IV 1 5 b7 3	V7 C7 III 1 5 b7 3	bII7 for V7 Gb7 III 5 1 3 b7	IIma7 Fma7 II 5 1 3 7	bV7 for IIma7 Cb7 VIII 5 1 3 b7	IVma7 Bbma7 I 1 5 7 3	bI7 for IVma7 Fb7 I or XIII 5 1 3 b7
VIIIm7b5 Em7b5 XII b5 1 b3 b7	IV7 for VIIIm7b5 Bb7 XIII 1 5 b7 3	IIIm7 Am7 XII 1 5 b7 b3	bVII7 for III7 Eb7 XII 5 1 3 b7	VIIm7 Dm7 X 5 1 b3 b7	bIII7 for VIIm7 Ab7 XI 1 5 b7 3	IIIm7 Gm7 X 1 5 b7 b3
bVI7 for IIIm7 Db7 X 5 1 3 b7	V7 C7 IX 5 1 3 b7	bII7 for V7 Gb7 IX 1 5 b7 3	IIma7 Fma7 VIII 1 5 7 3	bV7 for IIma7 Cb7 VIII 5 1 3 b7	IVma7 Bbma7 VII 5 1 3 7	VII7 for IVma7 Gb7 VII 1 5 b7 3

alternating root & fifth in the bass on the fifth string- 010735 (drop 3) & 050371 (drop 3)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Bm7b5 XIII 1 b7 b3 b5	IIIm7 Em7 XII 5 b3 b7 1	VIIm7 Am7 XII 1 b7 b3 5	IIIm7 Dm7 X 5 b3 b7 1	V7 G7 X 1 b7 2 5	IIm7 Cma7* VIII 5 3 7 1	IVma7 Fma7 VIII 1 7 3 5
Bm7b5 VII b5 b3 b7 1	Em7 VII 1 b7 b3 5	Am7 V 5 b3 b7 1	Dm7 V 1 b7 b3 5	G7 III 5 3 b7 1	Cma7 III 1 7 3 5	Fma7 I or XIII 5 3 7 1

secondary dominant

VII7 B7 XIV 1 b7 3 5	III7 E7 XII 5 3 b7 1	VI7 A7 XII 1 b7 3 5	II7 D7 X 5 3 b7 1	V7 alt G7#5 X 1 b7 3 #5	I7 C7 VIII 5 3 b7 1	IV7 F7 VIII 1 b7 3 5
B7 VII 5 3 b7 1	E7 VII 1 b7 3 5	A7 V 5 3 b7 1	D7 V 1 b7 3 5	G7#5 III #5 3 b7 1	C7 III 1 b7 3 5	F7 I or XIII 5 3 b7 1

flat five substitute

IV7 for VIIIm7b5 F7 XIII 5 3 b7 1	bVII7 for III7 Bb7 XIII 1 b7 3 5	bIIIm7 for VIIm7 Eb7 XI 5 3 b7 1	bVI7 for IIIm7 Ab7 XI 1 b7 3 5	bII7 for V7 Db7 IX 5 3 b7 1	bV7 for IIm7 Gb7 IX 1 b7 3 5	bI7 for IVma7 Cb7 VII 5 3 b7 1
F7 VIII 1 b7 3 5	Bb7 VI 5 3 b7 1	Eb7 VI 1 b7 3 5	Ab7 IV 5 3 b7 1	Db7 IV 1 b7 3 5	Gb7 II 5 3 b7 1	Cb7 II or XIV 1 b7 3 5

alternating root & fifth in the bass on the fifth string- 010735 (drop 3) & 050371 (drop 3) with secondary dominants

VIIIm7b5 Bm7b5 XIII 1 b7 b3 b5	VII7 B7 II 1 b7 3 5	IIIIm7 Em7 XII 5 b3 b7 1	III7 E7 XII 5 3 b7 1	VIIm7 Am7 XII 1 b7 b3 5	VI7 A7 XII 1 b7 3 5	IIIm7 Dm7 X 5 b3 b7 1
II7 D7 X 5 3 b7 1	V7 G7 X 1 b7 2 5	V7 alt G7#5 X 1 b7 3 #5	IIma7 Cma7 VIII 5 3 7 1	I7 C7 VIII 5 3 b7 1	IVma7 Fma7 VIII 1 7 3 5	IV7 F7 VIII 1 b7 3 5
VIIIm7b5 Bm7b5 VII b5 b3 b7 1	VII7 B7 VII 5 3 b7 1	IIIIm7 Em7 VII 1 b7 b3 5	III7 E7 VII 1 b7 3 5	VIIm7 Am7 V 5 b3 b7 1	VI7 A7 V 5 3 b7 1	IIIm7 Dm7 V 1 b7 b3 5
II7 D7 V 1 b7 3 5	V7 G7 III 5 3 b7 1	V7 alt G7#5 III #5 3 b7 1	IIma7 Cma7 III 1 7 3 5	I7 C7 III 1 b7 3 5	IVma7 Fma7 I 5 3 7 1	IV7 F7 I or XIII 5 3 b7 1

alternating root & fifth in the bass on the fifth string- 010735 (drop 3) & 050371 (drop 3) with flat five substitutes

VIIIm7b5 Bm7b5 XIII 	IV7 for VIIIm7b5 F7 XIII 	IIIIm7 Em7 XII 	bVII7 for III7 Bb7 XIII 	VIIm7 Am7 XII 	bIII7 for VIIm7 Eb7 XI 	IIIm7 Dm7 X
II7 D7 X 	V7 G7 X 	bII7 for V7 Db7 IX 	IIma7 Cma7 VIII 	bV7 for IIma7 Gb7 IX 	IVma7 Fma7 VIII 	bI7 for IVma7 Cb7 VII
VIIIm7b5 Bm7b5 VII 	IV7 for VIIIm7b5 F7 VIII 	IIIIm7 Em7 VII 	bVII7 for III7 Bb7 VI 	VIIm7 Am7 V 	bIII7 for VIIm7 Eb7 VI 	IIIm7 Dm7 V
bVI7 for IIm7 Ab7 IV 	V7 G7 III 	bII7 for V7 Db7 IV 	IIma7 Cma7 III 	bV7 for IIma7 Gb7 II 	IVma7 Fma7 I 	bI7 for IVma7 Cb7 II or XIV

alternating third & seventh in the bass on the fifth string - 037150 (drop 2) & 073510 (drop 2)

To see the 037150 and 073510 (both drop 2) families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Em7b5 IX b3 b7 1 b5	IIIm7 Am7 IX b7 b3 5 1	VIIm7 Dm7 VII b3 b7 1 5	IIIm7 Gm7 VII b7 b3 5 1	V7 C7 V 3 b7 1 5	IIma7 Fma7 V 7 3 5 1	IVma7 Bbma7 III 3 7 1 5
Em7b5 III b7 b3 b5 1	Am7 II b7 b3 1 5	Dm7 II or XIV b7 b3 5 1	Gm7 XII b3 b7 1 5	C7 XII b7 3 5 1	Fma7 X 3 7 1 5	Bbma7 X 7 3 5 1

secondary dominant

VII7 E7 IX 3 b7 1 5	III7 A7 IX b7 3 5 1	VI7 D7 VII 3 b7 1 5	II7 G7 VII b7 3 5 1	V7 alt C7b9 VI 3 b7 b2 5	I7 F7 V b7 3 5 1	IV7 Bb7 III 3 b7 1 5
E7 IV b7 3 5 1	A7 II 3 b7 1 5	D7 II b7 3 5 1	G7 XII 3 b7 1 5	C7b9 XII b7 3 5 b2	F7 X 3 b7 1 5	Bb7 X b7 3 5 1

flat five substitute

IV7 for VIIIm7b5 Bb7 X b7 3 5 1	bVII7 for III7 Eb7 VIII 3 b7 1 5	bII7 for VIIm7 Ab7 VIII b7 3 5 1	bVI7 for IIIm7 Db7 VI 3 b7 1 5	bII7 for V7 Gb7 VI b7 3 5 1	bV7 for Ima7 Cb7 IV 3 b7 1 5	bI7 for IVma7 Fb7 IV b7 3 5 1
Bb7 III 3 b7 1 5	Eb7 III b7 3 5 1	Ab7 XIII 3 b7 1 5	Db7 XIII b7 3 5 1	Gb7 XI 3 b7 1 5	Cb7 XI b7 3 5 1	Fb7 IX 3 b7 1 5

alternating third & seventh in the bass on the fifth string - 037150 (drop 2) & 073510 (drop 2) with secondary dominants

VIIIm7b5 Em7b5 IX b3 b7 1 b5	VII7 E7 IX 3 b7 1 5	IIIIm7 Am7 IX b7 b3 5 1	III7 A7 IX b7 3 5 1	VIIm7 Dm7 VII b3 b7 1 5	VI7 D7 VII 3 b7 1 5	IIIm7 Gm7 VII b7 b3 5 1
II7 G7 VII b7 3 5 1	V7 C7 V 3 b7 1 5	V7 alt C7b9 VI 3 b7 b2 5	IIma7 Fma7 V 7 3 5 1	I7 F7 V b7 3 5 1	IVma7 Bbma7 III 3 7 1 5	IV7 Bb7 III 3 b7 1 5
VIIIm7b5 Em7b5 III b7 b3 b5 1	VII7 E7 IV b7 3 5 1	IIIIm7 Am7 II b3 b7 1 5	III7 A7 II 3 b7 1 5	VIIm7 Dm7 II b7 b3 5 1	VI7 D7 II or XIV b7 3 5 1	IIIm7 Gm7 XII b3 b7 1 5
II7 G7 XII 3 b7 1 5	V7 C7 XII b7 3 5 1	V7 alt C7b9 XII b7 3 5 b2	IIma7 Fma7 X 3 7 1 5	I7 F7 X 3 b7 1 5	IVma7 Bbma7 X 7 3 5 1	IV7 Bb7 X b7 3 5 1

alternating third & seventh in the bass on the fifth string - 037150 (drop 2) & 073510 (drop 2) with flat five substitutes

VIIIm7b5 Em7b5 IX 	IV7 for VIIIm7b5 Bb7 X 	IIIIm7 Am7 IX 	bVII7 for III7 Eb7 VIII 	VIIm7 Dm7 VII 	bIII7 for VIIm7 Ab7 VIII 	IIIm7 Gm7 VII
bVI7 for IIIm7 Db7 VI 	V7 C7 V 	bII7 for V7 Gb7 VI 	IIma7 Fma7 V 	bV7 for Ima7 Cb7 IV 	IVma7 Bbma7 III 	bI7 for IVma7 Fb7 IV
VIIIm7b5 Em7b5 III 	IV7 for VIIIm7b5 Bb7 III 	IIIIm7 Am7 II 	bVII7 for III7 Eb7 III 	VIIm7 Dm II or XIV 	bIII7 for VIIm7 Ab7 XIII 	IIIm7 Gm7 XII
bVI7 for IIIm7 Db7 XIII 	V7 C7 XII 	bII7 for V7 Gb7 XI 	IIma7 Fma7 X 	bV7 for Ima7 Cb7 XI 	IVma7 Bbma7 X 	bI7 for IVma7 Fb7 IX

alternating third & seventh in the bass on the fifth string - 030157 (drop 3) & 070513 (drop 3)

To see the 030157 and 070513 (both drop 3) families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Em7b5 IX 	IIIIm7 Am7 VIII 	VIIm7 Dm7 VII 	IIIm7 Gm7 VI 	V7 C7 V 	IIma7 Fma7 V 	IVma7 Bbma7 III
Em7b5 III 	Am7 II 	Dm7 I or XIII 	Gm7 XII 	C7 XII 	Fma7 X 	Bbma7 X

secondary dominant

VII7 E7 IX 	III7 A7 IX 	VI7 D7 VII 	II7 G7 VII 	V7 alt C7b9 VI 	I7 F7 V 	IV7 Bb7 III
E7 IV 	A7 II 	D7 II or XIV 	G7 XII 	C7b9 XII 	F7 X 	Bb7 X

flat five substitute

IV7 for VIIIm7b5 Bb7 X 	bVII7 for III7 Eb7 IX 	bIII7 for VIIm7 Ab7 VIII 	bVI7 for IIIm7 Db7 VI 	bII7 for V7 Gb7 VI 	bV7 for IIma7 Cb7 IV 	bI7 for IVma7 Fb7 IV
Bb7 III 	Eb7 III 	Ab7 I or XIII 	Db7 XIII 	Gb7 XI 	Cb7 XI 	Fb7 IX

alternating third & seventh in the bass on the fifth string - 030157 (drop 3) & 070513 (drop 3) with secondary dominants

VIIIm7b5 Em7b5 IX 	VII7 E7 IX 	IIIIm7 Am7 VIII 	III7 A7 IX 	VIIm7 Dm7 VII 	VI7 D7 VII 	IIIm7 Gm7 VI
II7 G7 VII 	V7 C7 V 	V7 alt C7b9 VI 	IIma7 Fma7 V 	I7 F7 V 	IVma7 Bbma7 III 	IV7 Bb7 III
VIIIm7b5 Em7b5 III 	VII7 E7 IV 	IIIIm7 Am7 II 	III7 A7 II 	VIIm7 Dm7 I 	VI7 D7 II or XIV 	IIIm7 Gm7 XII
II7 G7 XII 	V7 C7 XII 	V7 alt C7b9 XII 	IIma7 Fma7 X 	I7 F7 X 	IVma7 Bbma7 X 	IV7 Bb7 X

alternating third & seventh in the bass on the fifth string - 030157 (drop 3) & 070513 (drop 3) with flat five substitutes

VIIIm7b5 Em7b5 IX 	IV7 for VIIIm7b5 Bb7 X 	IIIIm7 Am7 VIII 	bVII7 for III7 Eb7 IX 	VIIm7 Dm7 VII 	bIII7 for VIIm7 Ab7 VIII 	IIIm7 Gm7 VI
bVI7 for IIIm7 Db7 VI 	V7 C7 V 	bII7 for V7 Gb7 VI 	IIma7 Fma7 V 	bV7 for IIma7 Cb7 IV 	IVma7 Bbma7 III 	bi7 for IVma7 Fb7 IV
VIIIm7b5 Em7b5 III 	IV7 for VIIIm7b5 Bb7 III 	IIIIm7 Am7 II 	bVII7 for III7 Eb7 III 	VIIm7 Dm7 I or XIII 	bIII7 for VIIm7 Ab7 XIII 	IIIm7 Gm7 XII
bVI7 for IIIm7 Db7 XIII 	V7 C7 XII 	bII7 for V7 Gb7 XI 	IIma7 Fma7 X 	bV7 for IIma7 Cb7 XI 	IVma7 Bbma7 III 	bi7 for IVma7 Fb7 IX

Major Scale-Tone Sevenths in Fourths, Descend Five and Seven, Bass on Fourth String (five to seven-fret span)

alternating root & fifth in the bass on the fourth string - 001573 (drop 2) & 005137 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Am7b5 VII	IIIm7 Dm7 VI	VIIm7 Gm7 V	IIIm7 Cm7 IV	V7 F7 III	IIm7 Bbma7 III	IVma7 Ebma7 I or XIII
Am7b5 XIII	Dm7 XII	Gm7 XI	Cm7 X	F7 X	Bbma7 VIII	Ebma7 VIII

secondary dominant

VII7 A7 VII	III7 D7 VII	VI7 G7 V	II7 C7 V	V7 alt F7#9 III	I7 Bb7 III	IV7 Eb7 I or XIII
A7 XIV	D7 XII	G7 XII	C7 X	F7b9 X	Bb7 VIII	Eb7 VIII

flat five substitute

IV7 for VIIIm7b5 Eb7 VIII	bVII7 for III7 Ab7 VI	bIIIm7 for VIIm7 Db7 VI	bIIIm7 for IIIm7 Gb7 IV	bII7 for V7 Cb7 IV	bV7 for IIm7 Fb7 II	bI7 for IVma7 Bbb7 (A7) II
Eb7 I or XIII	Ab7 XIII	Db7 XI	Gb7 XI	Cb7 IX	Fb7 IX	Bbb7 (A7) VII

alternating root & fifth in the bass on the fourth string - 001573 (drop 2) & 005137 (drop 2) with secondary dominants

VIIIm7b5 Am7b5 VII 1 b5 b7 b3	VII7 A7 VII 1 5 b7 3	IIIIm7 Dm7 VI 5 1 b3 b7	III7 D7 VII 5 1 3 b7	VIIm7 Gm7 V 1 5 b7 b3	VI7 G7 V 1 5 b7 3	IIIm7 Cm7 IV 5 1 b3 b7
II7 C7 V 5 1 3 b7	V7 F7 III 1 5 b7 3	V7 alt F7#9 III 1 3 b7 #2	IIma7 Bbma7 III 5 1 3 7	I7 Bb7 III 5 1 3 b7	IVma7 Ebma7 I 1 5 7 3	IV7 Eb7 I or XIII 1 5 b7 3
VIIIm7b5 Am7b5 XIII b5 1 b3 b7	VII7 A7 XIV 5 1 3 b7	IIIIm7 Dm7 XII 1 5 b7 b3	III7 D7 XII 1 5 b7 3	VIIm7 Gm7 XI 5 1 b3 b7	VI7 G7 XII 5 1 3 b7	IIIm7 Cm7 X 1 5 b7 b3
II7 C7 X 1 5 b7 3	V7 F7 X 5 1 3 b7	V7 alt F7b9 X 5 b2 3 b7	IIma7 Bbma7 VIII 1 5 7 3	I7 Bb7 VIII 1 5 b7 3	IVma7 Ebma7 VIII 5 1 3 7	IV7 Eb7 VIII 5 1 3 b7

alternating root & fifth in the bass on the fourth string - 001573 (drop 2) & 005137 (drop 2) with flat five substitutes

VIIIm7b5 Am7b5 VII 	IV7 for VIIIm7b5 Eb7 VIII 	IIIIm7 Dm7 VI 	bVII7 for III7 Ab7 VI 	VIIm7 Gm7 V 	bIII7 for VIIm7 Db7 VI 	IIIm7 Cm7 IV
bVI7 for IIIm7 Gb7 IV 	V7 F7 III 	bII7 for V7 Cb7 IV 	IIma7 Bbma7 III 	bV7 for IIma7 Fb7 II 	IVma7 Ebma7 I 	bI7 for IVma7 Bbb7 (A7) II
VIIIm7b5 Am7b5 I or XIII 	IV7 for VIIIm7b5 Eb7 XIII 	IIIIm7 Dm7 XII 	bVII7 for III7 Ab7 XIII 	VIIm7 Gm7 XI 	bIII7 for VIIm7 Db7 XI 	IIIm7 Cm7 X
bVI7 for IIIm7 Gb7 XI 	V7 F7 X 	bII7 for V7 Cb7 IX 	IIma7 Bbma7 VIII 	bV7 for IIma7 Fb7 IX 	IVma7 Ebma7 VIII 	bI7 for IVma7 Bbb7 (A7) VII

alternating third & seventh in the bass on the fourth string- 003715 (drop 2) & 007351 (drop 2)

To see the families these chords use, start with the last chord in each row and play every other chord for four chords: IVma7, V7, VIIm7 and VIIIm7b5.

VIIIm7b5 Am7b5 X b3 b7 1 b5	IIIIm7 Dm7 X b7 b3 5 1	VIIm7 Gm7 VIII b3 b7 1 5	IIIm7 Cm7 VIII b7 b3 5 1	V7 F7 VI 3 b7 1 5	IIm7 Bbma7 VI 7 3 5 1	IVma7 Ebma7 IV 3 7 1 5
Am7b5 IV b7 b3 b5 1	Dm7 III b3 b7 1 5	Gm7 III b7 b3 5 1	Cm7 I b3 b7 1 5	F7 I or XIII b7 3 5 1	Bbma7 XI 3 7 1 5	Ebma7 XI 7 3 5 1

secondary dominant

VII7 A7 X 3 b7 1 5	III7 D7 X b7 3 5 1	VI7 G7 VIII 3 b7 1 5	II7 C7 VIII b7 3 5 1	V7 alt F7b9 VII 3 b7 b2 5	I7 Bb7 VI b7 3 5 1	IV7 Eb7 IV 3 b7 1 5
A7 V b7 3 5 1	D7 III 3 b7 1 5	G7 III b7 3 5 1	C7 I 3 b7 1 5	F7b9 I or XIII b7 3 5 b2	Bb7 XI 3 b7 1 5	Eb7 XI b7 3 5 1

flat five substitute

IV7 for VIIIm7b5 Eb7 XI b7 3 5 1	bVII7 for III7 Ab7 IX 3 b7 1 5	bIII7 for VIIm7 Db7 IX b7 3 5 1	bVI7 for IIIm7 Gb7 VII 3 b7 1 5	bII7 for V7 Cb7 VII b7 3 5 1	bV7 for IIm7 Fb7 V 3 b7 1 5	bI7 for IVma7 Bbb7 (A7) V b7 3 5 1
Eb7 IV 3 b7 1 5	Ab7 IV b7 3 5 1	Db7 II 3 b7 1 5	Gb7 II or XIV b7 3 5 1	Cb7 XII 3 b7 1 5	Fb7 XII b7 3 5 1	Bbb7 (A7) X 3 b7 1 5

alternating third & seventh in the bass on the fourth string- 003715 (drop 2) & 007351 (drop 2) with secondary dominants

VIIIm7b5 Am7b5 X b3 b7 1 b5	VII7 A7 X 3 b7 1 5	IIIIm7 Dm7 X b7 b3 5 1	III7 D7 X b7 3 5 1	VIIm7 Gm7 VIII b3 b7 1 5	VI7 G7 VIII 3 b7 1 5	IIIm7 Cm7 VIII b7 b3 5 1
II7 C7 VIII b7 3 5 1	V7 F7 VI 3 b7 1 5	V7 alt F7b9 VII 3 b7 b2 5	IIma7 Bbma7 VI 7 3 5 1	I7 Bb7 b7 3 5 1	IVma7 Ebma7 IV 3 7 1 5	IV7 Eb7 IV 3 b7 1 5
VIIIm7b5 Am7b5 IV b7 b3 b5 1	VII7 A7 V b7 3 5 1	IIIIm7 Dm7 III b3 b7 1 5	III7 D7 III 3 b7 1 5	VIIm7 Gm7 III b7 b3 5 1	VI7 G7 III b7 3 5 1	IIIm7 Cm7 I b3 b7 1 5
II7 C7 I 3 b7 1 5	V7 F7 I b7 3 5 1	V7 alt F7b9 I or XIII b7 3 5 b2	IIma7 Bbma7 XI 3 7 1 5	I7 Bb7 XI 3 b7 1 5	IVma7 Ebma7 XI 7 3 5 1	IV7 Eb7 XI b7 3 5 1

alternating third & seventh in the bass on the fourth string- 003715 (drop 2) & 007351 (drop 2) with flat five substitutes

VIIIm7b5 Am7b5 X b3 b7 1 b5	IV7 for VIIIm7b5 Eb7 XI b7 3 5 1	IIIIm7 Dm7 X b7 b3 5 1	bVII7 for III7 Ab7 IX 3 b7 1 5	VIIm7 Gm7 VIII b3 b7 1 5	bIII7 for VIIm7 Db7 IX b7 3 5 1	IIIm7 Cm7 VIII b7 b3 5 1
bVI7 for IIIm7 Gb7 VII 3 b7 1 5	V7 F7 VI 3 b7 1 5	bII7 for V7 Cb7 VII b7 3 5 1	IIm7 Bbm7 VI 7 3 5 1	bV7 for IIm7 Fb7 V 3 b7 1 5	IVma7 Ebma7 IV 3 7 1 5	bI7 for IVma7 Bbb7 (A7) V b7 3 5 1
VIIIm7b5 Am7b5 IV b7 b3 b5 1	IV7 for VIIIm7b5 Eb7 IV 3 b7 1 5	IIIIm7 Dm7 III b3 b7 1 5	bVII7 for III7 Ab7 IV b7 3 5 1	VIIm7 Gm7 III b7 b3 5 1	bIII7 for VIIm7 Db7 II 3 b7 1 5	IIIm7 Cm7 I b3 b7 1 5
bVI7 for IIIm7 Gb7 II b7 3 5 1	V7 F7 I or XIII b7 3 5 1	bII7 for V7 Cb7 XII 3 b7 1 5	IIm7 Bbm7 XI 3 7 1 5	bV7 for IIm7 Fb7 XII b7 3 5 1	IVma7 Ebma7 XI 7 3 5 1	bI7 for IVma7 Bbb7 (A7) X 3 b7 1 5

SEVENTH CHORDS, STEPWISE & FOURTHS IN FIVE OCTAVE SHAPES (four-position range)

E Form parent scale, Bass Notes On Strings Six and Five

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIm7	VIIm7	IIIm7	V7	IIma7	IVma7
Scale-Tone Seventh	Am7b5 V 1 b7 b3 b5	Dm7 V 1 5 b7 b3	Gm7 V b3 1 5 b7	Cm7 VIII 1 b7 b3 5	F7 VI 5 3 b7 1	IIma7 VI 1 7 3 5	Ebma7 VI 1 5 7 3
roman secondary dominant	VII7	III7	VI7	II7	V7b9	I7	IV7
A7 V	A7 V 1 b7 3 5	D7 V 1 5 b7 3	G7 V 3 1 5 b7	C7 VIII 1 b7 3 5	F7b9 VII 5 3 b7 b2	Bb7 VI 1 b7 3 5	Eb7 VI 1 5 b7 3
roman flat five substitute	IV7 for VIIIm7b5	bVII7 for III7	bII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIma7	bI7 for IVma7
Eb7 VI	Eb7 VI 1 5 b7 3	Ab7 VI 3 1 5 b7	Db7 IX 1 b7 3 5	Gb7 VII 5 3 b7 1	B7 VII 1 b7 3 5	E7 VII 1 5 b7 3	Bbb7 (A7) V 1 b7 3 5

stepwise roots

roman	IIma7	IIIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Bbma7 VI 1 7 3 5	Cm7 VIII 1 b7 b3 5	Dm7 V 1 5 b7 b3	Ebma7 VI 1 5 7 3	F7 VI 5 3 b7 1	Gm7 V b3 1 5 b7	Am7b5 VII 1 b7 b3 b5

E Form parent scale, Bass Notes On Strings Five and Four

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Am7b5 V	Dm7 V	Gm7 VII	Cm7 VIII	F7 VI	Bbma7 VII	Ebma7 VI

roman	VII7	III7	VI7	II7	V7b9	I7	IV7
secondary dominant	A7 VI	D7 V	G7 VII	C7 V	F7b9 VII	Bb7 VII	Eb7 VI

roman	IV7 for VIIIm7b5	bVII7 for III7	bII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Eb7 VI	Ab7 VIII	Db7 VI	Gb7 VII	B7 VIII	E7 VII	Bbb7 (A7) VI

stepwise roots

roman	IIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Bbma7 VII	Cm7 VIII	Dm7 V	Ebma7 VI	F7 VI	Gm7 VII

E Form parent scale, Bass Notes On String Four

roots in fourths (7-3-6-2-5-1-4)

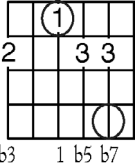
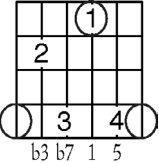
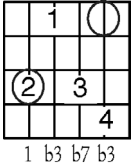
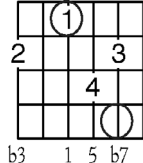
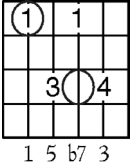
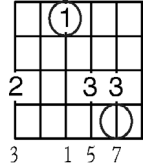
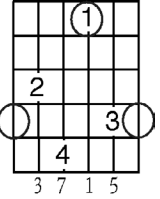
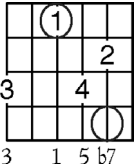
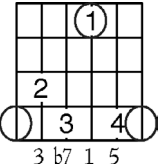
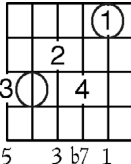
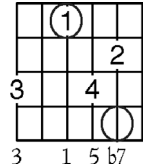
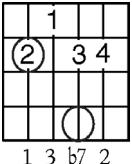
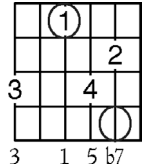
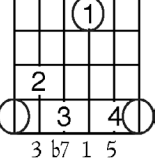
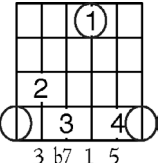
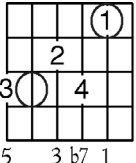
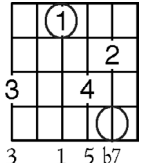
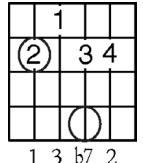
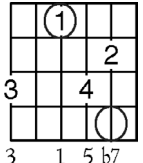
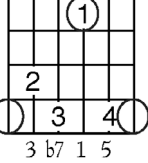
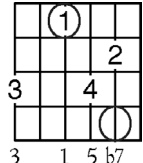
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Scale-Tone Seventh	Am7b5 III	Dm7 VI	Gm7 V	Cm7 IV	F7 VI	Bbma7 V	Ebma7 VIII
roman	VII	IIIm7	VIIm7	IIIm7	V7b9	I7	IV7
secondary dominant	A7 VII	D7 VII	G7 V	C7 V	F7b9 VII	Bb7 VIII	Eb7 VIII
roman	IV7 for VIIIm7b5	bVII7 for IIIm7	bIIIm7 for VIIm7	bVIIm7 for IIIm7	bIIIm7 for V7	bVIm7 for IIma7	bIIm7 for IVma7
flat five substitute	Eb7 VIII	Ab7 VI	Db7 VI	Gb7 VII	B7 V	E7 IX	Bbb7 (A7) III

stepwise roots

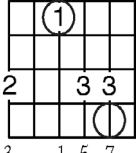
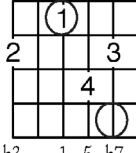
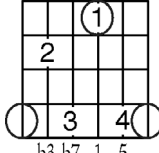
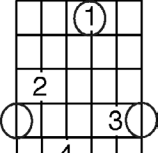
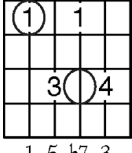
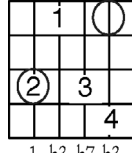
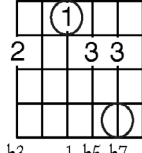
roman	IIma7	IIIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Bbma7 VII	Cm7 IV	Dm7 VI	Ebma7 VIII	F7 VI	Gm7 V	Am7b5 III

D Form parent scale, Bass Notes On Strings Six and Five

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Am7b5 VII 	Dm7 VII 	Gm7 VIII 	Cm7 X 	F7 VII 	Bbm7 VIII 	Ebm7 VIII 
roman	VII	III7	VI7	II7	V9	I7	IV7
secondary dominant	A7 VII 	D7 VII 	G7 VIII 	C7 VIII 	F9 VII 	Bb7 VIII 	Eb7 VIII 
roman	IV7 for VIIIm7b5	bVII7 for III7	bIII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Eb7 VIII 	Ab7 IX 	Db7 IX 	Gb9 VIII 	B7 IX 	E7 I 	Bbb7 (A7) VII 

stepwise roots

roman	Ima7	IIIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Bbm7 VIII	Cm7 X	Dm7 VII	Ebm7 VIII	F7 VII	Gm7 VIII	Am7b5 VII
							

D Form parent scale, Bass Notes On Strings Five and Four

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Am7b5 VIII	Dm7 VII	Gm7 VIII	Cm7 VIII	F7 VIII	Bbma7 VII	Ebma7 VIII
roman	VII	III7	VI7	II7	V7#9	I7	IV7
secondary dominant	A7 VI	D7 VII	G7 VIII	C7 IX	F7#9 VII	Bb7 VII	Eb7 VIII
roman	IV7 for VIIIm7b5	bVII7 for III7	bIII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Eb7 VIII	Ab7 IX	Db7 X	Gb7 IX	B7 VIII	E7 IX	Bbb7 (A7) VII

stepwise roots

roman	IIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Bbma7 VII	Cm7 VIII	Dm7 VII	Ebma7 VIII	F7 VIII	Gm7 VIII

D Form parent scale, Bass Notes On String Four

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Am7b5 VII	Dm7 VI	Gm7 VIII	Cm7 X	F7 VI	Bbma7 VIII	Ebma7 VIII
roman	VII7	III7	VI7	II7	V7b9	I7	IV7
secondary dominant	A7 VII	D7 VII	G7 VIII	C7 X	F7b9 VII	Bb7 VIII	Eb7 VIII
roman	IV7 for VIIIm7b5	bVII7 for III7	bIII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Eb7 VIII	Ab7 IX	Db7 XI	Gb7 VII	B7 IX	E7 IX	Bbb7 (A7) VII

stepwise roots

roman	IIm7	IIIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Bbma7 VIII	Cm7 X	Dm7 VI	Ebma7 VIII	F7 VI	Gm7 VIII	Am7b5 VII

C Form parent scale, Bass Notes On Strings Six and Five

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Em7b5 V b5 b3 b7 1	Am7 V 1 5 b3 b7	Dm7 V 1 5 b7 b3	Gm7 V b3 1 5 b7	C7 VIII 1 b7 3 5	Fma7 V 1 3 5 7	Bbma7 V 1 7 3 5

roman secondary dominant option	VII7 E7 V	III7 A7 V	VI7 D7 V	II7 G7 V	V7#9 C7#9 VII	I7 F7 VI	IV7 Bb7 VI
	 1 3 b7 1	 1 5 3 b7	 1 5 b7 3	 3 1 5 b7	 1 3 b7 #2 5	 1 3 b7 1	 1 b7 3 5

roman flat five substitute	IV7 for VIIIm7b5 Bb7 VI	bVII7 for III7 Eb7 VI	bIIIm7 for VIIm7 Ab7 VI	bVI7 for IIIm7 Db7 IX	bII7 for V7 Gb7 VII	bV7 for IIm7 B7 VII	bI7 for IVma7 Fb7 V
	 1 5 3 b7	 1 5 b7 3	 3 1 5 b7	 1 b7 3 5	 1 3 b7 1	 1 b7 3 5	 1 3 b7 1

stepwise roots

roman	Ima7	IIIm7	IIIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Fma7 V	Gm7 V	Am7 V	Bbma7 VI	C7 VIII	Dm7 V	Em7b5 VII
	 1 3 5 7	 b3 1 5 b7	 1 5 b3 b7	 1 7 3 5	 1 b7 3 5	 1 5 b7 b3	 1 b5 b7 b3

C Form parent scale, Bass Notes On Strings Five and Four

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Em7b5 VII	Am7 V	Dm7 V	Gm7 VII	C9 VII	Fma7 VIII	Bbma7 VII
roman	VII7	III7	VI7	II7	V7#9	I7	IV7
secondary dominant option	E7 VII	A7 VI	D7 V	G7 VII	C7#9 VII	F7 VIII	Bb7 VII
roman	IV7 for VIIIm7b5	bVII7 for III7	bIIIm7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Bb7 VII	Eb7 VI	Ab7 VIII	Db9 VIII	Gb7 IX	B7 VIII	Fb7 VII

stepwise roots

roman	IIm7	IIIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Gm7 VII	Am7 V	Bbma7 V	C9 VII	Dm7 V	Em7b5 VII

C Form parent scale, Bass Notes On String Four

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Em7b5 V b3 b7 1 b5	Am7 VII 1 5 b7 b3	Dm7 VI 5 1 b3 b7	Gm7 V 1 5 b7 b3	C7 VIII b7 3 5 1	Fma7 VI 3 7 1 5	Bbma7 V 1 3 5 7
roman	VII7	III7	VI7	II7	V7#9	I7	IV7
secondary dominant option	E7 V 3 b7 1 5	A7 VII 1 5 b7 3	D7 V 5 1 3 b7	G7 V 1 5 b7 3	C7#9 VII b7 3 5 #2	F7 VI 3 b7 1 5	Bb7 VI 1 3 b7 1
roman	IV7 for VIIIm7b5	bVII7 for III7	bIII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Bb7 VIII 1 5 b7 3	Eb7 VIII 5 1 3 b7	Ab7 VI 1 5 b7 3	Db9 VI b7 3 5 1	Gb7 VII 3 b7 1 5	B7 VII 1 3 b7 1	Fb7 V 3 b7 1 5

stepwise roots

roman	IIm7	IIIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Gm7 V 1 5 b7 b3	Am7 VII 1 5 b7 b3	Bbma7 V 1 3 5 7	C7 VIII b7 3 5 1	Dm7 VI 5 1 b3 b7	Em7b5 V b3 b7 1 b5

A Form parent scale, Bass Notes On Strings Six and Five

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Em7b5 VII	Am7 X	Dm7 X	Gm7 VIII	C7 VIII	Fma7 VI	Bbma7 VI
roman	VII7	III7	VI7	II7	V7#5	I7	IV7
secondary dominant option	E7 VII	A7 X	D7 X	G7 VIII	C7#5 VII	F7 VI	Bb7 VI
roman	IV7 for VIIIm7b5	bVII7 for III7	bII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Bb7 XI	Eb7 XI	Ab7 IXI	Db7 IX	Gb7 VII	B7 VII	Fb7 V

stepwise roots

roman	IIm7	IIIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Gm7 VIII	Am7 X	Bbma7 VI	C7 VIII	Dm7 X	Em7b5 VII

A Form parent scale, Bass Notes On Strings Five and Four

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Em7b5 VII	Am7 V	Dm7 X	Gm7 X	C7 VIII	Fma7 VIII	Bbma7 VII
roman	VII7	III7	VI7	II7	V7#9	I7	IV7
secondary dominant option	E7 VII	A7 VI	D7 X	G7 X	C7#5 VIII	F7 VIII	Bb7 VII
roman	IV7 for VIIIm7b5	bVII7 for III7	bIIIm7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Bb7 VII	Eb7 XI	Ab7 XI	Db9 IX	Gb7 IX	B7 VIII	Fb7 VII

stepwise roots

roman	IIm7	IIIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Gm7 X	Am7 V	Bbma7 VII	C7 VIII	Dm7 X	Em7b5 VII

A Form parent scale, Bass Notes On String Four

roots in fourths (7-3-6-2-5-1-4)

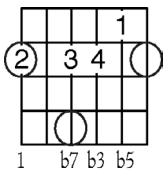
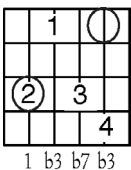
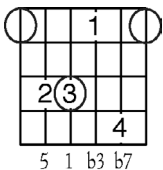
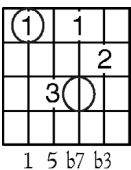
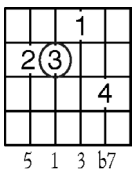
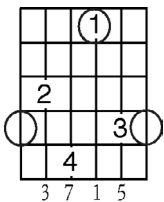
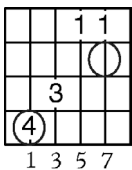
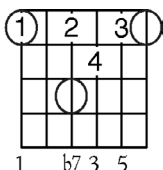
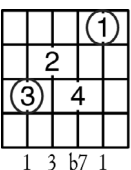
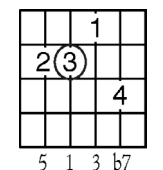
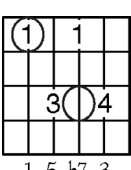
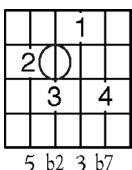
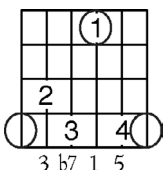
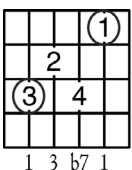
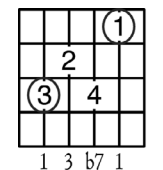
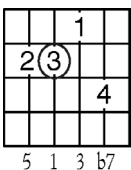
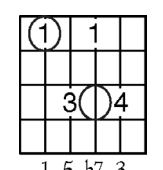
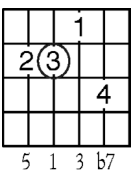
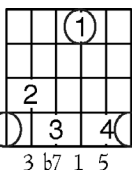
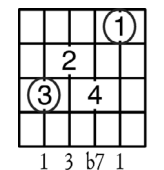
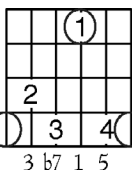
roman	VIIIm7b5	IIIIm7	VIIm7	IIIm7	V7	IIma7	IVma7
Scale-Tone Seventh	Em7b5 VIII	Am7 VII	Dm7 X	Gm7 VIII	C9 VIII	Fma7 X	Bbma7 VIII
roman	VII7	III7	VI7	II7	V7#9	I7	IV7
secondary dominant option	E7 VII	A7 VII	D7 VII	G7 VIII	C7#9 IX	F13 VII	Bb7 VIII
roman	IV7 for VIIIm7b5	bVII7 for III7	bIII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIma7	bI7 for IVma7
flat five substitute	Bb7 VIII	Eb7 XI	Ab7 IX	Db9 IX	Gb7 XI	B7 IX	Fb7 IX

stepwise roots

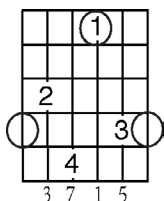
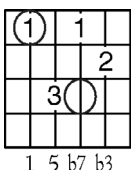
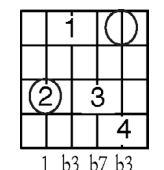
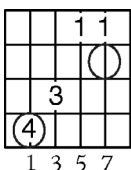
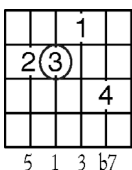
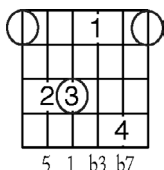
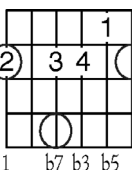
roman	IIma7	IIIm7	IIIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Fma7 X	Gm7 VIII	Am7 VII	Bbma7 VIII	C7 VIII	Dm7 X	Em7b5 VIII

G Form parent scale, Bass Notes On Strings Six and Five

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Em7b5 XI 	Am7 X 	Dm7 X 	Gm7 X 	C7 IX 	Fma7 X 	Bbma7 X 
roman	VII7	III7	VI7	II7	V7b9	I7	IV7
secondary dominant option	E7 XII 	A7 X 	D7 XI 	G7 X 	C7b9 IX 	F7 X 	Bb7 XI 
roman	IV7 for VIIIm7b5	bVII7 for IIIm7	bIII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Bb7 XI 	Eb7 XII 	Ab7 XI 	Db7 X 	Gb7 XI 	B7 XII 	Fb7 IX 

stepwise roots

roman	Ima7	IIIm7	IIIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Fma7 X	Gm7 X	Am7 X	Bbma7 X	C7 IX	Dm7 X	Em7b5 XI
							

G Form parent scale, Bass Notes On Strings Five and Four

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIm7	VIIm7	IIIm7	V7	IIm7	IVma7
Scale-Tone Seventh	Em7b5 XI b7 b3 b5 1	Am7 X b3 b7 1 5	Dm7 X b7 b3 5 1	Gm7 XI 5 1 b3 b7	C7 X 1 5 b7 3	Fma7 VIII 5 1 3 7	Bbma7 X 1 3 5 7 3
roman	VII7	III7	VI7	II7	V7b9	I7	IV7
secondary dominant option	E7 XII b7 3 5 1	A7 X 3 b7 1 5	D7 X b7 3 5 1	G7 XII 5 1 3 b7	C7b9 XI b2 5 b7 3	F9 X 5 2 3 b7	Bb7 XI 1 3 b7 1
roman	IV7 for VIIIm7b5	bVII7 for III7	bII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIm7	bI7 for IVma7
flat five substitute	Bb7 XI 3 b7 1 5	Eb7 XI b7 3 5 1	Ab7 XIII 5 1 3 b7	Db7 XI 1 5 b7 3	Gb9 XI 5 2 3 b7	B7 XII 1 3 b7 1	Fb9 IX 5 2 3 b7

stepwise roots

roman	IIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Gm7 XI 5 1 b3 b7	Am7 X b3 b7 1 5	Bbma7 X 1 3 5 7 3	C7 X 1 5 b7 3	Dm7 X b7 b3 5 1	Em7b5 XI b7 b3 b5 1

G Form parent scale, Bass Notes On String Four

roots in fourths (7-3-6-2-5-1-4)

roman	VIIIm7b5	IIIm7	VIIm7	IIIm7	V7	IIma7	IVma7
Scale-Tone Seventh	Em7b5 XI b7 b3 b5 1	Am7 X b3 b7 1 5	Dm7 X b7 b3 5 1	Gm7 XI 5 1 b3 b7	C7 X 1 5 b7 3	Fma7 X 5 1 3 7	Bbma7 XI 3 7 1 5
roman	VII7	III7	VI7	II7	V7b9	I7	IV7
secondary dominant option	E7 XII b7 3 5 1	A7 X 3 b7 1 5	D7 X b7 3 5 1	G7 XII 5 1 3 b7	C7b9 XI b2 5 b7 3	F9 X 5 2 3 b7	Bb7 XI 3 b7 1 5
roman	IV7 for VIIIm7b5	bVII7 for III7	bIII7 for VIIm7	bVI7 for IIIm7	bII7 for V7	bV7 for IIma7	bI7 for IVma7
flat five substitute	Bb7 XI 3 b7 1 5	Eb7 XI b7 3 5 1	Ab7 XIII 5 1 3 b7	Db7 XI 1 5 b7 3	Gb9 XI 5 2 3 b7	B7 XII 3 b7 1 5	Fb9 IX 5 2 3 b7

stepwise roots

roman	IIma7	IIIm7	IIIm7	IVma7	V7	VIIm7	VIIIm7b5
Scale-Tone Seventh	Fma7 X 5 1 3 7	Gm7 XI 5 1 b3 b7	Am7 X b3 b7 1 5	Bbma7 XI 3 7 1 5	C7 X 1 5 b7 3	Dm7 X b7 b3 5 1	Em7b5 XI b7 b3 b5 1

MAJOR SHARP FIVE SCALE-TONE STEPWISE SEVENTH CHORDS

To show the relationship to major scale-tone chords, harmonic minor scale-tone chords are shown as major #5. If the tone center is placed on step six of major sharp five, the scale (or mode) is harmonic minor (Aeolian natural seven).

Seventh chords built on first and sixth steps of major sharp five, $I_{ma}7\#5$ and $VI_{m}(ma7)$, are rarely used. Instead, this set is commonly combined with major scale-tone chords.

F Major Sharp Five Creates D Harmonic Minor on Its Sixth Step

See Melodically Superimposed Cadences/Harmonic Minor Is Mode VI of Major Sharp Five/[the modes of major sharp five in all keys](#), showing the harmonic minor scales they create on their sixth step.

$I_{ma}7\#5$	$II_{m}7$	$III7$	$IV_{ma}7$	$\#Vdim.7$	$VI_{m}(ma7)$	$VII_{m}7b5$
$F_{ma}7\#5$ I	$G_{m}7$ III	$A7$ V	$Bb_{ma}7$ VI	$C\#dim.7$ VIII	$D_{m}(ma7)$ X	$E_{m}7b5$ XII

Combining Major and Major Sharp Five Scale-Tone Chords

In this common composite of major and major #5, $I_{ma}7$ and $VI_{m}7$ are major scale-tone chords; $III7$ and $\#Vdim7$ are major sharp five scale-tone chords; $II_{m}7$, $IV_{ma}7$ and $VII_{m}7b5$ are common to both.

major and major #5 numbering for the columns of chords below:

$I_{ma}7$	$II_{m}7$	$III7$	$IV_{ma}7$	$\#Vdim7$	$VI_{m}7$	$VII_{m}7b5$
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Aeolian mode and harmonic minor numbering for the columns of chords below:

$bIII_{ma}7$	$IV_{m}7$	$V7$	$VI_{ma}7$	$VII_{dim}7$	$Im7$	$II_{m}7b5$
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string set 6-4-3-2, 107350 voicing

$F_{ma}7$ I	$G_{m}7$ III	$A7$ V	$Bb_{ma}7$ VI	$C\#dim7$ IX	$D_{m}7$ X	$E_{m}7b5$ XII

string set 5-4-3-2, 015730 voicing

<i>Bbma7</i> I	<i>Cm7</i> III	<i>D7</i> V	<i>Ebma7</i> VI	<i>F#dim7</i> IX	<i>Gm7</i> X	<i>Am7b5</i> XII
1 5 7 3	1 5 b7 b3	1 5 b7 3	1 5 7 3	1 b5 6 b3	1 5 b7 b3	1 b5 b7 b3

string set 5-4-3-2, 013570 voicing

Some of the fingerings are difficult to reach.

<i>Dma7</i> II	<i>Em7</i> III	<i>F#7</i> V	<i>Gma7</i> VII	<i>A#dim7</i> VIII	<i>Bm7</i> X	<i>C#m7b5</i> XII
1 3 5 7	1 b3 5 b7	1 3 5 b7	1 3 5 7	1 b3 b5 6	1 b3 5 b7	1 b3 b5 b7

combined string sets 6-4-3-2 and 5432

<i>Bbma7</i> VI	<i>Cm7</i> VIII	<i>D7</i> V	<i>Ebma7</i> VI	<i>F#dim7</i> IV	<i>Gm7</i> V	<i>Am7b5</i> VII
1 7 3 5	1 b7 b3 5	1 5 b7 3	1 5 7 3	b3 1 b5 6	b3 1 5 b7	b3 1 b5 b7
<i>Dma7</i> V	<i>Em7</i> V	<i>F#7</i> VII	<i>Gma7</i> VII	<i>A#dim7</i> VI	<i>Bm7</i> IV	<i>C#m7b5</i> IV
1 5 7 3	1 b3 b7 1	1 3 b7 1	1 3 5 7	b5 1 b3 6	b3 b7 1 5	1 b5 b7 b3

string set 5-3-2-1, 010735 voicing

<i>Bbma7</i> I	<i>Cm7</i> III	<i>D7</i> V	<i>Ebma7</i> VI	<i>F#dim7</i> VIII	<i>Gm7</i> X	<i>Am7b5</i> XI
1 7 3 5	1 b7 b3 5	1 5 b7 3 5	1 7 3 5	1 6 b3 b5	1 b7 b3 5	1 b7 b3 b5

string set 4-3-2-1, 001573 voicing

<i>Ebma7</i> I	<i>Fm7</i> III	<i>G7</i> V	<i>Abma7</i> VI	<i>Bdim7</i> IX	<i>Cm7</i> X	<i>Dm7b5</i> XII
1 5 7 3	1 5 b7 b3	1 5 b7 3	1 5 7 3	1 b5 6 b3	1 5 b7 b3	1 b5 b7 b3

string set 4-3-2-1, 001357 voicing

Not everyone can fret the chords which involve a barre with the second finger.

<i>Gma7</i> II	<i>Am7</i> III	<i>Bm7</i> V	<i>Cma7</i> VII	<i>Ddim7</i> VIII	<i>Em7</i> X	<i>F#m7b5</i> XII
1 3 5 7	1 b3 5 b7	1 3 5 b7	1 3 5 7	1 b3 b5 6	1 b3 5 b7	1 b3 b5 b7

combined string sets 5-3-2-1 and 4321

<i>Dma7</i> V	<i>Em7</i> V	<i>F#7</i> VII	<i>Gma7</i> V	<i>A#dim7</i> VI	<i>Bm7</i> III	<i>C#m7b5</i> III
1 7 3 5	1 b7 b3 5	5 3 b7 1	1 5 7 3	1 b5 6 b3	1 b7 b3 b5	1 b7 b3 b5
<i>Gma7</i> V	<i>Am7</i> VII	<i>B7</i> IX	<i>Cma7</i> V	<i>D#dim7</i> VI	<i>Em7</i> IV	<i>F#m7b5</i> IV
1 5 7 3	1 5 b7 b3	1 5 b7 3 5	5 1 3 7	b5 1 b3 6	1 b7 b3 5	1 b5 b7 b3

MELODIC MINOR SCALE-TONE STEPWISE SEVENTH CHORDS

Melodic minor is used in classical music with a different version for ascending and descending. It ascends as major with flat three and descends as major with flat three, flat six and flat seven. We will use the ascending form only, as major with flat three. The first and third chords, Im(ma7) and IIIma7#5, are rarely used. Instead, this set is commonly combined with major scale-tone chords.

string set 6-4-3-2, 107350 voicing

Im(ma7)	IIIm7	IIIIma7#5	IV7	V7	VIIm7b5	VIIIm7b5
Fm(ma7) I	Gm7 III	Abma7#5 IV	Bb7 VI	C7 VIII	Dm7b5 X	Em7b5 XII
1 7 b3 5	1 b7 b3 5	1 7 3 #5	1 b7 3 5	1 b7 3 5	1 b7 b3 b5	1 b7 b3 b5

Combining Melodic Minor Scale-Tone Triads and Sevenths

Since the Im(ma7) and IIIIma7#5 are rarely usable, triads are substituted.

string set 6-4-3-2, 107350 voicing

Im	IIIm7	III augmented	IV7	V7	VIIm7b5	VIIIm7b5
Fm I	Gm7 III	Abaug IV	Bb7 VI	C7 VIII	Dm7b5 X	Em7b5 XII
1 5 1 b3 5 1	1 b7 b3 5	1 1 3 #5	1 7 3 5	1 b7 3 5	1 b7 b3 b5	1 b7 b3 b5

stringset 5-4-3-2, 015730 voicing

Im	IIIm7	III augmented	IV7	V7	VIIm7b5	VIIIm7b5
Bb I	Cm7 III	Dbaug IV	Eb7 VI	F7 VIII	Gm7b5 X	Am7b5 XII
1 5 1 b3	1 5 b7 b3	1 5 b7 b3	1 5 b7 3	1 5 b7 3	1 b5 b7 b3	1 b5 b7 b3

string set 5-4-3-2, 013570 voicing

Some of these fingerings are difficult to reach.

I _m	II _m 7	III augmented	IV ₇	V ₇	VI _m 7b5	VII _m 7b5
<i>Dm</i> II	<i>Em7</i> III	<i>Faug.</i> IV	<i>G7</i> VI	<i>A7</i> VIII	<i>Bm7</i> X	<i>C#m7b5</i> XII

string set 5-3-2-1, 010735 voicing

I _m	II _m 7	III augmented	IV ₇	V ₇	VI _m 7b5	VII _m 7b5
<i>Bbm</i> I	<i>Cm7</i> III	<i>Dbaug</i> IV	<i>Eb7</i> VI	<i>F7</i> VIII	<i>Gm7b5</i> X	<i>Am7b5</i> XI

string set 4-3-2-1, 001573 voicing

I _m	II _m 7	III augmented	IV ₇	V ₇	VI _m 7b5	VII _m 7b5
<i>Ebm</i> I	<i>Fm7</i> III	<i>Gbaug.</i> IV	<i>Ab7</i> VI	<i>Bb7</i> VIII	<i>Cm7b5</i> X	<i>Dm7b5</i> XII

string set 4-3-2-1, 001357 voicing

Not everyone can fret chords which involve a barre with the second finger (Am7 below).

I _m	II _m 7	III augmented	IV ₇	V ₇	VI _m 7b5	VII _m 7b5
<i>Gm</i> II	<i>Am7</i> III	<i>Bbaug</i> V	<i>C7</i> VII	<i>D7</i> VIII	<i>Em7b5</i> X	<i>F#m7b5</i> XII

Abbreviating and Elaborating Chord Progression

Elaboration

- **Enhancing a Single Chord**
- **Cluster Playing**
- **Changing Moods with Chord Qualities And Modes**
- **Cadences In Fourths with Optional Flat Five Substitutes**
- **Diminished-Sounding Dominant Progression**
- **Chromatic Passing Chords**
- **Voice Leading with a Melody, A Scale or Chromatically**
- **Neighboring Scale-Tone Chords, IV-V-I, VI-V-I**
- **Elaborating with a Commonality Chord**
- **Quartal Chords Used Abstractly**
- **Sequenced Elaboration**

Abbreviation

- **Purposes of Abbreviating Chord Progression**
- **Abbreviating Chord Qualities**
- **Omitting Unessential Chords**
- **Omitting Cadences**
- **Summarizing with a Commonality Chord**

ELABORATION

- **Enhancing a Single Chord**
- **Cluster Playing**
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ENHANCING A SINGLE CHORD

Add Harmony in Thirds

Add Tones Other Than Thirds

Creating Sequences with Alternating Tones

alternating five and six

alternating seven and six

alternating four and three

alternating a minor chord's five-sharp five-six-sharp five (James Bond)

alternating a major chord's 5-6-7-5-6 (Dance of the Sugar Plum Fairies)

Creating Sequences with Linear Scale Tones

scalar descent from chord tones

scalar ascent from chord tones

Creating Sequences with Chromatic Scale Tones

chromatic descent from a minor chord root

chromatic descent from a major chord root

chromatic ascent from a minor chord fifth

chromatic ascent from a minor chord fifth

CLUSTER PLAYING

Creating Tension with Dissonance

alternating tension and release

chord voicings with half and whole steps

add tone chords with notes a whole step or half step from a chord tone

Pedal Tone Concept with Long-Duration Neighbor Tone Triads

To create more dissonance, the duration of the neighbor tone chords is longer.

stepwise root neighbors

roots a fourth above or below

alternating neighbor tones and target chord tones in a progression

CHANGING MOODS WITH CHORD QUALITIES AND MODES

Ascend Major Scale Tone Modes In Fourths To Brighten The Mood

Descend Major Scale Tone Modes In Fourths To Darken The Mood

Substitute Minor II V For Major II V

CADENCES IN FOURTHS WITH OPTIONAL FLAT FIVE SUBSTITUTES

The Order of Perfect Fourths in the Major Scale

The Order of Fourths in Harmonic Minor

The Order of Fourths in Melodic Minor

The Order of Fourths in Harmonic Major

Changing Fourths to Chromatic with Flat Five Substitutes

DIMINISHED-SOUNDING DOMINANT PROGRESSION

Minor Seventh Flat Five in Minor Thirds

Ninth No Root in Minor Thirds

13b9 Over Flat Two in Minor Thirds

7b9 in Minor Thirds

7#9 in Minor Thirds

Diminished Scale and Parts of 13b9#9#11 in Minor Thirds

CHROMATIC PASSING CHORDS

Passing Chromatic Chords of the Same Quality

Use One or Two Lower Chromatic Neighbor Embellishment Chords

Flat Five Substitute Chromatic Sequences

Linear Chromatic Descent from Root

Linear Chromatic Ascent from Minor Chord Fifth

Mixing Passing, Lower, Flat Five and Linear Chromatic

VOICE LEADING WITH A MELODY, A SCALE OR CHROMATICALLY

Harmonize a Pentatonic Scale with Chords

Harmonize a Heptatonic Scale with Chords

Harmonize a Chromatic Scale with Chords

Top Voice Lead a Melody by Harmonizing It

Voice Lead a Melody in the Bass by Harmonizing It

Voice Lead a Melody in as Middle Voice by Harmonizing It

NEIGHBORING SCALE-TONE CHORDS

Pedal Tone Concept with Short-Duration Neighbor Tone Chords

To avoid dissonance, the duration of the neighbor tone chords should be shorter.

stepwise root neighbors

roots a fourth above or below

alternating neighbor tones and target chord tones in a progression

ELABORATING WITH A COMMONALITY CHORD

Use Voicing to Feature One or More Common Tones

Create a Scalar Passage or Melody with Notes Not in Common

QUARTAL CHORDS USED ABSTRACTLY

Major Scale Tone Quartal Chords

Exotic Effects with Upper Chromatic Neighbor or Flatted Secondary Roots

Harmonic Minor Scale Tone Quartal Chords

Melodic Minor Scale Tone Quartal Chords

Harmonic Major Scale Tone Quartal Chords

SEQUENCED ELABORATION

Combine the Elements Shown Earlier in This Section with Purpose

ABBREVIATION

- **Purposes of Abbreviating Chord Progression**
- **Abbreviating Chord Qualities**
- **Omitting Unessential Chords**
- **Omitting Cadences**
- **Summarizing with a Commonality Chord**

PURPOSES OF ABBREVIATING CHORD PROGRESSION

Abbreviating chord progression may include any of the following purposes:

- Simplifying a chord progression, making it easier to comprehend for the listener.
- Making it conceptually easier to improvise or compose on a progression.
- Facilitating performance at faster tempos on a chord progression.

Simplifying a Chord Progression

Simplifying a complex or lengthy chord progression is often effective in the initial presentation of the chord progression so the listener can more easily understand it when it is elaborated to the complex version.

Making it Conceptually Easier to Improvise or Compose

Abbreviating a chord progression can make it easier to improvise or compose with fewer chords to accommodate.

Facilitating Faster Tempos

To be able to perform chord changes at faster tempos, abbreviating a chord progression can help. Abbreviating the progression also makes it more effective to start cadences earlier in the setup bar at faster tempos. See [“Modal II-V-I Cadences and Turnarounds”/II-V-I Comping Pickup and Push Rhythms/Cadence to the Target I Chord with a Pickup/progressive late to early pickup, top-voiced jazz blues cadences.](#)

ABBREVIATING CHORD QUALITIES

See the chapter [Chord Naming Conventions](#).

When You Should Include the Root

In a familiar chord progression, the listener can imagine a chord root in context, but that isn't always the case. Here are a few situations where you should not omit the root:

- If you are playing the only instrument where other instruments won't be playing the root and you want the root to be heard.
- In a fundamental style like bluegrass, punk or fifties rock where the root is usually present.
- When the root is the tone center and you want it heard.
- When you want to make a classic chord progression like I-VIm-IIIm-V clearly audible, so you include the root of each chord.

Preferred Essential Chord Tones

These tones should be included if possible. Other tones are optional. General rule: include the third, the seventh (if involved) and any other note implied by the chord name.

examples of preferred essential chord tones

chord name	numbered tones	preferred essential tones
7	1-3-5-b7	3-b7
9	1-3-5-b7-9	3-b7-9
ma7	1-3-5-7	3-7
ma9	1-3-5-7-9	3-7-9
6	1-3-5-6	3-6
m6	1-b3-5-6	b3-6
13	1-3-5-b7-9-11-13	3-b7-13
13#11	1-3-5-b7-9-#11-13	3-b7-#11-13
13b9#11	1-3-5-b7-b9-#11-13	3-b7-b9-#11-13
m9(ma7)	1-b3-5-7-9	b3-7-9
9sus4	1-4-5-b7-9	4-b7-9
dim7 add 4	1-b3-4-b5-bb7 (bb7=6)	b3-4-b5-bb7
m9b5	1-b3-b5-b7-9	b3-b5-b7-9
7#5b5#9b9	1-3-b5-#5-b7-b9-#9	3-b5-#5-b7-b9-#9
13b9#9#11	1-3-5-b7-b9-#9-#11-13	3-b7-b9-#9-#11-13

Simplify Ninth or Thirteenth to Seventh

ma7 family

ma9, ma9#11, ma13, ma9/6 can all be played as ma7.

dominant 7 (7) family

9, 9#11, 13, 9/6 can all be played as 7.

minor 7 (m7) family

m9, m11, m13, m9/6 can all be played as m7.

minor 7b5 (m7b5) family

m7b5, m9b5, m11b5, m13b5, m9/6b5 can all be played as m7b5.

minor major 7 (m<maj7>) family

m9(ma7) can be played as m(maj7).

Omit #9, b9, add 9, 6, #11, b13

Unless it is a signature chord sound, like E7#9 in Purple Haze, D7#9 in Taxman or E7b9 in I Want You (She's So Heavy), the sharp nine (#9) or flat nine (b9) can be omitted.

Any of these found at the end of a chord name can be omitted: add 9, 6, #11, b13.

Omit the Bass Note in Slash Chords

Usually, the bass note indicated after the slash in a slash chord name ("A" in the B/A chord) can be omitted. Sometimes, the bass note after the slash is in effect the root of a suspended chord, such as G/A (G-B-D/A) being A9sus4 no fifth (A-D-E-G-B without "E").

Retain the Third and Fifth of the Triad Basis

Play only the triad part, only the seventh chord part or only the sixth chord part, optionally omitting the root.

major triad basis

ma7, ma9, 7, 9, 13, 6, add9, 6/9 all have a major triad basis with 1-3-5.

minor triad basis

m7, m9, m(maj7), m9(ma7), m11, m13, m6, m add9, m6/9 all have a minor triad basis with 1-b3-5.

diminished triad basis

diminished 7, m7b5, m9b5, m11b5, m13b5, m6b5, all have a diminished triad basis with 1-b3-b5.

augmented triad basis

7#5, 9#5, 13#5, ma7#5, ma9#5, all have an augmented triad basis with 1-3-#5.

suspended fourth (sus4) triad basis

7sus4, 9sus4, 11, 13sus4, ma7sus4, ma9sus4, all have a suspended fourth triad basis with 1-4-5.

suspended second (sus2) triad basis

7sus4, 9sus2, 13sus2, ma7sus2, all have a suspended second triad basis with 1-2-5.

major flat five triad basis

ma7b5, ma9b5, 7b5, 9b5, 13b5, all have a major flat five triad basis with 1-3-b5.

retain b5 or #5

If a chord has a flat five or sharp five, it should be retained.

#11 and b13 Can Be Omitted While Retaining the Fifth

sharp eleven (#11)

When a chord has a “#11”, it still has an unaltered fifth, in effect it has both a natural fifth and flat fifth.

flat thirteen (b13)

When a chord has a “b13”. Sharp five is enharmonically the same as flat. Flat 13 (b13) is flat six (b6) up an octave. A chord with a “b13” still has an (unaltered) fifth. In effect it has both a natural fifth and sharpened fifth.

Dominant Eleventh Is Usually a 9 Suspended Fourth Chord

Almost always, a dominant eleventh chord (C11) is voiced without a third, making it 9sus4.

OMITTING UNESSENTIAL CHORDS

Define Essential Chords to Conceive Unessential Chords

Once you define the essential chords, the ones you will keep, you can consider omitting some of the remaining unessential chords.

The most essential chord is the tonic chord, the chord the key is named after. The second most essential chord is most often the V chord. The cadence from V to I is the *authentic cadence*. This would be G to C in the key of C major or G to C minor in the key of C minor. The plagal cadence is IV-I and is nicknamed the “amen cadence” because of its use at the end of Christian hymns.

Two-chord songs can illustrate possibilities of essential chords. Two-chord progressions used in songs include:

I-V

I-II^m

I-IV

II^m-V (I^m-IV in the key of II^m)

III-IV (I-bII in the key of III)

V-IV (I-bVII in the key of V)

VI^m-IV (I^m-bVI in the key of VI^m)

Chords with fewer tones in common with an essential chord that they follow or precede are less essential. However, a V chord (5-7-2) has the fifth of the key in common with the I chord (1-3-5), yet is more important than the II chord (2-4-6), which has no tones in common with the I chord (1-3-5). This is due to our familiarity with the authentic cadence (V-I) as a strong means of establishing the key on the I chord. So, authentic cadences (and plagal cadences to a lesser degree) tend to make the V chord and the IV chords essential.

Arbitrary Essential Chords

Two adjacent chords with shared tones, like II^m7 (2-4-6-1) and V9 (5-7-2-4-6), which share 2-4-6 can be replaced with one of them. Using only the II^m7 is softer and more bluesy. Using only the V9 stronger and more harsh.

Chromatically Raised Tones in Secondary Dominants

When scale-tone chords are modified to secondary dominants, notes are changed chromatically. See the chapter “[Secondary Dominant](#)”.

Some scale-tone secondary dominant chords raise a note chromatically. II^m7 (2-4-6-1) changes to II⁷ (2-#4-6-1) with a sharp four of the key. III^m7 (3-5-7-2) changes to III⁷ (3-#5-7-2) with a sharp five of the key. VI^m7 (6-1-3-5) changes to V⁷ (6-#1-3-5) with a sharp one of the key.

Other scale-tone secondary dominant chords lower a note chromatically. I^ma7 (1-3-5-7) changes to I⁷ (1-3-5-b7) with a flatted seventh of the key. I^ma7 (1-3-5-7) changes to I⁷ (1-3-5-b7) with a flatted seventh of the key.

More colorful and dissonant secondary dominants may alter multiple tones, some raised chromatically, some lowered chromatically. III^m7 (3-5-7-2) changes to III⁷#5b9 (3-#5-7-2-4) with a sharped fifth of the key and an added fourth of the key. III^m7 (3-5-7-2) changes to III⁷#5#9 (3-#5-7-2-5) with both a sharped fifth of the key and an unaltered fifth of the key. V⁹ (5-7-2-4-6) changes to V⁷#5#9 (5-7-#2-4-#6) with a sharped second and a sharped sixth of the key.

Preserving Signature Chords

Chromatically changed notes may be a signature aspect of the chord progression where chords with chromatic changes should be retained.

Hesitation Blues

See “[Summary of Chord Progression Types](#)”/Blues/ [Hesitation Blues - Starting with Four Bars of VI^m](#).

The second chord in *Hesitation Blues* by the Hot Tuna needs to be dominant seventh, not minor seventh, to sound like the song. In the C parent major scale for *Hesitation Blues* in the key of A minor, the chords were largely composed with the C major scale, where chord on the third step of the scale is E^m or E^m7, but E^m7 was changed to E⁷, making it a secondary dominant to lead more strongly to the A^m chord.

As *Hesitation Blues* continues, it uses C⁷ and F⁷. C⁷ changes the I^ma7 (1-3-5-7) of the parent C major scale to C⁷ (1-3-5-b7) flatting the seventh of the C major scale for a more bluesy chord sound. Likewise, F⁷ changes the IV^ma7 (4-6-1-3) of the parent C major scale to F⁷ (4-6-1-b3) flatting the third of the C major scale for a more bluesy chord sound.

Ignoring Chords in Lieu of the Key Tonality

While the listener hears the chords change during a chord progression, they also have a sense of the overall key, which is usually more important. Melody often speaks to the key and ignores brief chords along the way, even when those brief chords are essential chords.

the two-second rule

When a melody is sounding the key briefly during a chord that is dissonant with the key for less than two seconds, the listener is usually not disturbed by the temporary dissonance and harmonic disagreement. If the duration of the harmonic disagreement is over two seconds, the listener is more likely to recognize the dissonance.

In the first few bars of Hesitation Blues, mentioned earlier, where the chord progression is alternating two beats of Am and two beats of E7, melody could be used that continuously sounds A minor. The listener would be satisfied with the aural reference to the key of Am, even though, at 120 beats per minute (for example), the E7 chord keeps periodically sounding for one second.

OMITTING CADENCES

Cadences punctuate the important (essential) chords in a progression. Sometimes cadences may be distracting and may make the chord progression too busy.

You often may want to omit one of the chords in the cadence. You may want V-I , instead of II-V-I for example. Sometimes the abbreviation of cadences is for simplicity's sake, sometimes for practicality when the tempo is too fast to play and hear all of the chords.

SUMMARIZING WITH A COMMONALITY CHORD

See the chapter “[Commonality Chords](#)”.

Scale-Tone Commonality Chords

roots in fourths

When scale tone chords progress with their roots ascending in fourths, the root, third and fifth of a chord are the fifth, seventh and ninth of the next chord. You could treat the chords as a triad made with those common tones. In the key of C, the root, third and fifth of C major are C-E-G and are the fifth, seventh and ninth of F major ninth. So a melody on a C major triad sounds well over both chords.

roots in thirds

When scale tone chords progress with their roots ascending in thirds, the third, fifth and seventh of a seventh chord are the root, third and fifth of the next chord. You could treat the chords as a triad made with those common tones. In the key of C, the third, fifth and seventh of C major seventh are E-G-B and are the root, third and fifth of E minor. Alone, E-G-B is an E minor triad, so a melody on an E minor triad sounds well over both C major seventh and E minor (or Em7) chords.

facilitate more commonality with altered versions of chords

By thinking of a C chord as C6 (C-E-G-A), it then has the same notes as Am7 (A-C-E-G). Likewise, thinking of Am as Am7 (A-C-E-G), it then has the same notes as C6. This allows you to play over C-Am as C6 or Am7.

C6 and Am7 are chord synonyms (see the “[Commonality Chords](#)”/[Chord Synonyms](#)). Chords don’t have to be complete synonyms to have many common tones. Add tones to one of the chords that is in the other chord. In playing Gm-C (G-Bb-D to C-E-G), you could add “Bb” and “D” notes to the C chord, making C9, which then has G-Bb-D in common with Gm.

Triads Common to Multiple Scale-Tone Triad, Seventh or Ninth Chords

6 1 3
4 5
2 7

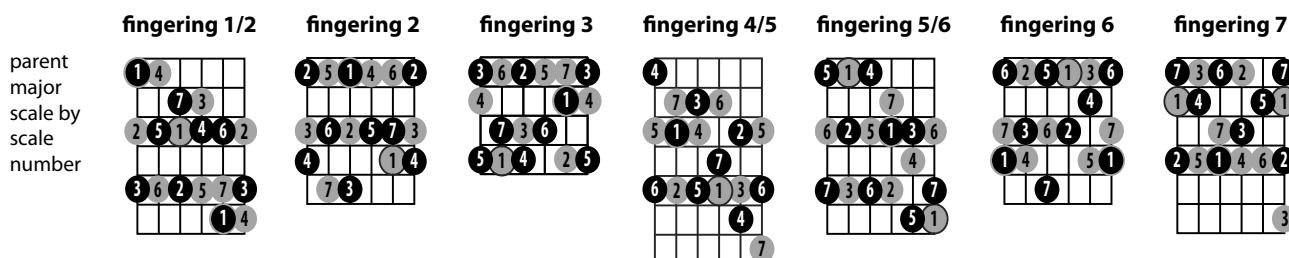
The most common cause of commonality chords is shared thirds, where the chords involved were build from the same cycle of third, the *tertian* cycle. “Tertian” refers to a series of thirds. In full-tertian arpeggios, each note is a scale tone third from the next in a continuous series of every-other-note, using the numbered cycle 1-3-5-7-2-4-6 (see the circle at the left). They can build major scale-tone arpeggios constructed in thirds (every-other-note).

“back-cycling” thirds

Notice that each of the the groups of three chords in the commonality examples below involve three chord roots in descending thirds, counter-clockwise on the 1-3-5-7-2-4-6 cycle shown above. I-VIm7 and IVm9, for example use the root cycle 1-6-4, three counter-clockwise numbers in the 1-3-5-7-2-4-6 cycle.

In each of the groups below, the third chord is a ninth. Major scale-tone ninth chords are not acceptable on steps III nor VII. IIIIm7b9 are VIIIm7b5b9 are not currently acceptable. However, if the thirds of each are changed to major thirds (altering the parent major scale), the III7b9 and VII7b5b9 chords are acceptable (VII7b5b9 is quite dissonant, though).

use these full-tertian fingerings to test the commonality groups below



In C major, any “1” above would be on “C. In the same black or gray color, on the same diagram, play 1-3-5 for I major (C major), 6-1-3-5 for VIm7 (Am7) and 4-6-1-3-5 for IVma9 (Fma9).

I major commonality

chord	I major	VIm7	IVma9
parent scale tones	1-3-5	6-1-3-5	4-6-1-3-5

II minor commonality

chord	II minor	VIIIm7b5	V9
parent scale tones	2-4-6	7-2-4-6	5-7-2-4-6

III minor commonality

chord	III minor	I _{ma} 7	VI _m 9
parent scale tones	3-5-7	1-3-5-7	6-1-3-5-7

V major commonality

chord	V major	III _m 7	I _{ma} 9
parent scale tones	5-7-2	3-5-7-2	1-3-5-7-2

VI minor commonality

chord	VI minor	IV _{ma} 7	II _m 9
parent scale tones	6-1-3	4-6-1-3	2-4-6-1-3

Finding Commonality Chords in a Progression

In summary as described in detail below, an effective procedure is to look for root movement in thirds, fourths or fifths in the parent major scale.

analyze the progression by number in the parent major scale

Work with chord progressions made from a single parent scale first. Convert the letter names to numbers (C_{ma}7-Am7-D_m7 is I_{ma}7-VI_m7-II_m7).

memorize the I major, II_m, III_m, V major and VI_m root groups

Each of the groups “backcycles” thirds presenting three possibilities in the reverse order of thirds (the 1-3-5-7-2-4-6 cycle shown earlier in reverse order). I major is 1-6-4, II minor is 2-7-5, III minor is 3-1-6, V major is 5-3-1, VI minor is 6-4-2. The root groups are respectively 1-6-4, 2-7-5, 3-1-6, 5-3-1 and 6-4-2.

the goal is to find two or all three chords from the same root group

You need to find two or three chords in the chord progression with their roots in the same root group. They must be contiguous (next to each other) in the chord progression but can be in any order. For example, I major and IV_{ma}9 qualify as commonality chords, because they are both in the I major commonality group, even though they are not continuous in the I-VI_m7-IV_{ma}9 order in which they were conceived.

look for root movement in thirds, fourths or fifths

Look for two or three consecutive chords with their root movement in thirds, fourths or fifths. They need to be part of the 1-6-4, 2-7-5, 3-1-6, 5-3-1 or 6-4-2 groups described above. For each of the root intervals (thirds, fourths and fifths), there is an implication of which tones in the root group they would involve. In the list of those implications below, the thirds are the first two or the last two numbers in forward or reverse order and the fourths or fifths are the first and last numbers in forward or reverse.

shared-tone triad	I major	II minor	III minor	V major	VI minor
group	1-6-4	2-7-5	3-1-6	5-3-1	6-4-2
thirds	1-6 or 6-4	2-7 or 7-5	3-1 or 1-6	5-3 or 3-1	6-4 or 4-2
fourths or fifths	1-4	2-5	3-6	5-1	6-2

Turnarounds with Two Common Tones

descend five and seven voice leading rules

In this voice leading for complete four-note scale-tone seventh chords or arpeggios, four things happen, one to each note:

1. The root the current chord is retained to become the next chords' fifth.
2. The third of the current chord is retained to become the next chords' seventh.
3. The fifth of the current chord descends one scale tone in the parent scale to become the root of the next chord.
4. The seventh of the current chord descends one scale tone in the parent scale to become the third of the next chord.

descend five and seven turnaround examples in chords

VIIIm7b5 Bm7b5 VI 1 b7 b3 b5	IIIIm7 Em7 VII 1 5 b7 b3	VIIm7 Am7 V 1 b7 b3 5	IIIm7 Dm7 V 1 5 b7 b3	V7 G7 III 1 5 b7 3 5 1	IIm7 Cma7 III 1 5 7 3	3IVma7 Fma7 I 1 7 3 5
Bm7b5 XIV 1 b5 b7 b3	Em7 XII 1 b7 b3 5	Am7 XII 1 5 b7 b3	Dm7 X 1 b7 b3 5	G7 X 1 5 b7 3	Cma7 VIII 1 7 3 5	Fma7 VIII 1 5 7 3

For more chord examples of descend five and seven voicing, see [“Scale-Tone Seventh Chord Progression”](#)/Major Scale-Tone Sevenths in Fourths, Descend Five and Seven, Bass on [Sixth String](#), [Fifth String](#) and [Fourth String](#).

IIIm7-V7 descend five and seven turnarounds, up-down - [click to play](#)

Fingerings are designed for the notes in each bar and are not designed to transition to the next bar.

Swing Eighth
♩ = 120

Dm7 inversions, sixth string index finger root

1 4 3 1 4 1 4 1 4 3 1 3 4 1 4 3 1 3 1 3 4 1

10 13 12 14 10 13 10 13 12 10 12 14 10 13 12 10 12 14 10

10 12 10 10 12 10 12 9 12 10 10 13 12 12 10 12 10 10 13 10 12 12 10 13 10 13 10 12 12

Dm7 inversions, sixth string middle finger root

2 1 4 2 1 2 1 2 1 4 2 4 1 2 1 4 2 4 2 4 1 2

10 8 12 10 9 10 8 10 8 12 10 12 9 10 8 12 10 12 10 12 9 10

10 12 10 10 12 10 12 9 12 10 10 8 12 12 10 12 10 10 8 10 12 8 10

Dm7 inversions, sixth string little finger root

2 4 2 1 4 2 4 1 4 2 1 4 3 4 2 4 2 1 4 1 3 4 2

8 10 8 7 10 8 10 7 10 8 7 10 9 10 8 10 8 7 10 7 9 10 8

7 10 7 10 7 9 10 7 10 10 8 10 7 9 7 10 10 8 7 8 10 7 10 10 8 10 7 8 10

Dm7 inversions, fifth string index finger root

24

Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7

1 4 1 4 1 3 1 4 1 4 3 1 4 1 3 1 4 3 1 4 1 4 1 1 4 3 1 1 2 1 3 4 3 1 3 4 1 4

5 8 5 8 5 7 3 8 5 8 7 5 8 5 7 5 8 7 5 9 5 8 5 5 8 7 5 4 5 3 5 8 7 5 7 9 5 8

30

Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7

3 1 3 2 3 4 1 3 1 3 2 3 1 2 1 3 2 1 4 2 3 1 3 2 1 4 3 4 2 3 2 1 4 4 3 4 2

7 5 7 6 7 9 5 7 5 7 6 7 4 5 5 7 6 5 8 6 7 4 7 6 5 8 7 8 6 7 6 5 8 10 7 8 6

Dm7 inversions, fifth string middle finger root

35

Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7

2 1 2 1 2 4 1 1 2 1 4 2 1 2 4 2 1 4 2 1 2 1 2

5 3 5 3 5 7 3 3 5 3 7 5 3 5 7 5 3 7 5 4 5 3 5

39

Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7

1 4 2 4 1 2 1 4 2 4 2 4 1 2 1 3 2 1 4 2 3 1 3 2 1 4 3 4 2 3

3 7 5 7 4 5 3 7 5 7 6 7 4 5 5 7 6 5 8 6 7 4 7 6 5 8 7 3 6 7

Dm7 inversions, fifth string little finger root

43

Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7

1 4 1 3 1 2 1 4 2 4 2 4 1 2 2 4 2 1 4 2 4 1

1 5 3 5 2 3 1 5 3 5 3 5 2 3 3 5 3 2 5 3 5 2

47

Dm7 G7 Dm7 G7 Dm7 G7 Dm7 G7

4 2 1 4 3 4 2 4 2 1 4 2 3 4 2 1 4 2 1 2 3 4 4 2 1 4 2 1 3 4

5 3 2 5 4 5 3 5 3 2 5 3 4 5 3 2 5 3 1 5 3 1 3 4

Dm7 inversions, fourth string index finger root

51

Dm7 G7 Dm7 G7 Dm7 G7

2 1 4 1 3 4 2 1 4 1 4 1 3 4 4 1 4 3 1 4 1 3

55

Dm7 G7 Dm7 G7 Dm7 G7

1 4 3 2 1 1 4 1 4 3 2 4 1 1 4 1 3 1 4 3 1 3 1

8^{va}

Dm7 inversions, fourth string middle finger root

58

Dm7 G7 Dm7 G7 Dm7 G7

1 3 2 1 4 1 3 1 3 2 1 2 4 1 3 2 1 2 1 2 4 1

62

Dm7 G7 Dm7 G7 Dm7 G7

1 3 1 4 2 1 2 4 2 1 4 3 2 2 1 2 1 4 2 1 2 2 1 4 3 1 4 1 2 2

IIIm7b5-V7 descend five and seven turnarounds, up-down - [click to play](#)

Fingerings are designed for the notes in each bar and are not designed to transition to the next bar.

Swing Eighths
♩ = 130

Dm7b5 inversions, sixth string index finger root

1 4 2 1 4 1 4 1 4 2 1 3 4 1 4 2 1 3 1 3 4 1

5 1 3 1 4 3 1 3 1 3 1 4 4 3 3 1 3 1 4 4 1 3 3 1 4 4 1 4 1 3 3

Dm7b5 inversions, sixth string middle finger root

2 1 3 2 1 2 1 2 1 3 2 4 1 2 1 3 2 4 2 4 1 2

13 2 4 2 1 4 2 4 1 4 2 1 4 4 4 2 4 2 1 1 2 4 1 2

Dm7b5 inversions, sixth string little finger root

16 2 4 2 1 4 2 4 1 4 2 1 4 3 4 2 4 2 1 4 1 3 4 2

20 1 4 1 4 1 3 4 4 1 4 3 2 4 1 3 1 4 3 2 1 2 4 1 3 2 1 3 1 2 4

Dm7b5 inversions, fifth string index finger root

24

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

1 4 1 4 1 3 1 4 1 4 2 1 4 1 3 1 4 2 1 4 1 4 1 1 4 2 1 1 2 1 3 4 2 1 3 4 1 4

T
A
B

4 8 5 8 5 7 3 8 5 8 6 5 8 5 7 5 8 6 9 5 8 5 5 8 6 5 4 5 3 5 8 6 5 7 9 5 8

30

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

2 1 4 3 3 4 1 2 1 3 2 3 1 2 1 3 2 1 4 2 3 1 3 2 1 4 3 4 2 3 2 1 4 4 3 4 2

T
A
B

6 5 7 6 7 9 5 6 5 7 6 7 4 5 5 7 6 4 8 6 7 4 7 6 4 8 7 8 6 7 6 4 8 10 7 8 6

Dm7b5 inversions, fifth string middle finger root

35

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

2 1 2 1 2 4 1 1 2 1 3 2 1 2 4 2 1 3 2 1 2 1 2

T
A
B

4 3 5 3 5 7 3 3 5 3 6 5 3 5 7 5 3 6 5 4 5 3 5

39

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

1 3 2 1 1 2 1 3 2 1 3 4 1 2 2 4 3 1 1 3 4 1 3 2 1 4 4 1 3 4

T
A
B

3 6 5 3 4 5 3 6 5 3 6 7 4 5 5 7 6 4 3 6 7 4 7 6 4 8 7 3 6 7

Dm7b5 inversions, fifth string little finger root

43

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

1 3 2 4 1 2 1 3 2 4 2 4 1 2 2 4 2 1 4 2 4 1

T
A
B

1 4 3 5 2 3 1 4 3 5 3 5 2 3 3 5 3 1 5 3 5 2

47

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

4 2 1 4 3 4 2 4 2 1 4 2 3 4 2 1 4 2 1 2 3 4 4 2 1 3 2 1 2 3

T
A
B

1 5 4 1 5 3 4 1 5 3 1 3 4 5 3 1 4 3 1 3 4

Dm7b5 inversions, fourth string index finger root

51

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

2 1 4 1 3 4 2 1 4 1 4 1 3 4 4 1 4 2 1 4 1 3

T
A
B

13 11 15 12 14 15 13 11 15 12 15 12 14 15 15 12 15 13 12 15 12 14

55

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) 8va G7

1 4 2 2 1 1 4 1 4 2 2 4 1 1 4 1 3 1 4 3 1 3 1

T
A
B

12 15 13 13 12 12 15 12 15 14 13 15 12 12 15 13 15 13 16 15 13 15 12

Dm7b5 inversions, fourth string middle finger root

58

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

1 3 1 4 4 1 3 1 3 1 4 2 4 1 3 2 1 2 1 2 4 1

T
A
B

10 13 11 15 14 10 13 10 13 11 15 12 14 10 13 11 10 12 10 12 14 10

62

Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7 Dm7(b5) G7

1 4 2 3 2 1 2 4 2 1 3 3 2 2 1 2 1 3 3 1 2 2 1 3 3 1 3 1 2 2

T
A
B

10 12 10 13 12 10 12 12 10 13 13 12 12 10 12 10 13 13 10 12 12 10 13 13 10 13 10 12 12

I7-IV7 descend five and seven turnarounds, up-down - [click to play](#)

Swing Eighth

♩ = 120

D7 inversions, sixth string index finger root

First system (measures 1-4):

D7 G7 D7 G7 D7 G7

Fingerings: 1 4 3 1 4 1 4 1 4 3 1 3 4 1 4 3 1 3 4 1

Second system (measures 5-8):

D7 G7 D7 G7 D7 G7 D7 G7

Fingerings: 1 3 2 1 3 1 3 1 3 2 1 4 3 3 1 3 2 1 4 1 3 3 1 1 4 1 4 1 3 3

Tablature for both systems is provided below the staff notation.

D7 inversions, sixth string middle finger root

First system (measures 9-12):

D7 G7 D7 G7 D7 G7

Fingerings: 2 1 4 2 1 2 1 2 1 4 2 4 1 2 1 4 2 4 2 4 1 2

Second system (measures 13-16):

D7 G7 D7 G7 D7 G7 D7 G7

Fingerings: 2 4 3 2 4 2 4 1 4 3 2 1 4 4 2 4 3 2 1 2 4 1 2

Tablature for both systems is provided below the staff notation.

D7 inversions, sixth string little finger root

First system (measures 17-20):

D7 G7 D7 G7 D7 G7

Fingerings: 2 4 3 1 4 2 4 1 4 3 1 4 3 4 2 4 3 1 4 1 3 4 2

Second system (measures 21-24):

D7 G7 D7 G7 D7 G7 D7 G7

Fingerings: 1 4 1 4 1 3 4 4 1 1 4 2 4 1 3 1 1 4 2 1 2 4 1 1 4 2 4 1 2 4

Tablature for both systems is provided below the staff notation.

D7 inversions, fifth string index finger root

24

D7 G7 D7 G7 D7 G7 D7 G7 D7 G7

1 4 1 4 1 3 1 4 1 4 3 1 4 1 3 1 4 3 1 4 1 4 1 1 4 3 1 1 2 1 3 4 3 1 3 4 1 4

5 8 5 7 3 8 5 9 7 5 8 5 7 5 9 7 5 9 5 8 5 5 9 7 5 4 5 3 5 9 7 5 7 9 5 8

30

D7 G7 D7 G7 D7 G7 D7 G7 D7 G7

3 1 3 2 3 4 1 3 1 3 2 3 1 2 1 3 3 1 4 2 3 1 3 3 1 4 3 4 2 3 3 1 4 4 3 4 2

7 5 7 6 7 9 5 7 5 7 6 7 4 5 5 7 7 5 8 6 7 4 7 7 5 8 7 8 6 7 7 5 8 10 7 8 6

D7 inversions, fifth string middle finger root

35

D7 G7 D7 G7 D7 G7 D7 G7

2 1 2 1 2 4 1 1 2 1 4 2 1 2 4 2 1 4 2 1 2 1 2

5 3 5 3 5 7 3 3 5 4 7 5 3 5 7 5 4 7 5 4 5 3 5

39

D7 G7 D7 G7 D7 G7 D7 G7

1 4 2 4 1 2 1 4 2 4 2 4 1 2 1 3 3 1 4 2 3 1 3 3 1 4 3 4 2 3 3 3 1 4 3 4 2 3

4 7 5 7 4 5 3 7 5 7 6 7 4 5 5 7 7 5 8 6 7 4 7 7 5 8 7 3 6 7

D7 inversions, fifth string little finger root

43

D7 G7 D7 G7 D7 G7 D7 G7

1 4 2 4 1 2 1 4 2 4 2 4 1 2 2 4 3 1 4 2 4 1

1 5 3 5 2 3 1 5 3 5 3 5 2 3 3 5 4 2 5 3 5 2

47

D7 G7 D7 G7 D7 G7 D7 G7

4 3 1 4 3 4 2 4 3 1 4 2 3 4 2 1 4 1 1 2 3 4 4 2 1 4 2 1 2 3 4 2 5 3 1 3 4

5 4 2 5 4 5 3 5 4 2 5 3 4 5 3 2 5 3 1 3 4 5 5 3 2 5 3 1 3 4

D7 inversions, fourth string index finger root

51

D7 G7 D7 G7 D7 G7

3 1 4 1 3 4 2 1 4 1 4 1 3 4 4 1 4 3 1 4 1 3

T
A
B

14 12 15 12 14 15 13 12 15 12 15 12 14 15 15 12 16 14 12 15 12 14

D7 G7 D7 G7 D7 G7

1 4 3 2 1 1 4 1 4 3 2 4 1 1 4 1 2 1 4 3 1 3 1

T
A
B

12 16 14 13 12 12 15 12 16 14 13 15 12 12 15 13 15 14 17 15 13 15 12

D7 inversions, fourth string middle finger root

58

D7 G7 D7 G7 D7 G7

1 4 2 1 4 1 3 1 3 2 1 2 4 1 3 2 1 2 1 2 4 1

T
A
B

10 14 12 10 14 10 13 10 13 12 10 12 14 10 13 12 10 12 10 12 10 12 14 10

D7 G7 D7 G7 D7 G7 D7 G7

1 2 1 4 2 1 2 4 2 1 4 3 2 2 1 2 1 4 2 1 2 2 1 4 3 1 4 1 2 2

T
A
B

10 12 10 14 12 10 12 14 12 10 14 13 12 12 10 12 11 14 13 10 12 12 10 14 13 10 13 10 12 12

Turnarounds with Three Common Tones

descend seven voice leading rules

In this voice leading where scale-tone seventh chords or arpeggios become a ninth chord or arpeggio with its root up a perfect fourth, four things happen, one to each note:

1. The root the current chord is retained to become the next chords' fifth.
2. The third the current chord is retained to become the next chords' seventh.
3. The fifth of the current chord retained to become the next chords' ninth. The ninth should not be the bass, so the fifth of the current chord should be in the upper or mid range of pitch.
4. The seventh of the current chord descends on scale tone in the parent scale to become the third of the next chord.

In summary, scale tone seventh chord retains its root, third and fifth to become the fifth, seven and ninth of the next chord. The seventh of the current chord descends in the parent scale to become the third of the next chord. The next chord will be a ninth chord with no root.

Descend seven voice leading can be applied to a major scale tone *III*m7, *VI*m7, *II*m7, *V*7 and *I*ma7 chords or arpeggios. It doesn't work beginning with a *IV*ma7, because the next chord would be *VII*m7b5b9, a currently unacceptable chord quality. It can work from *VII*m7b5 to *III*7b9 no root, where the *III*m7 chord has been changed *III*7, a dominant seventh, allowing a *III*7b9.

descend seven turnaround examples in chords

<i>III</i> m7 b7 to 6	<i>VI</i> m9 no root	<i>II</i> m7 b7 to 6	<i>V</i> 9 no root	<i>I</i> ma7 7 to 6	<i>IV</i> ma9 no root
<i>Am</i> 7 <i>XII</i>	<i>Dm</i> 9nr* <i>X</i>	<i>Gm</i> 7 <i>X</i>	<i>C</i> 9nr <i>IX</i>	<i>Fma</i> 7 <i>VIII</i>	<i>Bbma</i> 9nr <i>VII</i>

VIIIm7b5 b7 to 6	III7b9 no root	VIIm7 b7 to 6	IIIm9 no root	V7 b7 to 6	Ima9 no root
Em7b5 VII	A7b9nr VI	Dm7 V	Gm9nr III	C7 III	Fma9nr II

The voicings below have minor second intervals (half step or one fret) and can sound harsh. They can work when arpeggiated, or in an exotic style when appropriate.

IIIIm7 b7 to 6	VIIm9 no root	IIIm7 b7 to 6	V9 no root	Ima7 7 to 6	IVma9 no root
Em7 XII	Am9nr X	Dm7 X	G9nr IX	Cma7 VIII	Fma9nr VII

VIIIm7b5 b7 to 6	III7b9 no root	VIIm7 b7 to 6	IIIm9 no root	V7 b7 to 6	Ima9 no root
Bm7b5 VI	E7b9nr VI	Am7 V	Dm9nr III	G7 III	Cma9nr II

See more voicings here: ["Voice Leading"/Perfect Fourth Quadrad Cadences/Descend Seven.](#)

IIIm7-V9 no root descend seven turnarounds, up-down - [click to play](#)

Fingerings are designed for the notes within each bar, not for the transition to the next bar
Ninths are hard to audibly discern in a low range of pitch. Such low ninths are labeled "two low" in this exercise.

Swing Eighths

Dm7 inversions, sixth string index root

♩ = 120

1 4 3 1 4 3 4 1 4 3 1 3 4 1 4 3 1 3 1 3 4 3

10 13 12 10 14 12 13 10 13 12 10 12 9 12 13 12 10 12 10 12

1 3 1 1 1 3 1 3 1 1 4 3 1 1 3 1 1 4 1 3 1 1 1 4 1 4 1 3 1

10 12 10 10 12 9 12 10 10 13 12 10 10 12 10 10 13 10 13 10 12 10

Dm7 inversions, sixth string middle root

2 1 4 2 1 4 1 2 1 4 3 4 1 4 1 4 3 4 2 4 1 4

10 8 12 10 9 12 8 10 8 12 10 12 9 12 8 12 10 12 10 12 12 8

2 3 2 2 2 4 1 4 2 2 1 4 2 2 4 2 2 1 2 4 2 2

10 12 10 10 10 12 9 12 10 10 8 12 10 10 12 10 10 10 8 10 12 10 10

Dm7 inversions, sixth string little finger root

2 4 2 1 2 4 1 4 2 1 4 3 1 2 4 2 1 4 1 3 1 2

8 10 8 7 8 10 7 10 8 7 10 9 7 8 10 8 7 10 7 9 7 8

1 4 1 4 1 3 1 4 1 4 4 4 1 3 1 4 4 2 1 4 4 1 4 4 2 4 1 4 4

7 10 7 10 7 9 7 10 7 10 10 7 9 7 10 10 8 7 10 10 7 10 10 8 10 7 10 10

Fingerings are designed for the notes within each bar, not for the transition to the next bar
Ninths are hard to audibly discern in a low range of pitch. Such low ninths are labeled "two low" in this exercise.

Swing Eighths

Dm7 inversions, sixth string index root

♩ = 120

1 4 3 1 4 3 4 1 4 3 1 3 4 1 4 3 1 3 1 3 4 3

10 13 12 10 14 12 13 10 13 12 10 12 9 12 13 12 10 12 10 12 9 12

5 1 3 1 1 1 3 1 3 1 1 4 3 1 1 3 1 1 4 1 3 1 1 1 4 1 4 1 3 1

10 12 10 10 12 9 12 10 10 12 10 12 10 13 10 13 10 12 10

Dm7 inversions, sixth string middle root

2 1 4 2 1 4 1 2 1 4 3 4 1 4 1 4 3 4 2 4 1 4

10 8 12 10 9 12 8 10 8 12 10 12 9 12 8 12 10 12 10 12 9 12

13 2 3 2 2 2 4 1 4 2 2 1 4 2 2 4 2 2 1 2 4 2 2

10 12 10 10 10 12 9 12 10 10 12 10 12 10 10 8 10 12 10 10

Dm7 inversions, sixth string little finger root

2 4 2 1 2 4 1 4 2 1 4 3 1 2 4 2 1 4 1 3 1 2

8 10 8 7 8 10 7 10 8 7 10 9 7 8 10 8 7 10 7 9 7 8

20 1 4 1 4 1 3 1 4 1 4 4 4 1 3 1 4 4 2 1 4 4 1 4 4 2 4 1 4 4

7 10 7 10 7 9 7 10 7 10 10 7 9 7 10 10 8 7 10 10 7 10 10 8 10 7 10 10

Fingerings are designed for the notes within each bar, not for the transition to the next bar
 Ninths are hard to audibly discern in a low range of pitch. Such low ninths are labeled "two low" in this exercise.

Swing Eighths

Dm7 inversions, sixth string index root

♩ = 120

1 4 3 1 4 3 4 1 4 3 1 3 4 1 4 3 1 3 1 3 4 3

10 13 12 10 14 12 13 10 13 12 10 12 9 12 13 12 10 12 10 12 9 12

5 1 3 1 1 1 3 1 3 1 1 4 3 1 1 3 1 1 4 1 3 1 1 1 4 1 4 1 3 1

10 12 10 10 12 9 12 10 10 12 10 10 10 13 10 12 10 10 10 13 10 13 10 12 10

Dm7 inversions, sixth string middle root

2 1 4 2 1 4 1 2 1 4 3 4 1 4 1 4 3 4 2 4 1 4

10 8 12 10 9 12 8 10 8 12 10 12 9 12 8 12 10 12 10 12 9 12

13 2 3 2 2 2 4 1 4 2 2 1 4 2 2 4 2 2 1 2 4 2 2

10 12 10 10 12 9 12 10 10 8 12 10 10 12 10 10 10 8 10 12 10 10

Using Substitute Chords to Create Commonality Chords

Choosing from all the types of substitute chord options shown in “[Substitution](#)”/ [Categories of Substitute Chords](#), you can find a substitution for one chord that provides common tones with an adjacent chord in a chord progression. There is usually more than one substitution option that will produce commonality. You can sometimes use substitutes for both chords.

harmonic awareness in a commonality context

Exercises like the three tables below can build your ability to more quickly find commonality chords for a given progression.

Commonality of key tones 1-3-5 for the I-VI-II^m-V chord progression in the key of C. In each column, the original chord is shown at the top, followed by substitute options below. All substitute chords include tones 1-3-5 of the key of C.

original chord	C	A7	Dm7	G7
substitutes	Cma7	A7#9	Dm11	G13sus
	C7	Am9	D9sus4	Fm6 (neg. harm.)
	C7#9	Eb6=Cm7	Fma9	
		Eb13	Abma7#5	

Commonality of key tones 3-5-7 for the I-VI-II^m-V chord progression in the key of C. In each column, the original chord is shown at the top, followed by substitute options below. All substitute chords include tones 3-5-7 of the key of C.

original chord	C	A7	Dm7	G7
substitutes	Cma7	A9	none	G6
	Em7	Am9		G13

Commonality of key tones 3-5-b7 for the I-VI-II^m-V chord progression in the key of C. In each column, the original chord is shown at the top, followed by substitute options below. All substitute chords include tones 3-5-b7 of the key of C.

original chord	Cma7	A7	Dm7	G7
substitutes	C7	A7b9	none	G7#5#9
	Edim,Em7b5			

using commonality to abbreviate I-VI-II-V to I-II^m

C	A7	Dm7	G7
C&Dm Cma9	Cma7/6=Am9	Dm7	Dm7/G=G9sus4

using commonality to abbreviate I-VI-II-V to I-V

	C	A7	Dm7	G7
C&G	Cma9	Cma7/6=Am9	G9sus4=Dm11	G9

using commonality to abbreviate I-VI-II-V to I-V

	C	A7	Dm7	G7
C&G	Cma9	Cma7/6=Am9	G9sus4=Dm11	G9
C&G	Cma7	C7b9	G9sus4	G9
C&G	Cma7	Cm6	Fma9/D	Fma9/G

using commonality to abbreviate I-VI-II-V to VIm-IIIm

	C	A7	Dm7	G7
Am&Dm	Am7=C6	Cma7/6=Am9	Dm7	Dm7/G=G9sus4

using commonality to abbreviate I-VI-II-V to VIm-V

	C	A7	Dm7	G7
Am&G	Am7=C6	Cma7/6=Am9	G9sus4=Dm11	G9

I Got Rhythm/One Note Samba Example

I Got Rhythm	Bbma9	Gm7	Cm7	F7
One Note Samba	Dm7	Db7	Cm11	B7b5
substitutes	Bb7	Bb7b9#9	F9sus4	F9#11

One Note Samba's substitutes for I-VI-II-V "rhythm changes"

George Gershwin's *I Got Rhythm* is based on the I-VI-II-V chord progression, Bbma7-Gm7-Cm7-F7 in the key of Bb. Carlos Antonio Jobim's *One Note Samba* is also in the key of Bb, yet begins on a Dm7 chord. The first chord should be thought of as Bbma9 no root, the source of the hidden root chord, Dm7. See "[Substitution](#)"/[Categories of Substitute Chords/Hidden Roots](#),

The second chord of One Note Samba is Db7, which is a flat-five substitute for Gm7, the second chord in I Got Rhythm (see "[Substitution](#)"/[Categories of Substitution/Flat Five Substitute](#)). The third chord, Cm7, is unchanged. The fourth chord, B7b5 (=Cb7b5), is a flat five substitute for F7.

using substitutes and commonality to abbreviate One Note Samba to I-V

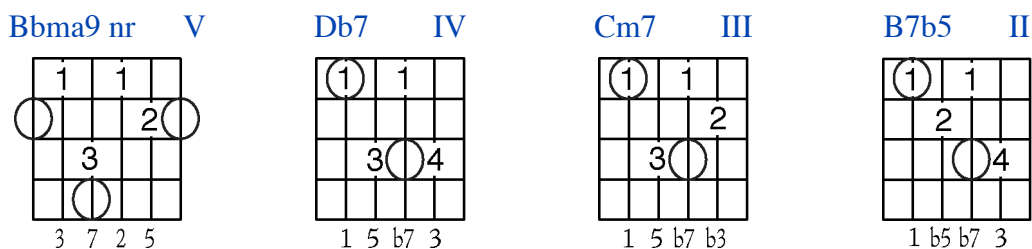
I Got Rhythm	Bbma9	Gm7	Cm7	F7
One Note Samba	Dm7	Db7	Cm11	B7b5
substitutes	Bbma7	Bb7b9#9	F9sus4	F9#b5

Bbma9 is the “hidden root” basis of Dm7. Bb7b9#9 has Bb major tones 1-3-5 in common with Bbma9, Bb7b9#9 also includes all the tones of Db7. This allow treating the first two chords as a Bb major triad while having the option to elaborate each to the complete chord. Thinking the third chord as F9sus4, includes all the tones of Cm11, in the context of the V chord (F). Thinking of the last chord (Bb7b5) as its synonym F7b5 would allow thinking in F during the last two chords. By thinking of the last chord as F9b5, it then shares the root, flatted seventh and ninth with F9sus4, while the fifth of F9sus4 is flatted in F9b5 and the fourth of F9sus4 (Bb) becomes the major third (A).

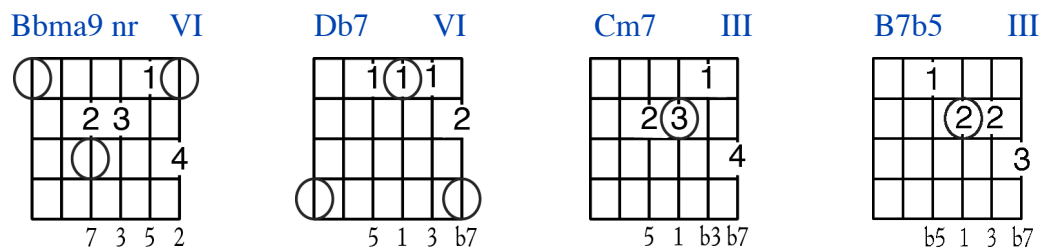
an interesting chromatic voice leading in One Note Samba

The root, fifth and seven of each chord descend chromatically to the next chord except the fifth of Cm7 descends a whole step to the flatten fifth of B7b5.

The diagrams below allow visualizing the chromatic voice leading on strings 5-4-3.

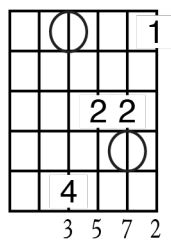


The diagrams below allow visualizing the chromatic voice leading on strings 4-3-1.

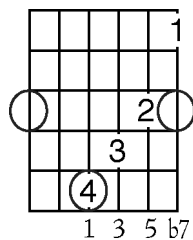


The diagrams below allow visualizing the chromatic voice leading on strings 4-2-1. These are wide spans. Be careful not to stress your hand.

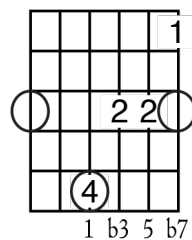
Bbma9nr VIII



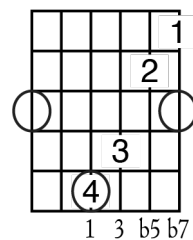
Db7 VII



Cm7 VI



B7b5 V



Comping Strategies

- **Communicate to Coordinate Parts**
- **Summarizing the “Comper”**
- **Multiple Chording Instruments**
- **Keeping Time Parts**
- **Isolate by Pitch**
- **Isolate by Time**

- **Jazz Piano and Guitar Commentary**

Charlie Christian, Oscar Moore, Barney Kessel, Herb Ellis, Joe Pass, Wes Montgomery, Pat Martino, George Benson, Russell Malone, Ron Eschete, Jim Hall, Pat Metheny, Frank Vignola, Bireli Lagrene, Bill Frissel, John McLaughlin

COMMUNICATE TO COORDINATE PARTS

Awareness is everything. It really helps to talk to the other musicians about the game plan to make all of the parts audible and to bring out the important parts for the listener.

Clearly State Your Intention with Your Part

If the other chording instrument doesn't give you part of the bar or a range of pitch, try harder to clearly state your part. Repeat the part you intend, like playing on beats two and four, over and over. Use eye contact, body language, or verbal language (if you have the opportunity). Do your best to communicate and make it happen. Sometimes, you just have to revert to just keeping time or lay out (don't play) on a section and talk about it later.

SUMMARIZING THE COMPER

Summarize the Comper (Other Accompaniment Player)

If you can summarize what another comper is playing with a set of rules like the EXAMPLE below (listen for patterns in two bar segments):

starts every two bars on one
most commonly pushes three
never plays on two

Once you have summarized the comper's part, you should be able to duplicate the part, elaborate on it or play in spaces between it to make an ensemble part (ensemble parts are usually hard to make work).

If You Cannot Summarize

If you cannot summarize, play a keeping time part or play at a different rhythmic level if there is enough room in the arrangement for your added. Like verbal conversation, it hard to understand more than two or three significant voices (or parts) at once. Likewise in music, don't try to add another significant part if two or three are already going on.

Anticipate The Soloist as You Do Another Comper

The process is very similar in this communication mode. With another comper, you tend to duplicate or make ensemble parts, rarely making more than one significant statement together. Comping with a soloist, you find fewer points of common accent. You'll typically find yourself duplicating accents on more like a quarter or less of the soloists points of emphasis, as opposed to over half of these played by another comper.

Use a Looper Pedal

The best accompaniment to practice with is other musicians. Other musicians are not always available to back you up while you practice. The second best accompaniment to practice with is a looped pedal.

looper pedals with quantizing

Most looper pedals, like the Boss RC series (RC-1, RC-3, RC30, etc.) have quantizing, where they anticipate your tempo and cause the loop to repeat at the nearest beat. The longer the loop is, the more difficult you will find it to tap the pedal and make a seamless loop. For longer loops, listen to a metronome which you record the loop.

I like the idea of not saving loops, but demanding yourself to keep playing the accompaniment each time. Good practice.

looper pedals without quantizing

The TC Electronics Ditto looper is a great looper. It has no quantizing, so your loop may seem perfect. However, you may have slightly rushed or dragged the tempo and not noticed it.

get both

If you can afford it, get an RC-1 and a Ditto. The RC-1 will make it more clear when you have not retained your tempo. Then you can apply that skill to using the Ditto and have the very slight discrepancies recorded into the loop, so it has a human feel.

Five Common Steps With Software Players

These software applications play or generate comping rhythms. They are all different, and there is a preferred order in which to use them for our purposes. The software players are generally good to train yourself to play with a regular tempo, but you should regularly move on to using a looper or playing with another musician.

Chops and Impro-visor

Chops (Mac only) and Impro-visor (cross-platform) are not random. They the same comping rhythm over and over. Chops 1.2 (no new release available as of March, 2014) has fifteen styles and is \$4.99 for Mac. Impro-visor (v 5.16) has 131 styles and is free! On a Mac, you must (at your own risk) open system preferences/Security & Privacy, unlock (lower left) and temporarily make the setting "Allow applications downloaded from: Anywhere (you can change it back after installation).

Band In A Box

Band In A Box (midi versions) generates different parts for each section, but every time you play the section, it plays the part the same. It has hundreds (800?) midi styles. I don't like the idea of their audio loops, and only use the midi version, so I can discretely edit the midi.

Ireal Pro

Ireal Pro has a random generator, but follows a style. It is available for Mac, IOS (iPad and iPhone) and Android, but not PC (there are emulators, but that gets complicated). The random generator is a great test of your skills in the later part of your comping development. Use the five-se

which software in which order

So, if you had all of these programs, the best order of use would be Chops, Impro-visor, Band In A Box (midi versions), then Ireal Pro. At least use the free Impro-visor and learn to change the styles.

five steps to comping

1. Summarize a few bars of the comper from a recording. The predictably ranges from Chops (easiest) to Ireal Pro (most difficult). Play back the recording and see if you were right, repeat if necessary.
2. Play with the recording. Try to anticipate and play the same parts of the bar as the comper. Start with "keeping time", like just quarter notes (play on each beat). Where you can, play what you expect the "comper" to play. If the comper part is really easy to anticipate, play it with slight elaborations, like some "keeping time".

When anticipating is not working, play a keeping time part, like all quarter notes. Try cautiously to go back to anticipating a little at a time, as you can.

Going back and forth from keeping time to anticipating is very effective.

3. Sample a larger region of the tune, like twelve or sixteen bars and make a general summary. Usually there is so much more information in summarizing a larger section (12 bars instead of four) that you need to generalize. If the part was not random-generated (Ireal Pro only) and you can listen to it again, listen and see if you were right. If you are using Ireal Pro, try to record it, so you can play it back to see if you were right,

When you change a style in any of these programs the summary rules change, like playing with a different person.

4. Now play along with the longer section (step 4). Like with the smaller sampling, but more cautiously, play and combine anticipating, keeping time and elaborating on the other comping part. Of the software mentioned here, Ireal Pro is the best one to use before playing with another musician. Like people, Ireal has a random generator and plays differently every time, but within a style.
5. Play with an actual human being-the ultimate musical experience.

MULTIPLE CHORDING INSTRUMENTS

The Keyboardist

A piano has a range of seven octaves, roughly the same as an entire orchestra! Comping guitar is roughly the middle two octaves. A wise keyboard player will listen to the comping guitarist and be aware of the range in which the guitar is sounding, visualizing it on the keyboard and either avoiding that range or careful building ensemble parts with the guitar.

Likewise, a comping guitarist can visualize what part of the keyboard range they are playing in and watch the keyboardist to coordinate range and rhythm so the guitar and keyboard can both be heard. Middle "C" is the second string, first fret, equivalent to the third string, fifth fret or the fourth string, tenth fret.

The Other Guitarist Or Other Chording Instrument

Hopefully, you use at most two guitars. Three is really challenging. Any chording instrument needs consideration in coordinating parts, including keyboards, chording string instruments like banjo, accordion, melodica, harmonica and so on.

Like with a keyboard, two or more chording instruments should be aware of one another's range of pitch and placement in the bar rhythmically.

“KEEPING TIME” PARTS

Staccato Quarter Note Chords

Keep time by playing chords of the same value like all quarter notes. In the common time signatures like 4/4 and 3/4, quarter notes are one beat. In larger bands or orchestras of over four instruments, it is typical that the guitar plays staccato quarter notes (about half their duration, like an eighth note and an eighth note rest).

rhymic feel with two or more instruments “keeping time”

When two or more instruments just keep time (with all quarter notes, for example), each chord usually takes a slightly long period of time to sound than it would on one of the instruments. If you listen to Charlie Christian with Benny Goodman, for example, he often doubles staccato quarter notes with his chords as the bass player is playing a staccato walking bass (or other quarter note bass). Probably due to the resonance of the bass (and its longer wave length as my friend Larry Frick suggested), the bass notes linger longer than the guitar chord. The event starts with both of them (often including a snare also), but the bass continues a few milliseconds after the guitar has died out. The bass player and guitar player can work with this rhythmic dynamic and make the bass linger more or less and create different rhythmic feels.

One of the instruments can intentionally “slice” the beat and play ever so slightly before or after the beat. Before sounding aggressive and anxious, after sounding relaxed.

Other Durations of “Keeping Time” Parts

half or whole notes

If the mood directs less activity (in a ballad, for example), longer durations are appropriate. They are also useful in making your part audible with other parts when there is a lot of chordal activity. If the piano is playing fast syncopated eighth chords, you can duplicate or be different. By playing half or whole note chords, you are at a different rhythmic level and can be heard. To make your part “hipper” you may want to “push” the beat at the beginning of the chord and play on the “and” of the beat before the chord starts on the chart (or conceptually).

eighth or sixteenth notes

Similarly to using chords of longer duration, you can play eighth, eighth triplet or sixteenth (sixteenths are rare) in duplicating the snare or other chording instrument (piano or guitar). Of course, you can use them also if the drummer and other chording instrumentalist is playing long durations against you.

Thematic “Keeping Time” Parts

“Keeping time” parts don’t have to be uniform, such as all quarter note or eighth note chords. They can also be short and repetitive rhythmic themes. As Charlie Christian, Barney Kessel and Herb Ellis have illustrated, they also can be single note themes, single notes mixed with chords or top voiced chords.

Start With Common Tone Voicing

Learn to play the cadences for each chord in the 7362514 sequence that is the backbone of chord root movement with any particular tone of the parent major scale as the highest note (1, 2, 3, 4, 5, 6 or 7). Play through a jazz blues doing this, for example.

Here are the chords for Charlie Parker’s Au Privave or Now’s The Time (same chords) with common tone “1”.

Now’s tZhe Time or Au Privave (each cell is one bar)

<div>F13 VI</div> <div></div> <div>b7 3 6 1</div>	<div>Bb9 V</div> <div></div> <div>3 b7 2 5</div>	<div>F13 VI</div> <div></div> <div>b7 3 6 1</div>	<div>F13 VI</div> <div></div> <div>b7 3 6 1</div>		
<div>Bb7 VI</div> <div></div> <div>1 b7 3 5</div>	<div>Bdim7 VI</div> <div></div> <div>1 6 b3 b5</div>	<div>F13 VI</div> <div></div> <div>b7 3 6 1</div>	<div>A7#5 V</div> <div></div> <div>1 b7 3 #5</div>	<div>D7#9 IV</div> <div></div> <div>1 3 b7 #9</div>	
<div>G7 IV</div> <div></div> <div>5 1 3 b7</div>	<div>C7sus4 III</div> <div></div> <div>1 5 b7 4</div>	<div>F13 VI</div> <div></div> <div>b7 3 6 1</div>	<div>D7#9 IV</div> <div></div> <div>1 3 b7 #9</div>	<div>Gm7 III</div> <div></div> <div>5 1 b3 b7</div>	<div>C7sus4 III</div> <div></div> <div>1 5 b7 4</div>

See [Voice Leading/Jazz Blues/Common Tone](#) for more.

Learn Top Voice Leading

The process in voicing chords for comping over a melody requires an extensive knowledge of top voice leading. Joe Pass, Barney Kessel and Herb Ellis were leading experts. You need to be able to voice any cadence with any possible top voices and not conflict with the melody. Even when comping during an improvised section on the same chord progression as the head, it is good practice to know how to not conflict with the melody.

You need to conceive the important melody notes on each of the beats or “pushes”. Quarter note melody is clear, one note per beat. With an eighth note melody, the important notes are on the beat. With syncopated eighths, the important notes are those on the beat and those that “push” the beat (are on the “and” before the beat without a note on the beat the note precedes).

You need to thoroughly study the important cadences to songs with consideration of their top voice-leading relationship to the melody.

First Voice Existing Cadences

To be progressive (and to make sure you get started), begin with common tone voicing on existing cadences in songs. There’s plenty of work to do in that category before enhancing the progression with added cadences .

Once you have a handle on playing the basic changes to a song with common tone [voice leading](#) you can begin scalar [voice leading](#) (see [Most Usable Voice Leading](#)).

Next, Superimpose Cadences

Like with the basic changes on a tune, start superimposing cadences to target chords with [common tone voice leading](#).

Listen to the other chording instruments and try to match the mood of the scale type, generally using major (see [II-V-I](#) and [I-VI-II-V](#)), [chromatic](#), [harmonic minor](#) or [melodic minor](#) cadences with like kind. As you practice each type, you will become able to recognize its sound when others play it.

Thoroughly study [Melodically Superimposed Cadences](#).

ISOLATE BY PITCH

Three note chords, can more easily “claim a range”. Even if you use four-note chords, work with the piano player to each play in separate ranges of pitch.

ISOLATE BY TIME

Playing Different Parts of the Bar

Create an ensemble part with the piano, where you play part of the bar, and they play another part. For example, while they play on beats one and three in 4/4, you play on beats two and four.

Play at a Different Rhythmic Levels

If the piano is playing at the quarter note level, play at the eighth, half or whole level. If the piano is at the eighth level, play at the sixteenth, quarter or half level.

“Keeping Time” Ensemble Parts

Keeping time parts can be a composite of two or more instruments, each playing on a different part of the bar. Tower of Power does a superb job with this, as do most Afro Latin and Afro Latin ensembles and big bands in general.

JAZZ GUITAR AND PIANO COMMENTARY

These recordings are available on subscription sites like rdio.com, <http://www.rhapsody.com/> and other subscription sites. Or, you can buy them at amazon.com or itunes.com (or itunes store accessed from your device).

Charlie Christian

title

[Flying Home](#)

album

Charlie Christian/Genius of the Electric Guitar or The Essential Benny Goodman or Benny Goodman's Greatest Hits or Benny Goodman/Benny Goodman Sextet

comments

Moderato tempo. Staccato quarter notes accented on two and four with bass (see below). Two and four is called the "back beat" (one and three being the primary metric accents). Due to the resonance of the bass, the bass lingers slightly longer on each note than the guitar chord.



title

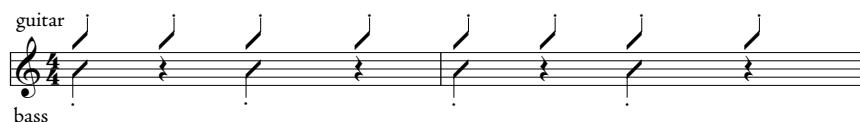
[Star Dust](#)

album

Charlie Christian/Genius of the Electric Guitar or Benny Goodman/Benny Goodman Sextet

comments

Slow tempo. "Tuba" style root and fifth bass on one and three with staccato quarter notes on all four beats. This reverses the rhythmic levels as compared to "Flying Home".



title

[Rose Room](#)

album

Charlie Christian/Genius of the Electric Guitar or Benny Goodman/Benny Goodman Sextet

comments

Moderate tempo. "Tuba" style root and fifth bass on one and three with staccato quarter notes on all four beats (same as "Star Dust", above).

title

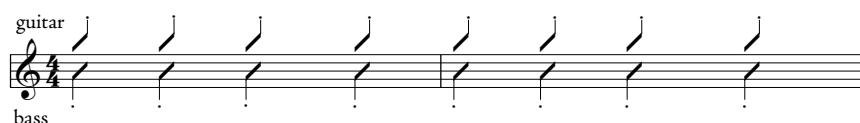
[Seven Come Eleven](#)

album

Charlie Christian/Genius of the Electric Guitar or Benny Goodman/Benny Goodman Sextet

comments

Fast tempo. Charlie repeats a single note theme during the vibes solo and staccato quarter notes with the bass during the clarinet solo. Now, the guitar and bass have identical rhythms.



<u>title</u>	<u>album</u>	<u>comments</u>
Gone with "What" Wind	Charlie Christian/Genius of the Electric Guitar or Benny Goodman Sextet/Vintage Jazz	Fast tempo. Staccato quarter note chords with the bass, like "Seven Come Eleven", above.

<u>title</u>	<u>album</u>	<u>comments</u>
Grand Slam (Boy Meets Goy)	Charlie Christian/Genius of the Electric Guitar or Benny Goodman Sextet/Charlie Christian & Benny Goodman	Fast tempo. Lay out during clarinet solo. Muted staccato quarter note chords with the bass during the vibe solo (like "Seven Come Eleven", above).

<u>title</u>	<u>album</u>	<u>comments</u>
Air Mail Special	Charlie Christian/Genius of the Electric Guitar or The Essential Benny Goodman	Fast tempo. Staccato quarter note chords with the bass. Single note enesemble themes during head.

<u>title</u>	<u>album</u>	<u>comments</u>
Six Appeal	Charlie Christian/Genius of the Electric Guitar or Benny Goodman/Benny Goodman Sextet	Moderate tempo. Staccato quarter note chords on all four beats with bass on one and three (like Star Dust, but a faster tempo). Single note enesemble themes during head. Offbeat hits with vibes and piano starting at 1:53.

Oscar Moore (with Nat King Cole)

<u>title</u>	<u>album</u>	<u>comments</u>
Beautiful Moons	Nat King Cole/100 Unforgettable Hits or The Complete Capital Recordings	Moderally staccaato quarter notes, heavily ahead of the beat (not on the "and", just a small fraction before the beat). Doesn't push the beat (play on the "and" before the beat, then not on the beat) when the piano does.

<u>title</u>	<u>album</u>	<u>comments</u>
Don't Blame Me	Nat King Cole/100 Unforgettable Hits or The Complete Capital Recordings	Moderally staccaato quarter note chords, heavily ahead of the beat (not on the "and", just a small fraction before the beat). Some single note connection of chords. Secondary melody ensembled with the piano during the verses. Arpeggiated chords just before the bridge (especially at 2:54). Sounds worked-out, like Russell Malone's parts often do.

<u>title</u>	<u>album</u>	<u>comments</u>
I'm in the Mood for Love	Nat King Cole/100 Unforgettable Hits or The Complete Capital Recordings	Moderally staccaato quarter note chords, heavily ahead of the beat (not on the "and", just a small fraction before the beat). Apart from Nat pushing beats on the "and". He some-times "slices" before it with Oscar. Scalar top voice leading . Some single note connection of chords. Sounds worked-out.

<u>title</u>	<u>album</u>	<u>comments</u>
I'm Lost	Nat King Cole/100 Unforgettable Hits or The Complete Capital Recordings	Moderately staccato quarter note chords, heavily slicing before the beat (not on the "and", just a small fraction before the beat). Scalar top voice leading . Some single note connection of chords. Sounds worked-out.

<u>title</u>	<u>album</u>	<u>comments</u>
Straighten up and Fly Right	Nat King Cole/100 Unforgettable Hits or The Complete Capital Recordings	Staccato quarter note chords, slicing before the beat. Scalar top voice leading .

Barney Kessel

<u>title</u>	<u>album</u>	<u>comments</u>
Jeepers Creepers	Barney Kessel/Kessel Plays Standards	Ensemble rhythm combines guitar and piano with quarter note chords and syncopated eighths during the tenor sax solo, starting at 1:40. At 2:14, ensemble rhythm combines guitar and the left hand of the piano during the piano solo, using lots of offbeat chords played nicely together.

<u>title</u>	<u>album</u>	<u>comments</u>
Prelude to a Kiss	Barney Kessel/Kessel Plays Standards	Secondary melody in top voice leading during the oboe head melodies.

<u>title</u>	<u>album</u>	<u>comments</u>
I Didn't Know What Time It Was	Barney Kessel/Kessel Plays Standards	Secondary melody in top voice leading during the oboe head melodies.

<u>title</u>	<u>album</u>	<u>comments</u>
64 Bars on Wilshire Avenue	Barney Kessel/Kessel Plays Standards	Ensemble rhythm combines guitar and piano with quarter note chords and syncopated eighths during the piano and sax solos. Seems to be carefully softer during the piano solo as Barney follows the pianists left hand.

<u>title</u>	<u>album</u>	<u>comments</u>
Seven Come Eleven	Oscar Peterson/The Essential Oscar Peterson	Too bad. Really awful guitar tone. Good performance otherwise. Staccato quarter note chords during the piano solo. Sometimes the time is a little out. It must have been really difficult at the fast rate Oscar P. was playing. Still... a man's got to know his limitations.

<u>title</u>	<u>album</u>	<u>comments</u>
I'm Glad There is You	Barney Kessel/Plays for Lovers	Melds nicely with the piano with legato quarter note chords, some half notes, some eighths during the vibe and piano solos.

<u>title</u>	<u>album</u>	<u>comments</u>
My Funny Valentine	Barney Kessel/Plays for Lovers	Arpeggiated chords, “bass-mid-top” comping during flute head. Arpeggiated thirds at 2:04. Top voice-lead secondary melody at 2:17 (end of head, before solo).
<u>title</u>	<u>album</u>	<u>comments</u>
Just in Time	Barney Kessel/Let’s Cook!	Rhythmic comping based on style of pianist left hand during piano and vibe solos. Elaborates on piano comping by sustaining at the end of the bar.
<u>title</u>	<u>album</u>	<u>comments</u>
Contemporary Blues	Barney Kessel/To Swing or not to Swing	Consistent staccato quarter note chords during the sax and piano solos. During the trumpet solo, Barney combines staccato quarter notes with mirroring of the solists rhythmic themes.
<u>title</u>	<u>album</u>	<u>comments</u>
Indiana	Barney Kessel/To Swing or not to Swing	Consistent staccato quarter note chords during the sax, trumpet and piano solos.
<u>title</u>	<u>album</u>	<u>comments</u>
On a Slow Boat to China	Barney Kessel/Kessel Plays Standards	Pairs with the piano making syncopated eighth comping rhythms during the piano and tenor sax solos.
<u>title</u>	<u>album</u>	<u>comments</u>
I’ve Told Ev’ry Little Star	Sonny Rollins	Pairs with the piano making syncopated eighth comping rhythms during the tenor sax solos. Elaborates on the piano with sustain pushes.
<u>title</u>	<u>album</u>	<u>comments</u>
Yardbird Suite	Hampton Hawes!!! with Barney Kessel, Shelly Mann & Red Mitchell	Consistent, soft staccato quarter note chords during piano solo. Sustains in cadences. Syncopated hits with Oscar’s left hand in the “B” section of the head at 5:43. Sliding arpeggio tones cadencing out of the “B” section at 5:48.
<u>title</u>	<u>album</u>	<u>comments</u>
Watch What Happens	Peterson, Kessel, Niels-Henning Orsted Pederson at Ronnie Scotts 1974	Barney was sitting between the bassist and Oscar so they could watch Oscar’s left hand. Secondary melody with top voice leading in the “A” section of the head (during to sustained melody notes). Note the offbeat response with Barney’s chords to each of the last four notes of the “A” section (0:40). Staccato quarter note chords in the “B” section. Swing eighth chords during piano solo, muting on the upbeat/upstroke, except sustaining chords in cadences at the end of the section. Ending cadences with piano left hand.

<u>title</u>	<u>album</u>	<u>comments</u>
Wes' Tune	Oscar Peterson/History Of An Artist	Intro: hits on the "and after two". Backbeat (two and four) staccato quarter notes in the "A" section. Evil Ways (Santana)/Night Train (Wes Montgomery) rhythmic accent during the "B" section (0:57-1:01).

<u>title</u>	<u>album</u>	<u>comments</u>
Cheek To Cheek	Oscar Peterson/85 Essential Tracks	Consistent staccato quarter note chords during head (that's a good boy, Bernard).

<u>title</u>	<u>album</u>	<u>comments</u>
Take The "A" Train	Oscar Peterson/Plays Duke Ellington	Consistent staccato quarter note chords except three- chord offbeat hits at 1:40. Offbeat hits start the "B" section at 2:05.

Herb Ellis

<u>title</u>	<u>album</u>	<u>comments</u>
But Not For Me	Monty Alexander, Ray Brown, Herb Ellis/Triple Scoop	Ther head is a half time feel as if slow 4/4 with staccato eighth note chords, but written as 4/4. Staccato quarter note chords in the piano solo with chromatic voice leading . During the bass solo, the left hand of the piano and the guitar merge with the guitar occasionally pushing one (playing on the "and after four" and not on one). Full-band accents at 0:55 and 4:40 on the "and after two" and on four. End with full band pushes to beats 2, 3, 4 and 1.

<u>title</u>	<u>album</u>	<u>comments</u>
When Lights Are Low	Monty Alexander, Ray Brown, Herb Ellis/Triple Scoop	Moderate tempo. Guitar plays moderately staccato quarter note chords along with the bass during the head, with the bass playing half notes at the end (0:52). During the piano and solos, Herb uses moderately staccato quarter note chords with chromatic progression employing ascending diiminished and flat five substitutes descending chords.

<u>title</u>	<u>album</u>	<u>comments</u>
Have You Met Miss Jones?	Herb Ellis/Ellis in Wonderland	Moderate tempo. Moderately staccato quarter note chords. Chromatic progression employing ascending diiminished and flat five substitutes descending chords.

<u>title</u>	<u>album</u>	<u>comments</u>
Naptown Blues	Oscar Peterson/Hello Herbie	Herb uses up-tempo swing-style top-voiced chord licks to comp. Hard to come up with anything with Oscar's intensity. Not much room left. He's got the attention. But at 3:00, after Oscar just fired off his nuclear arsenal of cool harmonized licks, Herb finds a secondary melody style and starts responding. At 3:20 Herb plays a repetitive reflection. He could have done better, if he would sat back and listen to Oscar, summarizing his melody and reflecting themes back. Summarize and reflect. Keep a simple elegant core. Okay at 3:30, he's getting it. Great! Ride the wave! You got it man!

<u>title</u>	<u>album</u>	<u>comments</u>
Seven Come Eleven	Oscar Peterson/Hello Herbie	Nice chromatic secondary melody comping starting at 2:30. Ascend diminished chromatic diminished, descend chromatic flat five substitutes . More. Come on Herb, I can hear it. You can do it.
My Romance	Ron Carter Trio/ Something Else (with Kenny Barron)	In the waltz beginning of the head, Herb makes an ensemble part with Ron, where the bass note begins the figure, then two offbeat chords (“and after one” and the “and after two”) and on three. The waltz is followed by a moderate swing, walking bass 4/4, where the guitar softly supports Kenny Barron’s left hand, mostly duplicating it. Back to the waltz at 0:26. 4/4 supporting piano left hand again at 0:40. I would have liked the guitar mixed up a little louder in the piano solo starting at 0:54, where Herb supports the piano left hand again. Can’t hear it? Listen again, the guitar is in there, around 2:10, for example.
Summertime	Ron Carter Trio/Jazz, My Romance	Nice, supportive mildly staccato quarter note chords through the beginning of the head. Then, at 1:03, Herb vamps with a swing I IV I7 (like All Blues), followed by staccato quarter note chords as if with a walking bassline, against Ron’s bass solo. This walking part is paralleled by the piano left hand. After a descending chromatic chordal figure in the piano against a pedal bass figure, the piano solo is accompanied with walking bass and mildly staccato quarter note chords to parallel it and add harmony.
Sweet Lorraine	Ron Carter Trio/ Something Else (with Kenny Barron)	Mildly staccato quarter note chords, chromaticized mostly with descending flat five substitutes .
All The Things You Are	Herb Ellis/The Jazz Masters or Jazz Guitar Legends (Ray Brown-bass, Serge Ermoll-piano)	Guitar and left hand piano largely duplicating, with typical jazz piano rest pushes (playing on the “ands”). The guitar adds nice color. At 2:49, the guitar starts to add some more consecutive eighth syncopation, thematically.
Au Privave	Herb Ellis/The Jazz Masters or Jazz Guitar Legends (Ray Brown-bass, Serge Ermoll-piano)	Guitar and left hand piano largely duplicating, with typical jazz piano rest pushes. At 1:04, Herb adds a little secondary melody in octaves. Mildly staccato quarter notes during the bass solo that follows, with ascending diminished and descending flat five substitutes . Thematic swing-style licks in octaves during the piano solo, like Charlie Christian style played by Wes.
Autumn Leaves	Herb Ellis/The Jazz Masters or Jazz Guitar Legends (Ray Brown-bass, Serge Ermoll-piano)	At 2:48, Herb uses a staccato “Charleston” theme for his comping, with main accents on one and the “and after two”.

<u>title</u>	<u>album</u>	<u>comments</u>
I Love You	Herb Ellis/The Jazz Masters or Jazz Guitar Legends (Ray Brown-bass, Serge Ermoll-piano)	The tempo is fairly fast, about 210 BPM. Ray Brown begins the head with this bass figure, rhythmically duplicated in chords by the guitar and piano. The piano makes an exception to “cap off” the phrase in the fourth bar, shown with stems up:



At 0:21, the bass starts fast walking bass. Against it, the piano and guitar setup this four-bar theme:



In the piano solo, the left hand piano and guitar feature offbeat accents. In the beginning of the sax solo, lay out, letting the bass and drums carry it. As the sax solo continues, build the piano and left hand team gradually resume the intensity of their offbeat accents.

<u>title</u>	<u>album</u>	<u>comments</u>
Triste	Herb Ellis/The Jazz Masters or Jazz Guitar Legends (Ray Brown-bass, Serge Ermoll-piano)	Ray Brown sets up a two-bar bass theme (stems down) and Herb slyly counters with a pairs of eighth note chords (stems up) using an upward chromatic slur.



The idea is abstracted a little.

Many tunes have big open spaces, begging for an obligato response. About one of every three or four songs have this. These include Autumn Leaves, All the Things You Are, Black Orpheus, Blue Bossa, Cantelope Island, Caravan, Footprints, Golden Lady, Groovin' High, Have You Met Miss Jones?, How High The Moon, Meditation, Misty, Road Song, Song for My Father, Summertime, The Way You Look Tonight and You Are the Sunshine of My Life.


With tunes like Triste, Autumn Leaves, Caravan, In a Mellow Tone, you may wonder if the composer intended improvisation in the open spaces. With others like How Insensitive, you would want to be careful not to clutter.

So.....Herb took advantage of the space and played a secondary melody in the open spaces. This could have been chordal. If it was Barney Kessel or Oscar Peterson in that role, it probably would have been a top-voiced chordal secondary melody.

In the piano and flute solos, Herb reflects off the sidestick snare and plays a samba rhythmic theme. During the flute solo, the left hand of the piano, the sidestick snare and the guitar work together and are largely the same. If it was Oscar Peterson on piano, I doubt he would have laid out with his left hand during the piano solo. I like it both ways. I can enjoy Oscar's domination or Serge's team playing, either way.

Joe Pass

<u>title</u>	<u>album</u>	<u>comments</u>
Joy Spring	Joy Spring or Joe Pass/Capitol Vaults Jazz Series	Starting at 4:42, guitar and piano just comp together. Was that the plan. They're playing well together, but was that the plan? It's pretty uneventful until the piano solo. During the piano solo at 5:25 Joe cops hits with the piano players left hand.

<u>title</u>	<u>album</u>	<u>comments</u>
Jive At Five	Count Basie/Kansas City Five	Staccato quarter notes with some pushes (especially to “1”), sometimes accenting the backbeat (two and four).
One o’ Clock Jump	Count Basie/Kansas City Five	Staccato quarter notes with some pushes (especially to “1” and “3”), sometimes accenting the backbeat (two and four). Duplicating alot of Count Basie’s (pano) left hand during the Milt Jackson (vibes).
Cakewalk	Oscar Peterson/The Quartet Live, featuring Joe Pass	Staccato quarter notes with some pushes (especially to “1”), sometimes accenting the backbeat (two and four). In the “B” section at 0:40, Oscar uses alot of eighth rest-pushes (playing on the “and” before the beat, then not on the beat). Here’s a typical example:
		
After a minute (at 1:41) Joe joins in and mimics.		
Caravan	Oscar Peterson, Joe Pass, Ray Brown/The Giants	During the piano solo, Joe comps at 360 BPM staccato quarter note chords briefly, then plays little flurries of eighths with down-up strumming. Courageous!
I’m Getting Sentimental over You	Oscar Peterson, Joe Pass, Ray Brown/The Giants	Moderately staccato quarter note chords during the piano solos. Some chromatic downward flat five substitutes , but mostly straight-forward voice leading with a single chord every two or four beats.
Who Cares	Oscar Peterson, Joe Pass, Ray Brown/The Giants	Syncopated eighth comping during the piano solo with some downward chromatic flat five substitutes (especially bII on beat four to target on beat one). Piano and guitar (mostly just guitar) play double whole note chords and whole note chords together during the bass solo.

Wes Montgomery

<u>title</u>	<u>album</u>	<u>comments</u>
Au Privave	Au Privave*guitar+piano-Wes Montgomery, Cannonball Adderley (alto), Ray Brown. Victor Feldman (piano/vibes), Louis Hayes (drms)	Wes locks tightly to duplicating the snare rhythms during the first alto sax solos (1:05-1:50) with seventh and ninth chords, employing chromatic descending flat five substitutes . During the bass solo, he uses two and three note chords with conservative voice leading . In the piano solo, he used an ostinato (repeating), pair of eighth note octaves as a pedal point followed by basic chords.

<u>title</u>	<u>album</u>	<u>comments</u>
Billie's Bounce	The Best of Wes Montgomery	Can't hear Wes. He appears to have laid out. It would have be awesome if he had copied the left hand piano and added occasional harmonies.

<u>title</u>	<u>album</u>	<u>comments</u>
Baubles, Bangles And Beads	The Best of Wes Montgomery	During the piano and vibes solos (1:06-2:02), syncopated, staccato eighths, about three or four chords to the bar, mirroring the left hand piano. Alone with the vibes at 2:28, using whole note chords. The piano joins in for the ending turnaound. No bass nor drums durig the ending vibe solo.

<u>title</u>	<u>album</u>	<u>comments</u>
Hymn for Carl	The Best of Wes Montgomery	Wes starts comping during the tenor sax solo at 0:57 with accents on the "and after one" and on three, along with the left hand of the piano. Then he plays whole note chords pushing one (on the "and after four"), while the piano left hand plays more busy syncopated eighths. At 1:24, he resumes a couple of offbeats per bar, then back to whole note chords (1:29), this pattern repeats with the chord progression.

<u>title</u>	<u>album</u>	<u>comments</u>
Full House	Full House (live at Tsubo in Berkeley, California)	Beginning at 3:56 and through the sax and piano solos, Wes syncopates the fast waltz with chords on the upbeats, relecting on the left hand piano and snare. Sections end with sustasined dotted half note chords.

<u>title</u>	<u>album</u>	<u>comments</u>
Sundown	Wes Montgomery/ Impressions-The Verve Jazz Sides	At 2:47, Wes mimics the left and piano with syncopated eighth note chords. At 3:12, he uses common tone flat three on top. At 4:47, he uses upward chromatic diminished voice leading to harmonize with the horn section.

<u>title</u>	<u>album</u>	<u>comments</u>
Unit 7	Wes Montgomery/ Impressions-The Verve Jazz Sides	<p>To comp solos, Wes composed an accompaniment, rather than improvising. He used m7 to m6 in eighth note chords on one and the "and after two", with a single eighth note fifth-of-chord pickup on the "and after four". He made a 12 bar blues variation with m7 to m6 as follows:</p> <p>Gm, Gm, Gm, Gm (four bars so far), Cm, Cm, Gm, Bbm (that's four more bars)</p> <p>Ab (ma7 to 6), Abm, Bm7b5 to C7 (unique), Dm. On "and four and", he cadenced back in with Am7 Abm7 Gm7. Then he pushes one (on the "and after four") with six whole-note chords for most of his bridge (Gm7, C9, Fma7, A7b9, Dm7, G7), until ending with a four-chord cadence using the "and after one" and on three for Bb7, A7, Ab7, G7.</p> <p>Then on to a colorful modern swing blues in C, using a swing-sounding sixth lick on the I and IV chords with a IIm9 bII7#9 cadence. Each chord is played on "1", followed by the lick.</p> <p>This is innovative, but also predictable and not so much improvised comping.</p>

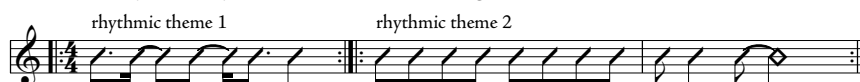
<u>title</u>	<u>album</u>	<u>comments</u>
Four on Six	Wes Montgomery/ Impressions-The Verve Jazz Sides	At 2:30, the piano solo starts with no guitar comping until 3:02, when he comes in with a few staccato hits on offbeats (starting with the Charleston “one” and the “and after two”) and pairs of chords with flat five substitutes during the cadences. At 4:40 he plays fast pairs of chords with lower chromatic embellishment (coming in from a half step below) and various versions of the chord to provide top voice leading (root on top, flat third on top, etc.). At 4:47, he ends with a fast flurry of triplets, most of which is just octaves.
<u>title</u>	<u>album</u>	<u>comments</u>
Four on Six (live)	Wes Montgomery/ Impressions-The Verve Jazz Sides	Starting about 3:20 on this live recording, you can hear Wes again combining octaves with top voice-lead chords to play fast flurries. This is more of a solo, but its elements can be used in comping.
<u>title</u>	<u>album</u>	<u>comments</u>
No Blues	Wes Montgomery/ Smokin’ at the Half Hote	Around 6:40-7:18, Wes comps the piano solo with staccato common tone chords.
<u>title</u>	<u>album</u>	<u>comments</u>
Oh, You Crazy Moon	Wes Montgomery/ Smokin’ at the Half Hote	Tremolo (amp effect) chords! Wes uses sustained, mostly half note chords (2:36) during the piano solo. Note the arpeggiated cadences at 3:15.
<u>title</u>	<u>album</u>	<u>comments</u>
One for My Baby	The Montgomery Brothers/Groove Yard or So Much Guitar!	Quarter and half note sustained chords during the piano solos on the B section (first at 2:16). He plays more staccato stabs with offbeat chords during the piano solo at 5:54.
<u>title</u>	<u>album</u>	<u>comments</u>
Cariba	Full House (live at Tsubo in Berkeley, California)	During the piano and sax solos (starting at 1:38), Wes plays offbeat, staccato chords reflecting on the drummer’s sidestick rhythm. At 4:06, during the sax solo, he reflects upon the piano left hand as well as the sidestick for rhythm.
<u>title</u>	<u>album</u>	<u>comments</u>
Freddie Freeloader	Portrait of Wes	Organ, not piano (more sustain than a piano). During the organ solo, Wes pairs with the snare for rhythm. Most of his chords are staccato, but he occasionally ends cadences with a sustained chord (nice effect).
<u>title</u>	<u>album</u>	<u>comments</u>
Here’s that Rainy Day	from Jazz Casuals, Ralph Gleason TV show	During the piano solo, Wes pairs with the snare for rhythm with staccato chords.

Pat Martino

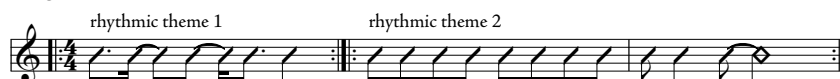
<u>title</u>	<u>album</u>	<u>comments</u>
Blue in Green	Pat Martino/Mission Accomplished	Pat comps with staccato quarter note chords, generally duplicating the left hand piano, sometimes laying out, sometimes continuing when the piano sustains. I would have liked more duplication of the piano left hand on the guitar.

<u>title</u>	<u>album</u>	<u>comments</u>
Sugar	70's Jazz Pioneers	Pat comps with staccato quarter note chords, generally duplicating the left hand organ.

<u>title</u>	<u>album</u>	<u>comments</u>
Sunny	Pat Martino/Live!	During the piano solo (5:50), Pat comps generally with quarter and eighth note chords, based on the typical rhythmic theme for the song:





Starting at 6:54, the piano soloist used the one-bar “rhythmic theme 1” (below) four times, then the two-bar “rhythmic theme 2” a couple of times. Pat played along cautiously, doing a good job of duplicating. During “rhythmic theme 2,” Pat was probably not sure where the accents were going to be placed, so went to playing continuous eighth note chords, also serving to build momentum to the end of the phrase.




George Benson


<u>title</u>	<u>album</u>	<u>comments</u>
Hipping the Hop	from Absolutely Live video	Awesome comping with Joe Sample's piano solo at 2:12. Joe is playing two or three chords a bar and George is elaborating with colorful chords and some octaves, like Wes.

<u>title</u>	<u>album</u>	<u>comments</u>
All Blues	George Benson/Witchcraft	At 6:30 George comps responsively to the snare and left hand piano: pushing two (on the “and after one”) with the snare and piano, reflects triplets from the piano at 7:30 and 7:53.

<u>title</u>	<u>album</u>	<u>comments</u>
Love for Sale	George Benson/ Witchcraft	George tends to use rhythmic themes in his comping. His comping with piano solo starts at 6:58 with this four-bar phrase:
		
		Starting at 7:28. this two-bar phrase:
		

<u>title</u>	<u>album</u>	<u>comments</u>
Oleo	George Benson/Jazz on A Sunday Afternoon, vol. 2 (Cafe Caribe 1973) or George Benson Quartet Live at Casa Caribe Club	Yeah, you'll need butter, this is blistering.! Since this tune is played at 350 BPM, George comps (starting at 4:05) at the half note level, playing chords mainly on beats one and three, occasionally on all four beats. The chord changes four two-bar sets of "rhythm changes" (I VI IIm V), except the third set of two bars is Vm7 I7 IVm7 bVII9 (or IVm6). The piano player is generally doing a simpler version of the same thing. They create syncopation by briefly sustaining on beats two or four. George adds occasional licks.

<u>title</u>	<u>album</u>	<u>comments</u>
There Will Never be Another You	George Benson/Jazz on A Sunday Afternoon, vol. 2 (Cafe Caribe 1973) or George Benson Quartet Live at Casa Caribe Club	During the piano solo at about four through six minutes, George comps with a lot of attention to the pianists left hand. Here is a typical rhythm:
		
		Listen for cool upward chromatic passages.

<u>title</u>	<u>album</u>	<u>comments</u>
Witchcraft	George Benson/Jazz on A Sunday Afternoon, vol. 2 (Cafe Caribe 1973) or George Benson Quartet Live at Casa Caribe Club	George improvises a funky comp style, closely following the pianists left hand and the snare. Nice top-voice leading and chord colors. Here is a typical four-bar example:
		

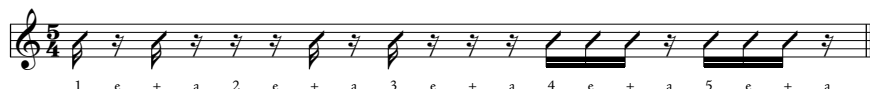
<u>title</u>	<u>album</u>	<u>comments</u>
All the Things You Are	George Benson/Jazz on A Sunday Afternoon, vol. 2 (Cafe Caribe 1973) or George Benson Quartet Live at Casa Caribe Club	The piano solo starts at four minutes. George comes in around 4:50. Generally the guitar and left hand piano are played well together, but just after George starts around 5:00, a funny thing happens (its during the last eight bars of the chord progression). George and the pianist are pushing different beats (see below). To me, the result is a little muddled. Shortly afterward, they get back in sync.



<u>title</u>	<u>album</u>	<u>comments</u>
The Cooker	The George Benson Cookbook	Though this cut uses organ, not piano, the organ chords are generally short and similar in duration to those on piano. During the sax solo (starts at 2:43, the organ and guitar play funky sixteenth syncopations that are similar enough to work:



<u>title</u>	<u>album</u>	<u>comments</u>
Take Five	Bad Benson (Philip Upchurch, rhythm guitar)	Like a Wes Montgomery comping part, this Philip Upchurch comping is very regular and guaranteed to fit, but not improvised. It may be a little monotonous, but who's listening to Philip?



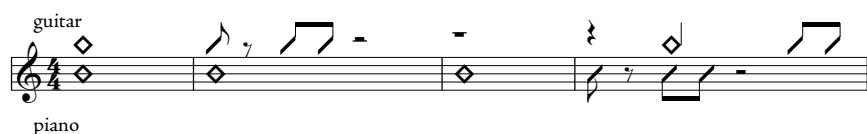
Russell Malone

<u>title</u>	<u>album</u>	<u>comments</u>
Jingles	live at Umbria Jazz 1999 with Benny Green (piano), Christian McBride (bass)	Russell lays out through Benny's piano solo. Sometimes that's best.

<u>title</u>	<u>album</u>	<u>comments</u>
I Can't Get Started	Ron Carter Trio/I Can't Get Started	During the head, the piano plays the melody and Russell arpeggiates chords. In the long bass solo (hey, it's Ron Carter!) that follows he continues arpeggiating for a while, then goes to legato quarter note chords (about 3/4 of a beat each) with common tone, scalar and chromatic top voice leading .

<u>title</u>	<u>album</u>	<u>comments</u>
Autumn Leaves	Ron Carter Trio-youtube	After playing the “A” section of the head with Ron, Russell plays staccato quarter note chords with scalar top voice leading through the “B” section. Back to melody and runs to begin the recap of the “A” section, followed by whole note chords in a newly composed section the trio added to the song. The piano solo follows the head with Russell playing quarter notes staccato chords. He uses alot of chromatic voice leading here, caused by flat five substitutes . A guitar solo follows, then a bass solo where Russell lays out. Russell plays melody in the ending head, rather than comping.

<u>title</u>	<u>album</u>	<u>comments</u>
There Will Never be Another You	Billy Taylor Trio (Billy Taylor piano)-youtube	The piano player is leaving it wide open for Russell by playing predominantly whole-note chords. This example of bars 17-20 of the piano solo show Russell’s rhythmic themes allowed by all the space.



Ron Eschete (“Esh-tay”)

<u>title</u>	<u>album</u>	<u>comments</u>
This Can’t be Love	Gene Harris Quartet/ Listen Here!	Ron comes in section “B” of the head (bars 9-12, at 0:12) with a complex rhythm, but plays it tightly against the piano (below). The rhythms he uses smartly predict the rhythms played with the piano in bars 5-8 of section “B”:



Ron ends the head with a bomba/cha cha combination, played against a quarter-note piano part.



Ron generally uses half note chords in comping the piano solo. He’s wise to play it safe by making “three” his first choice for pushes (the “and after two”). Like a good drummer on his snare, Ron is very attentive and echoes back most repeated phrases that Gene plays by repeating Gene’s rhythmic theme. Ron has probably worked out main ideas of the scalar and chromatic [voice leading](#) he is using.

<u>title</u>	<u>album</u>	<u>comments</u>
This Masquerade	Gene Harris Quartet/ Listen Here!	Standard staccato quarters during the head. Ron slices just before the bass player’s notes on the beat, playing early by only 5-10%. Listen ot the “B” section, starting at 1:19. Just that slice is worth the price of admission.

<u>title</u>	<u>album</u>	<u>comments</u>
Blue Bossa	Gene Harris Quartet/ Black and Blue	Check out the guitar and left hand piano action on the first nine bars of the head (starting at 0:25):

The image displays two staves of musical notation for the first nine bars of the head of 'Blue Bossa'. The top staff is labeled 'guitar' and the bottom staff is labeled 'piano'. Both staves are in 4/4 time. The guitar part features a melodic line with eighth and quarter notes, often beamed together. The piano part provides a harmonic accompaniment with chords and single notes, including some grace notes. The notation is in treble clef.

This seems like an effective compromise between pre-composed comping parts like Wes Montgomery's popular recordings and improvised comping. I suspect Ron worked out ideas in a sketch manner and wisely left much of it to improvisation for a "live feel". Effective approach.

<u>title</u>	<u>album</u>	<u>comments</u>
I Remember You	Gene Harris Quartet/ Brotherhood	

<u>title</u>	<u>album</u>	<u>comments</u>
For Once in My Life	Gene Harris Quartet/ Brotherhood	

<u>title</u>	<u>album</u>	<u>comments</u>
I Told You So	Gene Harris Quartet/ Brotherhood	

<u>title</u>	<u>album</u>	<u>comments</u>
This Little Light of Mine	Gene Harris Quartet/ Brotherhood	

<u>title</u>	<u>album</u>	<u>comments</u>
Take the "A" Train	Gene Harris Quartet/A Little Piece Of Heaven	

<u>title</u>	<u>album</u>	<u>comments</u>
How Long Has This Been Going On?	Gene Harris Quartet/A Little Piece Of Heaven	

<u>title</u>	<u>album</u>	<u>comments</u>
Scotch and Soda	Gene Harris Quartet/A Little Piece of Heaven	

<u>title</u>	<u>album</u>	<u>comments</u>
My Little Suede Shoes	Gene Harris Quartet/A Little Piece of Heaven	

Jim Hall

<u>title</u>	<u>album</u>	<u>comments</u>
Abstract & Dreams	Jim Hall and Bill Evans/ Live at Town Hall	

<u>title</u>	<u>album</u>	<u>comments</u>
Darn that Dream	Jim Hall and Bill Evans/ Undercurrent	

<u>title</u>	<u>album</u>	<u>comments</u>
I Hear a Rhapsody	Jim Hall and Bill Evans/ Undercurrent	

<u>title</u>	<u>album</u>	<u>comments</u>
Loose Bloose (take 3)	Loose Bloose	

<u>title</u>	<u>album</u>	<u>comments</u>
My Funny Valentine	Jim Hall and Bill Evans/ Undercurrent	

<u>title</u>	<u>album</u>	<u>comments</u>
Romaine	Jim Hall and Bill Evans/ Undercurrent	

<u>title</u>	<u>album</u>	<u>comments</u>
Skating In Central Park	Jim Hall And Bill Evans/ Undercurrent	

<u>title</u>	<u>album</u>	<u>comments</u>
Stairway to the Stars	Jim Hall and Bill Evans/ Undercurrent	

<u>title</u>	<u>album</u>	<u>comments</u>
I've Got You under My Skin	Jim Hall and Bill Evans/ Cole Porter Songbook or Intermodulation	

<u>title</u>	<u>album</u>	<u>comments</u>
My Man's Gone Now	Jim Hall and Bill Evans/ Intermodulation	

<u>title</u>	<u>album</u>	<u>comments</u>
Turn out the Stars	Jim Hall and Bill Evans/ Intermodulation	

<u>title</u>	<u>album</u>	<u>comments</u>
Angel Face	Jim Hall and Bill Evans/ Intermodulation	

<u>title</u>	<u>album</u>	<u>comments</u>
Jazz Samba	Jim Hall and Bill Evans/ Intermodulation	

<u>title</u>	<u>album</u>	<u>comments</u>
All Across the City	Jim Hall and Bill Evans/ Intermodulation	

Pat Metheny

<u>title</u>	<u>album</u>	<u>comments</u>
Canteloupe Island	Pat Metheny, Herbie Hancock, Dave Holland, Jack DeJohnette-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Solar	Pat Metheny, Herbie Hancock, Dave Holland, Jack DeJohnette-youtube	

Frank Vignola

<u>title</u>	<u>album</u>	<u>comments</u>
Just in Time	Joey DeFrancesco Trio- youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Fly Me to the Moon	Joey DeFrancesco Trio- youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Speak Softly Love (Godfather)	Joey DeFrancesco Trio- youtube	

Bireli Lagrene

<u>title</u>	<u>album</u>	<u>comments</u>
Straight No Chaser	Elvin Jones, Joey DeFrancesco, Bireli Lagrene-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Body And Soul	Bireli Lagrene - Elvin Jones - Joey De Francesco (title not in header)-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Night in Tunisia	Elvin Jones Trio with Joey DeFrancesco, Bireli Lagrene-youtube	

Bill Frissel

<u>title</u>	<u>album</u>	<u>comments</u>
It Could Happen to You	Chick Corea & Bill Frisiel-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Wave	Fred Hersch & Bill Frissel-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Someday My Prince Will Come	Fred Hersch & Bill Frissel -youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
It Might as Well be Spring	Fred Hersch & Bill Frissel -youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Someday My Prince Will Come	Fred Hersch & Bill Frissel	

<u>title</u>	<u>album</u>	<u>comments</u>
Blue Monk	Fred Hersch & Bill Frissel -youtube -youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
My One and Only Love	Fred Hersch & Bill Frissel -youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
My Little Suede Shoes	Fred Hersch & Bill Frissel -youtube	

John McLaughlin

<u>title</u>	<u>album</u>	<u>comments</u>
Sing Me Softly of the Blues	John McLaughlin, Dennis Chambers, Joey DeFrancesco-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
My Favorite Things	John McLaughlin, Dennis Chambers, Joey DeFrancesco-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Naima	John McLaughlin, Elvin Jones, Joey DeFrancesco-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Turn Around	John McLaughlin, Chick Corea-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
Someday My Price Will Come	John McLaughlin, Chick Corea-youtube	

<u>title</u>	<u>album</u>	<u>comments</u>
My Romance	John McLaughlin, Chick Corea-youtube	

Quartal and Quintal Harmony

- **Six-String Major Scale-Tone Quartal Chords**
- **Five-String And Major Scale-Tone Quintal Chords**
- **Quartal and Quintal Triads**
- **Modal Stacked Fourths**
- **Modal Stacked Fifths**
- **Minor 6/9 Quartal Stack Exceptions**
- **Quartal Stacks on All Seven Major Scale Tones**

SIX-STRING MAJOR SCALE-TONE QUARTAL CHORDS

The major scale can be ordered by number in perfect fourths as 7-3-6-2-5-1-4. In letters, this is B-3-A-D-G-C-F in the key of C. For all keys, 7-3-6-2-4-1-4 would be seven consecutive letters in the series B#-E#-A#-D#-G#-C#-F#-B-E-A-D-G-C-F-Bb-Eb-Ab-Db-Gb-Cb-Fb, starting the seventh step of the desired scale.

Key

C# B#-E#-A#-D#-G#-C#-F#

F# E#-A#-D#-G#-C#-F#-B

B A#-D#-G#-C#-F#-B-E

E D#-G#-C#-F#-B-E-A

A G#-C#-F#-B-E-A-D

D C#-F#-B-E-A-D-G

G F#-B-E-A-D-G-C

C B-E-A-D-G-C-F

F E-A-D-G-C-F-Bb

Bb A-D-G-C-F-Bb-Eb

Eb D-G-C-F-Bb-Eb-Ab

Ab G-C-F-Bb-Eb-Ab-Db

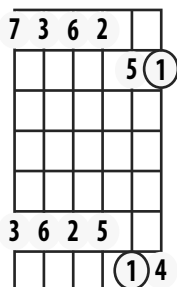
Db C-F-Bb-Eb-Ab-Db-Gb

Gb F-Bb-Eb-Ab-Db-Gb-Cb

Cb Bb-Eb-Ab-Db-Gb-Cb-Fb

Perfect-Fourth Stacks on Six Strings

Perfect fourths can be fretted on six strings as 7-3-6-2-5-1 or 3-6-2-5-1-4, as shown below.



FIVE-STRING MAJOR SCALE-TONE QUINTAL CHORDS

These four quintal chords can each be sustained at once:

E6/9 | F6/9 | G6/9 | A6/9 |

QUARTAL AND QUINTAL TRIADS

Major Scale-Tone Quartal and Quintal Triads

The I major pentatonic and the VI minor pentatonic share the same notes, 1-2-3-5-6 of a major scale. Add a tone a fourth above and below each tone of the I major/VI minor pentatonic and produce quartal triads. Or, or add a tone a fifth above and below each tone of the I major/VI minor pentatonic and produce quintal triads. For C major, this creates the chords below. Each triad has the *same* notes whether it is a I major/VI minor pentatonic tone with a fourth above and a fourth below or if it is a I major/VI minor pentatonic tone with a fifth above and a fifth below.

nr = no root, n3 = no third, n5 = no fifth

scale tone number	1	2	3	5	6
letter in C major	C	D	E	G	A
quartal/quintal triad numbered tones of parent C major	5-1-4	6-2-5	7-3-6	2-5-1	3-6-2
quartal/quintal triad lettered tones of parent C major	G-C-F	A-D-G	B-E-A	D-G-C	E-A-D
I major chord names	I sus.4	I6/9 nr,n3	I ma7/6 nrn5	I sus2	I6/9 nrn6=5
II Dorian chord names	II m7/11 nrn5	II sus.4	II 6/9 nrn3	II m7/11 n3n5	II sus2
III Phrygian chord names	no III chord	III m7/11 nrn5	III sus4	no III chord	III 7sus4 n3n5
IV Lydian chord names	IV sus2	IV 6/9 nrn5	IV ma7#11 nrn5	IV 6/9 nrn3	IV ma7/6 nrn5
V Mixolydian chord names	V 7sus4 nrn5	V sus2	V 6/9 nrn5	V sus4	V 6/9 nrn3
VI Aeolian chord names	no VI chord	VI m7/11 n3n5	VI sus2	VI m7/11 nrn5	VI sus4
VII Locrian chord names	VII m7/11 b5 nrn3	VII m7/11 b5 nrn5	VII m7/11 n3n5	no VII chord	VII m7/11 nrn5

exotic quartal and quintal voicings

Chords can be approached from a half step above or flatted to produce exotic or bluesy effects. The effect is bluesy or eastern/exotic, depending on the mode. In major, for example, chords a half steps above 3 and 6 are bluesy; and half steps above 1, 2 and 5 are eastern/exotic.

Melodic Minor Scale-Tone Quartal and Quintal Triads

Harmonic Minor Scale-Tone Quartal and Quintal Triads

Harmonic Major Scale-Tone Quartal and Quintal Triads

MODAL STACKED FOURTHS

fourths in the major scale

Major scale fourths can be memorized with the fourths diagrams below. The “stacks” or sequences of fourths are connected with lines. Note that each pair of notes in the series of fourths “7-3-6-2-5-1-4” are on the same fret, except from the third to second string, the note on the second string is one fret closer to the guitar body. Also note that the interval from “4” to “7” is an augmented fourth, making “7” one fret higher on the next smaller string. When “4” is on the third string, both of these exceptions come into play and “7” is *two* frets toward the body of the guitar from “4”.

fourths in major scale sharp five

Fingerings for fourths in major sharp five are a modification of [fourths in the major scale](#). The “stacks” or sequences of fourths are connected with lines. Placing the tone center on “6” of major sharp five scale makes harmonic minor in the key of “6”. Note that it is *diminished fourth* from “#5” up a scale tone fourth to “1”, making a major third. Also note that “2” to “#5” is an augmented fourth, as is “4” to “7”. Note the diagonal shapes on most of the fourths with “#5”.

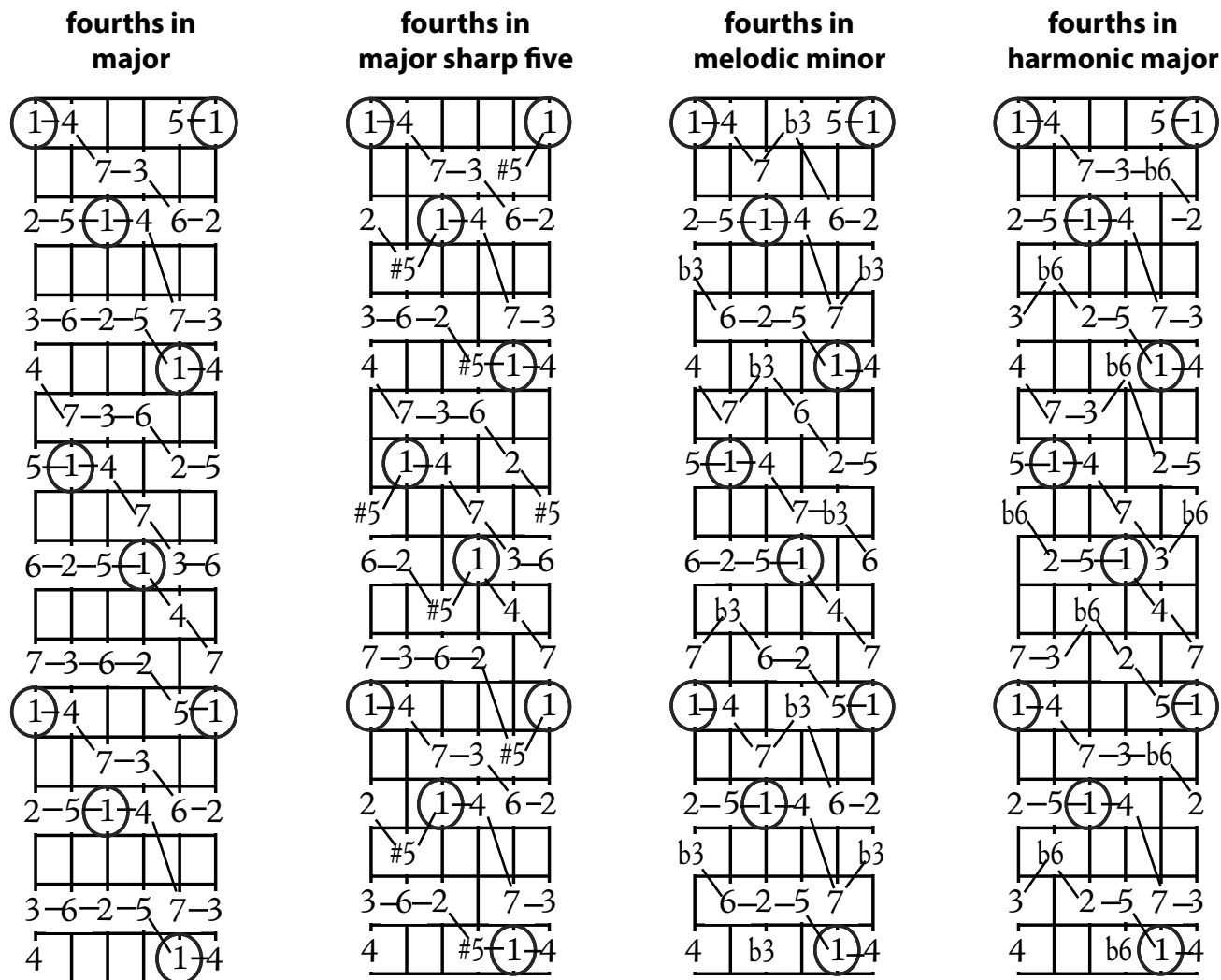
fourths in melodic minor

Fingerings for fourths in melodic minor are a modification of [fourths in the major scale](#)). Note that it is *diminished fourth* from “7” up a scale tone fourth to “b3”, making a major third. Also note that “b3” to “6” is an augmented fourth, as is “4” to “7”. Note the diagonal shapes on most of the fourths with “b3”.

fourths in harmonic major

Fingerings for fourths harmonic major are a modification of [fourths in the major scale](#). The “stacks” or sequences of fourths are connected with lines. Note that it is *diminished fourth* from “3” up a scale tone

fourths in major	fourths in major sharp five	fourths in melodic minor	fourths in harmonic major
C D E F G A B C	C D# E F G A B C	C D E F# G A B C	C D E F G A# B C



MODAL STACKED FIFTHS

fifths in the major scale

Major scale fifths can be memorized with the fifths diagrams below. The “stacks” or sequences of fifths are connected with “back slash” diagonal lines. Note that each pair of notes in the series of fifths “4-1-5-2-6-3-7” form a diagonal line that spans two frets, except from the third to second string, where the diagonal line spans *three* frets. Also note that the exceptional interval from “7” to “4” is an diminished fifth, where the diagonal line spans *one* fret. When “7” is on the third string, both of these exceptions come into play and “4” is *two* frets toward the body of the guitar from “7”.

fifths in major scale sharp five

Fingerings for fifths in major sharp five are a modification of [fifths in the major scale](#). The “stacks” or sequences of fourths are connected with lines. Placing the tone center on “6” of major sharp five scale makes harmonic minor in the key of “6”.

Sharping the fifth modifies two of the fifth intervals: “1” to “#5” is an augmented fifth and “#5” to “2” is a diminished fifth. As with the major scale, “7” to “4” is a diminished fifth.

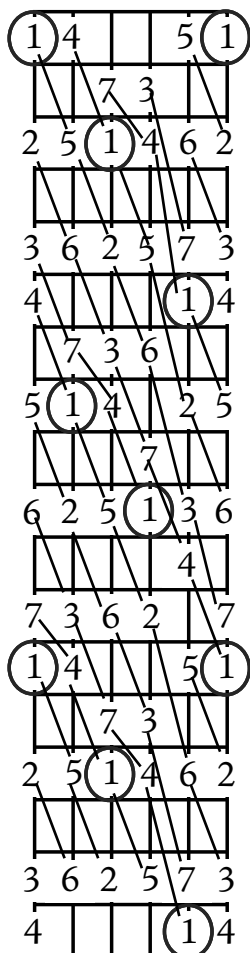
fifths in melodic minor (ascending version)

Fingerings for fifths in melodic minor are a modification of [fifths in the major scale](#). Melodic minor is a major scale with a flatted third. Flatting the third modifies two of the fifth intervals: “6” to “b3” is a diminished fifth and “b3” to “7” is an augmented fifth. As with the major scale, “7” to “4” is a diminished fifth.

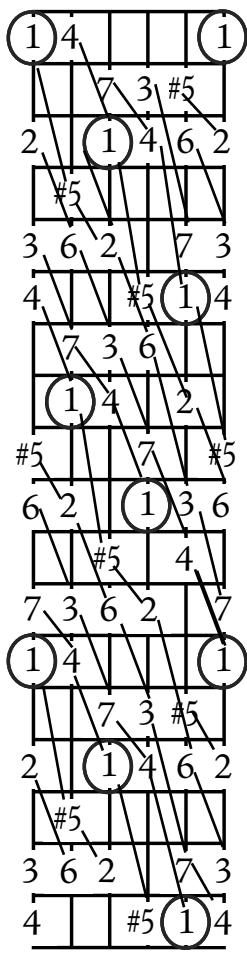
fifths in harmonic major

Fingerings for fifths in harmonic major are a modification of [fifths in the major scale](#). Harmonic major is a major scale with a flatted sixth. Flatting the sixth modifies two of the fifth intervals: “2” to “b6” is a diminished fifth and “b6” to “3” is an augmented fifth. As with the major scale, “7” to “4” is a diminished fifth.

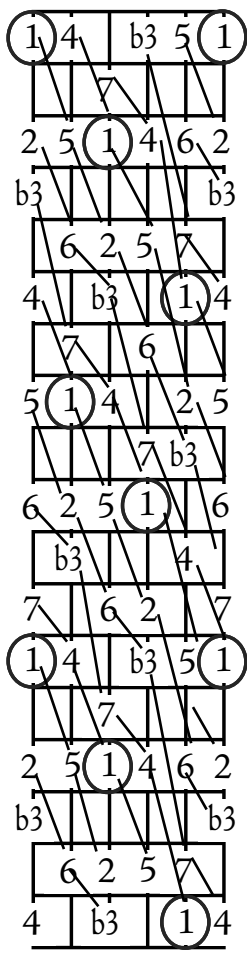
**fifths in
major**



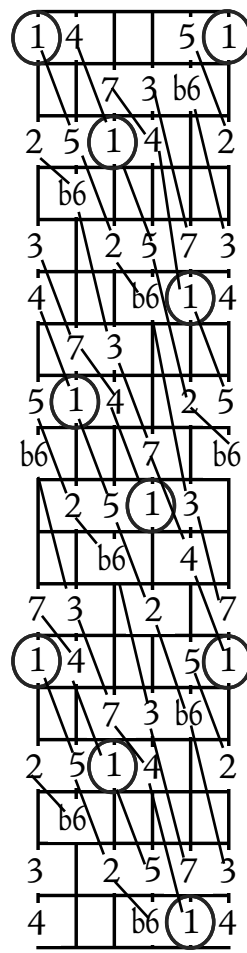
**fifths in
major sharp five**



**fifths in
melodic minor**



**fifths in
harmonic major**



MINOR 6/9 PENTATONIC QUARTAL STACK EXCEPTIONS

Three-note chords shown in the rows of diagrams below each are built with the preference of stacked fourths. They are the 4-7-3-6-2 part of the 7-3-6-2-5-1-4 cycle of fourths shown below. 4-7-3-6-2 are the parent scale tones of IIm6/9.v

three-note m6/9 quartal fingerings by string set (with exceptions)

These are numbered below by parent scale. They are all part of V13 no root, no 11 and IIm6/9. IIm6/9 is a chord or a pentatonic scale. It is preferred to build the “stacks” of three tones ascending in fourths, but parent scale tones “1” or “5” are not allowed, in order to preserve the pure IIm6/9 chord color. Where the next tone up a fourth would be “1” or “5”, ascend a third instead.

6-2-5 would be fourths, but since “5” is not allowed, 6-2-4 is used, ascending an third from 2 to 4. 2-5-1 would be three notes ascending in fourths, but since “1” is not allowed, 2-4-7 is used instead. This substitutes “4”, a third above “2”, since “5” isn’t allowed. Then it continues from “4” up a fourth to “7”.

They can be used to build melodic structures that adhere to one of those chord sounds. Add one or both of the remaining notes of IIm6/9 pentatonic

	IIm	IIIsus4	VII dim.	VIIsus4	VIIb5sus4
string set 3-2-1					
string set 4-3-2					
string set 5-4-3					
string set 6-5-4					

three-note m6/9 quartal fingerings with neighbor m6/9 notes in gray

Notes in black are the three-note quartal stacks (with exceptions). Gray notes complete the IIIm6/9.

	IIIm	IIIsus4	VII dim.	VIIsus4	VIIb5sus4
string set 3-2-1					
string set 4-3-2					
string set 5-4-3					
string set 6-5-4					

QUARTAL STACKS ON ALL SEVEN MAJOR SCALE TONES

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Voice Leading

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 - [Chromatic Between Same Quality, Diminished Ascending Chromatic, Descending Diminished, Descending Chromatic, Chromatic Movement of a Single Voice](#)

Cadence Libraries

[II-V-I, II-bII-I, IV7-#IV°7-I7, IVm7-#IV°7-Im7, Major II m7\(b5\)-#II°7-I, Descending Diminished, Chromatic Descending Minor, Chromatic Ascending Minor, Chromatic Descending Major, Chromatic Descending Mixed Mode, \(b\)VI-V-I, I-VI-II-V \("rhythm changes"-includes III-VI-II-V\), I-#Idim7-II m7-V7, I-IV-VII m7b5-III7-VIm, I-I6-I m7-I6, I-6-7-6](#)

TOP-VOICED CADENCES BY PARENT SCALE

All of the Arabic numbers (1, 2, 3, etc.) on the table below are shown without hyphens (1-2-3-4, etc.) to save space. “1234” indicates “1-2-3-4”.

	to VII 23467		to III 23[4]5[#5]67		to VI 1[#1]23567		to II 1234[#4]567		to V 1234567		to I 12[b3]356[b7]7		to IV 12[b3]34567	
roots up in P4				VIIIm7b5 23467	VIIIm7b5 23467	III(m)7 23[4]5 [#5]67	III(m)7 23[4]5 [#5]67	VI(m)7 1[#1]235 67	VI(m)7 1[#1]235 67	II(m)7 1234[#4] 567	II(m)7 12[b3]34 [#4]56[7]	V7 [1]234 567	V7 [1]2[b3]3 4567	I(ma)7 12[b3]3 56b7[7]
II-bII-I of target		I6 1356		IV(ma)7 1[b3]345 6	VIIIm7b5 23467	bVII7(6) 12345 b6b7	III(m)7 23[4]5 [#5]67	bIII7(6) 1b2b34 56b7	VI(m)7 1[#1]235 67	bVI7(6) 12b34b5 b6b7	IIIm7 1234[#4] 56[7]	bII7(6) b2b345 b6b77	V7 [1]2[b3]3 4567	bV7(6) 1b2b33 b5b6b7
IV7-#IV°7-I7 IVm7-#IV°7-Im7 IIIm7b5-#II°7-I			VIm7 123567	#VI°7 #135b7	IIIm7 1234[#4] 56[7]	#II°7 1b3b56	V7 [1]2[b3]3 4567	#V°7 24b67	I7 12[b3]3 56b7	#I°7 #135b7	IV(ma)7 1[b3]345 6	#IV°7 1b3b56	bVIIIma7 1246b7	VII°7 24b67
stepwise pairs	VIIIm7b5 23467	VIm7 123567	III(m)7 23[4]5 [#5]67	IIIm7 1234567	VI(m)7 1[#1]235 67	VII°7 24b67	II(m)7 1234[#4] 56[7]	IIIm7 23567	V7 [1]2[b3]3 4567	VIm7 123567	I(ma)7 123567	IIIm7 1234[#4] 56[7]	IV6 1234567	IIIm7 23567
diminished descending chromatic					IIIm7b5 245b61	IIdim7 24b67	IIIm7 23567	III°7 #135b7	VIm7 123567	VI°7 1b3b56	IIIm7 1234 56[7]	II°7 24b67	V7 [1]2[b3]3 4567	V°7 #135b7
diminished ascending chromatic			IIIm7 1234 56[7]	#II°7 1b356	V7 [1]234 567	#V°7 24b67	Ima7 123567	#I°7 #135b7	IVma7 13456	#IV7 1b3b56	IIIm7 1234 56[7]	#II°7	V7 [1]2[b3]3 4567	#V°7
ascend chromatic same quality			IIIm7	#IIIm7					IV7	#IV7				
descend chromatic same quality							IIIm7	bIIIm7					V7	bV7
IV-V-I of target			VIm7 123567	VIIIm7b5 23467	IIIm7 1234 56[7]	III7 23[4]5 [#5]67	V7 [1]2[b3]3 4567	VI(m)7 1[#1]235 67	Ima7 123567	II(m)7 1234[#4] 56[7]	IVma7 123456	V7 [1]2[b3]3 4567	VIIIm7b5 23467	I7 12[b3]3 56b7
VI-V-I of target			Ima7 123567	VIIIm7b5 23467	IVma7 1234567	III7 23[4]5 [#5]67	VIIIm7b5 23467	VI(m)7 1[#1]235 67	IIIm7 23567	II(m)7 1234[#4] 56[7]	VIm7 123567	V7 [1]2[b3]3 4567	IIIm7 1234567	I7 12[b3]3 56b7
roots up stepwise see Linear Bass	VIm7	bVII°7	Ima7	IIIm7	IVma7	V7	VIIIm7b5	Ima7	IIIm7	IVma7	VIm7	VIIIm7b5	IIIm7	IIIm7
roots down stepwise see Linear Bass	IIIm7	Ima7	V7	IVma7	Ima7	VIIIm7b5	IVma7	IIIm7	VIIIm7b5	VIm7	IIIm7	IIIm7	VIm7	V7

see also: Chromatic Voice Leading

CADENCE AND VOICE LEADING DEFINED

See the chapter [Summary of Chord Progression Types with Improv/Voice Leading and Cadences](#).

A harmonic cadence is a familiar short chord progression (around two or three chords) that is known to establish a chord as a key by sound. We have heard the dominant chord (V or V7 type) so often before the tonic (I or Im type) that we have an automatic association with the tonic (I) being the key. The cadence from V to I is called the *authentic cadence*. This succession uses perfect fourths.

The entire sequence of perfect fourths in the major scale is VII-III-VI-II-V-I-IV (7-3-6-2-5-1-4). In the unaltered major scale, the triad versions of these chords are VII diminished-III_m-VI_m-II_m-V-I-IV. Notice the consecutive successions of three minor chords (III_m-VI_m-II_m) and three major chords (V-I-IV). The seventh chord qualities of these chords are VII_m7b5-III_m7-VI_m7-II_m7-V7-Ima7-IVma7.

Since V is known to lead to I, II can also lead to V, since it is the “V of V”. This leads to the chord progression II-V-I, which is the most common three chord cadence.

In establishing the key on VI, we precede it with III, so as to go up a fourth, as with V to I. To make the progression stronger, III is commonly changed to major if a triad or to a dominant seventh. VII dim-III-VI_m or VII_m7b5-III7-VI_m has become the most common minor cadence in establishing VI_m as the key. See the chapter [Secondary Dominant](#).

Voice leading is the creative design of voices in chords, treating the chords as an ensemble, made of voices. The succession of all of the top notes of a series of chords creates the top voice, commonly called the soprano. The succession of all of the bottom notes of a series of chords creates the bottom voice, commonly called the bass. With four voices, the next-to-top voice is called the alto and the next to bottom voice is the tenor. So, a series of chords can be thought of as a collection of voices or parts.

Characteristics of Voice Movement

retain common tones

It is preferred that notes are retained (don't change from chord to chord), when possible. This makes less work for the listener and allows the listener to focus on other important parts of a composition.

move by small intervals

It is also preferred that when notes cannot be retained, they change by small intervals, making it easier for the listener. An exception is moving all voices up on the same chord, which is easy for the listener to follow.

voiced chords versus traditional counterpoint

The type of voice leading discussed here is “voiced chords”, where all voices play in rhythmic unison (called *first species counterpoint*). Voiced chords would have the same number of notes in each chord, or at least a similar number of notes. In the other four species of traditional counterpoint, voices generally occur in rhythmic unison, but non-chordal tones also pass between the “stacked” chord tones.

Guitar Comping in Ensembles Uses Predominantly Top Voice Leading

top and bottom are most noticed

In time-based entertainment, like plays, music and public speaking, the audience remembers the beginning and end best. Likewise, listeners are most aware of musical parts at the top and bottom of the range of audible pitch. Those highest and lowest parts of an arrangement tend to stand out for the listener.

Guitarists can often represent the upper range of an arrangement, but in an ensemble (band or orchestra), the bass player (or other bass instrument like a keyboard) will grab the attention in the low range. This leaves the upper range for the guitarist.

Given the reasons mentioned above, guitarists playing in an ensemble should concentrate on making design in the sequence of highest notes from chord to chord, which could be called *top voice leading*.

HARMONIZED BASS BLUES ENDINGS

[click to play video](#)

Swing Eighth

♩ = 90

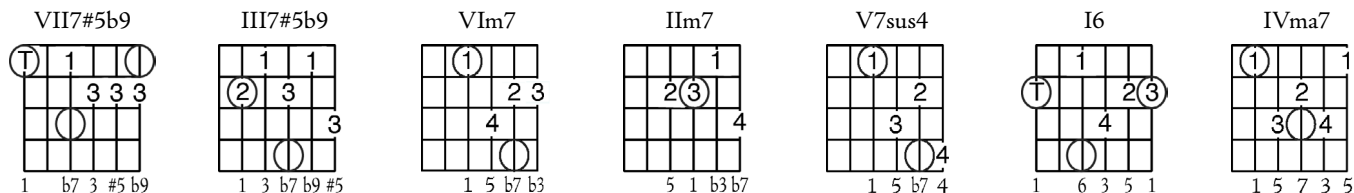
Chords and Fingerings for Bass Line:

- Measure 2: F⁷ (T: 1, A: 3, B: 1), F⁷/A (T: 4, A: 5, B: 5), B^{b7} (T: 6, A: 6, B: 6), B^{o7} (T: 6, A: 6, B: 7), F⁹/C (T: 8, A: 7, B: 8), G^{b7} (T: 2, A: 3, B: 2), F⁷ (T: 1, A: 3, B: 1).
- Measure 3: C⁷ (T: 8, A: 8, B: 8), C⁹/E (T: 8, A: 9, B: 7), F⁹ (T: 8, A: 8, B: 8), F^{#o7} (T: 10, A: 10, B: 9), G⁷(#9) (T: 11, A: 10, B: 10), D^{b7} (T: 9, A: 9, B: 9), C⁷ (T: 8, A: 8, B: 8).
- Measure 6: F⁷ (T: 1, A: 3, B: 1), F⁷/A (T: 4, A: 5, B: 5), B^{b7} (T: 6, A: 6, B: 6), B^{o7} (T: 6, A: 6, B: 7), F⁹/C (T: 8, A: 7, B: 8), D^{m7} (T: 8, A: 6, B: 8), E^{b6} (T: 9, A: 7, B: 9), B^bm⁷(b5) (T: 8, A: 8, B: 8), F⁹ (T: 8, A: 8, B: 8).
- Measure 7: C⁷ (T: 8, A: 8, B: 8), C⁹/E (T: 8, A: 9, B: 7), F⁷ (T: 8, A: 8, B: 8), F^{#o7} (T: 10, A: 10, B: 9), C⁷/G (T: 8, A: 8, B: 8), A^{m7} (T: 8, A: 8, B: 8), B^{b6} (T: 10, A: 10, B: 9), B^{o7} (T: 10, A: 10, B: 9), C⁹ (T: 12, A: 12, B: 10).
- Measure 12: C (T: 8, A: 9, B: 8), C⁷ (T: 11, A: 10, B: 9), F⁷ (T: 8, A: 8, B: 8), F^{#9} (T: 10, A: 10, B: 9), G⁷ (T: 8, A: 10, B: 10), D^m (T: 8, A: 10, B: 12), C^{m7} (T: 8, A: 7, B: 9), B^o (T: 10, A: 12, B: 9), C (T: 10, A: 7, B: 10), B^o (T: 7, A: 8, B: 10), C^{m7} (T: 10, A: 12, B: 12), D^m (T: 8, A: 9, B: 10), G⁷ (T: 8, A: 9, B: 10), G^{b9} (T: 10, A: 9, B: 8), F⁷ (T: 10, A: 10, B: 8), B^o (T: 10, A: 10, B: 10), C (T: 8, A: 9, B: 8).
- Measure 13: C (T: 8, A: 9, B: 8), C⁷ (T: 11, A: 10, B: 9), F⁷ (T: 8, A: 8, B: 8), F^{#9} (T: 10, A: 10, B: 9), G⁷ (T: 8, A: 10, B: 10), D^m (T: 8, A: 10, B: 12), C^{m7} (T: 8, A: 7, B: 9), B^o (T: 10, A: 12, B: 9), C (T: 10, A: 7, B: 10), B^o (T: 7, A: 8, B: 10), C^{m7} (T: 10, A: 12, B: 12), D^m (T: 8, A: 9, B: 10), G⁷ (T: 8, A: 9, B: 10), G^{b9} (T: 10, A: 9, B: 8), F⁷ (T: 10, A: 10, B: 8), B^o (T: 10, A: 10, B: 10), C (T: 8, A: 9, B: 8).
- Measure 14: C (T: 8, A: 9, B: 8), C⁷ (T: 11, A: 10, B: 9), F⁷ (T: 8, A: 8, B: 8), F^{#9} (T: 10, A: 10, B: 9), G⁷ (T: 8, A: 10, B: 10), D^m (T: 8, A: 10, B: 12), C^{m7} (T: 8, A: 7, B: 9), B^o (T: 10, A: 12, B: 9), C (T: 10, A: 7, B: 10), B^o (T: 7, A: 8, B: 10), C^{m7} (T: 10, A: 12, B: 12), D^m (T: 8, A: 9, B: 10), G⁷ (T: 8, A: 9, B: 10), G^{b9} (T: 10, A: 9, B: 8), F⁷ (T: 10, A: 10, B: 8), B^o (T: 10, A: 10, B: 10), C (T: 8, A: 9, B: 8).
- Measure 15: C (T: 8, A: 9, B: 8), C⁷ (T: 11, A: 10, B: 9), F⁷ (T: 8, A: 8, B: 8), F^{#9} (T: 10, A: 10, B: 9), G⁷ (T: 8, A: 10, B: 10), D^m (T: 8, A: 10, B: 12), C^{m7} (T: 8, A: 7, B: 9), B^o (T: 10, A: 12, B: 9), C (T: 10, A: 7, B: 10), B^o (T: 7, A: 8, B: 10), C^{m7} (T: 10, A: 12, B: 12), D^m (T: 8, A: 9, B: 10), G⁷ (T: 8, A: 9, B: 10), G^{b9} (T: 10, A: 9, B: 8), F⁷ (T: 10, A: 10, B: 8), B^o (T: 10, A: 10, B: 10), C (T: 8, A: 9, B: 8).
- Measure 16: C (T: 8, A: 9, B: 8), C⁷ (T: 11, A: 10, B: 9), F⁷ (T: 8, A: 8, B: 8), F^{#9} (T: 10, A: 10, B: 9), G⁷ (T: 8, A: 10, B: 10), D^m (T: 8, A: 10, B: 12), C^{m7} (T: 8, A: 7, B: 9), B^o (T: 10, A: 12, B: 9), C (T: 10, A: 7, B: 10), B^o (T: 7, A: 8, B: 10), C^{m7} (T: 10, A: 12, B: 12), D^m (T: 8, A: 9, B: 10), G⁷ (T: 8, A: 9, B: 10), G^{b9} (T: 10, A: 9, B: 8), F⁷ (T: 10, A: 10, B: 8), B^o (T: 10, A: 10, B: 10), C (T: 8, A: 9, B: 8).

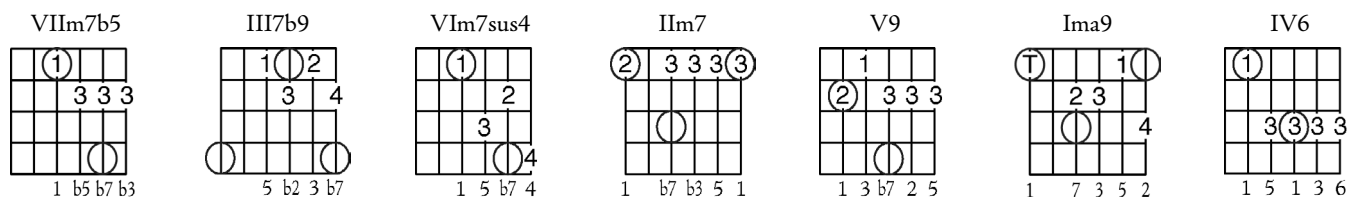
7-3-6-2-5-1-4 COMMON TONE

Common Tone on First String

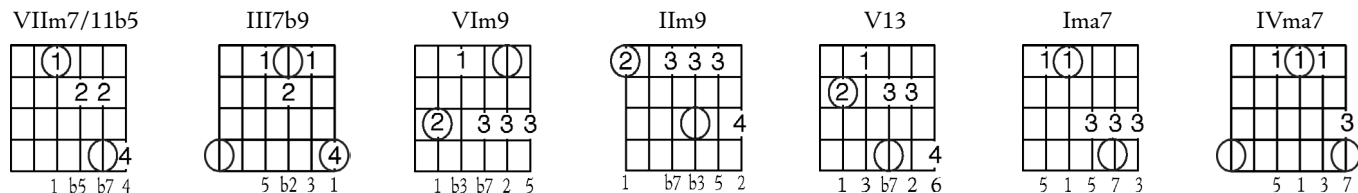
7-3-6-2-5-1-4 with common Tone 1 on first string



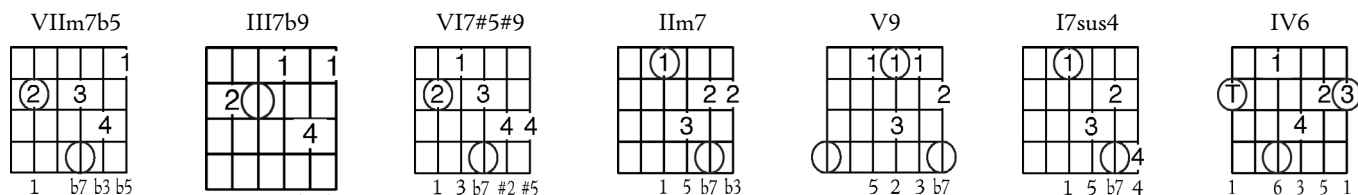
7-3-6-2-5-1-4 with common Tone 2 on first string



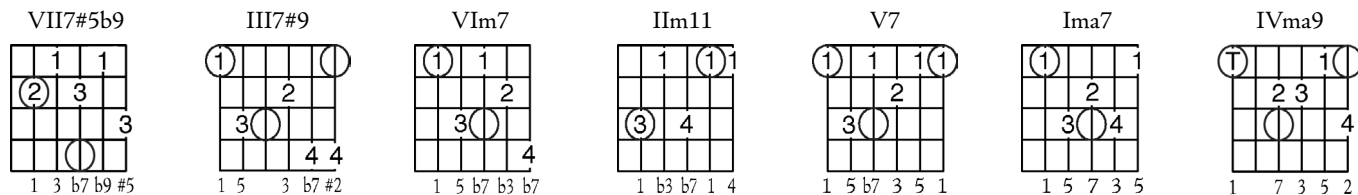
7-3-6-2-5-1-4 with common Tone 3 on first string

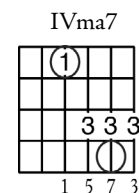
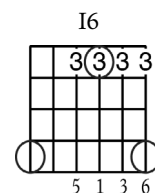
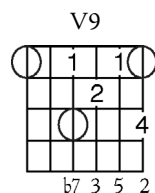
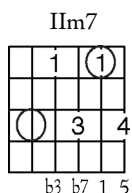
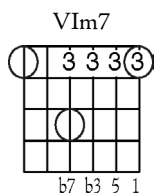
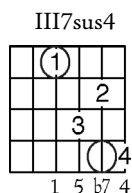
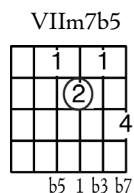
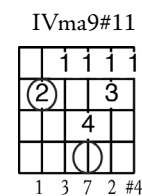
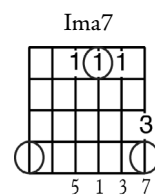
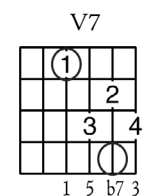
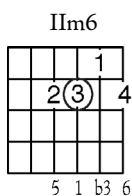
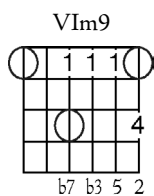
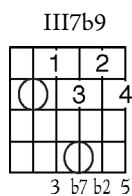
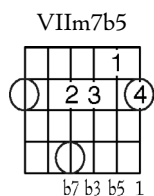
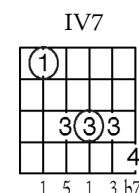
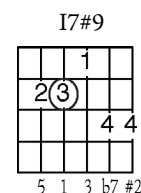
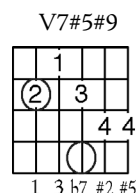
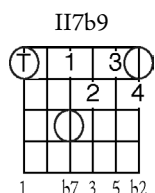
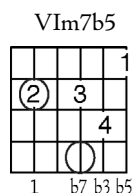
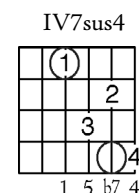
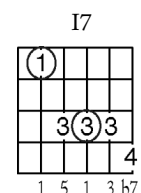
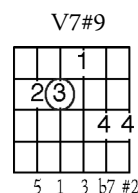
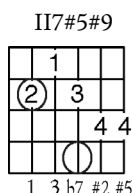
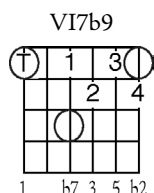
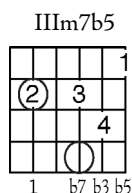


7-3-6-2-5-1-4 with common Tone 4 on first string



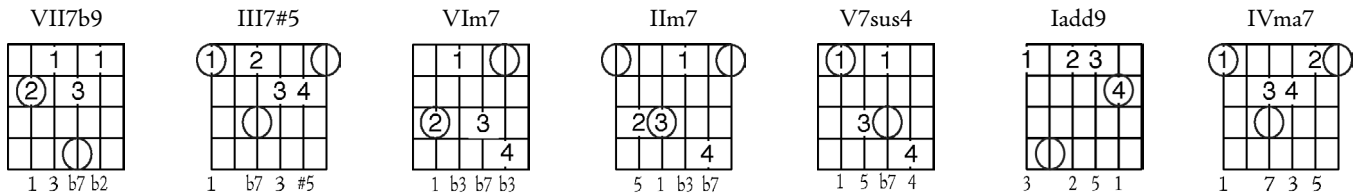
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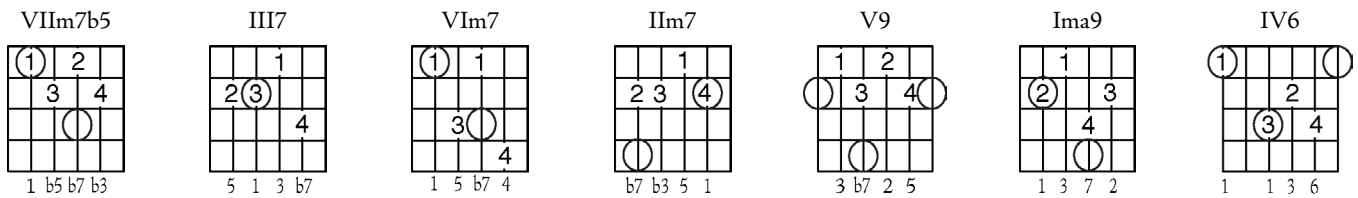
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Common Tone on Second String

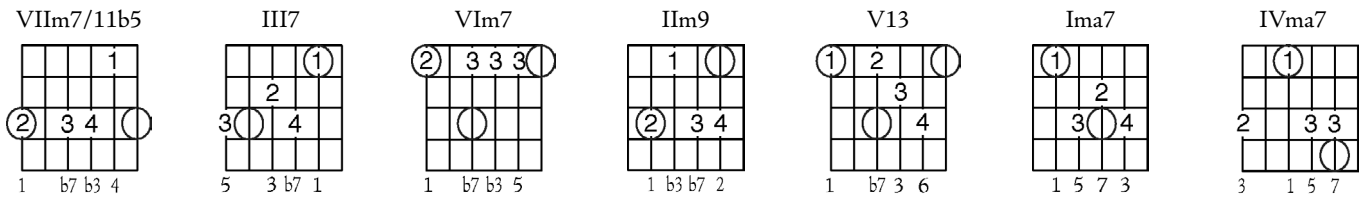
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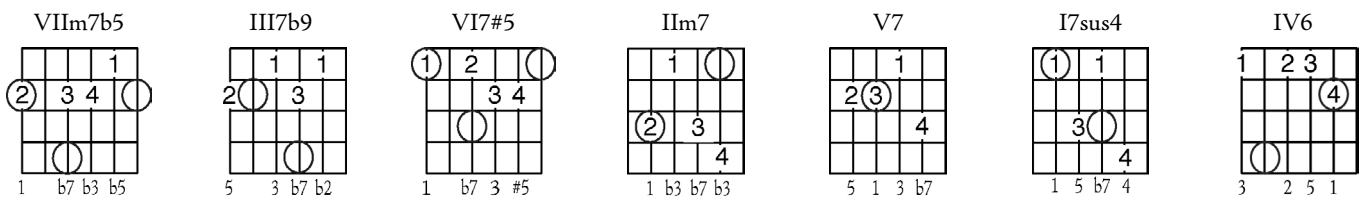
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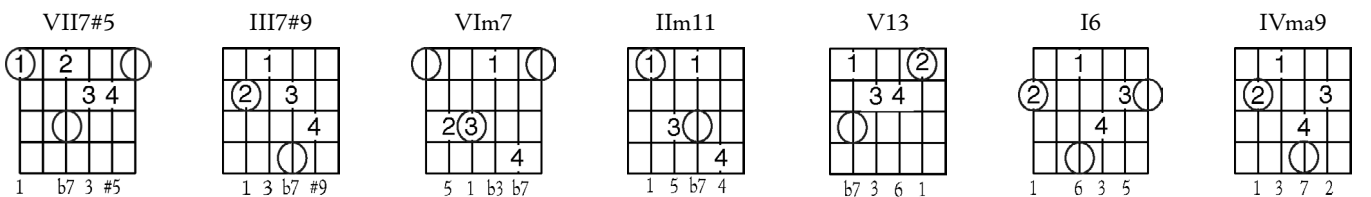
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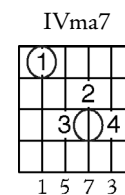
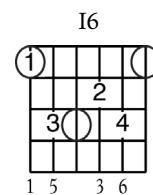
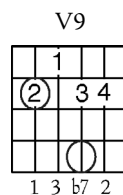
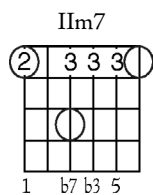
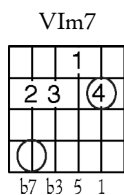
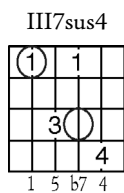
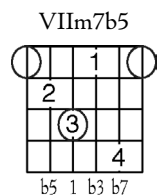
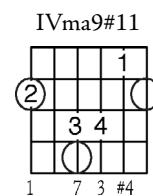
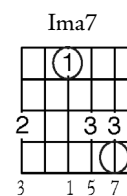
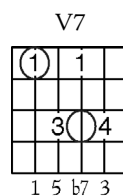
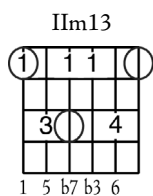
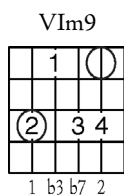
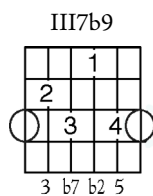
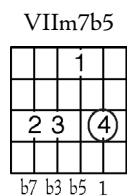
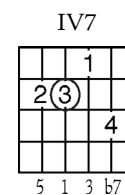
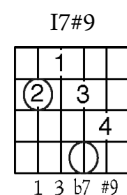
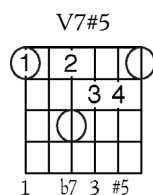
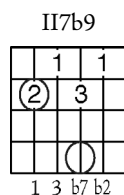
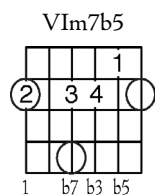
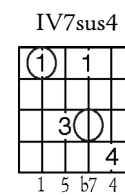
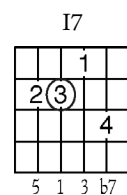
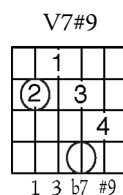
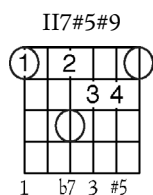
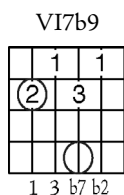
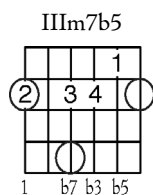


7-3-6-2-5-1-4 with common Tone 4 on second string



7-3-6-2-5-1-4 with common Tone 5 on second string



7-3-6-2-5-1-4 with common Tone 6 on second string**7-3-6-2-5-1-4 with common Tone 7 on second string****6-2-5-1-4 with common Tone b3 on second string****3-6-2-5-1-4 with common Tone b7 on second string**

Emulating the Melody in 7-3-6-2-5-1-4 Song Examples

core melodic tones

[Core melodic tones](#) are those that are both in the scale or arpeggio you are using in improv *and* in the current chord. They can also be called Duality Tones, which you can read about in [Core Melody Built with Duality Tones](#).

emulate the head during the solo

It is common that an improviser thinks the head melody while improvising on the same changes as the head. In doing this, you can analyze the most important notes in the head melody and use them as a basis of both comping and soloing. Things will be moving by quickly when you are improvising so the notes you feature that relate to the head melody should have a simple basis. Core melodic tones are very effective in doing this.

In the examples, below, I'm featuring one core melody tone for each four bars. Your awareness of common tone voice is instrumental (pun intended) in this. First play these changes with common tone top voice leading, then emulate the common tone in soloing. You can also use the mass of notes in each chord as a template of important notes for soloing in the same fretboard area.

The Way You Look Tonight, bars 1-4

During bars one through four of the head melody (beginning at section A), "two" of the key is prominent ("G" in the key of "F"). It starts bar three and is all of bar four. Since it can work as a common tone through all the chords in bars one through four, I'm using it.

The Way You Look Tonight, bars 5-8

"Three" ("A" in the key of "F") could be used for bars five and six. "Four" works for bars seven and eight, since "3" would clash with the melody note on "4" in each bar 7 and 8.

the diminished phenomenon allowing flat nine in the bass

In bar six, I used D7b9 (VI7b9 in the key of "F") instead of D7 to be a little more dramatic and use a harmonic minor V type chord for the key of G minor, the next chord (Gm in IIm of the key of "F", for bar 6). D7b9 has "b9" (of "D") in the bass. Generally, we don't use ninths in the bass, since they imply some other root than what we intend (usually implying the bass note as a root). When a chord has a diminished seventh subset though, "b9" can be in the bass. D7b9 no root is F#dim7 = Adim7 = C dim7 = D#dim7. Since diminished seventh chords are constructed with a serial (repeating) pattern of all minor thirds, they are easy for the listener to imagine the notes continue above and below the sounding chord. To experience this, play a diminished seventh chord in the middle of a piano and gradually extended it above and below in minor thirds. You'll see that you can easily "hear" the next note before playing it.

The Way You Look Tonight, bars 9-16

Top voice “1” (“F” in the key of “F”) works well for bars 9-16. It is the only melody note in bars 9-10 and 13 of the A section head. There is no melody in bars 14-16. “2” (“G” in the key of “F”) would work well on bars 11-2, but I wanted to keep it simple, so I’ll stick with top voice “1”.

The Way You Look Tonight, bars 17-20 and 25-28

“Section B in is the key of “b3”. If section “A” is in the key of “F”, section “B” is in “Ab” (the “b3” of “F”). Bars 17-20 of section B (continuing the numbering from section A) obviously needs to use common tone “3” (“3” of “Ab”, which is “C”). It’s the only note in bars 17-18, it starts bar 19 and half of of the notes in bars 17-20 are “3”. Note that F7b9 no root is Adim7.

“5” (“Eb” in the key of “Ab”) is the only note in bars 25-26, it starts bar 27 and over half of of the notes in bars 25-28 are “5”. Instead of actually using “5” (“Eb”), lets use “3” again, which is a third below “5” and will harmonize with it. This allows us to repeat what we played for 21-24.

The Way You Look Tonight, bars 21-24

Given that I want to use “3” (“C”) before and after 21-24 (in 17-20 and 25-28), I’m using the nearby tone, “2” (“Bb”). It starts bar 21 and is a basic part of each of the last two chords. “6” (“F”) could have been a good choice otherwise, but would skip too far from the common tone “3” used before and after.

The Way You Look Tonight, bars 29-32

In 29-32, I’m using a scalar top voice leading. After starting with “3” (“C”), I top voice-lead with “7, 1, 2, #1” (G, Ab, Bb, A in Ab). This voice-leads back to the “2” top voice (“G”) in bar one. The last two chords could be thought in the original key (not changing the notes, just a different point of view), where the top-voice tones would be “4” and “3” of the original key (“Bb” for the Gm7 chord and “A” for the C13).

The Way You Look Tonight section A (in F), common tone top voice

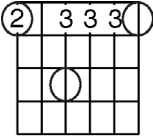
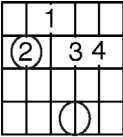
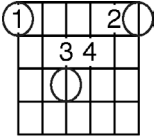
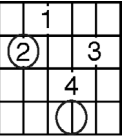
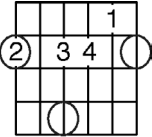
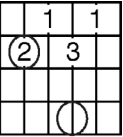
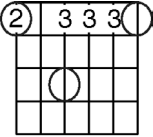
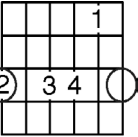
<p>bar 1</p> <p>top voice 2</p> <p>Fma9 VII</p> <p>1 3 7 2</p>	<p>bar 2</p> <p>top voice 2</p> <p>Dm7/11 VIII</p> <p>1 b7 b3 4</p>	<p>bar 3</p> <p>top voice 2</p> <p>Gm7 VII</p> <p>b7 b3 5 1</p>	<p>bar 4</p> <p>top voice 2</p> <p>C9 VII</p> <p>3 b7 2 5</p>	<p>bar 5</p> <p>top voice 3</p> <p>Fma7 V</p> <p>1 3 5 7 3</p>	<p>bar 6</p> <p>top voice 3</p> <p>D7b9 V</p> <p>b2 5 b7 3 5</p>	<p>bar 7</p> <p>top voice 4</p> <p>Gm7 VIII</p> <p>1 b3 b7 b3</p>	<p>bar 8</p> <p>top voice 3</p> <p>C13 VIII</p> <p>1 b7 3 6</p>	
<p>bar 9</p> <p>top voice 1</p> <p>Cm7/11 VI</p> <p>1 b7 b3 4</p>	<p>bar 10</p> <p>top voice 1</p> <p>F7 VI</p> <p>5 3 b7 1</p>	<p>bar 11</p> <p>top voice 1</p> <p>Bbma7 VI</p> <p>1 7 3 5</p>	<p>bar 12</p> <p>top voice 1</p> <p>Gm7 III</p> <p>5 1 b3 b7</p>	<p>bar 13 and 15</p> <p>top voice 1</p> <p>C7sus4 III</p> <p>1 5 b7 4</p>	<p>bar 14 and 16</p> <p>top voice 1</p> <p>F6 VI</p> <p>1 3 6 1</p>	<p>bar 14 and 16</p> <p>top voice 1</p> <p>Dm7 V</p> <p>1 5 b7 b3</p>	<p>bar 14 and 16</p> <p>top voice 1</p> <p>Gm7 III</p> <p>5 1 b3 b7</p>	<p>bar 14 and 16</p> <p>top voice 1</p> <p>C7sus4 III</p> <p>1 5 b7 4</p>

The Way You Look Tonight section B (in Ab), common tone top voice

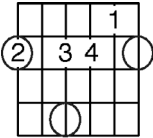
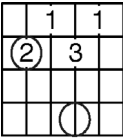
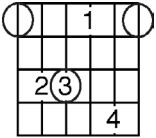
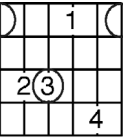
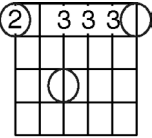
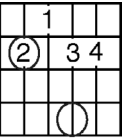
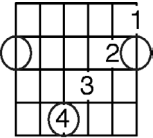
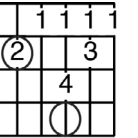
<p>bar 17</p> <p>top voice 3</p> <p>Abma7 VIII</p> <p>1 3 5 7 3</p>	<p>bar 18</p> <p>top voice 3</p> <p>F7b9 VIII</p> <p>b2 5 b7 3 5</p>	<p>bar 19</p> <p>top voice 3</p> <p>Bbm9 XI</p> <p>1 b3 b7 2</p>	<p>bar 20</p> <p>top voice 3</p> <p>Eb13 XI</p> <p>1 b7 3 6</p>	<p>bar 21</p> <p>top voice 2</p> <p>Abma9 IX</p> <p>1 3 7 2</p>	<p>bar 22</p> <p>top voice 2</p> <p>Fm7sus4 VIII</p> <p>1 5 b7 4</p>	<p>bar 23</p> <p>top voice 2</p> <p>Bbm7 X</p> <p>b7 b3 5 1</p>	<p>bar 24</p> <p>top voice 2</p> <p>Eb9 VI</p> <p>3 b7 2 5</p>	
<p>bar 25</p> <p>top voice 3</p> <p>Abma7 VIII</p> <p>1 3 5 7 3</p>	<p>bar 26</p> <p>top voice 3</p> <p>F7b9 VIII</p> <p>b2 5 b7 3 5</p>	<p>bar 27</p> <p>top voice 3</p> <p>Bbm9 XI</p> <p>1 b3 b7 2</p>	<p>bar 28</p> <p>top voice 3</p> <p>Eb13 XI</p> <p>1 b7 3 6</p>	<p>bar 29</p> <p>top voice 3</p> <p>Abma9 IV</p> <p>1 3 7 2</p>	<p>bar 30</p> <p>top voice 3</p> <p>Dbma7#11 VIII</p> <p>1 7 3 b5</p>	<p>bar 31</p> <p>top voice 3</p> <p>Dbma7 IX</p> <p>1 7 3 5</p>	<p>bar 32</p> <p>top voice 3</p> <p>Gm7 X</p> <p>1 b3 b7 b3</p>	<p>bar 32</p> <p>top voice 3</p> <p>C13 VIII</p> <p>1 b7 3 6</p>

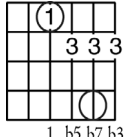
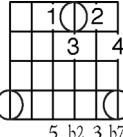
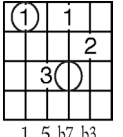
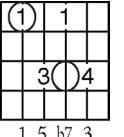
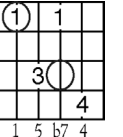
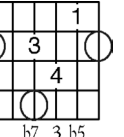
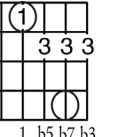
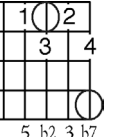
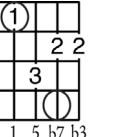
Autumn Leaves in Gm, common tone top voice

top voices are numbered in terms of the parent scale, Bb major

melody top voice 4		melody top voice 3		melody top voice 2		melody top voice 1	
bar 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
top voice 6	top voice 6	top voice 5	top voice 5	top voice 4	top voice 4	top voice 3	top voice 2
Cm7 VIII	F9 VII	Bbma7 VI	Ebma9 V	Am7b5 IV	D7b9 IV	Gm7 III	Gm11 I
							
1 b7 b3 5	1 3 b7 2	1 7 3 5	1 3 7 2	1 b7 b3 b5	1 3 b7 b2	1 b7 b3 5	1 b7 b3 4

repeat bars 1-8

melody top voice 2		melody top voice 3		melody top voice 4		melody top voice 3	
bar 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
top voice 4	top voice 4	top voice 5	top voice 5	top voice 6	top voice 6	top voice 7	top voice 7
Am7b5 IV	D7b9 IV	Gm7 III	Gm7 III	Cm7 VIII	F9 VII	Bbma7 V	Ebma7#11 V
							
1 b7 b3 b5	1 3 b7 b2	5 1 b3 b7	5 1 b3 b7	1 b7 b3 5	1 3 b7 2	1 3 5 7	1 3 7 2 #4

melody top voice 4		melody top voice 3		melody top voice 3		melody top voice 2		melody top 1	
bar 17	bar 18	bar 19	bar 20	bar 21	bar 22	bars 23-24			
top voice 2	top voice 2	top voice 1	top voice 1	top voice 2	top voice 2	top voice 1			
Am7b5 VII	D7b9 VII	Gm7 X	Gb7 IX	Fm7sus4 VIII	E7b5 XI	Am7b5 VII	D7b9 VII	Gm7 V	
									
1 b5 b7 b3	5 b2 3 b7	1 5 b7 b3	1 5 b7 3	1 5 b7 4	1 b7 3 b5	1 b5 b7 b3	5 b2 3 b7	1 5 b7 b3	

Autumn Leaves, Preview Scalar Voice Leading

Swing Eighths

The score is for a piece titled "Autumn Leaves, Preview Scalar Voice Leading" in 4/4 time, Swing Eighths. It consists of five systems of music, each with a treble and bass staff and a tablature staff. Chords are indicated above the staff, and fingerings are shown in the tablature.

System 1: Chords: Cm7, Cm7, B7, Bbmaj7, Eb6, Ebmaj7. Tablature: 8, 11, 10, 8, 6, 8, 10, 8, 10, 4, 7, 5, 6, 5, 8, 6.

System 2: Chords: Am7(b5), Am7/11, Ab7, Gm7, F#o7, Gm7, Gm11. Tablature: 8, 6, 8, 3, 5, 6, 4, 3, 1, 5, 4, 3, 6, 5, 3, 3.

System 3: Chords: Am7(b5), D7, Gm7. Tablature: 8, 6, 8, 5, 5, 5, 4, 6, 8, 8, 7, 5, 5, 3, 3, 3.

System 4: Chords: Cm7, F7, Bbmaj7, Ebmaj7. Tablature: 4, 3, 7, 5, 5, 3, 2, 1, 1, 7, 8, 9, 10, 8, 12, 10, 8, 7, 12, 10, 8, 7, 11, 10, 8, 6.

System 5: Chords: Am7(b5), D7, Gm7, Gb7, Fm11, E7(b5). Tablature: 8, 6, 8, 7, 7, 10, 10, 6, 6, 6, 7, 10, 10, 6, 6, 4, 6, 5, 5, 5, 4, 3, 3.

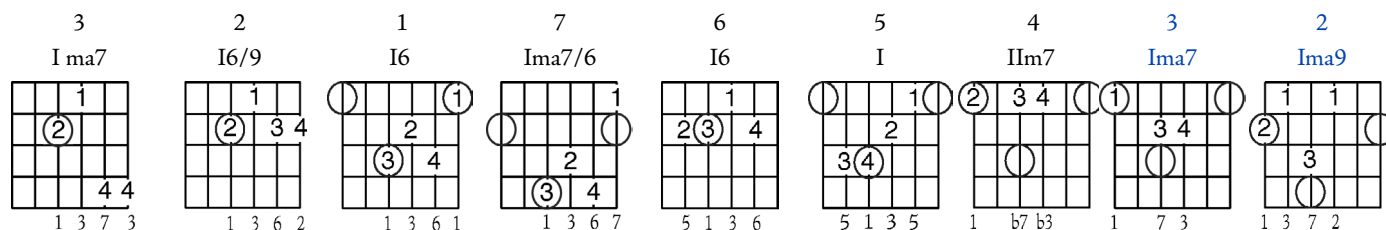
System 6: Chords: Am7(b5), D7, Gm7, Am7, Ab7, Gm7. Tablature: 8, 6, 8, 5, 5, 7, 5, 5, 7, 5, 5, 4, 3, 3, 6, 5, 4, 3.

SCALAR VOICE LEADING ON A SINGLE CHORD

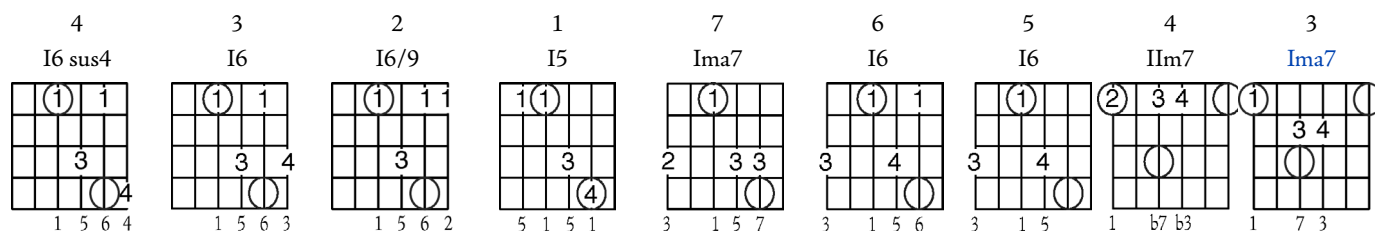
practice each in forward and reverse order

Ionian (Major Mode I)

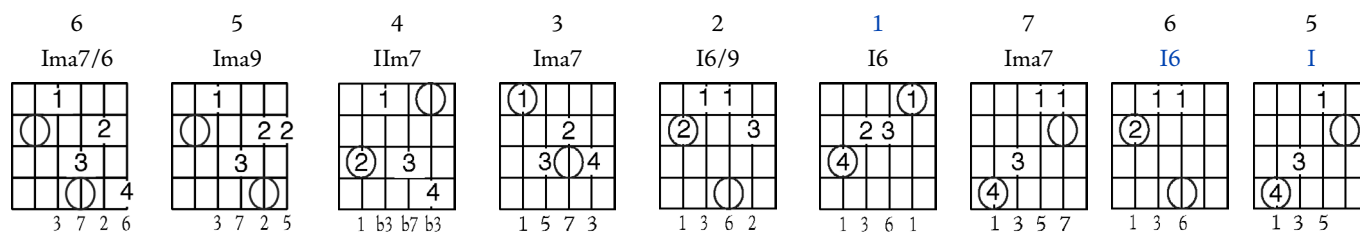
E form



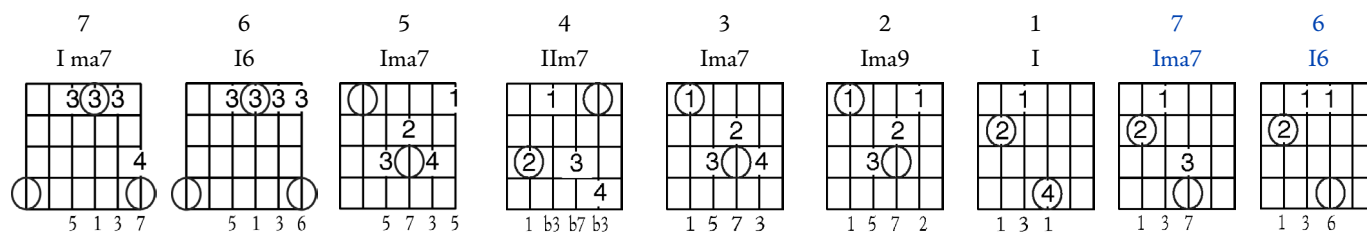
D form



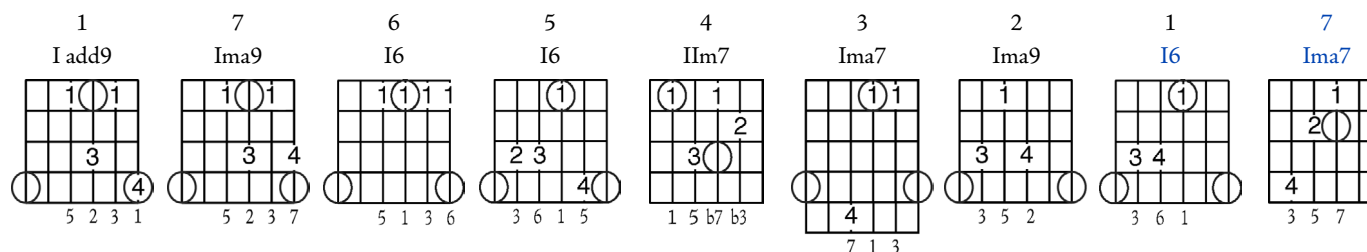
C form



A form



G form



Dorian (Major Mode II)

E form

b3	2	1	b7	6	5	4	b3	2
IIm	IIm add9	IIm	IIm7	Im6	IIm7	VIIm7	IIm7	IIm9

1 b3 5 b3 1 b3 5 2 5 b3 5 1 5 b7 b3 b7 5 b3 5 5 b7 b3 5 5 b3 b7 1 b7 b3 1 b7 2

D form

4	b3	2	1	b7	6	5	4	b3
IIm7sus4	IIm7	IIm9	IIm	IIm7	IIm6	IIm	IIm7	IIm7

1 5 b7 4 1 5 b7 b3 1 5 b7 2 5 b3 5 1 5 b3 5 b7 5 b3 5 6 b3 1 5 1 b7 b3 1 b7 b3

C form

6	5	4	b3	2	1	b7	6	5
IIm13	IIm9	IIm7sus4	IIm7	IIm9	IIm7	IIm7	IIm6	IIm

b3 b7 2 6 b3 b7 2 5 b3 b7 1 4 1 b3 b7 b3 1 b3 b7 2 1 b3 b5 1 1 b3 b7 1 b3 6 1 b3 5

A form

b7	6	5	4	b3	2	1	b7	6
IIm7	IIm13	IIm7	IIm7sus4	IIm7	IIm9	IIm7	IIm7	IIm6

1 5 b7 b3 b7 1 5 b7 b3 6 1 5 b7 b3 5 1 5 b7 4 1 5 b7 b3 1 b3 b7 2 1 b3 b5 1 1 b3 b7 1 b3 6

G form

1	1	b7	6	5	4	3	2	1
IIm9	IIm7	IIm9	IIm13	IIm9	IIm7/11	IIm7	IIm9	IIm

b7 b3 5 2 b7 b3 5 1 b7 2 5 b7 b7 2 5 6 b3 b7 2 5 1 b7 b3 4 1 b7 b3 1 b7 2 1 b3 5 1

Phrygian Major (Major Sharp Five Mode III)

E form

3 III7	b2 III7b9	1 III7	b7 III7	b6 III7#5	5 III7	4 III7sus4	3 III7	b2 III7b9
1 5 b7 3	b7 3 5 b2	b7 3 5 1	5 1 3 b7	1 b7 3 #5	1 b7 3 5	1 5 b7 4	1 b7 3	1 3 b7 b2

D form

4 III7sus4	3 III7	b2 III7b9	1 III7	b7 III7	b6 III7#5	5 III7	4 III7sus4	3 III7
1 5 b7 4	1 5 b7 3	b7 3 5 b2	b7 1 5 1	5 1 5 b7	b7 1 3 #5	b7 1 5	1 5 b7 4	1 b7 3

C form

b6 III7#5b9	5 III7b9	4 III7sus4	3 III7	b2 III7b9	1 III7	b7 III7	b6 III7#5	5 III7
1 3 b7 b2 #5	1 3 b7 b2 5	1 b7 1 4	1 b7 1 3	1 3 b7 b2	1 3 b7 1	1 3 b7	1 3 #5	b7 3 5

A form

b7 III7	b6 III7#5	5 III7	4 III7sus4	3 III7	b2 III7b9	1 III7	b7 III7	b6 III7#5
5 1 3 b7	3 b7 b2 #5	3 b7 b2 5	1 5 b7 4	1 5 b7 3	1 3 b7 b2	1 3 b7 1	1 3 b7	1 3 #5

G form

1 III7b9	b7 III7b9	b6 III7#5	5 III7	4 III7sus4	3 III7	b2 III7b9	1 III7	b7 III7
b7 b2 5 1	5 b2 3 b7	1 b7 3 #5	1 b7 3 5	1 5 b7 4	1 b7 3	1 3 b7 b2	1 3 b7 1	1 3 b7

Lydian (Major Mode IV)

E form

3 IVma7	2 IV6/9	1 IV6	7 IVma7/6	6 IV6	5 IV	#4 IVma#11	3 IVma7	2 IVma9
1 3 7 3	1 3 6 2	1 3 6 1	1 3 6 7	5 1 3 6	5 1 3 5	5 1 3 #4	1 7 3	1 3 7 2

D form

#4 IVma7#11	3 IVma7	2 IV6/9	1 IV5	7 IVma7	6 IV6	5 IV6	#4 IVma#11	3 IVma7
1 5 7 #4	1 5 7 3	1 5 6 2	5 1 5 1	3 1 5 7	3 1 5 6	3 1 5	3 1 #4	1 7 3

C form

6 IVma7/6	5 IVma9	#4 IVma9#11	3 IVma7	2 IV6/9	1 IV6	7 IVma7	6 IV6	5 IV
3 7 2 6	3 7 2 5	3 7 2 #4	1 5 7 3	1 3 6 2	1 3 6 1	1 3 5 7	1 3 6	1 3 5

A form

7 IVma7	6 IV6	5 IVma7	#4 IVma7#11	3 IVma7	2 IVma9	1 IV	7 IVma7	6 IV6
5 1 3 7	5 1 3 6	5 7 3 5	5 7 3 #4	1 5 7 3	1 5 7 2	1 3 1	1 3 7	1 3 6

G form

1 IVadd9	7 IVma9	6 IV6	5 I6	#4 IVadd9#11	3 IVma7	2 IVma9	1 IV6	7 IVma7
5 2 3 1	5 2 3 7	5 1 3 6	3 6 1 5	3 5 2 #4	7 1 3	3 5 2	3 6 1	3 5 7

Mixolydian (Major Mode V)

E form

3 V7	2 V9	1 V9	b7 V7	6 V13	5 V9	4 V7sus4	3 V7	2 V9

D form

4 V7sus4	3 V7	2 V9	1 V13	b7 V7	6 V13	5 V7	4 V7sus4	3 V7

C form

6 V13	5 V9	4 V9sus4	3 V9	2 V9	1 V13	b7 V7	6 V6	5 V7

A form

b7 V7	6 V13	5 V9	4 V7sus4	3 V7	2 V9	1 V13	b7 V7	6 V13

G form

1 Vadd9	b7 V9	6 V13	5 I9	4 V9sus4	3 V9	2 V9	1 V7	b7 V7

Aeolian (Major Mode VI) and Harmonic Minor

E form

b3	2	1	b7	b6	5	4	b3	2
VIm	VIm9	VIm	VIm7	III7b9	VIm7	V7	VIm7	VIm9

1 b3 5 b3 b7 b3 5 2 5 b3 5 1 5 1 b3 b7 b7 3 5 b2 1 b7 b3 5 5 3 b7 1 b7 b3 1 b7 2

D form

4	b3	2	1	b7	b6	5	4	b3
Vm7sus4	VIm7	VIm9	IVIm7	VIm9	III7b9	VIm add9	VIIIm7(n5)	VIm7

1 5 b7 4 1 5 b7 b3 1 5 b7 2 b7 b3 5 1 b3 2 5 b7 b7 5 b2 b3 2 5 1 b7 b3 1 b7 b3

C form

b6	5	4	b3	2	1	b7	b6	5
III7b9	VIm9	VIm7sus4	VIm7	VIm9	VIm7	VIm7	III7b9	VIm

3 b7 5 b2 1 b3 b7 2 5 1 5 b7 4 1 5 b7 b3 1 b3 b7 2 b7 b3 5 1 1 b3 b7 3 b7 b2 1 b3 5

A form

b7	b6	5	4	b3	2	1	b7
VIm7	III7b9	VIm7	VIm7sus4	VIm7	VIIIm9	VIm7	VIm7

5 1 b3 b7 b7 3 5 b2 1 5 b7 b3 5 1 5 b7 4 1 5 b7 b3 1 b3 b7 2 1 b3 b7 1 1 b3 b7

G form

1	1	b7	b6	5	4	3	2	1
VIm9	VIm7	VIm9	III7b9	VIm9	VIm7/11	VIm7	VIm9	VIm9

b7 b3 5 2 b7 b3 5 1 b7 2 5 b7 b7 3 5 b2 b3 b7 2 5 1 b7 b3 4 1 b7 b3 1 b7 2 b3 b7 1

VOICE LEADING PAIRS OF SEVENTH CHORDS

Pairs of chords built on two consecutive scale tones can be very useful in comping and chord soloing. I studied them extensively as a logical structure before discovering that Joe Pass used them extensively in his chord solos. They are relatively easy to finger and memorize.

By using the application options shown below, one pair of chords can be used for many chords in a progression by emphasizing one or another as either a chord named after its root or as a [secondary root](#), as described in [Substitution](#).

application producing sevenths and ninths

chord type	I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	V7	VI ^m 7	VII ^m 7b5
use	II ^m 7 - III ^m 7	II^m7 - III^m7	II ^m 7 - III ^m 7	VI ^m 7 - VII ^ø 7	V7 - VI ^m 7	VI ^m 7 - VII ^ø 7	V7 - VI ^m 7	VI ^m 7 - VII ^ø 7
emphasize	III ^m 7	II ^m 7	III ^m 7	VI ^m 7	V7	VII ^m 7b5	VI ^m 7	VII ^m 7b5
logic	I ^{ma} 9 = 1-3-5-7-2, III ^m 7 = 3-5-7-2	root	root	IV ^{ma} 9 = 4-6-1-3-5 VI ^m 7 = 6-1-3-5	root	V9 = 5-7-2-4-6, VII ^m 7b5 = 7-2-4-6	root	root

application producing sixths (these work better in swing-related styles)

chord type	I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5
use	V7 - VI ^m 7	VI ^m 7 - VII ^ø 7	n/a	II ^m 7 - III ^m 7	II ^m 7 - III ^m 7	n/a	n/a
emphasize	VI ^m 7	VII ^m 7b5		II ^m 7	III ^m 7		
logic	VI ^m 7 = 6-1-3-5, I6 = 1-3-5-6	VII ^m 7b5 = 7-2-4-6, II ^m 6 = 1-3-5-6	sixths must have a major sixth	II ^m 7 = 2-4-6-1, IV6 = 4-6-1-2	III ^m 7 = 3-5-7-2, V6 = 5-7-2-3	sixths must have a major sixth	sixths must have a major sixth

links to pairs of sevenths fingerings

[II^m7 and III^m7](#), [II^m7 and III^m7 optimized for I^{ma}7](#),

[II^m7 and III^m7 with chromatic dim. 7](#), [II^m7 and III^m7 with chromatic dim. 7 and bII7](#)

[V7 and VI^m7](#), [V7 and VI^m7 optimized for IV^{ma}7](#)

[VI^m7 and VII^m7b5](#), [VI^m7 and VII^m7b5 optimized for V7](#)

[VI^m7 and VII dim. 7](#)

IIm7 and IIIm7

[links to pairs of seventh fingerings](#)

IIm7 and IIIm7, string set 4-3-2-1

top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2	top is parent 3
IIm7	IIIm7	IIm7	IIIm7	IIm7	IIIm7	IIm9 nr

IIm7 and IIIm7, string set 5-4-3-2

top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2	top is parent 3
IIm7	IIIm7	IIm7	IIIm7	IIm7	IIIm7	IIm9 nr

IIm7 and IIIm7, string set 6-4-3-2

top is parent 6	top is parent 7	top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5
IIm7	IIIm7	IIm7	IIIm7	IIm9	IIm6	Ima7

IIm7 and IIIm7, string set 5-3-2-1

top is parent 6	top is parent 7	top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5
IIm7	IIIm7	IIm7	IIIm7	IIm9	IIm6	Ima7

V7 and VIm7

[links to pairs of seventh fingerings](#)

V7 and VIm7, string set 4-3-2-1

top is parent 7	top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6
V7	VIm7	V7	IIIIm7	V7	VIm7	V9 nr

V7 and VIm7, string set 5-4-3-2

top is parent 7	top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6
V7	VIm7	V7	VIm7	V7	VIm7	V9 nr

V7 and VIm7, string set 6-4-3-2

top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1
V7	VIm7	V7	VIm7	V9	V6	IVma7

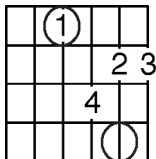
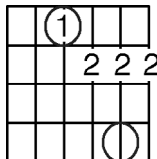
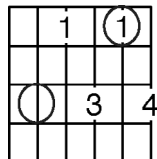
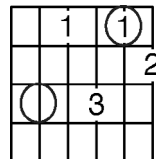
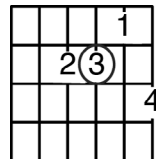
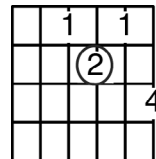
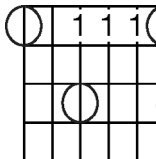
V7 and VIm7, string set 5-3-2-1

top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1
V7	VIm7	V7	VIm7	V9	VIm7	IVma7

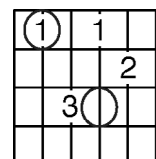
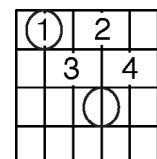
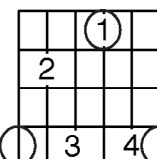
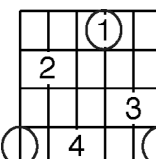
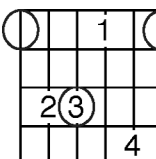
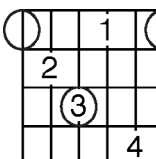
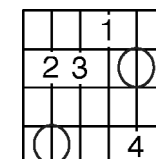
VIm7 and VIIIm7b5

[links to pairs of seventh fingerings](#)

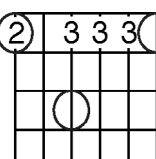
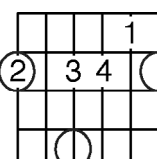
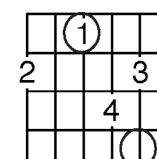
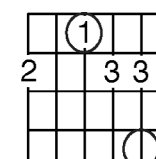
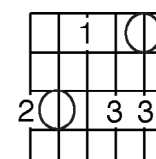
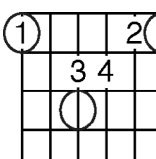
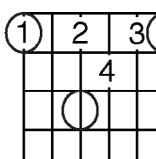
VIm7 and VIIIm7b5, string set 4-3-2-1

top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7
VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm9 nr
						
1 5 b7 b3	1 b5 b7 b3	b3 b7 1 5	b3 b7 1 b5	5 1 b3 b7	b5 1 b3 b7	b7 b3 5 2

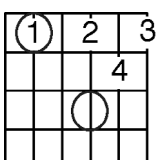
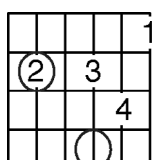
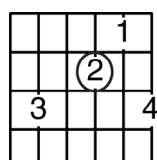
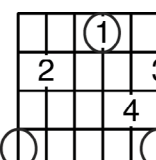
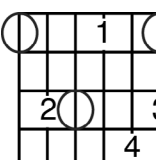
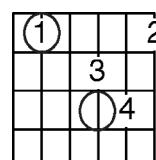
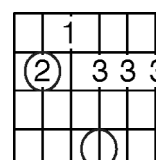
VIm7 and VIIIm7b5, string set 5-4-3-2

top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7
VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm9 nr
						
1 5 b7 b3	1 b5 b7 b3	b3 b7 1 5	b3 b7 1 b5	5 1 b3 b7	b5 1 b3 b7	b7 b3 5 2

VIm7 and VIIIm7b5, string set 6-4-3-2 (optimized for V7)

top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2
VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm9	IVma7	V7
						
1 b7 b3 5	1 b7 b3 b5	b3 1 5 b7	b3 1 b5 b7	5 b3 b7 2	1 7 3 5	1 b7 3 5

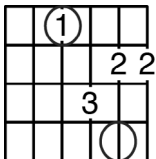
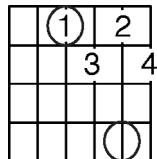
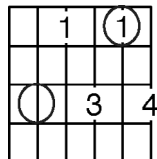
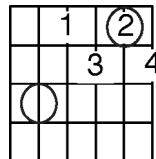
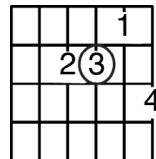
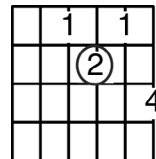
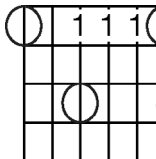
VIm7 and VIIIm7b5, string set 5-3-2-1 (optimized for V7)

top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2
VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm7	IVma7	V9
						
1 b7 b3 5	1 b7 b3 b5	b3 1 b3 b7	b3 1 b5 b7	5 b3 b7 2	1 7 3 5	1 3 b7 2 5

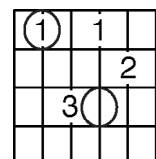
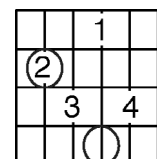
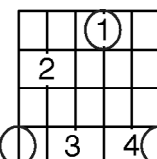
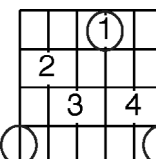
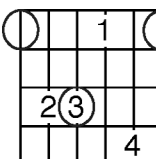
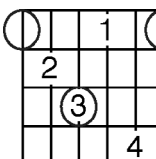
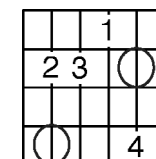
VIm7 and VII dim.7

[links to pairs of seventh fingerings](#)

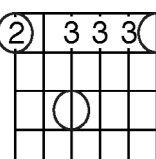
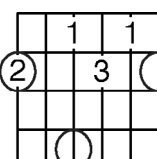
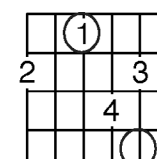
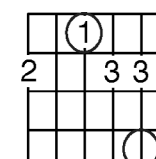
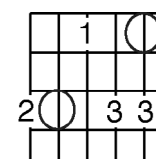
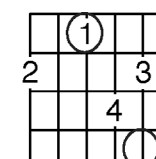
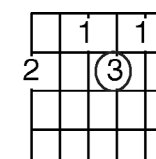
VIm7 and VII dim.7, string set 4-3-2-1

top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7
VIm7	VII dim.7	VIm7	VII dim.7	VIm7	VII dim.7	VIm9 nr
						
1 5 b7 b3	1 b5 6 b3	b3 b7 1 5	b3 6 1 b5	5 1 b3 b7	b5 1 b3 b7	b7 b3 5 2

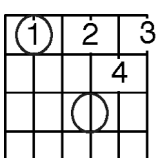
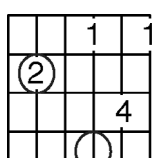
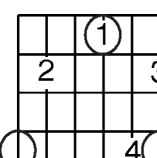
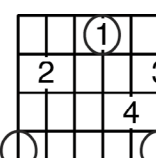
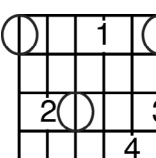
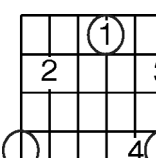
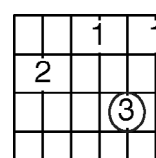
VIm7 and VII dim.7, string set 5-4-3-2

top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7
VIm7	VII dim.7	VIm7	VII dim.7	VIm7	VIIIm7b5	VIm9 nr
						
1 5 b7 b3	1 b5 6 b3	b3 b7 1 5	b3 6 1 b5	5 1 b3 b7	b5 1 b3 b7	b7 b3 5 2

VIm7 and VII dim.7, string set 6-4-3-2

top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2
VIm7	VII dim.7	VIm7	VIm7b5	VIm9	IIm7	VII dim.7.
						
1 b7 b3 5	1 6 b3 b5	b3 1 5 b7	b3 1 b5 b7	5 b3 b7 2	b3 1 5 b7	6 b5 1 b3

VIm7 and VII dim.7, string set 5-3-2-1

top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2
VIm7	VII dim.7	VIm7	VIm7b5	VIm9	IIm7	VII dim.7.
						
1 b7 b3 5	1 6 b3 b5	b3 1 5 b7	b3 1 b5 b7	5 b3 b7 2	b3 1 5 b7	6 b5 1 b3

IIIm7 and IIIIm7 Optimized for Ima7

[links to pairs of seventh fingerings](#)

IIIm7 and IIIIm7 optimized for Ima7, string set 4-3-2-1

top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2	top is parent 3
IIIm7	IIIIm7	IIIm7	IIIIm7	IIIm7	IIIIm7	Ima7

IIIm7 and IIIIm7 optimized for Ima7, string set 5-4-3-2

top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2	top is parent 3
IIIm7	IIIIm7	IIIm7	IIIIm7	IIIm7	IIIIm7	Ima7

IIIm7 and IIIIm7 optimized for Ima7, string set 6-4-3-2

“IIIm7 and IIIIm7, string set 6-4-3-2” already used Ima7 for top voice 5.

IIIm7 and IIIIm7 optimized for Ima7, string set 5-3-2-1

“IIIm7 and IIIIm7, string set 5-3-2-1” already used Ima7 for top voice 5.

IIIm7 and IIIIm7 with Chromatic °7

[links to pairs of seventh fingerings](#)

IIIm7 and IIIIm7 with chromatic °7, string set 4-3-2-1

ascend and descend

parent 4 top IIIm7	parent #4 top #II°7	parent 5 top IIIIm7	parent #5 top II°7	parent 6 top IIIm7	parent b7 top III°7
parent 7 top IIIIm7	parent 1 top IIIm7	parent #1 top III°7	parent 2 top IIIIm7	parent #2 top #II°7	parent 3 top IIIIm7

IIIm7 and IIIIm7 with chromatic °7, string set 5-4-3-2

ascend and descend

parent 4 top IIIm7	parent #4 top #II°7	parent 5 top IIIIm7	parent #5 top IV°7	parent 6 top IIIm7	parent b7 top III°7
parent 7 top IIIIm7	parent 1 top IIIm7	parent #1 top III°7	parent 2 top IIIIm7	parent #2 top #II°7	parent 3 top IIIIm7

IIm7 and IIIm7 with chromatic °7, string set 6-4-3-2

ascend and descend

parent 6 top IIm7	parent b7 top #II(bIII)m7	parent 7 top IIIm7	parent 1 top IIm7	parent #1 top #II(bIII)m7	parent 2 top IIIm7
1 b7 b3 5	1 b7 b3 5	1 b7 b3 5	b3 1 5 b7	b3 1 5 b7	b3 1 5 b7
parent #2 top IVm7b5	parent 3 top IIm9	parent 4 top IIm7	parent #4 top #IIm7	parent 5 top IIIm7	parent #5 top II°7
b3 1 b5 b7	5 b3 b7 2	b7 5 1 b3	b7 5 1 b3	b7 5 1 b3	1 6 b3 b5

IIm7 and IIIm7 with chromatic °7, string set 5-3-2-1

ascend and descend

parent 6 top IIm7	parent b7 top #II(bIII)m7	parent 7 top IIIm7	parent 1 top IIm7	parent #1 top #II(bIII)m7	parent 2 top IIIm7
1 b7 b3 5	1 b7 b3 5	1 b7 b3 5	b3 1 b3 b7	b3 1 b3 b7	b3 1 b3 b7
parent #2 top IVm7b5	parent 3 top IIm9	parent 4 top IIm7	parent #4 top #IIm7	parent 5 top IIIm7	parent #5 top II°7
b3 1 b5 b7	5 b3 b7 2	b7 5 1 b3	b7 5 1 b3	b7 5 1 b3	1 6 b3 b5

IIm7 and IIIm7 with Chromatic °7 and bII7

[links to pairs of seventh fingerings](#)

IIm7 and IIIm7 optimized for Ima7 with chromatic °7 and bII7, string set 4-3-2-1 descend only

parent 4 top IIm7	parent 4 top bII7	parent 3 top Ima7	parent b3 top bII9	parent 2 top IIIm7	parent b2 top bIII7	parent 1 top IIm7
 1 5 b7 b3	 1 5 b7 3	 1 5 7 3	 b7 3 5 2	 5 1 b3 b7	 5 1 3 b7	 5 1 b3 b7
parent 7 top II°7	parent 7 top IIIm7	parent b7 top bIII7	parent 6 top IIm7	parent b6 top bII9	parent 5 top IIIm7	parent b5 top bIII°7
 b5 1 b3 6	 b3 b7 1 5	 3 b7 1 5	 b3 b7 1 5	 3 b7 2 5	 1 5 b7 b3	 1 b5 6 b3

IIm7 and IIIm7 optimized for Ima7 with chromatic °7 and bII7, string set 5-4-3-2 descend only

parent 4 top IIm7	parent 4 top bII7	parent 3 top Ima7	parent b3 top bII9	parent 2 top IIIm7	parent b2 top bIII7	parent 1 top IIm7
 1 b5 6 b3	 1 5 b7 3	 1 5 7 3	 b7 3 5 2	 5 1 b3 b7	 5 1 3 b7	 5 1 b3 b7
parent 7 top II°7	parent 7 top IIIm7	parent b7 top bIII7	parent 6 top IIm7	parent b6 top bII9	parent 5 top IIIm7	parent b5 top bIII°7
 b5 1 b3 6	 b3 b7 1 5	 3 b7 1 5	 b3 b7 1 5	 3 b7 2 5	 1 5 b7 b3	 1 b5 6 b3

IIm7 and IIIm7 chromatic °7 and bII7 (of target), string set 6-4-3-2

descend only

parent 6 top IIm7	parent b6 top IIIdim7	parent 5 top IIIm7	parent b5 top bIII°7	parent 4 top IIm7	parent 3 top IIIm7
1 b7 b3 5	1 6 b3 b5	b7 5 1 b3	6 b5 1 b3	b7 5 1 b3	5 b3 b7 1
parent b3 top bIII7	parent 2 top IIm7	parent b2 top bIII7	parent 1 top IIm7	parent 7 top <u>IIIm7</u>	parent b7 top bIII7
5 3 b7 1	5 b3 b7 1	3 1 5 b7	b3 1 5 b7	1 b7 b3 5	1 b7 3 5

IIm7 and IIIm7 with chromatic °7 and bII7 (of target), string set 5-3-2-1

descend only

parent 6 top IIm7	parent b6 top IIIdim7	parent 5 top IIIm7	parent b5 top bIII°7	parent 4 top IIm7	parent 3 top IIIm7
1 b7 b3 5	1 6 b3 b5	b7 5 1 b3	1 6 b3 b5	b7 5 1 b3	5 b3 b7 1
parent b3 top bIII7	parent 2 top IIm7	parent b2 top bIII7	parent 1 top IIm7	parent 7 top <u>IIIm7</u>	parent b7 top bIII7
5 3 b7 1	5 b3 b7 1	3 1 5 b7	b3 1 5 b7	1 b7 b3 5	1 5 b7 3 5

V7 and VIm7 Optimized for IVma7

[links to pairs of seventh fingerings](#)

V7 and VIm7 optimized for IVma7, string set 4-3-2-1

top is parent 7	top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6
V7	VIm7	V7	IIIIm7	V7	VIm7	IVma7

V7 and VIm7 optimized for IVma7, string set 5-4-3-2

top is parent 7	top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6
V7	VIm7	V7	VIm7	V7	VIm7	IVma7

V7 and VIm7 optimized for IVma7, string set 6-4-3-2

“V7 and VIm7, string set 6-4-3-2” already uses IVma7 for top voice “1”.

V7 and VIm7 optimized for IVma7, string set 5-3-2-1

“V7 and VIm7, string set 5-3-2-1” already uses IVma7 for top voice “1”.

VIm7 and VIIIm7b5 Optimized for V7

[links to pairs of seventh fingerings](#)

VIm7 and VIIIm7b5 optimized for V7, string set 4-3-2-1

top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7
VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm7	VIIIm7b5	V7

VIm7 and VIIIm7b5 optimized for V7, string set 5-4-3-2

top is parent 1	top is parent 2	top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7
VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm7	VIIIm7b5	V7

VIm7 and VIIIm7b5 optimized for V7, string set 6-4-3-2

top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2
VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm9	IVma7	V7

VIm7 and VIIIm7b5 optimized for V7, string set 5-3-2-1

top is parent 3	top is parent 4	top is parent 5	top is parent 6	top is parent 7	top is parent 1	top is parent 2
VIm7	VIIIm7b5	VIm7	VIIIm7b5	VIm7	IVma7	V9

II-V-I AND II-bII-I TOP VOICE LEADING

major II-V-I and II-bII-I

Common tones: 1, 2, 3, b3 4, 5, 6 or b7. All can be II-bII-I.

Three-tone sequences (include retrograde such as 1-2-3 and 3-2-1): 1-#1-2, 1-2-3, 1-2-b3, 1-b-3-4, 2-#2-3, 2-3-4, 2-3-5, b3-4-5, 3-4-5, 3-5-6, 4-5-b7, 4-5-6, 5-#5-6, 5-6-7, 5-6-b7, 5-6-1, 5-b7-1, b6-b7-1, b6-7-1, 6-#6-7, 6-7-1, 6-b7-1, b7-7-1, 7-1-2 .

minor II-V-I. II bII Im and IIIm bII Im

Common tones 1, 2, b3 4, 5, or b7. All can be II-bII-Im.

Three tone sequences: 1-#1-2 , 1-2-b3, 1-b3-4, 2-b3-4, b3-4-5, b3-4-5, 4-5-b7, 5-b6-b7, 5-b7-1, b6-b7-1, b6-7-1, b7-7-1, b7-1-2.

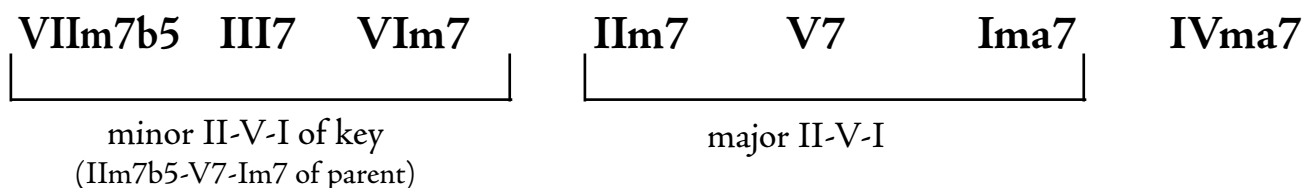
Key Scale

Key scale refers to any permanent or temporary tone center, where the tone center is numbered "I".

Major II-V-I and Minor II-V-I

Major II-V-I cadences are literally drawn from IIIm-V-I major scale-tone chords (Dm7-G7-Cma7). Minor II-V-I cadences are drawn from VIIIm7b6-III7-VIm7 major scale-tone chords (Bm7b5-E7-Am7), where they are renumbered to II-V-I, so the tone center is on VI minor, the relative minor (of "I"). The III chord of the parent major scale is usually changed to major or dominant seventh (E7), making it a stronger "V" chord in leading to the key on parent scale VIm7 (Am7).

bII chords should usually use the chord scale Lydian dominant, which is mode IV of bVI melodic minor. When the top voice leading is conducive, bVIm(ma7) bII7 Im is preferred to IIIm-bII-Im. The bVIm(ma7)-bII7-Im cadence (Abm[ma7]-Db7-Cm) uses melodic minor Im(ma7) to IV13#11 in the key of flat six (Ab melodic minor for the key of C).



Interchangeable Major and Dominant Seventh and Ninth

Major seventh (i.e. Cma7) can usually be replaced by dominant seventh (i.e. C7) by lowering the seventh a half step (one fret toward the head of the guitar).

Dominant seventh (i.e. C7) can usually be replaced by major seventh (i.e. Cma7) by raising the seventh a half step (one fret toward the body of the guitar).

Major ninth (i.e. Cma9) can usually be replaced by dominant ninth (i.e. C9) by lowering the seventh (not the ninth) a half step (one fret toward the head of the guitar).

Dominant ninth (i.e. C9) can usually be replaced by major ninth (i.e. Cma9) by raising the seventh a half step (one fret toward the body of the guitar).

Flat Five Substitute

II7-bII7-I7

Where the second chord is a flat two of the key (Db) in these examples, it is a substitute for the V chord. The root of the flat two chord is a flatted fifth away from the root of the V chord.

Where the first chord is a flat six of the key (Ab) in these examples, it is a substitute for the II chord. The root of the flat six chord is a flatted fifth away from the root of the II chord.

Since melodic minor IV13#11 = melodic minor VIIb5#5b9#9, and their roots are a flatted fifth apart, melodic and harmonic structures of both can be used at the same time. For example, a guitar player may play a G7#5#9 chord (VII#5#9 of Ab melodic minor) while a keyboard player thinks and plays Db13b5 (IV13b5 of Ab melodic minor), since all the notes of G7#5#9 are in Db13b5.

bVI7-V-I7

Where the first chord is a flat six of the key (Ab) in these examples, it is a [flat five substitute](#) for the II chord. The root of the flat six chord is a flatted fifth away from the root of the II chord.

Sharp Two Diminished Seventh Substitute

#II dim7 may be substituted for V7 (or V9, bII7 or bII9) but cannot be played at the same time as any of the chords it substitutes for. Since #II dim7 = I dim7, all of the notes except the root of the I dim7 move up chromatically (up a half step) to the tones of a I7 chord. For that reason, this progression works best ending on I7 (rather than Im7 or Ima7).

Change of Mode

The “I” chord is often changed in jazz (and other styles) between major, minor and dominant types. It is especially effective to end a minor II-V-I with a major type (major 7, major 9 or 6) or a dominant type (7, 9, 13). In major key blues, avoid using a b6, which occurs in IIm7b5 and V7b9 on a major II-V-I.

The Page Layout

Each cadence row features three consecutive top tones of a heptatonic (seven tone) scale, three consecutive tones of a pentatonic scale or a common top tone. The left side of each page is II-V-I. The right side is II-bII-I. A complete major II-V-I is four rows:

row 1: major type I chords

row 2: dominant type I chords

rows 3 and 4 are the same as 1 and 2, but with the top tones in reverse order (retrograde)

Parts of the sequence are missing where the chords don't sound well.

Minor cadences with three consecutive top tones only have one type of “I” chord, so they have two rows: top voice in forward, then reverse order (i.e. 1-2-3 and 3-2-1). Common tone cadences of major II-V-I have two rows: one with a major type I chord and one with a dominant type I chord. Common tone cadences of minor II-V-I have only one row.

How to Learn and Apply II-V-I Cadences

Usually, the best step-by-step plan would be:

- Learn all of the common tone cadences first and apply them to II-V-I cadences as they occur in songs, using long durations of the chords. Substitute II-bII-I as appropriate.
- learn the “best II-V-I” cadences and apply to II-V-I in songs as above.
- apply super-imposed cadences with top voice in low range of pitch in comping without creating a secondary melody to the soloist
- apply super-imposed cadences with top voice in a high range of pitch, creating a secondary melody to the soloist

Common Tone II-V-I and II-bII-I

common tone 1, major II-V-I and II-bII-I

<p>Dm7 V</p>	<p>G7sus4 V</p>	<p>Cadd9 VII</p>	<p>Dm7 V</p>	<p>Dbma7 IV</p>	<p>C6 VIII</p>
<p>Dm7 V</p>	<p>G9sus4 VIII</p>	<p>C9 VII</p>	<p>Dm7 V</p>	<p>Dbma7 IV</p>	<p>C7 VIII</p>
<p>Dm7 X</p>	<p>G7sus4 X</p>	<p>C6/9 VII</p>	<p>Dm7 X</p>	<p>Dbma7 IX</p>	<p>C6/9 VII</p>
<p>Dm7 X</p>	<p>G7sus4 X</p>	<p>C7 XII</p>	<p>Dm7 X</p>	<p>Dbma7 IX</p>	<p>C7 XII</p>

<p>Dm7 X</p> <p>5 1 b3 b7</p>	<p>G7sus4 X</p> <p>1 5 b7 4</p>	<p>Cadd9 XII</p> <p>3 2 5 1</p>	<p>Dm7 XII</p> <p>b3 1 5 b7</p>	<p>Dbma7 XI</p> <p>3 1 5 7</p>	<p>Cadd9 XII</p> <p>3 2 5 1</p>
<p>Dm7 X</p> <p>5 1 b3 b7</p>	<p>G7sus4 X</p> <p>1 5 b7 4</p>	<p>C9 XII</p> <p>b7 2 5 1</p>	<p>Dm7 XII</p> <p>b3 1 5 b7</p>	<p>Dbma7 XI</p> <p>3 1 5 7</p>	<p>C9 XII</p> <p>3 b7 2 5 1</p>
<p>Dm7 XII</p> <p>b3 1 5 b7</p>	<p>G9sus4 XIII</p> <p>1 b7 2 4</p>	<p>C6 XIII</p> <p>1 3 6 1</p>	<p>Dm7 I</p> <p>1 b3 5 b7</p>	<p>Dbma7 I</p> <p>1 3 5 7</p>	<p>C6 I</p> <p>1 3 6 1</p>
<p>Dm7 XII</p> <p>b3 1 5 b7</p>	<p>G9sus4 XIII</p> <p>1 b7 2 4</p>	<p>C7 XII</p> <p>1 3 b7 1</p>	<p>Dm7 I</p> <p>1 b3 5 b7</p>	<p>Dbma7 I</p> <p>1 3 5 7</p>	<p>C7 I</p> <p>1 3 b7 1</p>

common tone 1, minor II-V-I and II-bII-I

<p>Dm7b5 VIII</p> <p>1 b3 b5 b7</p>	<p>G7sus4 VIII</p> <p>1 b7 1 4</p>	<p>Cm VIII</p> <p>1 5 b7 b3 5 1</p>	<p>Dm7b5 VIII</p> <p>1 b3 b5 b7</p>	<p>Dbma7 VIII</p> <p>1 3 5 7</p>	<p>Cm7 VIII</p> <p>1 5 b7 b3 5 1</p>
<p>Dm7b5 X</p> <p>1 b5 b7 b3 b7</p>	<p>G7sus4 X</p> <p>5 1 5 b7 4</p>	<p>Cm7 XIII</p> <p>5 b3 b7 1</p>	<p>Dm7b5 X</p> <p>b3 1 b5 b7</p>	<p>Dbma7 XI</p> <p>3 1 5 7</p>	<p>Cm X</p> <p>b3 1 5 1</p>
<p>Dm7b5 XII</p> <p>b3 1 b5 b7</p>	<p>G7sus4 X</p> <p>1 5 b7 4</p>	<p>Cm7 XIII</p> <p>5 b3 b7 1</p>	<p>Dm7b5 XII</p> <p>b3 1 b5 b7</p>	<p>Dbma7 XI</p> <p>3 1 5 7</p>	<p>Cm XI</p> <p>b3 1 5 1</p>
<p>Dm7b5 III</p> <p>b5 1 b3 b7</p>	<p>G7sus4 III</p> <p>1 5 b7 4</p>	<p>Cm III</p> <p>5 b3 1</p>	<p>Dm7b5 III</p> <p>b5 1 b3 b7</p>	<p>Dbma7 III</p> <p>5 1 3 7</p>	<p>Cm III</p> <p>5 b3 1</p>
<p>Dm7b5 VI</p> <p>b5 1 b3 b7</p>	<p>G7sus4 V</p> <p>1 5 b7 4</p>	<p>Cm V</p> <p>5 b3 5 1</p>	<p>Dm7b5 X</p> <p>1 b5 b7 b3 b7</p>	<p>Dbma7 IX</p> <p>1 5 3 7</p>	<p>Cm7 VIII</p> <p>1 5 b7 b3 5 1</p>

common tone 2, major II-V-I and II-bII-I

<p>Dm7 X</p> <p>b7 b3 5 1</p>	<p>G9 IX</p> <p>3 b7 2 5</p>	<p>Cma9 VIII</p> <p>7 3 5 2</p>	<p>Dm7 X</p> <p>1 b7 b3 5 1</p>	<p>Db7b9 IX</p> <p>1 b7 3 5 b2</p>	<p>Cma9 VIII</p> <p>1 7 3 5 2</p>
<p>Dm7 X</p> <p>b7 b3 5 1</p>	<p>G9 IX</p> <p>3 b7 2 5</p>	<p>C9 IX</p> <p>1 3 b7 2</p>	<p>Dm7 X</p> <p>1 b7 b3 5 1</p>	<p>Db7b9 IX</p> <p>1 b7 3 5 b2</p>	<p>C9 VIII</p> <p>1 b7 3 5 2</p>
<p>Dm7 III</p> <p>1 b3 b7 1</p>	<p>G7 III</p> <p>1 b7 3 5</p>	<p>Cma9 II</p> <p>1 3 7 2</p>	<p>Dm7 III</p> <p>1 b3 b7 1</p>	<p>Db7b9 III</p> <p>1 3 b7 b2</p>	<p>Cma9 II</p> <p>1 3 7 2</p>
<p>Dm7 III</p> <p>1 b3 b7 1</p>	<p>G7 III</p> <p>1 b7 3 5</p>	<p>C9 II</p> <p>1 3 b7 2</p>	<p>Dm7 III</p> <p>1 b3 b7 1</p>	<p>Db7b9 III</p> <p>1 3 b7 b2</p>	<p>C9 II</p> <p>1 3 b7 2</p>

common tone 2, minor II-V-I

<p>Dm7b5 IX</p> <p>b7 b3 b5 1</p>	<p>G7b9 IX</p> <p>3 b7 b2 5</p>	<p>Cm9 VIII</p> <p>b7 b3 5 2</p>	<p>Dm7 X</p> <p>1 b7 b3 5 1</p>	<p>Db7b9 IX</p> <p>1 b7 3 5 b2</p>	<p>Cm9 VIII</p> <p>1 5 b7 b3 5 2</p>
<p>Ab7b5 III</p> <p>1 b7 3 b5</p>	<p>G7 III</p> <p>1 b7 3 5</p>	<p>Cm9 I</p> <p>1 b3 b7 2</p>			

common tone b3, E form major II-V-I and II-bII-I

<p>D7b9 X</p> <p>1 b7 3 5 b2</p>	<p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p>C7#9 VIII</p> <p>1 5 3 b7 #2</p>	<p>D7b9 X</p> <p>1 b7 3 5 b2</p>	<p>Db13 IX</p> <p>1 b7 3 6 2</p>	<p>C7#9 VIII</p> <p>1 5 3 b7 #2</p>
<p>Ab9 VIII</p> <p>1 3 b7 2 5</p>	<p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p>C7#9 VIII</p> <p>1 5 3 b7 #2</p>	<p>Ab9 VIII</p> <p>1 3 b7 2 5</p>	<p>Db13 IX</p> <p>1 b7 3 6 2</p>	<p>C7#9 VIII</p> <p>1 5 3 b7 #2</p>
<p>D7b9 IV</p> <p>1 3 b7 b2</p>	<p>G7#5 III</p> <p>1 b7 3 #5</p>	<p>C7#9 II</p> <p>1 3 b7 #9</p>	<p>D7b9 IV</p> <p>1 3 b7 b2</p>	<p>Db9 III</p> <p>1 3 b7 2</p>	<p>C7#9 II</p> <p>1 3 b7 #9</p>
			<p>Ab7 IV</p> <p>1 b7 3 5</p>	<p>Db9 III</p> <p>1 3 b7 2</p>	<p>C7#9 II</p> <p>1 3 b7 #9</p>

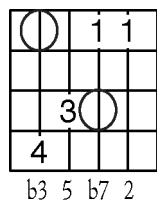
common tone b3, minor II-V-I and II-bII-I

<p>D7b9 X</p> <p>1 b7 3 5 b2</p>	<p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p>Cm7 VIII</p> <p>1 5 b7 b3 5 b3</p>	<p>D7b9 X</p> <p>1 b7 3 5 b2</p>	<p>Db13 IX</p> <p>1 b7 3 6 2</p>	<p>Cm7 VIII</p> <p>1 5 b7 b3 5 b3</p>
<p>Ab9 VIII</p> <p>1 3 b7 2 5</p>	<p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p>Cm7 VIII</p> <p>1 5 b7 b3 5 b3</p>	<p>Ab9 VIII</p> <p>1 3 b7 2 5</p>	<p>Db13 IX</p> <p>1 b7 3 6 2</p>	<p>Cm7 VIII</p> <p>1 5 b7 b3 5 b3</p>
<p>D7b9 IV</p> <p>1 3 b7 b2</p>	<p>G7#5 III</p> <p>1 b7 3 #5</p>	<p>Cm7 III</p> <p>1 5 b7 b3</p>	<p>D7b9 IV</p> <p>1 3 b7 b2</p>	<p>Db9 III</p> <p>1 3 b7 2</p>	<p>Cm7 III</p> <p>1 5 b7 b3</p>

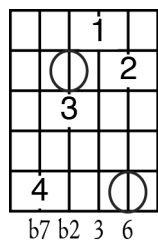
common tone 3, major II-V-I and II-bII-I

<p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p>G13 IX</p> <p>1 3 b7 2 6</p>	<p>Cma7 XII</p> <p>1 5 3 7 3</p>	<p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p>Db7#9 IX</p> <p>1 5 3 b7 #2</p>	<p>Cma7 XII</p> <p>1 5 3 7 3</p>
<p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p>G13 IX</p> <p>1 3 b7 2 6</p>	<p>C7 X</p> <p>5 1 5 b7 3</p>	<p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p>Db7#9 IX</p> <p>1 5 3 b7 #2</p>	<p>C7 X</p> <p>5 1 5 b7 3</p>
<p>Dm9 XII</p> <p>b3 5 b7 2</p>	<p>G13 XII</p> <p>b7 2 3 6</p>	<p>Cma7 XII</p> <p>1 3 5 7 3</p>	<p>Dm9 XII</p> <p>b3 5 b7 2</p>	<p>Db7#9 XII</p> <p>3 5 b7 #2</p>	<p>Cma7 XII</p> <p>1 3 5 7 3</p>
<p>Dm9 XII</p> <p>b3 5 b7 2</p>	<p>G13 XII</p> <p>b7 2 3 6</p>	<p>C7 XII</p> <p>1 b7 1 3</p>	<p>Dm9 XII</p> <p>b3 5 b7 2</p>	<p>Db7#9 XII</p> <p>3 5 b7 #2</p>	<p>C7 X</p> <p>1 5 b7 3</p>
<p>Dm9 III</p> <p>1 b3 b7 2</p>	<p>G13 III</p> <p>1 b7 3 6</p>	<p>Cma7 III</p> <p>1 5 7 3</p>	<p>Dm9 III</p> <p>1 b3 b7 2</p>	<p>Db7#9 III</p> <p>1 3 b7 #9</p>	<p>Cma7 III</p> <p>1 5 7 3</p>
<p>Dm9 III</p> <p>1 b3 b7 2</p>	<p>G13 III</p> <p>1 b7 3 6</p>	<p>C7 III</p> <p>1 5 b7 3</p>	<p>Dm9 III</p> <p>1 b3 b7 2</p>	<p>Db7#9 III</p> <p>1 3 b7 #9</p>	<p>C7 III</p> <p>1 5 b7 3</p>

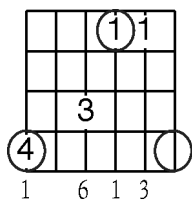
Dm9 V



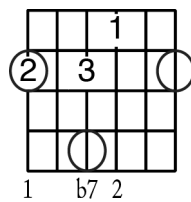
G7b9 IV



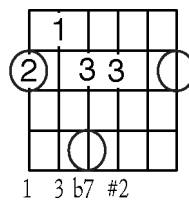
C6 V



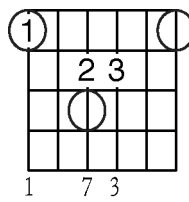
Dm9 IX



Db7#9 VIII



Cma7 VII

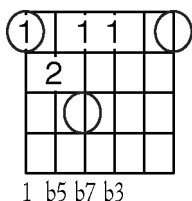


common tone 4, major II-V-I and II-bII-I

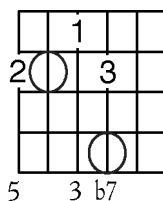
<p>Dm7 X</p> <p>1 b7 b3</p>	<p>G7 IX</p> <p>1 3 b7</p>	<p>C7sus4 VIII</p> <p>1 b7 4</p>	<p>D7b9 X</p> <p>1 b7 b3</p>	<p>Db7 IX</p> <p>1 b7 3</p>	<p>C7sus4 VIII</p> <p>1 b7 4</p>
<p>Dm7 XII</p> <p>1 5 b7 b3</p>	<p>G7 XII</p> <p>5 1 3 b7</p>	<p>C7sus4 X</p> <p>1 5 b7 4</p>	<p>Dm7 XII</p> <p>1 5 b7 b3</p>	<p>Db7 IX</p> <p>1 5 b7 3</p>	<p>C7sus4 X</p> <p>1 5 b7 4</p>
<p>Dm7 III</p> <p>1 b3 b7 b3</p>	<p>G7 IV</p> <p>5 1 3 b7</p>	<p>C7sus4 III</p> <p>1 5 b7 4</p>	<p>Dm7 III</p> <p>1 b3 b7 b3</p>	<p>Db7 IV</p> <p>1 5 b7 3</p>	<p>C7sus4 III</p> <p>1 b3 b7 b3</p>
<p>Dm7 V</p> <p>1 5 b7 b3</p>	<p>G7 V</p> <p>3 1 5 b7</p>	<p>C9sus4 VI</p> <p>1 b7 2 4</p>	<p>v</p> <p>1 5 b7 b3</p>	<p>Db7 VI</p> <p>1 b7 1 3</p>	<p>C9sus4 VI</p> <p>1 b7 2 4</p>

common tone 4, minor II-V-I and II-bII-I

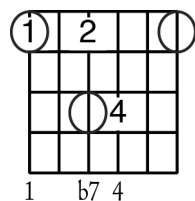
Dm7b5 X



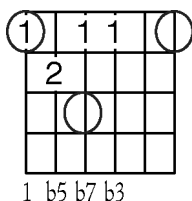
G7 IX



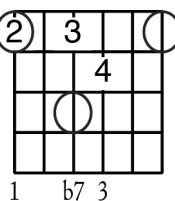
Cm7sus4 VIII



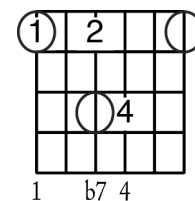
Dm7b5 X



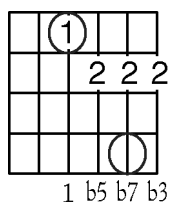
Db7 IX



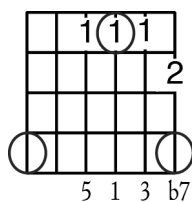
Cm7sus4 VIII



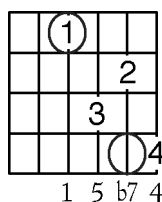
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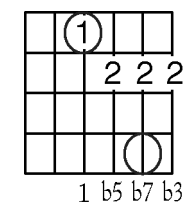
G7 XII



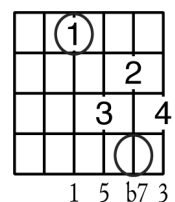
Cm7sus4 X



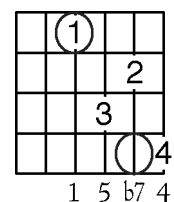
Dm7b5 XII



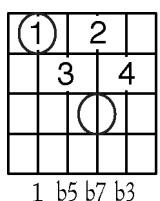
Db7 IX



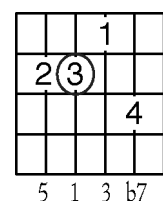
Cm7sus4 X



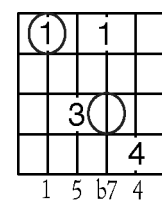
Dm7b5 V



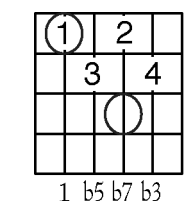
G7 IV



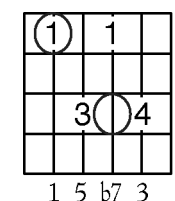
Cm7sus4 III



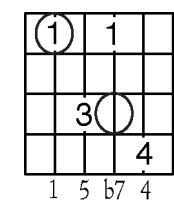
Dm7b5 V



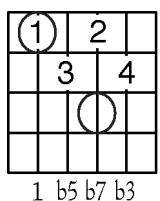
Db7 IV



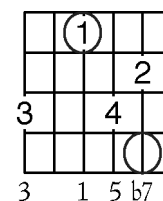
Cm7sus4 III



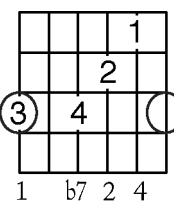
Dm7b5 V



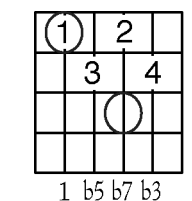
G7 V



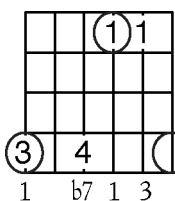
C9sus4 VI



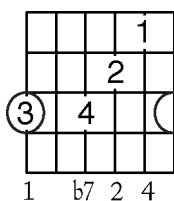
Dm7b5 V



Db7 VI



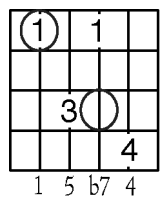
C9sus4 VI



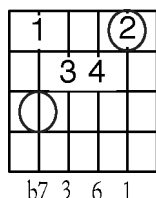
common tone 5, major II-V-I and II-bII-I

<p>Dm11 X</p> <p>1 b7 b3 4</p>	<p>G7 IX</p> <p>1 3 b7 1</p>	<p>Cma7 VIII</p> <p>1 7 3 5</p>	<p>Dm11 VIII</p> <p>1 b7 b3 4</p>	<p>Db7b5 VIII</p> <p>1 b7 3 b5</p>	<p>Cma7 VIII</p> <p>1 7 3 5</p>
<p>Dm11 X</p> <p>1 b7 b3 4</p>	<p>G7 IX</p> <p>1 3 b7 1</p>	<p>C7 VIII</p> <p>1 b7 3 5</p>	<p>Dm11 VIII</p> <p>1 b7 b3 4</p>	<p>Db7b5 VIII</p> <p>1 b7 3 b5</p>	<p>C7 VIII</p> <p>1 b7 3 5</p>
<p>Dm11 XIII</p> <p>b3 5 b7 4</p>	<p>G7 XII</p> <p>b7 2 3 1</p>	<p>Cma7 XII</p> <p>1 3 5 7 5</p>	<p>Dm11 XIII</p> <p>b3 5 b7 4</p>	<p>Db7#11 XII</p> <p>3 5 b7 #4</p>	<p>Cma7 XII</p> <p>1 3 5 7 5</p>
<p>Dm11 XIII</p> <p>b3 5 b7 4</p>	<p>G7 XII</p> <p>b7 2 3 1</p>	<p>C7 XIII</p> <p>3 b7 1 5</p>	<p>Dm11 XIII</p> <p>b3 5 b7 4</p>	<p>Db7#11 XII</p> <p>3 5 b7 #4</p>	<p>C7 XIII</p> <p>3 b7 1 5</p>
<p>Dm11 III</p> <p>1 b3 b7 1 4</p>	<p>G7 IV</p> <p>5 b7 3 5 1</p>	<p>C6/9 II</p> <p>1 3 6 2 5</p>	<p>Dm11 III</p> <p>1 b3 b7 1 4</p>	<p>Db9#11 III</p> <p>1 3 b7 2 b5</p>	<p>C6/9 II</p> <p>1 3 6 2 5</p>
<p>Dm11 III</p> <p>1 b3 b7 1 4</p>	<p>G7 IV</p> <p>5 b7 3 5 1</p>	<p>C9 IV</p> <p>1 3 b7 2 5</p>	<p>Dm11 III</p> <p>1 b3 b7 1 4</p>	<p>Db9#11 III</p> <p>1 3 b7 2 b5</p>	<p>C9 IV</p> <p>1 3 b7 2 5</p>

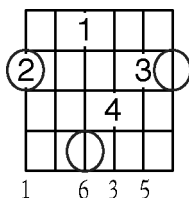
Dm7sus4 V



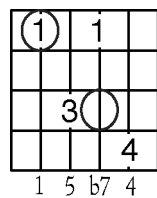
G13 VIII



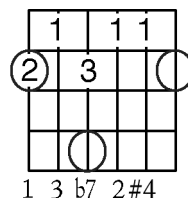
C6 VII



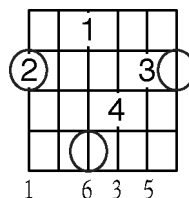
Dm7sus4 V



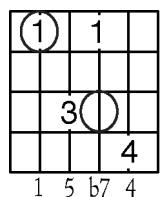
Db9b5 VIII



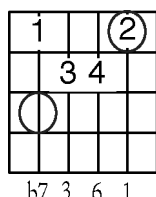
C6 VII



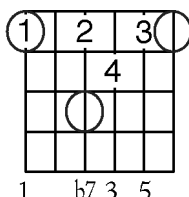
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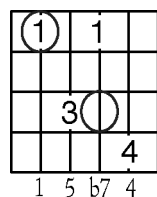
G13 VIII



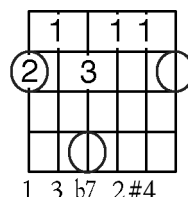
C7 VIII



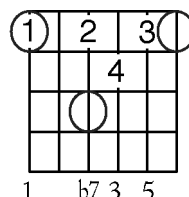
Dm7sus4 V



Db9b5 VIII

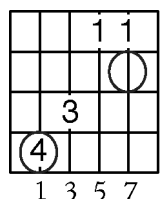


C7 VIII

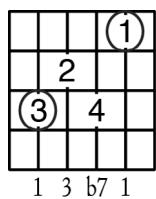


common tone 5, minor II-V-I

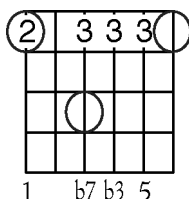
Abma7 VIII



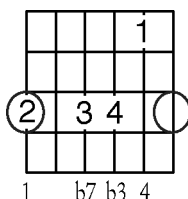
G7 IX



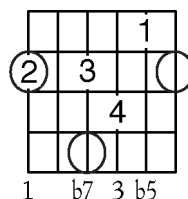
Cm7 VIII



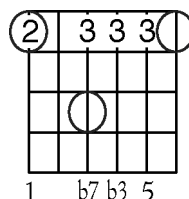
Dm11 X



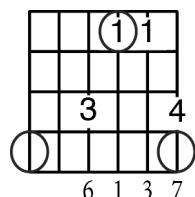
Db7b5 VIII



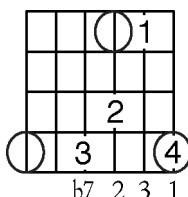
Cm7 VIII



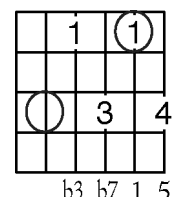
Abma7/6 XIII



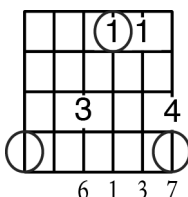
G7 XII



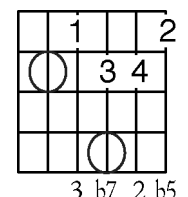
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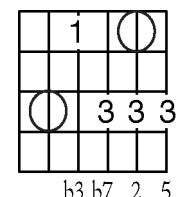
Abma7/6 XIII



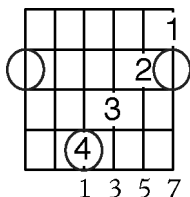
Db795 XV



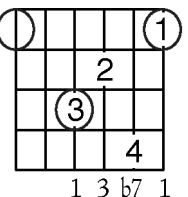
Cm9 XIII



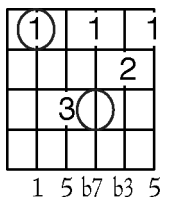
Abma7 III



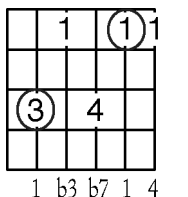
G7 IV



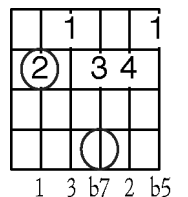
Cm7 III



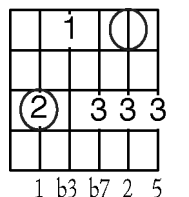
Dm11 III



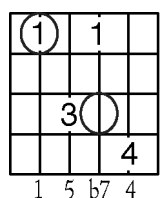
Db9#11 III



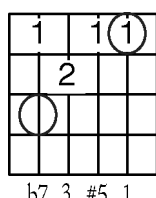
Cm9 I



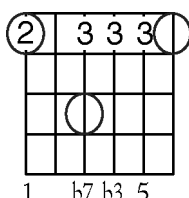
Dm7sus4 V



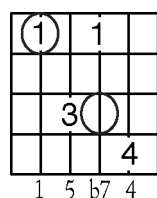
G7#5 VIII



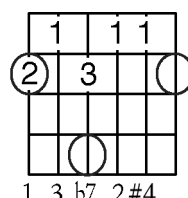
Cm7 VIII



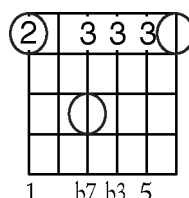
Dm7sus4 V



Db9b5 VIII



Cm7 VIII



common tone 6, major II-V-I

<p>Dm7 X</p> <p>1 b7 b3 5</p>	<p>G9 IX</p> <p>1 3 b7 2</p>	<p>C6 VIII</p> <p>1 5 3 6</p>	<p>Dm7 X</p> <p>1 b7 b3 5</p>	<p>Db7#5 IX</p> <p>1 b7 3 #5</p>	<p>C6 VIII</p> <p>1 5 3 6</p>
<p>Dm7 X</p> <p>1 b7 b3 5</p>	<p>G9 IX</p> <p>1 3 b7 2</p>	<p>C13 VIII</p> <p>1 b7 3 6</p>	<p>Dm7 X</p> <p>1 b7 b3 5</p>	<p>Db7#5 IX</p> <p>1 b7 3 #5</p>	<p>C13 VIII</p> <p>1 b7 3 6</p>
<p>Dm7 III</p> <p>b3 b7 1 5</p>	<p>G9 III</p> <p>b7 3 5 2</p>	<p>C6 III</p> <p>5 1 3 6</p>	<p>Dm7 III</p> <p>b3 b7 1 5</p>	<p>Db7#5 III</p> <p>3 b7 2 #5</p>	<p>C6 III</p> <p>5 1 3 6</p>
<p>Dm7 III</p> <p>b3 b7 1 5</p>	<p>G9 III</p> <p>b7 3 5 2</p>	<p>C13 II</p> <p>3 b7 2 6</p>	<p>Dm7 III</p> <p>b3 b7 1 5</p>	<p>Db9#5 III</p> <p>3 b7 2 #5</p>	<p>C13 II</p> <p>3 b7 2 6</p>
<p>Dm7 V</p> <p>1 5 b7 b3 5</p>	<p>G9 IV</p> <p>1 3 b7 2</p>	<p>C6 V</p> <p>5 1 3 6</p>	<p>Dm7 V</p> <p>1 5 b7 b3 5</p>	<p>Db9b5 III</p> <p>1 3 b7 2 #5</p>	<p>C6 III</p> <p>1 5 1 3 6</p>
<p>Dm7 V</p> <p>1 5 b7 b3 5</p>	<p>G9 IV</p> <p>1 3 b7 2</p>	<p>C13 III</p> <p>1 5 1 3 6</p>	<p>Dm7 V</p> <p>1 5 b7 b3 5</p>	<p>Db9#5 III</p> <p>3 b7 2 #5</p>	<p>C13 III</p> <p>1 5 1 3 6</p>

common tone b7, major II-V-I and II-bII-I

<p>D7#5 X</p> <p>1 b7 3 #5</p>	<p>G7#9 IX</p> <p>1 3 b7 #9</p>	<p>C7 VIII</p> <p>1 5 3 b7</p>	<p>D7#5 X</p> <p>1 b7 3 #5</p>	<p>Db13 IX</p> <p>1 b7 3 6</p>	<p>C7 VIII</p> <p>1 5 3 b7</p>
<p>Ab9 IV</p> <p>1 5 b7 3 5 2</p>	<p>G7#9 III</p> <p>1 5 3 b7 #2</p>	<p>C7 III</p> <p>1 5 1 3 b7</p>			
<p>Ab9 V</p> <p>1 3 b7 2</p>	<p>G7#9 IV</p> <p>1 3 b7 #2</p>	<p>C7 III</p> <p>5 1 3 b7</p>			

common tone b7, minor II-V-I

<p>D7#5 X</p> <p>1 b7 3 #5</p>	<p>G7#9 IX</p> <p>1 3 b7 #9</p>	<p>Cm7 VIII</p> <p>1 5 b7 b3 b7</p>	<p>D7#5 X</p> <p>1 b7 3 #5</p>	<p>Db13 IX</p> <p>1 b7 3 6</p>	<p>Cm7 VIII</p> <p>1 5 b7 b3 b7</p>
<p>Ab9 IV</p> <p>1 5 b7 3 5 2</p>	<p>G7#9 III</p> <p>1 5 3 b7 #2</p>	<p>Cm7 III</p> <p>1 5 b7 b3 b7</p>			
<p>Ab9 V</p> <p>1 3 b7 2</p>	<p>G7#9 IV</p> <p>1 3 b7 #2</p>	<p>Cm7 IV</p> <p>5 1 b3 b7</p>			

II-V-I and II-bII-I, Best Three Note (3 top notes voice-lead)

1-#1-2, E form major II-bII-I (best)

<u>1</u>	<u>#1</u>	<u>2</u>
Dm7 X	Db7 IX	Cma9 VIII
1 5 b7 b3 b7	1 5 b7 3 5 1	1 7 3 5 2

<u>1</u>	<u>#1</u>	<u>2</u>
Dm7 X	Db7 IX	C9 VIII
1 5 b7 b3 b7	1 5 b7 3 5 1	1 5 b7 3 5 2

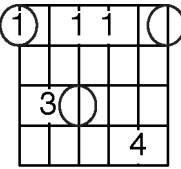
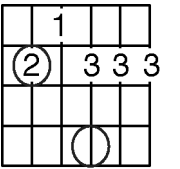
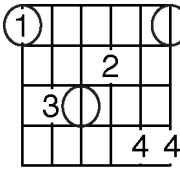
<u>2</u>	<u>b2</u>	<u>1</u>
Dm7 X	Db7 IX	C6/9 VIII
1 5 b7 b3 5 1	1 5 b7 3 5 1	1 6 2 5 1

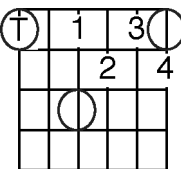
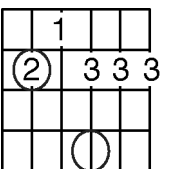
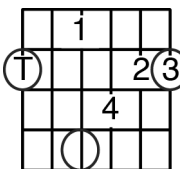
<u>2</u>	<u>b2</u>	<u>1</u>
Dm7 X	Db7 IX	C7 VIII
1 5 b7 b3 5 1	1 5 b7 3 5 1	1 5 b7 3 5 1

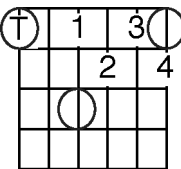
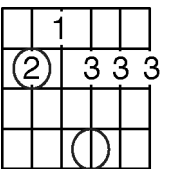
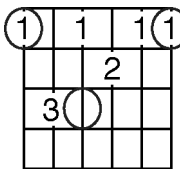
1#12, E form minor II-bII-I (best)

<u>1</u>	<u>#1</u>	<u>2</u>
Dm7b5 X	Db7 IX	Cm9 VIII
1 b5 b7 b3 b7	1 5 b7 3 5 1	1 5 b7 b3 5 2

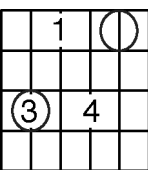
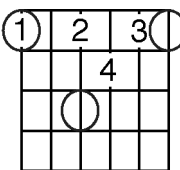
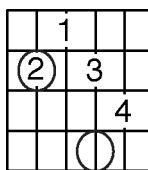
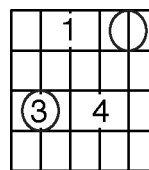
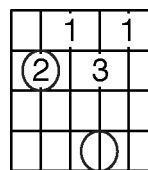
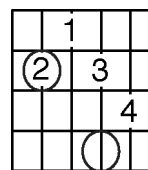
1-2-b3, E form major II-V-I (best)

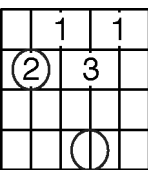
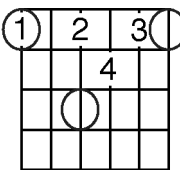
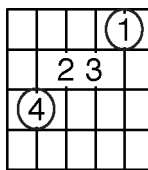
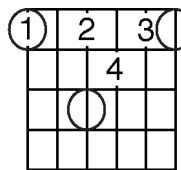
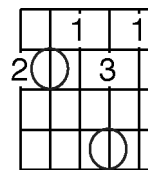
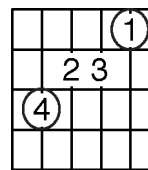
1 Dm7 X	2 G9 IX	b3 C7#9 VIII
		
1 5 b7 b3 b7	1 3 b7 2 5	1 5 3 b7 #2

b3 D7b9 X	2 G9 IX	1 C6 VII
		
1 b7 3 5 b2	1 3 b7 2 5	1 6 3 5 1

b3 D7b9 X	2 G9 IX	1 C7 VIII
		
1 b7 3 5 b2	1 3 b7 2 5	1 5 b7 3 5 1

12b3, A form major II-V-I and II-bII-I (best)

1 Dm7 III	2 G7 III	b3 C7#9 II	1 Dm7 III	2 Db7b9 II	b3 C7#9 II
					
1 b3 b7	1 b7 3 5	1 3 b7 #9	1 b3 b7	1 3 b7 b2	1 3 b7 #9

b3 D7b9 III	2 G7 III	1 C6 I	b3 Ab7 IV	2 Db7b9 III	1 C6 I
					
1 3 b7 b2	1 b7 3 5	1 3 6 1	1 b7 3 5	5 3 b7 b2	1 3 6 1

<u>b3</u> D7b9 IV	<u>2</u> G7 III	<u>1</u> C7 I	<u>b3</u> Ab7 IV	<u>2</u> Db7b9 III	<u>1</u> C7 I
1 3 b7 b2	1 b7 3 5	1 3 b7 1	1 b7 3 5	5 3 b7 b2	5 3 b7 1

1-2-b3, E form minor II-V-I (best)

<u>1</u> Dm7b5 X	<u>2</u> G7b9 IX	<u>b3</u> Cm VIII
b5 1 b3 b7	3 b7 b2 5	1 b3 5 b3

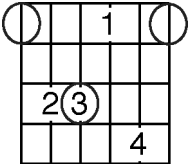
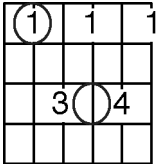
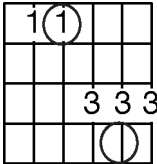
<u>b3</u> D7b9 X	<u>2</u> G7b9 IX	<u>1</u> Cm7 VIII
1 b7 3 5 b2	1 3 b7 b2 5	1 5 b7 b3 5 1

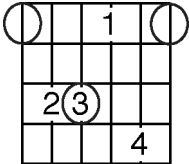
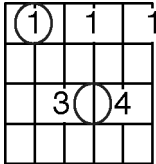
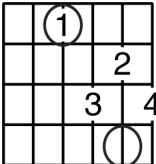
12b3, C/A form minor II-V-I and II-bII-I (best)

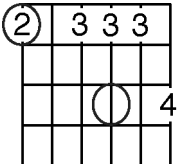
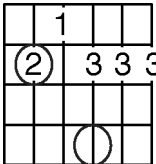
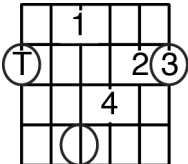
<u>1</u> Dm7b5 III	<u>2</u> G7 III	<u>b3</u> Cm7 III	<u>1</u> Ab7 III	<u>2</u> Db7b9 III	<u>b3</u> Cm7 III
b5 b3 b7	1 b7 3 5	1 5 b7 b3	1 b7 3	5 3 b7 b2	1 5 b7 b3

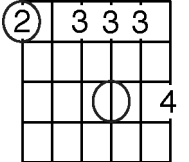
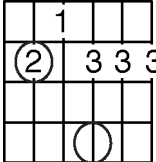
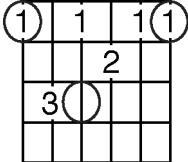
<u>b3</u> D7b9 III	<u>2</u> G7 III	<u>1</u> Cm7 I	<u>b3</u> Ab7 IV	<u>2</u> Db7b9 III	<u>1</u> Cm7 I
1 3 b7 b2	1 b7 3 5	1 b3 b7 1	1 b7 3 5	5 3 b7 b2	5 b3 b7 1

1-2-3, E form major II-V-I (best)

<u>1</u>	<u>2</u>	<u>3</u>
Dm7 X	G7 X	Cma7 X
		
5 1 b3 b7	1 5 b7 3 5	5 1 5 7 3

<u>1</u>	<u>2</u>	<u>3</u>
Dm7 X	G7 X	C7 X
		
5 1 b3 b7	1 5 b7 3 5	1 5 b7 3

<u>3</u>	<u>2</u>	<u>1</u>
Dm9 X	G9 IX	C6 VII
		
1 b7 b3 5 2	1 3 b7 2 5	1 6 3 5 1

<u>3</u>	<u>2</u>	<u>1</u>
Dm9 X	G9 IX	C7 VIII
		
1 b7 b3 5 2	1 3 b7 2 5	1 5 b7 3 5 1

1-2-3, C/A form major II-V-I and II-bII-I (best)

<p><u>1</u></p> <p>Dm7 III</p> <p>1 b3 b7</p>	<p><u>2</u></p> <p>G7 III</p> <p>1 b7 3 5</p>	<p><u>3</u></p> <p>Cma7 III</p> <p>1 5 7 3</p>	<p><u>1</u></p> <p>Dm7 III</p> <p>1 b3 b7</p>	<p><u>2</u></p> <p>Db7b9 III</p> <p>1 3 b7 b2</p>	<p><u>3</u></p> <p>Cma7 III</p> <p>1 5 7 3</p>
<p><u>1</u></p> <p>Dm7 III</p> <p>1 b3 b7</p>	<p><u>2</u></p> <p>G7 III</p> <p>1 b7 3 5</p>	<p><u>3</u></p> <p>C7 III</p> <p>1 5 b7 3</p>			
<p><u>3</u></p> <p>Dm9 III</p> <p>1 b3 b7 2</p>	<p><u>2</u></p> <p>G7 III</p> <p>1 b7 3 5</p>	<p><u>1</u></p> <p>C6 I</p> <p>1 3 6 1</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b3 b7 2</p>	<p><u>2</u></p> <p>Db7b9 III</p> <p>1 3 b7 b2</p>	<p><u>1</u></p> <p>C6 I</p> <p>1 3 6 1</p>
<p><u>3</u></p> <p>Dm9 III</p> <p>1 b3 b7 2</p>	<p><u>2</u></p> <p>G7 III</p> <p>1 b7 3 5</p>	<p><u>1</u></p> <p>C7 I</p> <p>1 3 b7 1</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b3 b7 2</p>	<p><u>2</u></p> <p>Db7b9 III</p> <p>1 3 b7 b2</p>	<p><u>1</u></p> <p>C7 I</p> <p>1 3 b7 1</p>

1-b3-4, A form major II-V-I and II-bII-I (best)

1
Dm7 III

1 b3 b7

b3
G7#5 III

1 b7 3 #5

4
C7sus4 III

1 5 b7 4

1
Dm7 III

1 b3 b7

b3
Db9 III

1 3 b7 2

4
C7sus4 III

1 5 b7 4

4
Dm7 III

1 b3 b7 b3

b3
G7#5 III

1 b7 3 #5

1
C6 I

1 3 6 1

4
Dm7 III

1 b3 b7 b3

b3
Db9 III

1 3 b7 2

1
C6 I

1 3 6 1

4
Dm7 III

1 b3 b7 b3

b3
G7#5 III

1 b7 3 #5

1
C7 I

1 3 b7 1

4
Dm7 III

1 b3 b7 b3

b3
Db9 III

1 3 b7 2

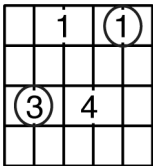
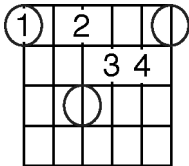
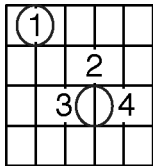
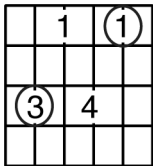
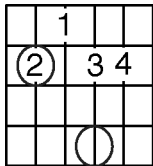
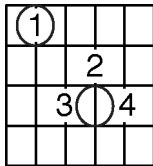
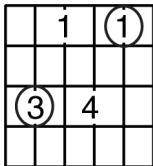
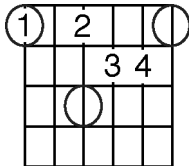
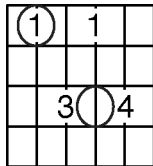
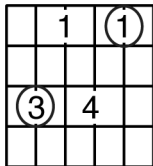
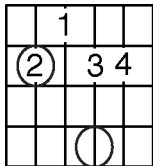
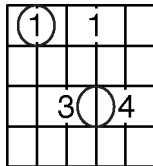
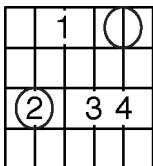
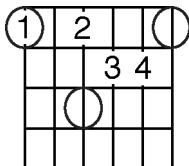
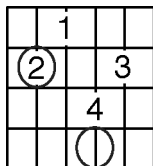
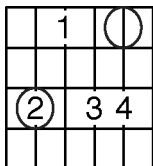
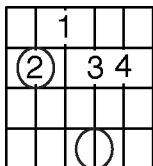
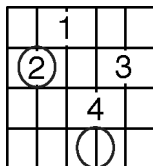
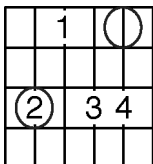
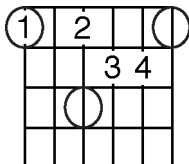
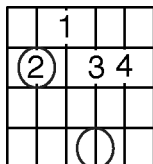
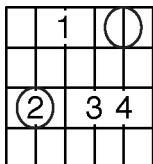
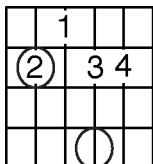
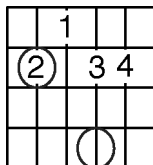
1
C7 I

1 3 b7 1

2-#2-3, E form major II-V-I and II-bII-I (best)

<p><u>2</u></p> <p>Dm7 X</p> <p>1 5 b7 b3 5 1</p>	<p><u>#2</u></p> <p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p><u>3</u></p> <p>Cma7 VIII</p> <p>1 5 3 7 3</p>	<p><u>2</u></p> <p>Dm7 X</p> <p>1 5 b7 b3 5 1</p>	<p><u>#2</u></p> <p>Db9 IX</p> <p>1 5 b7 3 5 2</p>	<p><u>3</u></p> <p>Cma7 VIII</p> <p>1 5 3 7 3</p>
<p><u>2</u></p> <p>Dm7 X</p> <p>b7 b3 5 1</p>	<p><u>#2</u></p> <p>G7#5#9 IX</p> <p>3 b7 #2 #5</p>	<p><u>3</u></p> <p>C7 X</p> <p>1 5 b7 3</p>	<p><u>2</u></p> <p>Dm7 X</p> <p>b7 b3 5 1</p>	<p><u>#2</u></p> <p>Db9 IX</p> <p>1 3 b7 2</p>	<p><u>3</u></p> <p>C7 X</p> <p>1 5 b7 3</p>
<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>b3</u></p> <p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p><u>2</u></p> <p>Cma9 VIII</p> <p>1 7 3 5 2</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>b3</u></p> <p>Db9 IX</p> <p>1 5 b7 3 5 2</p>	<p><u>2</u></p> <p>Cma9 VIII</p> <p>1 7 3 5 2</p>
<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>b3</u></p> <p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p><u>2</u></p> <p>C9 VIII</p> <p>1 5 b7 3 5 2</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>b3</u></p> <p>Db9 IX</p> <p>1 5 b7 3 5 2</p>	<p><u>2</u></p> <p>C9 VIII</p> <p>1 5 b7 3 5 2</p>

2-#2-3, A form major II-V-I and II-bII-I (best)

<u>2</u> Dm7 III  1 b3 b7 1	<u>#2</u> G7#5 III  1 b7 3 #5	<u>3</u> Cma7 III  1 5 7 3	<u>2</u> Dm7 III  1 b3 b7 1	<u>#2</u> Db9 III  1 3 b7 2	<u>3</u> Cma7 III  1 5 7 3
<u>2</u> Dm7 III  1 b3 b7 1	<u>#2</u> G7#5 III  1 b7 3 #5	<u>3</u> C7 III  1 5 b7 3	<u>2</u> Dm7 III  1 b3 b7 1	<u>#2</u> Db9 III  1 3 b7 2	<u>3</u> C7 III  1 5 b7 3
<u>3</u> Dm9 III  1 b3 b7 2	<u>b3</u> G7#5 III  1 b7 3 #5	<u>2</u> Cma9 II  1 3 7 2	<u>3</u> Dm9 III  1 b3 b7 2	<u>b3</u> Db9 III  1 3 b7 2	<u>2</u> Cma9 II  1 3 7 2
<u>3</u> Dm9 III  1 b3 b7 2	<u>b3</u> G7#5 III  1 b7 3 #5	<u>2</u> C9 II  1 3 b7 2	<u>3</u> Dm9 III  1 b3 b7 2	<u>b3</u> Db9 III  1 3 b7 2	<u>2</u> C9 II  1 3 b7 2

2-3-4, A form major II-V-I and II-bII-I (best)

$\underline{2}$ Dm7 III 1 b3 b7 1	$\underline{3}$ G13 III 1 b7 3 6	$\underline{4}$ C7sus4 III 1 5 b7 4	$\underline{2}$ Dm7 III 1 b3 b7 1	$\underline{3}$ Db7#9 III 1 3 b7 #9	$\underline{4}$ C7sus4 III 1 5 b7 4
$\underline{4}$ Dm7 III 1 b3 b7 b3	$\underline{3}$ G13 III 1 b7 3 6	$\underline{2}$ Cma9 II 1 3 7 2	$\underline{4}$ Dm7 III 1 b3 b7 b3	$\underline{3}$ Db7#9 III 1 3 b7 #9	$\underline{2}$ Cma9 II 1 3 7 2
$\underline{4}$ Dm7 III 1 b3 b7 b3	$\underline{3}$ G13 III 1 b7 3 6	$\underline{2}$ C9 II 1 3 b7 2	$\underline{4}$ Dm7 III 1 b3 b7 b3	$\underline{3}$ Db7#9 III 1 3 b7 #9	$\underline{2}$ C9 II 1 3 b7 2

2-3-5, A form major II-V-I and II-bII-I (best)

$\underline{2}$ Dm7 III 1 b3 b7 1	$\underline{3}$ G13 III 1 b7 3 6	$\underline{5}$ Cma7 III 1 5 7 3 5	$\underline{2}$ Dm7 III 1 b3 b7 1	$\underline{3}$ Db7#9 III 1 3 b7 #9	$\underline{5}$ Cma7 III 1 5 7 3 5
$\underline{2}$ Dm7 III 1 b3 b7 1	$\underline{3}$ G13 III 1 b7 3 6	$\underline{5}$ C7 III 1 5 b7 3 5	$\underline{2}$ Dm7 III 1 b3 b7 1	$\underline{3}$ Db7#9 III 1 3 b7 #9	$\underline{5}$ C7 III 1 5 b7 3 5

5 Dm11 III	3 G13 III	2 Cma9 II	5 Dm11 III	3 Db7#9 III	2 Cma9 II
1 b3 b7 1 4	1 b7 3 6	1 3 7 2	1 b3 b7 1 4	1 3 b7 #9	1 3 7 2

5 Dm11 III	3 G13 III	2 C9 II	5 Dm11 III	3 Db7#9 III	2 C9 II
1 b3 b7 1 4	1 b7 3 6	1 3 b7 2	1 b3 b7 1 4	1 3 b7 #9	1 3 b7 2

b3-4-5, A form major II-V-I and II-bII-I (best)

b3 D7b9 IV	4 G7 IV	5 Cma7 III	b3 D7b9 IV	4 Db7 IV	5 Cma7 III
1 3 b7 b2	5 1 3 b7	1 5 7 3 5	1 3 b7 b2	1 5 b7 3	1 5 7 3 5

b3 D7b9 IV	4 G7 IV	5 C7 III	b3 D7b9 IV	4 Db7 IV	5 C7 III
1 3 b7 b2	5 1 3 b7	1 5 b7 3 5	1 3 b7 b2	1 5 b7 3	1 5 b7 3 5

5 Dm11 III	4 G7 IV	b3 C7#9 II	5 Dm11 III	4 Db7 IV	b3 C7#9 II
1 b3 b7 1 4	5 1 3 b7	1 3 b7 #9	1 b3 b7 1 4	1 5 b7 3	1 3 b7 #9

b3-4-5, A form minor II-V-I and II-bII-I (best)

$\underline{b3}$ Ab7 IV 1 $b7$ 3 5	$\underline{4}$ G7 III 1 5 3 $b7$	$\underline{5}$ Cm7 III 1 5 $b7$ $b3$ 5	$\underline{b3}$ Ab7 IV 1 $b7$ 3 5	$\underline{4}$ Db7 IV 1 5 $b7$ 3	$\underline{5}$ Cm7 III 1 5 $b7$ $b3$ 5
$\underline{5}$ Dm11 III 1 $b3$ $b7$ 1 4	$\underline{4}$ G7 III 1 5 3 $b7$	$\underline{b3}$ Cm7 III 1 5 $b7$ $b3$	$\underline{5}$ Dm11 III 1 $b3$ $b7$ 1 4	$\underline{4}$ Db7 IV 1 5 $b7$ 3	$\underline{b3}$ Cm7 III 1 5 $b7$ $b3$

3-4-5, C form major II-V-I and II-bII-I (best)

$\underline{3}$ Dm9 XII 1 5 $b7$ 2	$\underline{4}$ G7 XII 5 1 3 $b7$	$\underline{5}$ C6/9 XIV 1 3 6 2 5	$\underline{3}$ Dm9 XII 1 5 $b7$ 2	$\underline{4}$ Db7 XII 1 5 $b7$ 3	$\underline{5}$ C6 XII 3 6 1 5
$\underline{3}$ Dm9 XII 1 5 $b7$ 2	$\underline{4}$ G7 XII 5 1 3 $b7$	$\underline{5}$ C9 II 1 3 $b7$ 2 5	$\underline{3}$ Dm9 XII 1 5 $b7$ 2	$\underline{4}$ Db7 XI 1 5 $b7$ 3	$\underline{5}$ C9 XIV 1 3 $b7$ 2 5

5 Dm11 XII	4 G7 XII	3 Cma7 XII	5 Dm11 XII	4 Db7 XI	3 Cma7 XII
5 Dm11 XII	4 G7 XII	3 C7 X	5 Dm11 XII	4 Db7 XI	3 C7 X

3-4-5, A form major II-V-I and II-bII-I (best)

3 Dm9 III	4 G7 IV	5 Cma7 III	3 Dm9 III	4 Db7 IV	5 Cma7 III
3 Dm9 III	4 G7 IV	5 C7 III	3 Dm9 VIII	4 Db7 IV	5 C7 III
5 Dm11 III	4 G7 IV	3 Cma7 III	5 Dm11 III	4 Db7 IV	3 Cma7 III

5 Dm11 III	4 G7 IV	3 C7 III	5 Dm11 III	4 Db7 IV	3 C7 III

3-4-5, G form major II-V-I and II-bII-I (best)

3 Dm9 V	4 G7 V	5 Cma7 VIII	3 Dm9 V	4 Db7 VI	5 Cma7 VIII
3 Dm9 V	4 G7 V	5 C7 VIII	3 Dm9 V	4 Db7 IV	5 C7 III
5 Dm7sus4 V	4 G7 IV	3 Cma7 III	5 Dm7sus4 V	4 Db7 IV	3 Cma7 III
5 Dm7sus4 V	4 G7 IV	3 C7 III	5 Dm7sus4 V	4 Db7 IV	3 C7 III

3-5-6, E form major II-V-I and II-bII-I (best)

<u>3</u> Dm9 IX 1 b7 2	<u>5</u> G7 IX 1 3 b7 1	<u>6</u> C6 VIII 1 1 3 6	<u>3</u> Dm9 IX 1 b7 2	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>6</u> C6 VIII 1 1 3 6
<u>3</u> Dm9 IX 1 b7 2	<u>5</u> G7 VIII 1 3 b7 1	<u>6</u> C13 VIII 1 b7 3 6	<u>3</u> Dm9 IX 1 b7 2	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>6</u> C13 VIII 1 b7 3 6
<u>6</u> Dm7 X 1 b7 b3 5	<u>5</u> G7 VIII 1 3 b7 1	<u>3</u> Cma7 VIII 1 7 3	<u>6</u> Dm7 X 1 b7 b3 5	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>3</u> Cma7 VIII 1 7 3
<u>6</u> Dm7 X 1 b7 b3 5	<u>5</u> G7 VIII 1 3 b7 1	<u>3</u> C7 VIII 1 b7 3	<u>6</u> Dm7 X 1 b7 b3 5	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>3</u> C7 VIII 1 b7 3

3-5-6, G form major II-V-I and II-bII-I (best)

<u>3</u> Dm9 V b3 5 b7 2	<u>5</u> G7#5 VIII b7 3 #5 1	<u>6</u> C6 VIII 1 1 3 6	<u>3</u> Dm9 V b3 5 b7 2	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>6</u> C6 VIII 1 1 3 6
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<u>3</u> Dm9 V b3 5 b7 2	<u>5</u> G7#5 VIII b7 3 #5 1	<u>6</u> C13 VIII 1 b7 3 6	<u>3</u> Dm9 V b3 5 b7 2	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>6</u> C13 VIII 1 b7 3 6
<u>6</u> Dm7 V 1 5 b7 b3 5	<u>5</u> G7#5 VIII b7 3 #5 1	<u>3</u> Cma7 VIII 1 7 3	<u>6</u> Dm7 V 1 5 b7 b3 5	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>3</u> Cma7 VIII 1 7 3
<u>6</u> Dm7 V 1 5 b7 b3 5	<u>5</u> G7#5 VIII b7 3 #5 1	<u>3</u> C7 VIII 1 b7 3	<u>6</u> Dm7 V 1 5 b7 b3 5	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>3</u> C7 VIII 1 b7 3

4-5-6, E form major II-V-I and II-bII-I (best)

<u>4</u> Dm7 X 1 b7 b3	<u>5</u> G7 VIII 1 3 b7 1	<u>6</u> C6 VIII 1 5 3 6	<u>4</u> Dm7 X 1 b7 b3	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>6</u> C6 VIII 1 5 3 6
<u>4</u> Dm7 X 1 b7 b3	<u>5</u> G7 VIII 1 3 b7 1	<u>6</u> C13 VIII 1 b7 3 6	<u>4</u> Dm7 X 1 b7 b3	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>6</u> C13 VIII 1 b7 3 6

6 Dm7 X	5 G7 VIII	4 C7sus4 VIII	6 Dm7 X	5 Db7b5 VIII	4 C7sus4 VIII
1 b7 b3 5	1 3 b7 1	1 5 b7 4	1 b7 b3 5	1 b7 3 b5	1 5 b7 4

4-5-6, A form major II-V-I and II-bII-I (best)

4 Dm7 III	5 G7 III	6 C6 III	4 Dm7 III	5 Db9b5 III	6 C6 III
1 b3 b7 b3	5 b7 3 5 1	1 5 1 3 6	1 b3 b7 b3	1 3 b7 2 b5	1 5 1 3 6
4 Dm7 III	5 G7 III	6 C13 II	4 Dm7 III	5 Db9b5 III	6 C13 II
1 b3 b7 b3	5 b7 3 5 1	1 3 b7 2 6	1 b3 b7 b3	1 3 b7 2 b5	1 3 b7 2 6
6 Dm7 III	5 G7 III	4 C7sus4 III	6 Dm7 III	5 Db9b5 III	4 C7sus4 III
1 b3 b7 1 5	5 b7 3 5 1	1 5 b7 4	1 b3 b7 1 5	1 3 b7 2 b5	1 5 b7 4

4-5-b7, A form major II-V-I and II-bII-I (best)

b7 D7#5 #9 III	5 G7 III	4 C7sus4 III	b7 D7#5 #9 III	5 Db9#11 III	4 C7sus4 III
1 3 b7 #2 #5	5 b7 3 5 1	1 5 b7 4	1 3 b7 #2 #5	1 3 b7 2 b5	1 5 b7 4

4-5-b7, A form minor II-V-I and II-bII-I (best)

<u>4</u> Dm7 III	<u>5</u> G7 III	<u>b7</u> Cm7 III	<u>4</u> Dm7 III	<u>5</u> Db9#11 III	<u>b7</u> Cm7 III
1 b3 b7 b3	5 b7 3 5 1	1 5 b7 b3 b7	1 b3 b7 b3	1 3 b7 2 b5	1 5 b7 b3 b7

5-#5-6, A form major II-V-I and II-bII-I (best)

<u>5</u> Dm11 III	<u>#5</u> G7b9 III	<u>6</u> C6 III	<u>5</u> Dm11 III	<u>#5</u> Db9 III	<u>6</u> C6 III
1 b3 b7 1 4	1 b7 3 5 b2	1 5 1 3 6	1 b3 b7 1 4	1 3 b7 2 5	1 5 1 3 6

<u>5</u> Dm11 III	<u>#5</u> G7b9 III	<u>6</u> C13 II	<u>5</u> Dm11 III	<u>#5</u> Db9 III	<u>6</u> C13 II
1 b3 b7 1 4	1 b7 3 5 b2	1 3 b7 2 6	1 b3 b7 1 4	1 3 b7 2 5	1 3 b7 2 6

<u>6</u> Dm7 X	<u>b6</u> G7b9 III	<u>5</u> Cma7 III	<u>6</u> Dm7 X	<u>b6</u> Db9 III	<u>5</u> Cma7 III
1 b3 b7 1 5	1 b7 3 5 b2	1 5 7 3 5	1 b3 b7 1 5	1 3 b7 2 5	1 5 7 3 5

<u>6</u> Dm7 X	<u>b6</u> G7b9 III	<u>5</u> C7 III	<u>6</u> Dm7 X	<u>b6</u> Db9 III	<u>5</u> C7 III
1 b3 b7 1 5	1 b7 3 5 b2	1 5 b7 3 5	1 b3 b7 1 5	1 3 b7 2 5	1 5 b7 3 5

5-b6-b7, A form minor II-V-I and II-bII-I (best)

<u>b7</u> D7#5#9 IV	<u>b6</u> G7b9 IX	<u>5</u> Cm7 III	<u>b7</u> D7#5#9 IV	<u>b6</u> Db9 III	<u>5</u> Cm7 III
1 3 b7 #2 #5	1 b7 3 5 b2	1 5 b7 b3 5	1 3 b7 #2 #5	1 3 b7 2 5	1 5 b7 b3 5

5-6-7 and 5-6-b7, E form major II-V-I and II-bII-I (best)

<u>5</u> Dm11 VIII	<u>6</u> G9 IX	<u>7</u> Cma7 VIII	<u>5</u> Dm11 VIII	<u>6</u> Db7#5 IX	<u>7</u> Cma7 VIII
1 b7 b3 4	1 3 b7 2	1 5 3 7	1 b7 b3 4	1 b7 3 #5	1 5 3 7

<u>5</u> Dm11 VIII	<u>6</u> G7 IX	<u>b7</u> C7 VIII	<u>5</u> Dm11 VIII	<u>6</u> Db7#5 IX	<u>b7</u> C7 VIII
1 b7 b3 4	1 3 b7 2	1 5 b7 3 b7	1 b7 b3 4	1 b7 3 #5	1 5 b7 3 b7

<u>b7</u> D7#5 X	<u>6</u> G9 IX	<u>5</u> Cma7 VIII	<u>b7</u> D7#5 X	<u>6</u> G9 IX	<u>5</u> C7 VIII
1 b7 3 #5	1 3 b7 2	1 7 3 5	1 b7 3 #5	1 3 b7 2	1 b7 3 5

5-6-7 and 5-6-b7, A form major II-V-I and II-bII-I (best)

<p><u>5</u> Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>6</u> G9 III</p> <p>5 b7 3 5 2</p>	<p><u>7</u> Cma7 III</p> <p>1 5 1 3 7</p>	<p><u>5</u> Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>6</u> Db9#5 III</p> <p>1 3 b7 2 #5</p>	<p><u>7</u> Cma7 III</p> <p>1 5 1 3 7</p>
<p><u>5</u> Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>6</u> G9 III</p> <p>5 b7 3 5 2</p>	<p><u>b7</u> C7 III</p> <p>1 5 1 3 b7</p>	<p><u>5</u> Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>6</u> Db9#5 III</p> <p>1 3 b7 2 #5</p>	<p><u>b7</u> C7 III</p> <p>1 5 1 3 b7</p>
<p><u>b7</u> D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p><u>6</u> G9 III</p> <p>5 b7 3 5 2</p>	<p><u>5</u> Cma7 III</p> <p>1 5 7 3 5</p>	<p><u>b7</u> D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p><u>6</u> Db9#5 III</p> <p>1 3 b7 2 #5</p>	<p><u>5</u> Cma7 III</p> <p>1 5 7 3 5</p>
<p><u>b7</u> D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p><u>6</u> G9 III</p> <p>5 b7 3 5 2</p>	<p><u>5</u> C9 II</p> <p>1 3 b7 2 5</p>	<p><u>b7</u> D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p><u>6</u> Db9#5 III</p> <p>1 3 b7 2 #5</p>	<p><u>5</u> C9 II</p> <p>1 3 b7 2 5</p>

5-6-7 and 5-6-b7, G form major II-V-I and II-bII-I (best)

<p>5 Dm7sus4 V</p> <p>1 5 b7 4</p>	<p>6 G9 IV</p> <p>1 3 b7 2</p>	<p>7 Cma7 V</p> <p>5 1 3 7</p>	<p>5 Dm7sus4 V</p> <p>1 5 b7 4</p>	<p>6 Db9b5 VIII</p> <p>3 b7 2 #5</p>	<p>7 Cma9 VII</p> <p>3 1 2 5 7</p>
<p>Dm7sus4 V</p> <p>1 5 b7 4</p>	<p>G9 IV</p> <p>1 3 b7 2</p>	<p>C7 V</p> <p>5 1 3 b7</p>	<p>Dm7sus4 V</p> <p>1 5 b7 4</p>	<p>Db9b5 VIII</p> <p>3 b7 2 #5</p>	<p>C9 VI</p> <p>3 2 5 b7</p>
<p>b7 D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p>6 G9 IV</p> <p>1 3 b7 2</p>	<p>5 Cma7 III</p> <p>1 5 7 3 5</p>	<p>b7 D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p>6 Db9b5 III</p> <p>1 3 b7 2 #5</p>	<p>5 Cma7 III</p> <p>1 5 7 3 5</p>
<p>D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p>G9 IV</p> <p>1 3 b7 2</p>	<p>C7 III</p> <p>1 5 b7 3 5</p>	<p>D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p>Db9b5 III</p> <p>1 3 b7 2 #5</p>	<p>C7 III</p> <p>1 5 b7 3 5</p>

5-6-1, E form major II-V-I and II-bII-I (best)

<p>5 Dm11 VIII</p> <p>1 b7 b3 4</p>	<p>6 G9 IX</p> <p>1 3 b7 2</p>	<p>1 C6 VII</p> <p>1 6 3 5 1</p>	<p>5 Dm11 VIII</p> <p>1 b7 b3 4</p>	<p>6 Db7#5 IX</p> <p>1 b7 3 #5</p>	<p>1 C6 VII</p> <p>1 6 3 5 1</p>
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<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>6</u> G7 IX</p> <p>1 3 b7 2</p>	<p><u>1</u> C7 VIII</p> <p>1 5 b7 3 5 1</p>	<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>6</u> Db7#5 IX</p> <p>1 b7 3 #5</p>	<p><u>1</u> C7 VIII</p> <p>1 5 b7 3 5 1</p>
<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>6</u> G9 IX</p> <p>5 3 b7 2</p>	<p><u>5</u> Cma7 VIII</p> <p>1 7 3 5</p>	<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>6</u> Db7#5 IX</p> <p>1 b7 3 #5</p>	<p><u>5</u> Cma7 VIII</p> <p>1 7 3 5</p>
<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>6</u> G9 IX</p> <p>5 3 b7 2</p>	<p><u>5</u> C7 VIII</p> <p>1 b7 3 5</p>	<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>6</u> Db7#5 IX</p> <p>1 b7 3 #5</p>	<p><u>5</u> C7 VIII</p> <p>1 b7 3 5</p>

5-6-1, G form major II-V-I and II-bII-I (best)

<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> G9 IV</p> <p>1 3 b7 2</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>	<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> Db9b5 III</p> <p>3 b7 2 #5</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>
<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> G9 IV</p> <p>1 3 b7 2</p>	<p><u>1</u> C9 VII</p> <p>3 b7 2 5 1</p>	<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> Db9b5 III</p> <p>3 b7 2 #5</p>	<p><u>1</u> C9 VII</p> <p>3 b7 2 5 1</p>

<u>1</u> Dm7 V 5 1 b3 b7	<u>6</u> G9 IV 1 3 b7 2	<u>5</u> Cma7 III 1 5 7 3 5	<u>1</u> Dm7 V 5 1 b3 b7	<u>6</u> Db9b5 III 1 3 b7 2 #5	<u>5</u> Cma7 III 1 5 7 3 5
<u>1</u> Dm7 V 5 1 b3 b7	<u>6</u> G9 IV 1 3 b7 2	<u>5</u> C7 III 1 5 b7 3 5	<u>1</u> Dm7 V 5 1 b3 b7	<u>6</u> Db9b5 III 1 3 b7 2 #5	<u>5</u> C7 III 1 5 b7 3 5

5-b7-1, E form major II-V-I and II-bII-I (best)

<u>5</u> Dm11 VIII 1 b7 b3 4	<u>b7</u> G7#9 IX 1 3 b7 #9	<u>1</u> C6 VII 1 6 3 5 1	<u>5</u> Dm11 VIII 1 b7 b3 4	<u>b7</u> Db13 IX 1 b7 3 6	<u>1</u> C6 VII 1 6 3 5 1
<u>5</u> Dm11 VIII 1 b7 b3 4	<u>b7</u> G7#9 IX 1 3 b7 #9	<u>1</u> C7 VIII 1 5 b7 3 5 1	<u>5</u> Dm11 VIII 1 b7 b3 4	<u>b7</u> Db13 IX 1 b7 3 6	<u>1</u> C7 VIII 1 5 b7 3 5 1
<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>b7</u> G7#9 IX 1 3 b7 #9	<u>5</u> Cma7 VIII 1 7 3 5	<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>b7</u> Db13 IX 1 b7 3 6	<u>5</u> Cma7 VIII 1 7 3 5

1 Dm7 X	b7 G7#9 IX	5 C7 VIII	1 Dm7 X	b7 Db13 IX	5 C7 VIII
1 5 b7 b3 b7	1 3 b7 #9	1 b7 3 5	1 5 b7 b3 b7	1 b7 3 6	1 b7 3 5

5-b7-1, G form major II-V-I and II-bII-I (best)

5 Dm7sus4 V	b7 G7#9 IV	1 Cadd9 V	5 Dm7sus4 V	b7 Db13 III	1 Cadd9 V
1 5 b7 4	1 3 b7 #2	5 2 3 1	1 5 b7 4	1 3 b7 2 6	5 2 3 1
5 Dm7sus4 V	b7 G7#9 IV	1 C9 VII	5 Dm7sus4 V	6 Db13 VI	1 C9 V
1 5 b7 4	5 1 3 b7 #2	3 b7 2 5 1	1 5 b7 4	b7 2 3 6	b7 2 3 1
1 Dm7 V	b7 G7#9 IV	5 Cma7 III	1 Dm7 V	6 Db9b5 III	5 Cma7 III
5 1 b3 b7	1 3 b7 #2	1 5 7 3 5	5 1 b3 b7	1 3 b7 2 #5	1 5 7 3 5
1 Dm7 V	b7 G7#9 IV	5 C7 III	1 Dm7 V	6 Db9b5 III	5 C7 III
5 1 b3 b7	1 3 b7 #2	1 5 b7 3 5	5 1 b3 b7	1 3 b7 2 #5	1 5 b7 3 5

5-b7-1, E form minor II-V-I and II-bII-I (best)

<u>5</u> Dm11 VIII	<u>b7</u> G7#9 IX	<u>1</u> Cm7 VIII	<u>5</u> Dm11 VIII	<u>b7</u> Db13 IX	<u>1</u> Cm7 VIII
1 b7 b3 4	1 3 b7 #9	1 5 b7 b3 5 1	1 b7 b3 4	1 b7 3 6	1 5 b7 b3 5 1
<u>1</u> Dm7 X	<u>b7</u> G7#9 IX	<u>5</u> Cm7 VIII	<u>1</u> Dm7 X	<u>b7</u> Db13 IX	<u>5</u> Cm7 VIII
1 5 b7 b3 b7	1 3 b7 #9	1 b7 b3 5	1 5 b7 b3 b7	1 b7 3 6	1 5 b7 b3 5

b6-b7-1 and b6-7-1, E form minor II-V-I and II-bII-I (best)

<u>b6</u> Dm7b5 IX	<u>b7</u> G7#9 IX	<u>1</u> Cm7 VIII	<u>b6</u> Dm7b5 IX	<u>b7</u> Db13 IX	<u>1</u> Cm7 VIII
1 b7 b3 b5	1 3 b7 #9	1 5 b7 b3 5 1	1 b7 b3 b5	1 b7 3 6	1 5 b7 b3 5 1
<u>b6</u> Dm7b5 IX	<u>7</u> G7 X	<u>1</u> Cm7 VIII	<u>b6</u> Dm7b5 IX	<u>7</u> Db7 IX	<u>1</u> Cm7 VIII
1 b7 b3 b5	1 5 b7 3	1 5 b7 b3 5 1	1 b7 b3 b5	1 5 3 b7	1 5 b7 b3 5 1

6-#6-7, E form major II-V-I and II-bII-I (best)

6 Dm7 X	#6 G7#9 IX	7 Cma7 VIII	6 Dm7 X	#6 Db13 IX	7 Cma7 VIII
1 b7 b3 5	1 3 b7 #9	1 5 3 7	1 b7 b3 5	1 b7 3 6	1 5 3 7

6-#6-7, G form major II-V-I and II-bII-I (best)

6 Dm7 V	#6 G7#9 IV	7 Cma7 III	6 Dm7 V	#6 Db13 III	7 Cma7 III
1 5 b7 b3 5	5 1 3 b7 #2	1 5 1 3 7	1 5 b7 b3 5	1 3 b7 2 6	1 5 1 3 7

6-b7-1, E form major II-V-I and II-bII-I (best)

6 Dm7 X	b7 G7#9 X	1 C6 VIII	6 Dm7 X	b7 Db7 IX	1 C6 VIII
1 b7 b3 5	1 3 b7 #9	1 6 3 5 1	1 b7 b3 5	1 5 3 b7	1 6 3 5 1
6 Dm7 X	b7 G7#9 IX	1 C7 VIII	6 Dm7 X	b7 Db13 IX	1 C7 VIII
1 b7 b3 5	1 3 b7 #9	5 b7 3 5 1	1 b7 b3 5	1 b7 3 6	1 5 b7 3 5 1

<u>1</u> Dm7 X 5 1 b3 b7	<u>b7</u> G7#9 IX 1 3 b7 #9	<u>6</u> C6 VIII 1 5 3 6	<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>b7</u> Db13 IX 1 b7 3 6	<u>6</u> C6 VIII 1 5 3 6
<u>1</u> Dm7 X 5 1 b3 b7	<u>b7</u> G7#9 IX 1 3 b7 #9	<u>6</u> C13 VIII 1 b7 3 6	<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>b7</u> Db13 IX 1 b7 3 6	<u>II</u> C13 VIII 1 b7 3 6

6-b7-1, G form major II-V-I and II-bII-I (best)

<u>6</u> Dm7 V 1 5 b7 b3 5	<u>b7</u> G7#9 IV 5 1 3 b7 #2	<u>1</u> Cadd9 V 5 2 3 1	<u>6</u> Dm7 V 1 5 b7 b3 5	<u>b7</u> Db13 VI 1 b7 1 3 6	<u>1</u> C6/9 VII 1 3 6 2 5 1
<u>6</u> Dm7 V 1 5 b7 b3 5	<u>b7</u> G7#9 IV 5 1 3 b7 #2	<u>1</u> C9 VII 1 b7 2 5 1	<u>6</u> Dm7 V 1 5 b7 b3 5	<u>b7</u> Db13 VI 1 b7 1 3 6	<u>1</u> C9 VII 1 b7 2 5 1

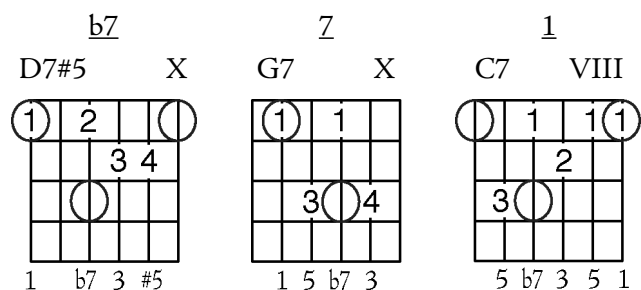
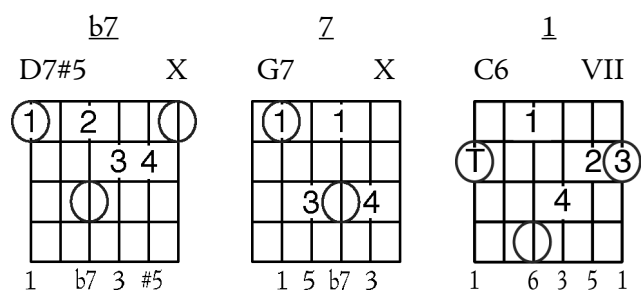
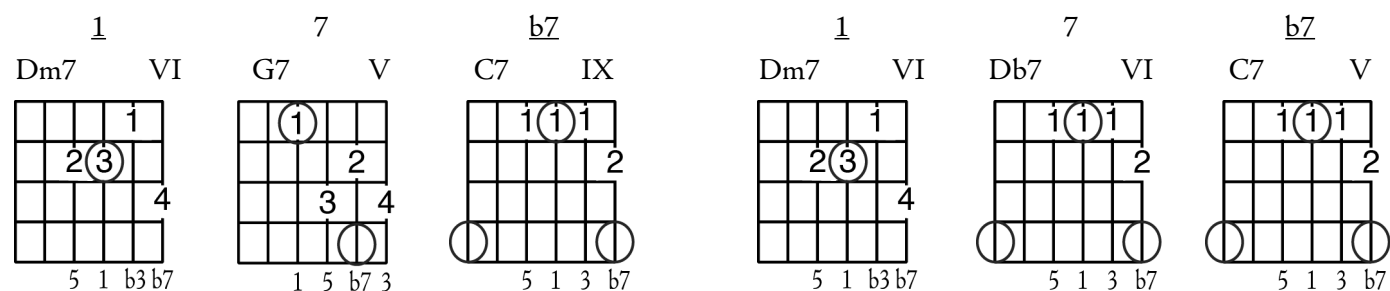
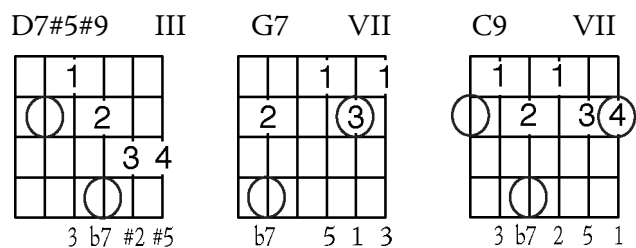
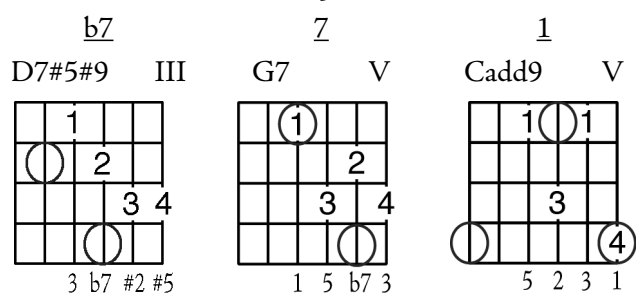
6-7-1, E form major II-V-I and II-bII-I (best)

<u>6</u> Dm7 X 1 b7 b3 5	<u>7</u> G7 X 1 5 b7 3	<u>1</u> C6 VIII 5 3 6 1	<u>6</u> Dm7 X 1 b7 b3 5	<u>7</u> Db7 IX 1 5 3 b7	<u>1</u> C6 VIII 1 5 3 6 1
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<p><u>6</u> Dm7 X</p> <p>1 b7 b3 5</p>	<p><u>7</u> G7 X</p> <p>1 5 b7 3</p>	<p><u>1</u> C7 VIII</p> <p>5 b7 3 5 1</p>	<p><u>6</u> Dm7 X</p> <p>1 b7 b3 5</p>	<p><u>7</u> Db7 IX</p> <p>1 5 3 b7</p>	<p><u>1</u> C7 VIII</p> <p>5 b7 3 5 1</p>
<p><u>1</u> Dm7 X</p> <p>5 1 b3 b7</p>	<p><u>7</u> G7 X</p> <p>1 5 b7 3</p>	<p><u>6</u> C6 IX</p> <p>5 1 3 6</p>	<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>7</u> Db7 IX</p> <p>1 5 3 b7</p>	<p><u>6</u> C6 VIII</p> <p>1 5 3 6</p>
<p><u>1</u> Dm7 X</p> <p>5 1 b3 b7</p>	<p><u>7</u> G7 X</p> <p>1 5 b7 3</p>	<p><u>6</u> C13 VIII</p> <p>1 b7 3 6</p>	<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>7</u> Db7 IX</p> <p>1 5 3 b7</p>	<p><u>6</u> C13 VIII</p> <p>1 b7 3 6</p>

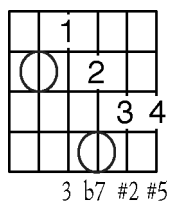
6-7-1, G form major II-V-I and II-bII-I (best)

<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>7</u> G7 V</p> <p>1 5 b7 3</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>	<p><u>6</u> Dm7 V</p> <p>5 b7 b3 5</p>	<p><u>7</u> Db7 VI</p> <p>5 1 3 b7</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>
<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>7</u> G7 V</p> <p>1 5 b7 3</p>	<p><u>1</u> C9 VII</p> <p>1 b7 2 5 1</p>	<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>7</u> Db7 VI</p> <p>5 1 3 b7</p>	<p><u>1</u> C9 VII</p> <p>1 b7 2 5 1</p>

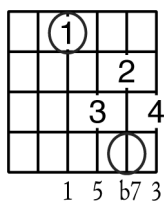
b7-7-1, E form major II-V-I and II-bII-I (best)**b7-7-1, G form major II-V-I (best)**

b7-7-1, G form minor II-V-I and II-bII-I (best)

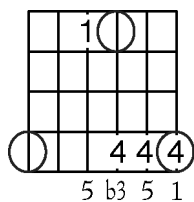
b7
D7#5#9 III



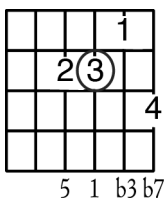
7
G7 V



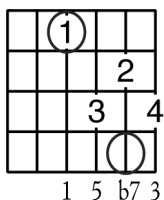
1
Cm V



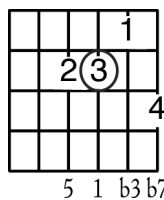
1
Dm7 VI



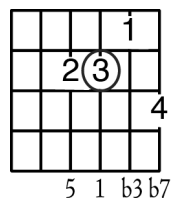
7
G7 V



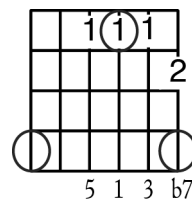
b7
Cm7 IV



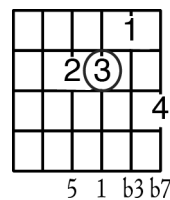
1
Dm7 VI



7
Db7 VI

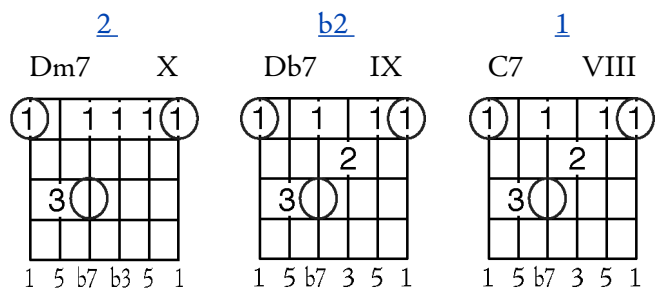
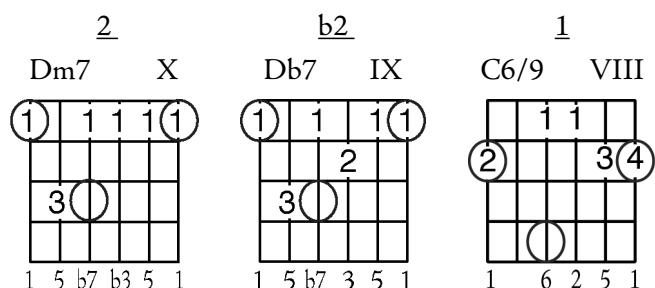
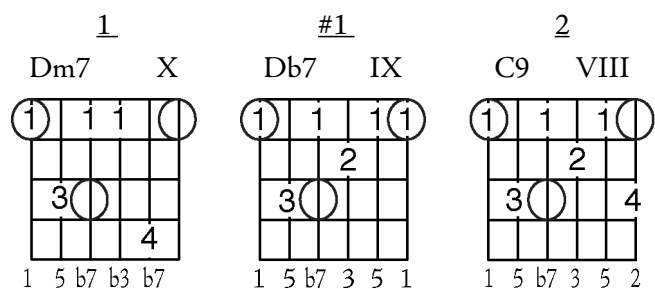
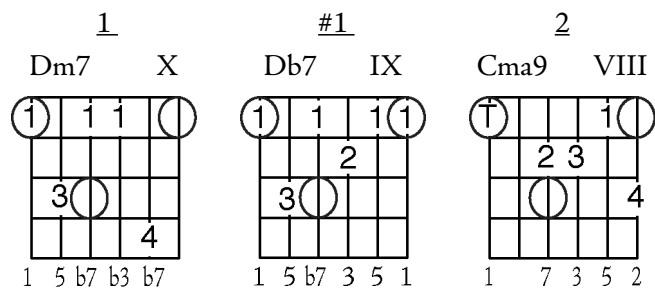


b7
Cm7 IV

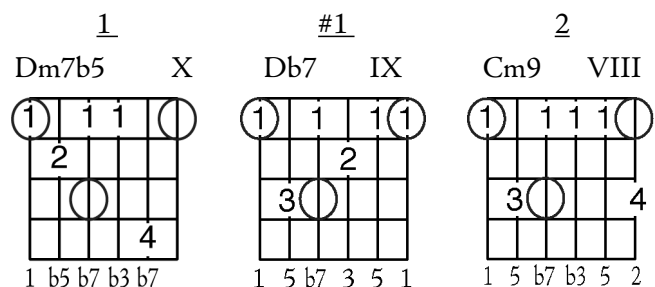


II-V-I, E and D Form

1-#1-2, E form major II-V-I and II-bII-I



1-#1-2, E form minor II-V-I and II-bII-I



1-2-b3, E form major II-V-I and II-bII-I

<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>2</u> G9 IX 1 3 b7 2 5	<u>b3</u> C7#9 VIII 1 5 3 b7 #2	<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>2</u> Db7b9 IX 1 b7 3 5 b2	<u>b3</u> C7#9 VIII 1 5 3 b7 #2
<u>b3</u> D7b9 X 1 b7 3 5 b2	<u>2</u> G9 IX 1 3 b7 2 5	<u>1</u> C6 VII 1 6 3 5 1	<u>b3</u> Ab9 X 1 3 b7 2 5	<u>2</u> Db7b9 IX 1 b7 3 5 b2	<u>1</u> C6 VII 1 6 3 5 1
<u>b3</u> D7b9 X 1 b7 3 5 b2	<u>2</u> G9 IX 1 3 b7 2 5	<u>1</u> C7 VIII 1 5 b7 3 5 1	<u>b3</u> Ab9 X 1 3 b7 2 5	<u>2</u> Db7b9 IX 1 b7 3 5 b2	<u>1</u> C7 VIII 1 5 b7 3 5 1

1-2-b3, E form minor II-V-I and II-bII-I

<u>1</u> Dm7b5 X b5 1 b3 b7	<u>2</u> G7b9 IX 3 b7 b2 5	<u>b3</u> Cm VIII 1 b3 5 b3	<u>1</u> Dm7b5 X b5 1 b3 b7	<u>2</u> Db7b9 IX 1 b7 3 5 b2	<u>b3</u> Cm7 VIII 1 5 b7 b3 5 b3
<u>b3</u> D7b9 X 1 b7 3 5 b2	<u>2</u> G7b9 IX 1 3 b7 b2 5	<u>1</u> Cm7 VIII 1 5 b7 b3 5 1	<u>b3</u> Ab9 X 1 3 b7 2 5	<u>2</u> Db7b9 IX 1 b7 3 5 b2	<u>1</u> Cm7 VIII 1 5 b7 b3 5 1

1-2-3, E form major II-V-I and II-bII-I

<p><u>1</u></p> <p>Dm7 X</p> <p>5 1 b3 b7</p>	<p><u>2</u></p> <p>G7 X</p> <p>1 5 b7 3 5</p>	<p><u>3</u></p> <p>Cma7 X</p> <p>5 1 5 7 3</p>	<p><u>1</u></p> <p>Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>2</u></p> <p>Db7b9 IX</p> <p>1 b7 3 5 b2</p>	<p><u>3</u></p> <p>Cma7 VIII</p> <p>1 5 3 7 3</p>
<p><u>1</u></p> <p>Dm7 X</p> <p>5 1 b3 b7</p>	<p><u>2</u></p> <p>G7 X</p> <p>1 5 b7 3 5</p>	<p><u>3</u></p> <p>C7 X</p> <p>1 5 b7 3</p>	<p><u>1</u></p> <p>Dm7 X</p> <p>5 1 b3 b7</p>	<p><u>2</u></p> <p>Db7b9 IX</p> <p>1 b7 3 5 b2</p>	<p><u>3</u></p> <p>C7 X</p> <p>5 1 5 b7 3</p>
<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>2</u></p> <p>G9 IX</p> <p>1 3 b7 2 5</p>	<p><u>1</u></p> <p>C6 VII</p> <p>1 6 3 5 1</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>2</u></p> <p>Db7b9 IX</p> <p>1 b7 3 5 b2</p>	<p><u>1</u></p> <p>C6 VII</p> <p>1 6 3 5 1</p>
<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>2</u></p> <p>G9 IX</p> <p>1 3 b7 2 5</p>	<p><u>1</u></p> <p>C7 VIII</p> <p>1 5 b7 3 5 1</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>2</u></p> <p>Db7b9 IX</p> <p>1 b7 3 5 b2</p>	<p><u>1</u></p> <p>C7 VIII</p> <p>1 5 b7 3 5 1</p>

2-#2-3, E form major II-V-I and II-bII-I

<p><u>2</u></p> <p>Dm7 X</p> <p>1 5 b7 b3 5 1</p>	<p><u>#2</u></p> <p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p><u>3</u></p> <p>Cma7 VIII</p> <p>1 5 3 7 3</p>	<p><u>2</u></p> <p>Dm7 X</p> <p>1 5 b7 b3 5 1</p>	<p><u>#2</u></p> <p>Db9 IX</p> <p>1 5 b7 3 5 2</p>	<p><u>3</u></p> <p>Cma7 VIII</p> <p>1 5 3 7 3</p>
<p><u>2</u></p> <p>Dm7 X</p> <p>b7 b3 5 1</p>	<p><u>#2</u></p> <p>G7#5#9 IX</p> <p>3 b7 #2 #5</p>	<p><u>3</u></p> <p>C7 X</p> <p>1 5 b7 3</p>	<p><u>2</u></p> <p>Dm7 X</p> <p>b7 b3 5 1</p>	<p><u>#2</u></p> <p>Db9 IX</p> <p>1 3 b7 2</p>	<p><u>3</u></p> <p>C7 X</p> <p>1 5 b7 3</p>
<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>#2</u></p> <p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p><u>2</u></p> <p>Cma9 VIII</p> <p>1 7 3 5 2</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>b3</u></p> <p>Db9 IX</p> <p>1 5 b7 3 5 2</p>	<p><u>2</u></p> <p>Cma9 VIII</p> <p>1 7 3 5 2</p>
<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>b3</u></p> <p>G7#5#9 IX</p> <p>1 3 b7 #2 #5</p>	<p><u>2</u></p> <p>C9 VIII</p> <p>1 5 b7 3 5 2</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b7 b3 5 2</p>	<p><u>b3</u></p> <p>Db9 IX</p> <p>1 5 b7 3 5 2</p>	<p><u>2</u></p> <p>C9 VIII</p> <p>1 5 b7 3 5 2</p>

b3-4-5, E form major II-V-I and II-bII-I, rare

<u>b3</u> D7b9 VIII 1 3 b7 b2	4 G7 IX 5 3 b7	5 Cma7 VIII 1 7 3 5	<u>b3</u> D7b9 VIII 1 3 b7 b2	4 Db7 IX 1 b7 3	5 Cma7 VIII 1 7 3 5
<u>b3</u> D7b9 VIII 1 3 b7 b2	4 G7 IX 5 3 b7	5 C7 VIII 1 b7 3 5	<u>b3</u> D7b9 VIII 1 3 b7 b2	4 Db7 IX 1 b7 3	5 C7 VIII 1 b7 3 5
5 Dm11 VIII 1 b7 b3 4	4 G7 IX 5 3 b7	<u>b3</u> C7#9 VII 1 3 b7 #2	5 Dm11 VIII 1 b7 b3 4	4 Db7 IX 1 b7 3	<u>b3</u> C7#9 VII 1 3 b7 #2

b3-4-5, E form minor II-V-I and II-bII-I

<u>b3</u> D7b9 VIII 1 3 b7 b2	4 G7 IX 5 3 b7	5 Cm7 VIII 1 b7 b3 5	<u>b3</u> D7b9 VIII 1 3 b7 b2	4 Db7 IX 1 b7 3	5 Cm7 VIII 1 b7 b3 5
5 Dm11 VIII 1 b7 b3 4	4 G7 IX 1 3 b7	<u>b3</u> Cm7 VIII 1 b7 b3	5 Dm11 VIII 1 b7 b3 4	4 Db7 IX 1 b7 3	<u>b3</u> Cm7 VIII 1 b7 b3

5 Abma7 VIII	4 G7 IX	b3 Cm7 VIII	5 Abma7 VIII	4 Db7 IX	b3 Cm7 VIII

3-4-5, E form major II-V-I and II-bII-I

3 Dm9 IX	4 G7 IX	5 Cma7 VIII	3 Dm9 IX	4 Db7 IX	5 Cma7 VIII
3 Dm9 IX	4 G7 IX	5 C7 VIII	3 Dm9 IX	4 Db7 IX	5 C7 VIII
5 Dm9 IX	4 G7 IX	3 Cma7 VIII	5 Dm11 VIII	4 Db7 IX	3 Cma7 VIII
5 Dm9 IX	4 G7 IX	3 C7 VIII	5 Dm11 VIII	4 Db7 IX	3 C7 VIII

3-5-6, E form major II-V-I and II-bII-I

$\underline{3}$ Dm9 IX 1 b7 2	$\underline{5}$ G7 IX 1 3 b7 1	$\underline{6}$ C6 VIII 1 1 3 6	$\underline{3}$ Dm9 IX 1 b7 2	$\underline{5}$ Db7b5 VIII 1 b7 3 b5	$\underline{6}$ C6 VIII 1 1 3 6
$\underline{3}$ Dm9 IX 1 b7 2	$\underline{5}$ G7 VIII 1 3 b7 1	$\underline{6}$ C13 VIII 1 b7 3 6	$\underline{3}$ Dm9 IX 1 b7 2	$\underline{5}$ Db7b5 VIII 1 b7 3 b5	$\underline{6}$ C13 VIII 1 b7 3 6
$\underline{6}$ Dm7 X 1 b7 b3 5	$\underline{5}$ G7 VIII 1 3 b7 1	$\underline{3}$ Cma7 VIII 1 7 3	$\underline{6}$ Dm7 X 1 b7 b3 5	$\underline{5}$ Db7b5 VIII 1 b7 3 b5	$\underline{3}$ Cma7 VIII 1 7 3
$\underline{6}$ Dm7 X 1 b7 b3 5	$\underline{5}$ G7 VIII 1 3 b7 1	$\underline{3}$ C7 VIII 1 b7 3	$\underline{6}$ Dm7 X 1 b7 b3 5	$\underline{5}$ Db7b5 VIII 1 b7 3 b5	$\underline{3}$ C7 VIII 1 b7 3

4-5-6, E form major II-V-I and II-bII-I

<u>4</u> Dm7 X 1 b7 b3	<u>5</u> G7 VIII 1 3 b7 1	<u>6</u> C6 VIII 1 5 3 6	<u>4</u> Dm7 X 1 b7 b3	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>6</u> C6 VIII 1 5 3 6
<u>4</u> Dm7 X 1 b7 b3	<u>5</u> G7 VIII 1 3 b7 1	<u>6</u> C13 VIII 1 b7 3 6	<u>4</u> Dm7 X 1 b7 b3	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>6</u> C13 VIII 1 b7 3 6
<u>6</u> Dm7 X 1 b7 b3 5	<u>5</u> G7 VIII 1 3 b7 1	<u>4</u> C7sus4 VIII 1 5 b7 4	<u>6</u> Dm7 X 1 b7 b3 5	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>4</u> C7sus4 VIII 1 5 b7 4

4-5-b7, E form major II-V-I and II-bII-I

<u>4</u> Dm7 X 1 b7 b3	<u>5</u> G7 VIII 1 3 b7 1	<u>b7</u> C7 VIII 1 5 3 b7	<u>4</u> Dm7 X 1 b7 b3	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>b7</u> C7 VIII 1 5 3 b7
<u>b7</u> D7#5 X 1 b7 3 #5	<u>5</u> G7 VIII 1 3 b7 1	<u>4</u> C7sus4 VIII 1 5 b7 4	<u>b7</u> D7#5 X 1 b7 3 #5	<u>5</u> Db7b5 VIII 1 b7 3 b5	<u>4</u> C7sus4 VIII 1 5 b7 4

4-5-b7, E form minor II-V-I and II-bII-I

4	5	<u>b7</u>	4	5	<u>b7</u>
Dm7b5 X	G7 VIII	Cm7 VIII	Dm7 X	Db7b5 VIII	Cm7 VIII
1 b5 b7 b3	1 3 b7 1	5 1 b3 b7	1 b5 b7 b3	1 b7 3 b5	1 5 b3 b7

5-#5-6, E form major II-V-I and II-bII-I

5	<u>#5</u>	6	5	<u>#5</u>	6
Dm11 VIII	G7b9 IX	C6 VIII	Dm11 VIII	Db7 IX	C6 VIII
1 b7 b3 4	1 3 b7 b2	1 1 3 6	1 b7 b3 4	1 b7 3 5	1 1 3 6
5	<u>#5</u>	6	5	<u>#5</u>	6
Dm11 VIII	G7b9 IX	C13 VIII	Dm11 VIII	Db7 IX	C13 VIII
1 b7 b3 4	1 3 b7 b2	1 b7 3 6	1 b7 b3 4	1 b7 3 5	1 b7 3 6
6	<u>b6</u>	5	6	<u>b6</u>	5
Dm7 X	G7b9 IX	Cma7 VIII	Dm7 X	Db7 IX	Cma7 VIII
1 b7 b3 5	1 3 b7 b2	1 7 3 5	1 b7 b3 5	1 b7 3 5	1 7 3 5
6	<u>b6</u>	5	6	<u>b6</u>	5
Dm7 X	G7b9 IX	C7 VIII	Dm7 X	Db7 IX	C7 VIII
1 b7 b3 5	1 3 b7 b2	1 b7 3 5	1 b7 b3 5	1 b7 3 5	1 b7 3 5

5-6-7 and 5-6-b7, E form major II-V-I and II-bII-I

<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>6</u> G9 IX</p> <p>1 3 b7 2</p>	<p><u>7</u> Cma7 VIII</p> <p>1 5 3 7</p>	<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>6</u> Db7#5 IX</p> <p>1 b7 3 #5</p>	<p><u>7</u> Cma7 VIII</p> <p>1 5 3 7</p>
<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>6</u> G7 IX</p> <p>1 3 b7 2</p>	<p><u>b7</u> C7 VIII</p> <p>1 5 b7 3 b7</p>	<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>6</u> Db7#5 IX</p> <p>1 b7 3 #5</p>	<p><u>b7</u> C7 VIII</p> <p>1 5 b7 3 b7</p>
<p><u>b7</u> D7#5 X</p> <p>1 b7 3 #5</p>	<p><u>6</u> G9 IX</p> <p>1 3 b7 2</p>	<p><u>5</u> Cma7 VIII</p> <p>1 7 3 5</p>	<p><u>b7</u> D7#5 X</p> <p>1 b7 3 #5</p>	<p><u>6</u> Db7#5 IX</p> <p>1 b7 3 #5</p>	<p><u>5</u> Cma7 VIII</p> <p>1 7 3 5</p>
<p><u>b7</u> D7#5 X</p> <p>1 b7 3 #5</p>	<p><u>6</u> G9 IX</p> <p>1 3 b7 2</p>	<p><u>5</u> C7 VIII</p> <p>1 b7 3 5</p>	<p><u>b7</u> D7#5 X</p> <p>1 b7 3 #5</p>	<p><u>6</u> Db7#5 IX</p> <p>1 b7 3 #5</p>	<p><u>5</u> C7 VIII</p> <p>1 b7 3 5</p>

5-b6-b7, D form minor II-V-I and II-bII-I

5 Abma7 VIII	b6 G7b9 IX	b7 Cm7 VIII	5 Dm11 VIII	b6 Db7 IX	b7 Cm7 VIII
1 3 5 7	1 3 b7 b2	5 1 b3 b7	1 b7 b3 4	1 5 b7 3 5	1 5 b7 b3 b7

b7 Ab9 X	b6 G7b9 IX	5 Cm7 VIII	b7 Ab9 X	b6 Db7 IX	5 Cm7 VIII
5 3 b7 2	5 3 b7 b2	1 b7 b3 5	5 3 b7 2	1 5 b7 3 5	1 5 b7 b3 5

5-6-1, E form major II-V-I and II-bII-I and II-bII-I

5 Dm11 VIII	6 G9 IX	1 C6 VII	5 Dm11 VIII	6 Db7#5 IX	1 C6 VII
1 b7 b3 4	1 3 b7 2	1 6 3 5 1	1 b7 b3 4	1 b7 3 #5	1 6 3 5 1

5 Dm11 VIII	6 G7 IX	1 C7 VIII	5 Dm11 VIII	6 Db7#5 IX	1 C7 VIII
1 b7 b3 4	1 3 b7 2	1 5 b7 3 5 1	1 b7 b3 4	1 b7 3 #5	1 5 b7 3 5 1

1 Dm7 X	6 G9 IX	5 Cma7 VIII	1 Dm7 X	6 Db7#5 IX	5 Cma7 VIII
1 5 b7 b3 b7	5 3 b7 2	1 7 3 5	1 5 b7 b3 b7	1 b7 3 #5	1 7 3 5

<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>6</u> G9 IX 5 3 b7 2	<u>5</u> C7 VIII 1 b7 3 5	<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>6</u> Db7#5 IX 1 b7 3 #5	<u>5</u> C7 VIII 1 b7 3 5
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5-6-1, D form major II-V-I and II-bII-I

<u>5</u> Dm11 X 1 5 b7 4	<u>6</u> G9 X 1 5 b7 2	<u>1</u> Cadd9 XII 3 2 5 1
<u>5</u> Dm11 X 1 5 b7 4	<u>6</u> G9 X 1 5 b7 2	<u>1</u> C9 XII 3 b7 2 5 1

5b7-1, E form major II-V-I and II-bII-I

<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>b7</u> G7#9 IX</p> <p>1 3 b7 #9</p>	<p><u>1</u> C6 VII</p> <p>1 6 3 5 1</p>	<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>b7</u> Db13 IX</p> <p>1 b7 3 6</p>	<p><u>1</u> C6 VII</p> <p>1 6 3 5 1</p>
<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>b7</u> G7#9 IX</p> <p>1 3 b7 #9</p>	<p><u>1</u> C7 VIII</p> <p>1 5 b7 3 5 1</p>	<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>b7</u> Db13 IX</p> <p>1 b7 3 6</p>	<p><u>1</u> C7 VIII</p> <p>1 5 b7 3 5 1</p>
<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>b7</u> G7#9 IX</p> <p>1 3 b7 #9</p>	<p><u>5</u> Cma7 VIII</p> <p>1 7 3 5</p>	<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>b7</u> Db13 IX</p> <p>1 b7 3 6</p>	<p><u>5</u> Cma7 VIII</p> <p>1 7 3 5</p>
<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>b7</u> G7#9 IX</p> <p>1 3 b7 #9</p>	<p><u>5</u> C7 VIII</p> <p>1 b7 3 5</p>	<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>b7</u> Db13 IX</p> <p>1 b7 3 6</p>	<p><u>5</u> C7 VIII</p> <p>1 b7 3 5</p>

5-b7-1, E form minor II-V-I and II-bII-I

<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>b7</u> G7#9 IX</p> <p>1 3 b7 #9</p>	<p><u>1</u> Cm7 VIII</p> <p>1 5 b7 b3 5 1</p>	<p><u>5</u> Dm11 VIII</p> <p>1 b7 b3 4</p>	<p><u>b7</u> Db13 IX</p> <p>1 b7 3 6</p>	<p><u>1</u> Cm7 VIII</p> <p>1 5 b7 b3 5 1</p>
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1 Dm7 X	b7 G7#9 IX	5 Cm7 VIII	1 Dm7 X	b7 Db13 IX	5 Cm7 VIII
1 5 b7 b3 b7	1 3 b7 #9	1 b7 b3 5	1 5 b7 b3 b7	1 b7 3 6	1 5 b7 b3 5

b6-b7-1 and b6-7-1, E form minor II-V-I and II-bII-I

b6 Dm7b5 IX	b7 G7#9 IX	1 Cm7 VIII	b6 Dm7b5 IX	b7 Db13 IX	1 Cm7 VIII
1 b7 b3 b5	1 3 b7 #9	1 5 b7 b3 5 1	1 b7 b3 b5	1 b7 3 6	1 5 b7 b3 5 1

b6 Dm7b5 IX	7 G7 X	1 Cm7 VIII	b6 Dm7b5 IX	7 Db7 IX	1 Cm7 VIII
1 b7 b3 b5	1 5 b7 3	1 5 b7 b3 5 1	1 b7 b3 b5	1 5 3 b7	1 5 b7 b3 5 1

6-#6-7, E form major II-V-I and II-bII-I

6 Dm7 X	#6 G7#9 IX	7 Cma7 VIII	6 Dm7 X	#6 Db13 IX	7 Cma7 VIII
1 b7 b3 5	1 3 b7 #9	1 5 3 7	1 b7 b3 5	1 b7 3 6	1 5 3 7

6b-7-1, E form major II-V-I and II-bII-I

<p><u>6</u> Dm7 X</p> <p>1 b7 b3 5</p>	<p><u>b7</u> G7#9 X</p> <p>1 3 b7 #9</p>	<p><u>1</u> C6 VIII</p> <p>1 6 3 5 1</p>	<p><u>6</u> Dm7 X</p> <p>1 b7 b3 5</p>	<p><u>b7</u> Db7 IX</p> <p>1 5 3 b7</p>	<p><u>1</u> C6 VIII</p> <p>1 6 3 5 1</p>
<p><u>6</u> Dm7 X</p> <p>1 b7 b3 5</p>	<p><u>b7</u> G7#9 IX</p> <p>1 3 b7 #9</p>	<p><u>1</u> C7 VIII</p> <p>5 b7 3 5 1</p>	<p><u>6</u> Dm7 X</p> <p>1 b7 b3 5</p>	<p><u>b7</u> Db13 IX</p> <p>1 b7 3 6</p>	<p><u>1</u> C7 VIII</p> <p>1 5 b7 3 5 1</p>
<p><u>1</u> Dm7 X</p> <p>5 1 b3 b7</p>	<p><u>b7</u> G7#9 IX</p> <p>1 3 b7 #9</p>	<p><u>6</u> C6 VIII</p> <p>1 5 3 6</p>	<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>b7</u> Db13 IX</p> <p>1 b7 3 6</p>	<p><u>6</u> C6 VIII</p> <p>1 5 3 6</p>
<p><u>1</u> Dm7 X</p> <p>5 1 b3 b7</p>	<p><u>b7</u> G7#9 IX</p> <p>1 3 b7 #9</p>	<p><u>6</u> C13 VIII</p> <p>1 b7 3 6</p>	<p><u>1</u> Dm7 X</p> <p>1 5 b7 b3 b7</p>	<p><u>b7</u> Db13 IX</p> <p>1 b7 3 6</p>	<p><u>II</u> C13 VIII</p> <p>1 b7 3 6</p>

6-7-1, E form major II-V-I and II-bII-I

<p><u>6</u> Dm7 X</p> <p>1 b7 b3 5</p>	<p><u>7</u> G7 X</p> <p>1 5 b7 3</p>	<p><u>1</u> C6 VIII</p> <p>5 3 6 1</p>	<p><u>6</u> Dm7 X</p> <p>1 b7 b3 5</p>	<p><u>7</u> Db7 IX</p> <p>1 5 3 b7</p>	<p><u>1</u> C6 VIII</p> <p>1 5 3 6 1</p>
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<u>6</u> Dm7 X 1 b7 b3 5	<u>7</u> G7 X 1 5 b7 3	<u>1</u> C7 VIII 5 b7 3 5 1	<u>6</u> Dm7 X 1 b7 b3 5	<u>7</u> Db7 IX 1 5 3 b7	<u>1</u> C7 VIII 5 b7 3 5 1
<u>1</u> Dm7 X 5 1 b3 b7	<u>7</u> G7 X 1 5 b7 3	<u>6</u> C6 IX 5 1 3 6	<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>7</u> Db7 IX 1 5 3 b7	<u>6</u> C6 VIII 1 5 3 6
<u>1</u> Dm7 X 5 1 b3 b7	<u>7</u> G7 X 1 5 b7 3	<u>6</u> C13 VIII 1 b7 3 6	<u>1</u> Dm7 X 1 5 b7 b3 b7	<u>7</u> Db7 IX 1 5 3 b7	<u>6</u> C13 VIII 1 b7 3 6

6-7-1, D form major II-V-I

<u>6</u> Dm7 X 1 b7 b3 5	<u>7</u> G7 X 5 1 5 b7 3	<u>1</u> Cadd9 XII 3 2 5 1
<u>6</u> Dm7 X 1 b7 b3 5	<u>7</u> G7 X 5 1 5 b7 3	<u>1</u> C9 XII 3 b7 2 5 1

b7-7-1, E form major II-V-I and II-bII-I

b7 D7#5 X	7 G7 X	1 C6 VII
1 b7 3 #5	1 5 b7 3	1 6 3 5 1

b7 D7#5 X	7 G7 X	1 C7 VIII
1 b7 3 #5	1 5 b7 3	5 b7 3 5 1

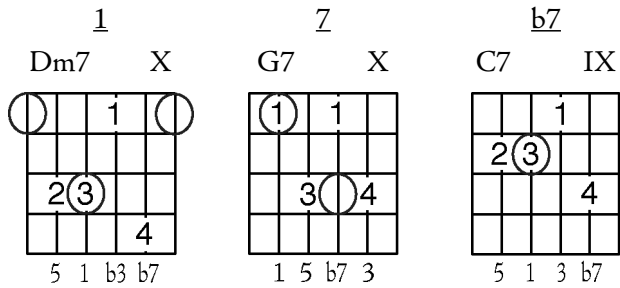
1 Dm7 X	7 G7 X	b7 C7 IX
5 1 b3 b7	1 5 b7 3	5 1 3 b7

1 Dm7 X	7 Db7 IX	b7 C7 VIII
1 5 b7 b3 b7	1 5 b7 3 b7	1 5 b7 3 b7

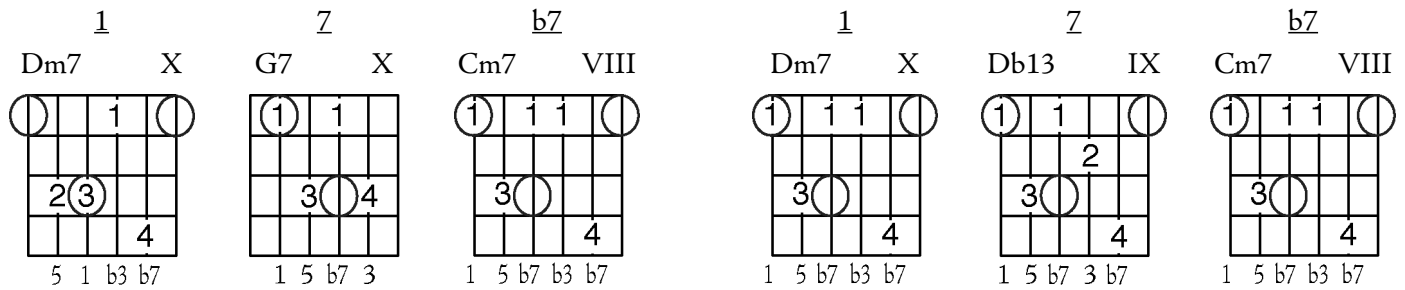
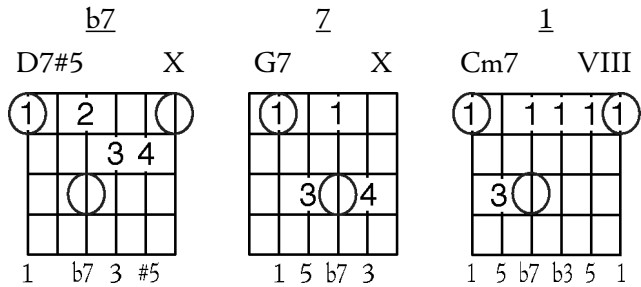
b7-7-1, D form major II-V-I

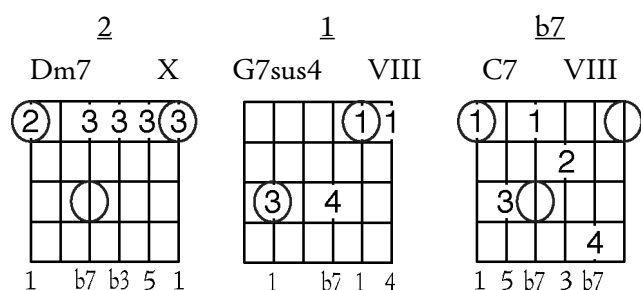
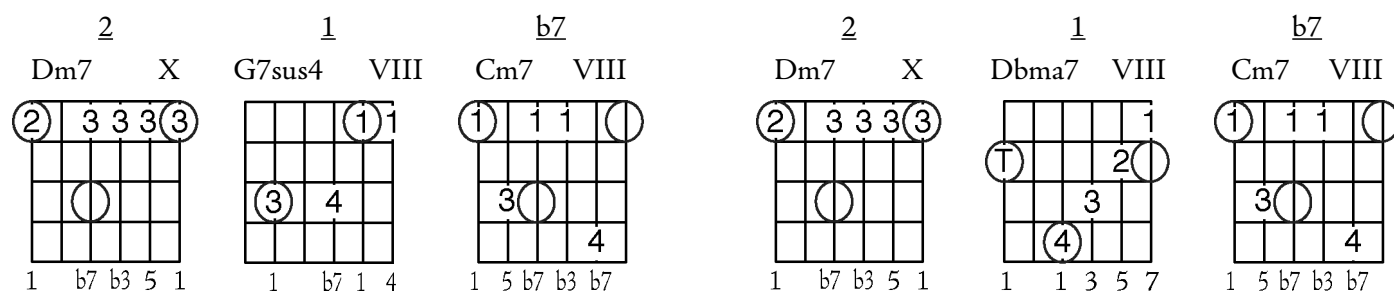
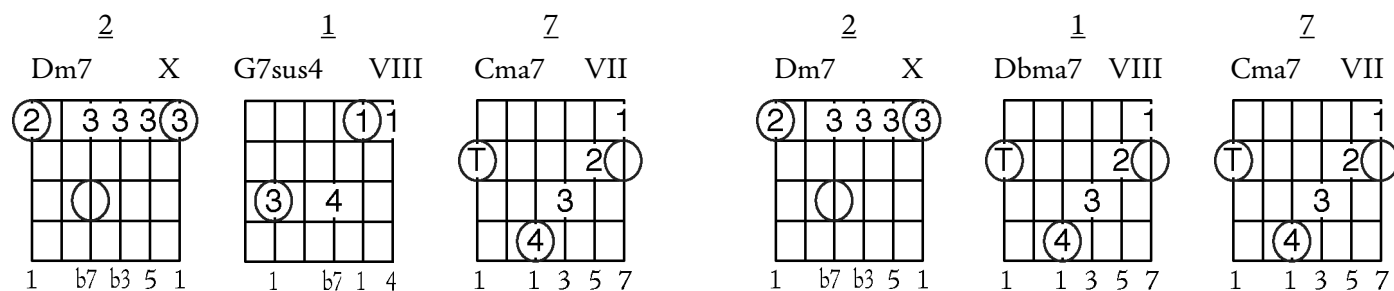
b7 D7#5 X	7 G7 X	1 Cadd9 XII
1 b7 3 #5	5 1 5 b7 3	3 2 5 1

b7 D7#5 X	7 G7 X	1 C9 XII
1 b7 3 #5	5 1 5 b7 3	3 b7 2 5 1



b7-7-1, E form minor II-V-I and II-bII-I



b7-1-2 (2-1-b7), E form major II-V-I**b7-1-2 (2-1-b7), E form minor II-V-I and II-bII-I****7-1-2 (2-1-7), E form major II-V-I and II-bII-I**

II-V-I, C and A Form

1-#1-2, C/A form major II-V-I and II-bII-I

<p><u>1</u></p> <p>Dm7 III</p> <p>5 b3 b7</p>	<p><u>#1</u></p> <p>G7b5 II</p> <p>1 b7 3 b5</p>	<p><u>2</u></p> <p>Cma9 II</p> <p>1 3 7 2</p>	v	<p><u>1</u></p> <p>Dm7 III</p> <p>1 b3 b7</p>	<p><u>#1</u></p> <p>Db7 II</p> <p>1 3 b7 1</p>	<p><u>2</u></p> <p>Cma9 II</p> <p>1 3 7 2</p>
<p>Dm7 III</p> <p>5 b3 b7</p>	<p>G7b5 II</p> <p>1 b7 3 b5</p>	<p>C9 II</p> <p>1 3 b7 2</p>		<p>Dm7 III</p> <p>1 b3 b7</p>	<p>Db7 II</p> <p>1 3 b7 1</p>	<p>C9 II</p> <p>1 3 b7 2</p>
<p><u>2</u></p> <p>Dm7 III</p> <p>5 b3 b7</p>	<p><u>b2</u></p> <p>G7b5 II</p> <p>1 b7 3 b5</p>	<p><u>1</u></p> <p>C6 I</p> <p>1 3 6 1</p>		<p><u>2</u></p> <p>Dm7 III</p> <p>1 b3 b7 1</p>	<p><u>b2</u></p> <p>Db7 II</p> <p>1 3 b7 1</p>	<p><u>1</u></p> <p>C6 I</p> <p>1 3 6 1</p>
<p>Dm7 III</p> <p>5 b3 b7 1</p>	<p>G7b5 II</p> <p>1 b7 3 b5</p>	<p>C7 I</p> <p>1 3 b7 1</p>		<p>Dm7 III</p> <p>1 b3 b7 1</p>	<p>Db7 II</p> <p>1 3 b7 1</p>	<p>C7 I</p> <p>1 3 b7 1</p>

1-#1-2, C/A form minor II-V-I and II-bII-I

<p><u>1</u></p> <p>Dm7 b5 III</p> <p>b5 b3 b7</p>	<p><u>#1</u></p> <p>G7b5 II</p> <p>1 b7 3 b5</p>	<p><u>2</u></p> <p>Cm9 I</p> <p>1 b3 b7 2</p>		<p><u>1</u></p> <p>Dm7 b5 III</p> <p>1 b3 b7 1</p>	<p><u>#1</u></p> <p>Db7 II</p> <p>1 3 b7 1</p>	<p><u>2</u></p> <p>Cm9 I</p> <p>1 b3 b7 2</p>
<p><u>2</u></p> <p>Dm7 III</p> <p>1 b3 b7 1</p>	<p><u>b2</u></p> <p>G7b5 II</p> <p>1 b7 3 b5</p>	<p><u>1</u></p> <p>Cm7 I</p> <p>1 b3 b7 1</p>		<p><u>2</u></p> <p>Dm7 III</p> <p>b5 b3 b7 1</p>	<p><u>b2</u></p> <p>Db7 II</p> <p>5 3 b7 1</p>	<p><u>1</u></p> <p>Cm7 I</p> <p>5 b3 b7 1</p>

1-2-b3, A form major II-V-I and II-bII-I

1 Dm7 III	2 G7 III	b3 C7#9 II	1 Dm7 III	2 Db7b9 II	b3 C7#9 II
1 b3 b7	1 b7 3 5	1 3 b7 #9	1 b3 b7	1 3 b7 b2	1 3 b7 #9
b3 D7b9 III	2 G7 III	1 C6 I	b3 Ab7 IV	2 Db7b9 III	1 C6 I
1 3 b7 b2	1 b7 3 5	1 3 6 1	1 b7 3 5	5 3 b7 b2	1 3 6 1
b3 D7b9 IV	2 G7 III	1 C7 I	b3 Ab7 IV	2 Db7b9 III	1 C7 I
1 3 b7 b2	1 b7 3 5	1 3 b7 1	1 b7 3 5	5 3 b7 b2	5 3 b7 1

1-2-b3, C/A form minor II-V-I and II-bII-I

1 Dm7b5 III	2 G7 III	b3 Cm7 III	1 Ab7 III	2 Db7b9 III	b3 Cm7 III
b5 b3 b7	1 b7 3 5	1 5 b7 b3	1 b7 3	5 3 b7 b2	1 5 b7 b3
b3 D7b9 III	2 G7 III	1 Cm7 I	b3 Ab7 IV	2 Db7b9 III	1 Cm7 I
1 3 b7 b2	1 b7 3 5	1 b3 b7 1	1 b7 3 5	5 3 b7 b2	5 b3 b7 1

1-2-3, C/A form major II-V-I and II-bII-I

<p><u>1</u></p> <p>Dm7 III</p> <p>1 b3 b7</p>	<p><u>2</u></p> <p>G7 III</p> <p>1 b7 3 5</p>	<p><u>3</u></p> <p>Cma7 III</p> <p>1 5 7 3</p>	<p><u>1</u></p> <p>Dm7 III</p> <p>1 b3 b7</p>	<p><u>2</u></p> <p>Db7b9 III</p> <p>1 3 b7 b2</p>	<p><u>3</u></p> <p>Cma7 III</p> <p>1 5 7 3</p>
<p><u>1</u></p> <p>Dm7 III</p> <p>1 b3 b7</p>	<p><u>2</u></p> <p>G7 III</p> <p>1 b7 3 5</p>	<p><u>3</u></p> <p>C7 III</p> <p>1 5 b7 3</p>			
<p><u>3</u></p> <p>Dm9 III</p> <p>1 b3 b7 2</p>	<p><u>2</u></p> <p>G7 III</p> <p>1 b7 3 5</p>	<p><u>1</u></p> <p>C6 I</p> <p>1 3 6 1</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b3 b7 2</p>	<p><u>2</u></p> <p>Db7b9 III</p> <p>1 3 b7 b2</p>	<p><u>1</u></p> <p>C6 I</p> <p>1 3 6 1</p>
<p><u>3</u></p> <p>Dm9 III</p> <p>1 b3 b7 2</p>	<p><u>2</u></p> <p>G7 III</p> <p>1 b7 3 5</p>	<p><u>1</u></p> <p>C7 I</p> <p>1 3 b7 1</p>	<p><u>3</u></p> <p>Dm9 X</p> <p>1 b3 b7 2</p>	<p><u>2</u></p> <p>Db7b9 III</p> <p>1 3 b7 b2</p>	<p><u>1</u></p> <p>C7 I</p> <p>1 3 b7 1</p>

1-b3-4, A form major II-V-I and II-bII-I

1 Dm7 III	<u>b3</u> G7#5 III	4 C7sus4 III	1 Dm7 III	<u>b3</u> Db9 III	4 C7sus4 III
1 b3 b7	1 b7 3 #5	1 5 b7 4	1 b3 b7	1 3 b7 2	1 5 b7 4
4 Dm7 III	<u>b3</u> G7#5 III	1 C6 I	4 Dm7 III	<u>b3</u> Db9 III	1 C6 I
1 b3 b7 b3	1 b7 3 #5	1 3 6 1	1 b3 b7 b3	1 3 b7 2	1 3 6 1
4 Dm7 III	<u>b3</u> G7#5 III	1 C7 I	4 Dm7 III	<u>b3</u> Db9 III	1 C7 I
1 b3 b7 b3	1 b7 3 #5	1 3 b7 1	1 b3 b7 b3	1 3 b7 2	1 3 b7 1

2-#2-3, A form major II-V-I and II-bII-I

2 Dm7 III	<u>#2</u> G7#5 III	3 Cma7 III	2 Dm7 III	<u>#2</u> Db9 III	3 Cma7 III
1 b3 b7 1	1 b7 3 #5	1 5 7 3	1 b3 b7 1	1 3 b7 2	1 5 7 3
2 Dm7 III	<u>#2</u> G7#5 III	3 C7 III	2 Dm7 III	<u>#2</u> Db9 III	3 C7 III
1 b3 b7 1	1 b7 3 #5	1 5 b7 3	1 b3 b7 1	1 3 b7 2	1 5 b7 3

<u>3</u> Dm9 III 1 b3 b7 2	<u>b3</u> G7#5 III 1 b7 3 #5	<u>2</u> Cma9 II 1 3 7 2	<u>3</u> Dm9 III 1 b3 b7 2	<u>b3</u> Db9 III 1 3 b7 2	<u>2</u> Cma9 II 1 3 7 2
<u>3</u> Dm9 III 1 b3 b7 2	<u>b3</u> G7#5 III 1 b7 3 #5	<u>2</u> C9 II 1 3 b7 2	<u>3</u> Dm9 III 1 b3 b7 2	<u>b3</u> Db9 III 1 3 b7 2	<u>2</u> C9 II 1 3 b7 2

2-3-4, A form major II-V-I and II-bII-I

<u>2</u> Dm7 III 1 b3 b7 1	<u>3</u> G13 III 1 b7 3 6	<u>4</u> C7sus4 III 1 5 b7 4	<u>2</u> Dm7 III 1 b3 b7 1	<u>3</u> Db7#9 III 1 3 b7 #9	<u>4</u> C7sus4 III 1 5 b7 4
<u>4</u> Dm7 III 1 b3 b7 b3	<u>3</u> G13 III 1 b7 3 6	<u>2</u> Cma9 II 1 3 7 2	<u>4</u> Dm7 III 1 b3 b7 b3	<u>3</u> Db7#9 III 1 3 b7 #9	<u>2</u> Cma9 II 1 3 7 2
<u>4</u> Dm7 III 1 b3 b7 b3	<u>3</u> G13 III 1 b7 3 6	<u>2</u> C9 II 1 3 b7 2	<u>4</u> Dm7 III 1 b3 b7 b3	<u>3</u> Db7#9 III 1 3 b7 #9	<u>2</u> C9 II 1 3 b7 2

2-3-5, A form major II-V-I and II-bII-I

<p><u>2</u></p> <p>Dm7 III</p> <p>1 b3 b7 1</p>	<p><u>3</u></p> <p>G13 III</p> <p>1 b7 3 6</p>	<p><u>5</u></p> <p>Cma7 III</p> <p>1 5 7 3 5</p>	<p><u>2</u></p> <p>Dm7 III</p> <p>1 b3 b7 1</p>	<p><u>3</u></p> <p>Db7#9 III</p> <p>1 3 b7 #9</p>	<p><u>5</u></p> <p>Cma7 III</p> <p>1 5 7 3 5</p>
<p><u>2</u></p> <p>Dm7 III</p> <p>1 b3 b7 1</p>	<p><u>3</u></p> <p>G13 III</p> <p>1 b7 3 6</p>	<p><u>5</u></p> <p>C7 III</p> <p>1 5 b7 3 5</p>	<p><u>2</u></p> <p>Dm7 III</p> <p>1 b3 b7 1</p>	<p><u>3</u></p> <p>Db7#9 III</p> <p>1 3 b7 #9</p>	<p><u>5</u></p> <p>C7 III</p> <p>1 5 b7 3 5</p>
<p><u>5</u></p> <p>Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>3</u></p> <p>G13 III</p> <p>1 b7 3 6</p>	<p><u>2</u></p> <p>Cma9 II</p> <p>1 3 7 2</p>	<p><u>5</u></p> <p>Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>3</u></p> <p>Db7#9 III</p> <p>1 3 b7 #9</p>	<p><u>2</u></p> <p>Cma9 II</p> <p>1 3 7 2</p>
<p><u>5</u></p> <p>Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>3</u></p> <p>G13 III</p> <p>1 b7 3 6</p>	<p><u>2</u></p> <p>C9 II</p> <p>1 3 b7 2</p>	<p><u>5</u></p> <p>Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>3</u></p> <p>Db7#9 III</p> <p>1 3 b7 #9</p>	<p><u>2</u></p> <p>C9 II</p> <p>1 3 b7 2</p>

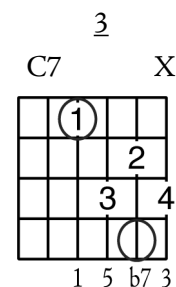
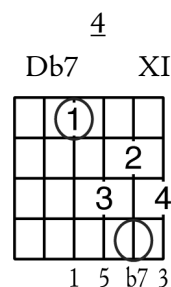
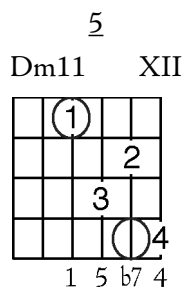
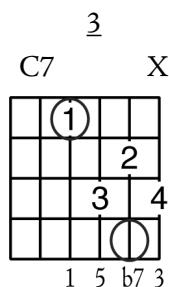
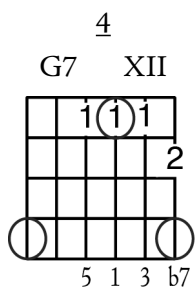
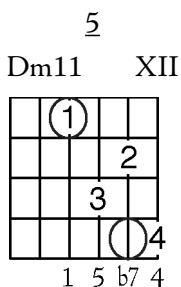
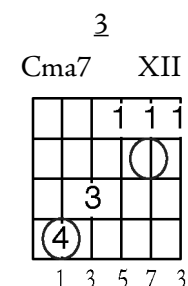
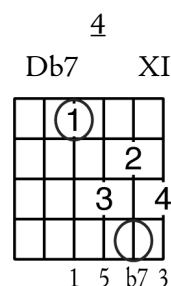
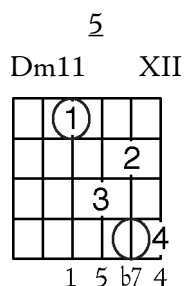
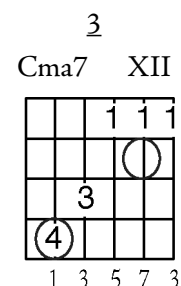
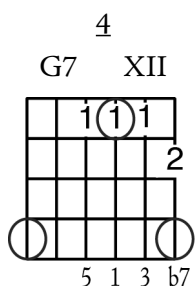
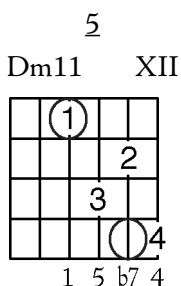
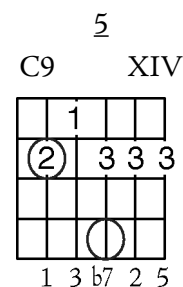
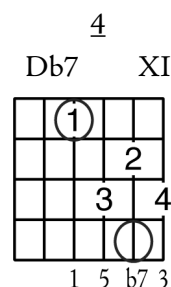
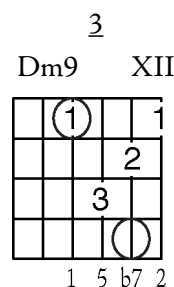
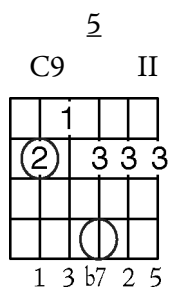
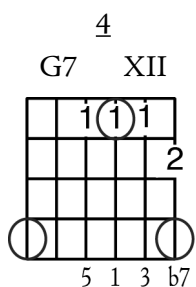
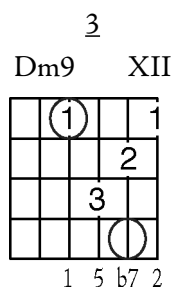
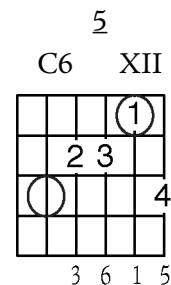
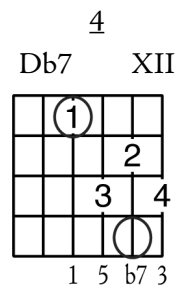
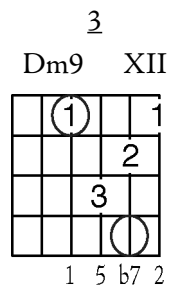
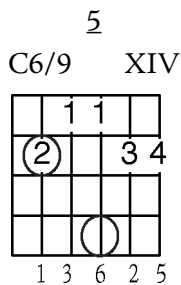
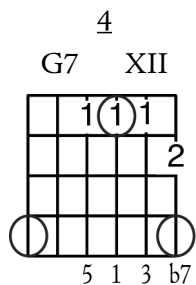
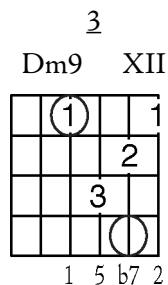
b3-4-5, A form major II-V-I and II-bII-I

<p><u>b3</u></p> <p>D7b9 IV</p> <p>1 3 b7 b2</p>	<p><u>4</u></p> <p>G7 IV</p> <p>5 1 3 b7</p>	<p><u>5</u></p> <p>Cma7 III</p> <p>1 5 7 3 5</p>	<p><u>b3</u></p> <p>D7b9 IV</p> <p>1 3 b7 b2</p>	<p><u>4</u></p> <p>Db7 IV</p> <p>1 5 b7 3</p>	<p><u>5</u></p> <p>Cma7 III</p> <p>1 5 7 3 5</p>
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<u>b3</u> D7b9 IV 1 3 b7 b2	<u>4</u> G7 IV 5 1 3 b7	<u>5</u> C7 III 1 5 b7 3 5	<u>b3</u> D7b9 IV 1 3 b7 b2	<u>4</u> Db7 IV 1 5 b7 3	<u>5</u> C7 III 1 5 b7 3 5
<u>5</u> Dm11 III 1 b3 b7 1 4	<u>4</u> G7 IV 5 1 3 b7	<u>b3</u> C7#9 II 1 3 b7 #9	<u>5</u> Dm11 III 1 b3 b7 1 4	<u>4</u> Db7 IV 1 5 b7 3	<u>b3</u> C7#9 II 1 3 b7 #9

b3-4-5, A form minor II-V-I and II-bII-I

<u>b3</u> Ab7 IV 1 b7 3 5	<u>4</u> G7 III 1 5 3 b7	<u>5</u> Cm7 III 1 5 b7 b3 5	<u>b3</u> Ab7 IV 1 b7 3 5	<u>4</u> Db7 IV 1 5 b7 3	<u>5</u> Cm7 III 1 5 b7 b3 5
<u>5</u> Dm11 III 1 b3 b7 1 4	<u>4</u> G7 III 1 5 3 b7	<u>b3</u> Cm7 III 1 5 b7 b3	<u>5</u> Dm11 III 1 b3 b7 1 4	<u>4</u> Db7 IV 1 5 b7 3	<u>b3</u> Cm7 III 1 5 b7 b3

3-4-5, C form major II-V-I and II-bII-I

3-4-5, A form major II-V-I and II-bII-I

3 4 5
Dm9 III G7 IV Cma7 III

1 b3 b7 2 5 1 3 b7 1 5 7 3 5

3 4 5
Dm9 III Db7 IV Cma7 III

1 b3 b7 2 1 5 b7 3 1 5 7 3 5

3 4 5
Dm9 III G7 IV C7 III

1 b3 b7 2 5 1 3 b7 1 5 b7 3 5

3 4 5
Dm9 VIII Db7 IV C7 III

1 b3 b7 2 1 5 b7 3 1 5 b7 3 5

5 4 3
Dm11 III G7 IV Cma7 III

1 b3 b7 1 4 5 1 3 b7 1 5 7 3

5 4 3
Dm11 III G7 IV C7 III

1 b3 b7 1 4 5 1 3 b7 1 5 b7 3 1 5 b7 3

3-5-6, A form major II-V-I and II-bII-I

<p><u>3</u> Dm9 III</p> <p>1 b3 b7 2</p>	<p><u>5</u> G7 III</p> <p>5 b7 3 5 1</p>	<p><u>6</u> C6 III</p> <p>1 5 1 3 6</p>	<p><u>3</u> Dm9 III</p> <p>1 b3 b7 2</p>	<p><u>5</u> Db9b5 III</p> <p>1 3 b7 2 b5</p>	<p><u>6</u> C6 III</p> <p>1 5 1 3 6</p>
<p><u>3</u> Dm9 III</p> <p>1 b3 b7 2</p>	<p><u>5</u> G7 III</p> <p>5 b7 3 5 1</p>	<p><u>6</u> C13 II</p> <p>1 3 b7 2 6</p>	<p><u>3</u> Dm9 III</p> <p>1 b3 b7 2</p>	<p><u>5</u> Db9b5 III</p> <p>1 3 b7 2 b5</p>	<p><u>6</u> C13 II</p> <p>1 3 b7 2 6</p>
<p><u>6</u> Dm7 III</p> <p>b3 b7 1 5</p>	<p><u>5</u> G7 III</p> <p>5 b7 3 5 1</p>	<p><u>3</u> Cma7 III</p> <p>1 5 7 3</p>	<p><u>6</u> Dm7 III</p> <p>b3 b7 1 5</p>	<p><u>5</u> Db9b5 III</p> <p>1 3 b7 2 b5</p>	<p><u>3</u> Cma7 III</p> <p>1 5 7 3</p>
<p><u>6</u> Dm7 III</p> <p>b3 b7 1 5</p>	<p><u>5</u> G7 III</p> <p>5 b7 3 5 1</p>	<p><u>3</u> C7 III</p> <p>1 5 b7 3</p>	<p><u>6</u> Dm7 III</p> <p>b3 b7 1 5</p>	<p><u>5</u> Db9b5 III</p> <p>1 3 b7 2 b5</p>	<p><u>3</u> C7 III</p> <p>1 5 b7 3</p>

4-5-6, A form major II-V-I and II-bII-I

4 Dm7 III	5 G7 III	6 C6 III	4 Dm7 III	5 Db9b5 III	6 C6 III
4 Dm7 III	5 G7 III	6 C13 II	4 Dm7 III	5 Db9b5 III	6 C13 II
6 Dm7 III	5 G7 III	4 C7sus4 III	6 Dm7 III	5 Db9b5 III	4 C7sus4 III

4-5-b7, A form major II-V-I and II-bII-I

4 Dm7 III	5 G7 III	b7 C7 III	4 Dm7 III	5 Db9#11 III	b7 C7 III

<u>b7</u> D7#5 #9 III	<u>5</u> G7 III	<u>4</u> C7sus4 III	<u>b7</u> D7#5 #9 III	<u>5</u> Db9#11 III	<u>4</u> C7sus4 III
1 3 b7 #2 #5	5 b7 3 5 1	1 5 b7 4	1 3 b7 #2 #5	1 3 b7 2 b5	1 5 b7 4

4-5-b7, A form minor II-V-I and II-bII-I

<u>4</u> Dm7 III	<u>5</u> G7 III	<u>b7</u> Cm7 III	<u>4</u> Dm7 III	<u>5</u> Db9#11 III	<u>b7</u> Cm7 III
1 b3 b7 b3	5 b7 3 5 1	1 5 b7 b3 b7	1 b3 b7 b3	1 3 b7 2 b5	1 5 b7 b3 b7

5-#5-6, A form major II-V-I and II-bII-I

<p><u>5</u> Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>#5</u> G7b9 III</p> <p>1 b7 3 5 b2</p>	<p><u>6</u> C6 III</p> <p>1 5 1 3 6</p>	<p><u>5</u> Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>#5</u> Db9 III</p> <p>1 3 b7 2 5</p>	<p><u>6</u> C6 III</p> <p>1 5 1 3 6</p>
<p><u>5</u> Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>#5</u> G7b9 III</p> <p>1 b7 3 5 b2</p>	<p><u>6</u> C13 II</p> <p>1 3 b7 2 6</p>	<p><u>5</u> Dm11 III</p> <p>1 b3 b7 1 4</p>	<p><u>#5</u> Db9 III</p> <p>1 3 b7 2 5</p>	<p><u>6</u> C13 II</p> <p>1 3 b7 2 6</p>
<p><u>6</u> Dm7 X</p> <p>1 b3 b7 1 5</p>	<p><u>b6</u> G7b9 III</p> <p>1 b7 3 5 b2</p>	<p><u>5</u> Cma7 III</p> <p>1 5 7 3 5</p>	<p><u>6</u> Dm7 X</p> <p>1 b3 b7 1 5</p>	<p><u>b6</u> Db9 III</p> <p>1 3 b7 2 5</p>	<p><u>5</u> Cma7 III</p> <p>1 5 7 3 5</p>
<p><u>6</u> Dm7 X</p> <p>1 b3 b7 1 5</p>	<p><u>b6</u> G7b9 III</p> <p>1 b7 3 5 b2</p>	<p><u>5</u> C7 III</p> <p>1 5 b7 3 5</p>	<p><u>6</u> Dm7 X</p> <p>1 b3 b7 1 5</p>	<p><u>b6</u> Db9 III</p> <p>1 3 b7 2 5</p>	<p><u>5</u> C7 III</p> <p>1 5 b7 3 5</p>

5-b6-b7, A form minor II-V-I

<p><u>5</u> Dm7sus4 III</p> <p>1 b3 b7 1 4</p>	<p><u>b6</u> G7b9 III</p> <p>1 b7 3 5 b2</p>	<p><u>b7</u> Cm7 III</p> <p>1 5 b7 b3 b7</p>	<p><u>5</u> Dm7sus4 III</p> <p>1 b3 b7 1 4</p>	<p><u>b6</u> Db9 III</p> <p>1 3 b7 2 5</p>	<p><u>b7</u> Cm7 III</p> <p>1 5 b7 b3 b7</p>
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<u>b7</u> D7#5#9 IV	<u>b6</u> G7b9 IX	<u>5</u> Cm7 III	<u>b7</u> D7#5#9 IV	<u>b6</u> Db9 III	<u>5</u> Cm7 III

5-6-7 and 5-6-b7, A form major II-V-I

<u>5</u> Dm11 III	<u>6</u> G9 III	<u>7</u> Cma7 III	<u>5</u> Dm11 III	<u>6</u> Db9#5 III	<u>7</u> Cma7 III
<u>5</u> Dm11 III	<u>6</u> G9 III	<u>b7</u> C7 III	<u>5</u> Dm11 III	<u>6</u> Db9#5 III	<u>b7</u> C7 III
<u>b7</u> D7#5#9 IV	<u>6</u> G9 III	<u>5</u> Cma7 III	<u>b7</u> D7#5#9 IV	<u>6</u> Db9#5 III	<u>5</u> Cma7 III
<u>b7</u> D7#5#9 IV	<u>6</u> G9 III	<u>5</u> C9 II	<u>b7</u> D7#5#9 IV	<u>6</u> Db9#5 III	<u>5</u> C9 II

For b6-b7-1, b6-7-1, 6-#6-7, 6-b7-1, 6-7-1, and b7-7-1, see E/D and G forms

II-V-I, G Form

For 1-#1-2, 1-2-b3, 1-2-3, , 1-b3-4, 2-#2-3, 2-3-4, 2-3-5, and b3-4-5, see E/D and C/A forms

3-4-5, G form major II-V-I

$\overset{3}{\text{Dm9}} \quad \text{V}$ b3 5 b7 2	$\overset{4}{\text{G7}} \quad \text{V}$ 5 1 5 b7	$\overset{5}{\text{Cma7}} \quad \text{VIII}$ 1 7 3 5	$\overset{3}{\text{Dm9}} \quad \text{V}$ b3 5 b7 2	$\overset{4}{\text{Db7}} \quad \text{VI}$ 1 b7 1 3	$\overset{5}{\text{Cma7}} \quad \text{VIII}$ 1 7 3 5
$\overset{3}{\text{Dm9}} \quad \text{V}$ b3 5 b7 2	$\overset{4}{\text{G7}} \quad \text{V}$ 5 1 5 b7	$\overset{5}{\text{C7}} \quad \text{VIII}$ 3 b7 1 5	$\overset{3}{\text{Dm9}} \quad \text{V}$ b3 5 b7 2	$\overset{4}{\text{Db7}} \quad \text{IV}$ 1 5 b7 3	$\overset{5}{\text{C7}} \quad \text{III}$ 1 5 b7 3 5
$\overset{5}{\text{Dm7sus4}} \quad \text{V}$ 1 5 b7 4	$\overset{4}{\text{G7}} \quad \text{IV}$ 5 1 3 b7	$\overset{3}{\text{Cma7}} \quad \text{III}$ 1 5 7 3	$\overset{5}{\text{Dm7sus4}} \quad \text{V}$ 1 5 b7 4	$\overset{4}{\text{Db7}} \quad \text{IV}$ 1 5 b7 3	$\overset{3}{\text{Cma7}} \quad \text{III}$ 1 5 7 3
$\overset{5}{\text{Dm7sus4}} \quad \text{V}$ 1 5 b7 4	$\overset{4}{\text{G7}} \quad \text{IV}$ 5 1 3 b7	$\overset{3}{\text{C7}} \quad \text{III}$ 1 5 b7 3	$\overset{5}{\text{Dm7sus4}} \quad \text{V}$ 1 5 b7 4	$\overset{4}{\text{Db7}} \quad \text{IV}$ 1 5 b7 3	$\overset{3}{\text{C7}} \quad \text{III}$ 1 5 b7 3

3-5-6, G form major II-V-I and II-bII-I

<p><u>3</u> Dm9 V</p> <p>b3 5 b7 2</p>	<p><u>5</u> G7#5 VIII</p> <p>b7 3 #5 1</p>	<p><u>6</u> C6 VIII</p> <p>1 1 3 6</p>	<p><u>3</u> Dm9 V</p> <p>b3 5 b7 2</p>	<p><u>5</u> Db7b5 VIII</p> <p>1 b7 3 b5</p>	<p><u>6</u> C6 VIII</p> <p>1 1 3 6</p>
<p><u>3</u> Dm9 V</p> <p>b3 5 b7 2</p>	<p><u>5</u> G7#5 VIII</p> <p>b7 3 #5 1</p>	<p><u>6</u> C13 VIII</p> <p>1 b7 3 6</p>	<p><u>3</u> Dm9 V</p> <p>b3 5 b7 2</p>	<p><u>5</u> Db7b5 VIII</p> <p>1 b7 3 b5</p>	<p><u>6</u> C13 VIII</p> <p>1 b7 3 6</p>
<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>5</u> G7#5 VIII</p> <p>b7 3 #5 1</p>	<p><u>3</u> Cma7 VIII</p> <p>1 7 3</p>	<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>5</u> Db7b5 VIII</p> <p>1 b7 3 b5</p>	<p><u>3</u> Cma7 VIII</p> <p>1 7 3</p>
<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>5</u> G7#5 VIII</p> <p>b7 3 #5 1</p>	<p><u>3</u> C7 VIII</p> <p>1 b7 3</p>	<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>5</u> Db7b5 VIII</p> <p>1 b7 3 b5</p>	<p><u>3</u> C7 VIII</p> <p>1 b7 3</p>

for 4-5-6 and 4-5-b7 major II-V-I and II-bII-I: see E/D and A forms

for 4-5-b7 and 5-b6-b7 minor II-V-I and II-bII-I: see E/D and A forms

5-6-7 and 5-6-b7, G form major II-V-I and II-bII-I

<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> G9 IV</p> <p>1 3 b7 2</p>	<p><u>7</u> Cma7 V</p> <p>5 1 3 7</p>	<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> Db9b5 VIII</p> <p>3 b7 2 #5</p>	<p><u>7</u> Cma9 VII</p> <p>3 1 2 5 7</p>
<p>Dm7sus4 V</p> <p>1 5 b7 4</p>	<p>G9 IV</p> <p>1 3 b7 2</p>	<p>C7 V</p> <p>5 1 3 b7</p>	<p>Dm7sus4 V</p> <p>1 5 b7 4</p>	<p>Db9b5 VIII</p> <p>3 b7 2 #5</p>	<p>C9 VI</p> <p>3 2 5 b7</p>
<p><u>b7</u> D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p><u>6</u> G9 IV</p> <p>1 3 b7 2</p>	<p><u>5</u> Cma7 III</p> <p>1 5 7 3 5</p>	<p><u>b7</u> D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p><u>6</u> Db9b5 III</p> <p>1 3 b7 2 #5</p>	<p><u>5</u> Cma7 III</p> <p>1 5 7 3 5</p>
<p>D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p>G9 IV</p> <p>1 3 b7 2</p>	<p>C7 III</p> <p>1 5 b7 3 5</p>	<p>D7#5#9 IV</p> <p>1 3 b7 #2 #5</p>	<p>Db9b5 III</p> <p>1 3 b7 2 #5</p>	<p>C7 III</p> <p>1 5 b7 3 5</p>

5-6-1, G form major II-V-I and II-bII-I

<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> G9 IV</p> <p>1 3 b7 2</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>	<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> Db9b5 III</p> <p>3 b7 2 #5</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>
-----------------------------------------------	-------------------------------------------	--------------------------------------------	-----------------------------------------------	------------------------------------------------	--------------------------------------------

<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> G9 IV</p> <p>1 3 b7 2</p>	<p><u>1</u> C9 VII</p> <p>3 b7 2 5 1</p>	<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> Db9b5 III</p> <p>3 b7 2 #5</p>	<p><u>1</u> C9 VII</p> <p>3 b7 2 5 1</p>
<p><u>1</u> Dm7 V</p> <p>5 1 b3 b7</p>	<p><u>6</u> G9 IV</p> <p>1 3 b7 2</p>	<p><u>5</u> Cma7 III</p> <p>1 5 7 3 5</p>	<p><u>1</u> Dm7 V</p> <p>5 1 b3 b7</p>	<p><u>6</u> Db9b5 III</p> <p>1 3 b7 2 #5</p>	<p><u>5</u> Cma7 III</p> <p>1 5 7 3 5</p>
<p><u>1</u> Dm7 V</p> <p>5 1 b3 b7</p>	<p><u>6</u> G9 IV</p> <p>1 3 b7 2</p>	<p><u>5</u> C7 III</p> <p>1 5 b7 3 5</p>	<p><u>1</u> Dm7 V</p> <p>5 1 b3 b7</p>	<p><u>6</u> Db9b5 III</p> <p>1 3 b7 2 #5</p>	<p><u>5</u> C7 III</p> <p>1 5 b7 3 5</p>

5-b7-1, G form major II-V-I and II-bII-I

<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>b7</u> G7#9 IV</p> <p>1 3 b7 #2</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>	<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>b7</u> Db13 III</p> <p>1 3 b7 2 6</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>
<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>b7</u> G7#9 IV</p> <p>5 1 3 b7 #2</p>	<p><u>1</u> C9 VII</p> <p>3 b7 2 5 1</p>	<p><u>5</u> Dm7sus4 V</p> <p>1 5 b7 4</p>	<p><u>6</u> Db13 VI</p> <p>b7 2 3 6</p>	<p><u>1</u> C9 V</p> <p>b7 2 3 1</p>

<u>1</u> Dm7 V	<u>b7</u> G7#9 IV	<u>5</u> Cma7 III	<u>1</u> Dm7 V	<u>6</u> Db9b5 III	<u>5</u> Cma7 III
5 1 b3 b7	1 3 b7 #2	1 5 7 3 5	5 1 b3 b7	1 3 b7 2 #5	1 5 7 3 5

<u>1</u> Dm7 V	<u>b7</u> G7#9 IV	<u>5</u> C7 III	<u>1</u> Dm7 V	<u>6</u> Db9b5 III	<u>5</u> C7 III
5 1 b3 b7	1 3 b7 #2	1 5 b7 3 5	5 1 b3 b7	1 3 b7 2 #5	1 5 b7 3 5

5-b7-1, G form minor II-V-I and II-bII-I

<u>5</u> Dm7/11b5 V	<u>b7</u> G7#9 IV	<u>1</u> Cm add4 VI	<u>5</u> Dm7/11b5 V	<u>b7</u> Db13 VI	<u>1</u> Cm7 VIII
1 b5 b7 4	1 3 b7 #2	b7 b3 4 1	1 b5 b7 4	1 b7 2 3 6	1 5 b7 b3 5 1

<u>1</u> Dm7b5 V	<u>b7</u> G7#9 IV	<u>5</u> Cm7 VIII	<u>1</u> Dm7b5 V	<u>6</u> Db13 VI	<u>5</u> Cm7 VIII
b5 1 b3 b7	1 3 b7 #2	1 b7 b3 5	b5 1 b3 b7	1 b7 2 3 6	1 b7 b3 5

b6-b7-1 and b6-7-1, G form minor II-V-I and II-bII-I

<u>b6</u> Dm7b5 IV	<u>b7</u> G7#9 IV	<u>1</u> Cm V	<u>b6</u> Dm7b5 IV	<u>b7</u> Db13 IX	<u>1</u> Cm7 VIII
<u>b6</u> Dm7b5 IV	<u>7</u> G7 V	<u>1</u> Cm V	<u>b6</u> Dm7b5 IV	<u>7</u> Db7 VI	<u>1</u> Cm V

6-#6-7, G form major II-V-I and II-bII-I

<u>6</u> Dm7 V	<u>#6</u> G7#9 IV	<u>7</u> Cma7 III	<u>6</u> Dm7 V	<u>#6</u> Db13 III	<u>7</u> Cma7 III
<u>6</u> Dm7 V	<u>#6</u> G7#9 IV	<u>7</u> Cma7 III	<u>6</u> Dm7 V	<u>#6</u> Db13 III	<u>7</u> Cma7 III

6-b7-1, G form major II-V-I and II-bII-I

<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>b7</u> G7#9 IV</p> <p>5 1 3 b7 #2</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>	<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>b7</u> Db13 VI</p> <p>1 b7 1 3 6</p>	<p><u>1</u> C6/9 VII</p> <p>1 3 6 2 5 1</p>
<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>b7</u> G7#9 IV</p> <p>5 1 3 b7 #2</p>	<p><u>1</u> C9 VII</p> <p>1 b7 2 5 1</p>	<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>b7</u> Db13 VI</p> <p>1 b7 1 3 6</p>	<p><u>1</u> C9 VII</p> <p>1 b7 2 5 1</p>
<p><u>1</u> Dm7 VI</p> <p>5 1 b3 b7</p>	<p><u>b7</u> G7#9 IV</p> <p>1 3 b7 #2</p>	<p><u>6</u> C6 V</p> <p>5 1 3 6</p>	<p><u>1</u> Dm7 VI</p> <p>5 1 b3 b7</p>	<p><u>b7</u> Db13 III</p> <p>3 b7 2 6</p>	<p><u>6</u> C6 V</p> <p>5 1 3 6</p>
<p><u>1</u> Dm7 VI</p> <p>5 1 b3 b7</p>	<p><u>b7</u> G7#9 IV</p> <p>1 3 b7 #2</p>	<p><u>6</u> C13 III</p> <p>5 1 3 6</p>	<p><u>1</u> Dm7 VI</p> <p>5 1 b3 b7</p>	<p><u>b7</u> Db13 III</p> <p>3 b7 2 6</p>	<p><u>6</u> C13 III</p> <p>5 1 3 6</p>

6-7-1, G form major II-V-I and II-bII-I

<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>7</u> G7 V</p> <p>1 5 b7 3</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>	<p><u>6</u> Dm7 V</p> <p>5 b7 b3 5</p>	<p><u>7</u> Db7 VI</p> <p>5 1 3 b7</p>	<p><u>1</u> Cadd9 V</p> <p>5 2 3 1</p>
<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>7</u> G7 V</p> <p>1 5 b7 3</p>	<p><u>1</u> C9 VII</p> <p>1 b7 2 5 1</p>	<p><u>6</u> Dm7 V</p> <p>1 5 b7 b3 5</p>	<p><u>7</u> Db7 VI</p> <p>5 1 3 b7</p>	<p><u>1</u> C9 VII</p> <p>1 b7 2 5 1</p>
<p><u>1</u> Dm7 VI</p> <p>5 1 b3 b7</p>	<p><u>7</u> G7 V</p> <p>1 5 b7 3</p>	<p><u>6</u> C6 V</p> <p>5 1 3 6</p>	<p><u>1</u> Dm7 VI</p> <p>5 1 b3 b7</p>	<p><u>7</u> Db7 VI</p> <p>5 1 3 b7</p>	<p><u>6</u> C6 V</p> <p>5 1 3 6</p>
<p><u>1</u> Dm7 VI</p> <p>5 1 b3 b7</p>	<p><u>7</u> G7 V</p> <p>1 5 b7 3</p>	<p><u>6</u> C13 III</p> <p>5 1 b7 3</p>	<p><u>1</u> Dm7 VI</p> <p>5 1 b3 b7</p>	<p><u>7</u> Db7 VI</p> <p>5 1 3 b7</p>	<p><u>6</u> C13 III</p> <p>5 1 b7 3</p>

b7-7-1, G form major II-V-I and II-bII-I

<u>b7</u> D7#5#9 III	<u>7</u> G7 V	<u>1</u> Cadd9 V			
<p>3 b7 #2 #5</p>	<p>1 5 b7 3</p>	<p>5 2 3 1</p>			
<u>b7</u> D7#5#9 III	<u>7</u> G7 VII	<u>1</u> C9 VII			
<p>3 b7 #2 #5</p>	<p>b7 5 1 3</p>	<p>3 b7 2 5 1</p>			
<u>1</u> Dm7 VI	<u>7</u> G7 V	<u>b7</u> C7 IX	<u>1</u> Dm7 VI	<u>7</u> Db7 VI	<u>b7</u> C7 V
<p>5 1 b3 b7</p>	<p>1 5 b7 3</p>	<p>5 1 3 b7</p>	<p>5 1 b3 b7</p>	<p>5 1 3 b7</p>	<p>5 1 3 b7</p>

b7-7-1, G form minor II-V-I and II-bII-I

<u>b7</u> D7#5#9 III	<u>7</u> G7 V	<u>1</u> Cm V			
<p>3 b7 #2 #5</p>	<p>1 5 b7 3</p>	<p>5 b3 5 1</p>			
<u>1</u> Dm7 VI	<u>7</u> G7 V	<u>b7</u> Cm7 IV	<u>1</u> Dm7 VI	<u>7</u> Db7 VI	<u>b7</u> Cm7 IV
<p>5 1 b3 b7</p>	<p>1 5 b7 3</p>	<p>5 1 b3 b7</p>	<p>5 1 b3 b7</p>	<p>5 1 3 b7</p>	<p>5 1 b3 b7</p>

b712 (21b7), and 712: see E/D and C/A forms

JAZZ BLUES

Common Tone

Common Tone 1 on the first string

<p>C9 VII</p> <p>b7 2 5 1</p>	<p>F9 VII</p> <p>3 b7 2 5</p>	<p>C9 VII</p> <p>b7 2 5 1</p>	<p>C9 VII</p> <p>b7 2 5 1</p>	<p>F9 VII</p> <p>3 b7 2 5</p>	<p>F#dim7 VII</p> <p>b3 6 1 b5</p>
<p>C9 VII</p> <p>b7 2 5 1</p>	<p>A7#9 VI</p> <p>1 3 b7 #2</p>	<p>Dm7 VI</p> <p>5 1 b3 b7</p>	<p>G7sus4 V</p> <p>1 5 b7 4</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

Common Tone 2 on the first string

<p>C9 VIII</p> <p>b7 3 5 2</p>	<p>F13 VII</p> <p>3 b7 2 6</p>	<p>C9 VIII</p> <p>b7 3 5 2</p>	<p>C9 VIII</p> <p>b7 3 5 2</p>	<p>F13 VII</p> <p>3 b7 2 6</p>	<p>F13b9 VII</p> <p>3 b7 b2 6</p>
<p>C9 VIII</p> <p>b7 3 5 2</p>	<p>A7sus4 VII</p> <p>1 5 b7 4</p>	<p>Dm7 X</p> <p>b7 b3 5 1</p>	<p>G9 IX</p> <p>3 b7 2 5</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

Common Tone b3 on the first string

<p>C7#9 IX</p> <p>1 3 b7 #2</p>	<p>F9 X</p> <p>5 2 3 b7</p>	<p>C7#9 IX</p> <p>1 3 b7 #2</p>	<p>C7#9 IX</p> <p>1 3 b7 #2</p>	<p>F9 X</p> <p>5 2 3 b7</p>	<p>F#dim7 X</p> <p>b5 1 b3 6</p>
<p>C7#9 IX</p> <p>1 3 b7 #2</p>	<p>A7b5#9 IX</p> <p>3 b7 #2 b5</p>	<p>D7b9 X</p> <p>b7 3 5 b2</p>	<p>G9#5 X</p> <p>3 b7 2 #5</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

Common Tone 3 (or b3) on the first string

<p>C7 X</p> <p>1 5 b7 3</p>	<p>F9 X</p> <p>5 2 3 b7</p>	<p>C7 X</p> <p>1 5 b7 3</p>	<p>C7 X</p> <p>1 5 b7 3</p>	<p>F9 X</p> <p>5 2 3 b7</p>	<p>F#dim7 X</p> <p>b5 1 b3 6</p>
<p>C7 X</p> <p>1 5 b7 3</p>	<p>A7b9 XI</p> <p>3 b7 b2 5</p>	<p>Dm9 X</p> <p>b7 b3 5 2</p>	<p>G9#5 IX</p> <p>3 b7 2 6</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

Common Tone 5 on the first string

<p>F9 VII</p> <p>I 3 b7 2 5</p>	<p>Bb9 VII</p> <p>1 3 b7 2</p>	<p>F9 VII</p> <p>I 3 b7 2 5</p>	<p>F9 VII</p> <p>I 3 b7 2 5</p>	<p>Bb9 VII</p> <p>1 3 b7 2</p>	<p>Bb13 VI</p> <p>b7 3 6 2</p>
<p>F9 VII</p> <p>I 3 b7 2 5</p>	<p>D7b9 VII</p> <p>5 b2 3 b7</p>	<p>G7sus4 V</p> <p>1 5 b7 4</p>	<p>C9 V</p> <p>b7 2 3 1</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

Common Tone 6 on the first string

<p>F13 VII</p> <p>I 3 b7 2 6</p>	<p>Bb7 VIII</p> <p>1 5 b7 3</p>	<p>F13 VII</p> <p>I 3 b7 2 6</p>	<p>F13 VII</p> <p>I 3 b7 2 6</p>	<p>Bb7 VIII</p> <p>1 5 b7 3</p>	<p>Bdim7 IX</p> <p>1 b5 6 b3</p>
<p>F13 X</p> <p>I b7 2 3 6</p>	<p>D7#5 IX</p> <p>b7 3 #5 1</p>	<p>Gm7 X</p> <p>1 b7 b3 5</p>	<p>C9 IX</p> <p>5 3 b7 2</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

Common Tone 1 on the second string

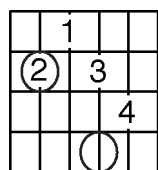
<p>F13 VI</p> <p>b7 3 6 1</p>	<p>Bb9 V</p> <p>3 b7 2 5</p>	<p>F13 VI</p> <p>b7 3 6 1</p>	<p>F13 VI</p> <p>b7 3 6 1</p>	<p>Bb7 VI</p> <p>1 b7 3 5</p>	<p>Bdim7 V</p> <p>1 6 b3 b5</p>
<p>F13 VI</p> <p>b7 3 6 1</p>	<p>D7#9 IV</p> <p>1 3 b7 #9</p>	<p>Gm7 III</p> <p>5 1 b3 b7</p>	<p>C7sus4 III</p> <p>1 5 b7 4</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

Common Tone 2 on the second string

<p>F9 VII</p> <p>I 1 3 b7 2</p>	<p>Bb13 VI</p> <p>1 b7 3 6</p>	<p>F9 VII</p> <p>I 1 3 b7 2</p>	<p>F9 VII</p> <p>I 1 3 b7 2</p>	<p>Bb13 VI</p> <p>1 b7 3 6</p>	<p>B13b9 VI</p> <p>b2 b7 3 6</p>
<p>F9 VII</p> <p>I 1 3 b7 2</p>	<p>D7sus4 V</p> <p>1 5 b7 4</p>	<p>Gm7 VII</p> <p>b7 b3 5 1</p>	<p>C9 VII</p> <p>3 b7 2 5</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

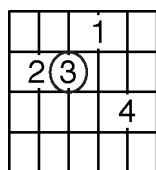
Common Tone b3 on the second string

F7#9 VII



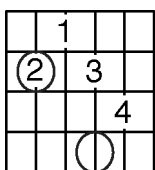
I 1 3 b7 #9

Bb7 VII



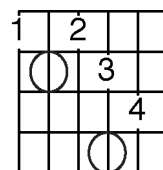
5 1 3 b7

F7#9 VII



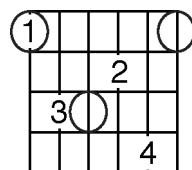
I 1 3 b7 #9

F7b5#9 VI



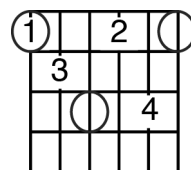
b5 3 b7 #2

Bb7 VI



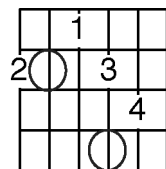
1 5 3 b7

Bdim7 VII



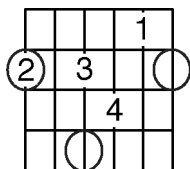
1 b5 b3 6

F7#9 VII



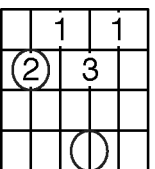
I 5 3 b7 #2

D7b5 IX



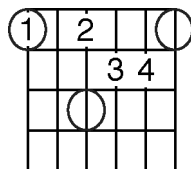
1 b7 3 b5

G7b9 IX



1 3 b7 b2

C7#5 VIII



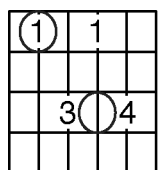
1 b7 3 #5

same as bars 7-8

same as bars 9-10

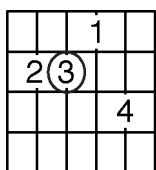
Common Tone 3 (or b3) on the second string

F7 VIII



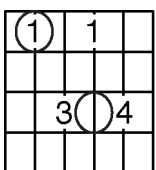
1 5 b7 3

Bb7 VII



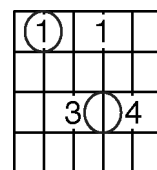
5 1 3 b7

F7 VIII



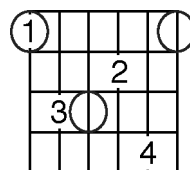
1 5 b7 3

F7 VIII



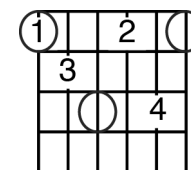
1 5 b7 3

Bb7 VI



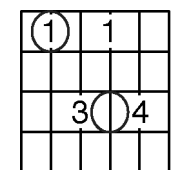
1 5 3 b7

Bdim7 VII



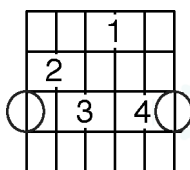
1 b5 b3 6

F7 VIII



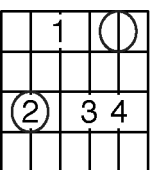
1 5 b7 3

D7b59 IX



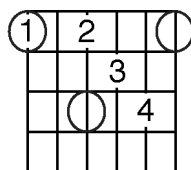
3 b7 b2 5

Gm9 VIII



1 b3 b7 2

C13 VIII



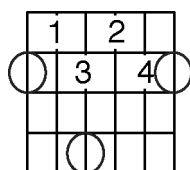
1 b7 3 6

same as bars 7-8

same as bars 9-10

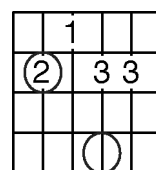
Common Tone 5 on the second string

C9 VII



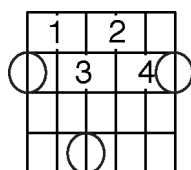
3 b7 2 5

F9 VII



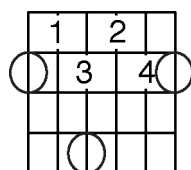
1 3 b7 2

C9 VII



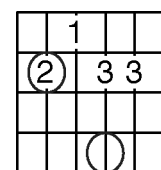
3 b7 2 5

C9 VII



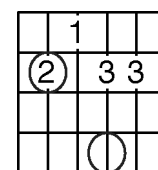
3 b7 2 5

F9 VII



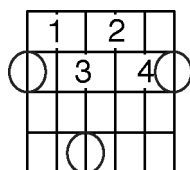
1 3 b7 2

F9 VII



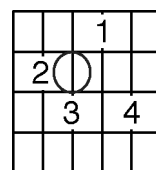
1 3 b7 2

C9 VII



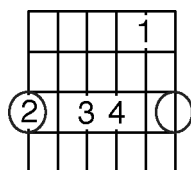
3 b7 2 5

A7b9 VI



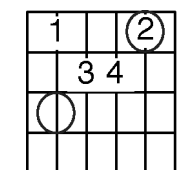
5 b2 3 b7

Dm7/11 VIII



1 b7 b3 4

G13 VIII



b7 3 6 1

same as bars 7-8

same as bars 9-10

Common Tone 6 on the second string

<p>C13 VIII</p> <p>1 b7 3 6</p>	<p>F7 VIII</p> <p>1 5 b7 3</p>	<p>C13 VIII</p> <p>1 b7 3 6</p>	<p>C13 VIII</p> <p>1 b7 3 6</p>	<p>F7 VIII</p> <p>1 5 b7 3</p>	<p>F#dim7 VIII</p> <p>1 b5 6 b3</p>
<p>C13 VIII</p> <p>1 b7 3 6</p>	<p>A7#5 X</p> <p>b7 3 #5 1</p>	<p>Dm7 X</p> <p>1 b7 b3 5</p>	<p>G9 IX</p> <p>1 3 b7 2</p>	<p>same as bars 7-8</p>	<p>same as bars 9-10</p>

Minor Pentatonic

b3-1-b7-5, jazz blues - [link to video](#)

♩ = 125

Swing Eighths

1 Bb7(#9) 2 Eb9 3 Bb7 4 Bb9

5 Eb9 6 Eo7 7 Bb7 8 G7(b9)

9 C7(b9) 10 F7(sus4) 11 Bb7(#9) 12 G7(#9) C7(#5) F13

1-3-1-b7-5, jazz blues - [link to video](#)

♩ = 125

Swing Eighths

1 B \flat 9 2 Eb9 3 B \flat 9 4 B \flat 7

5 Eb9 6 Eb7(b9) 7 B \flat 9 8 G7(b9)

9 Cm7 10 F7(#9) 11 B \flat 9 12 G7(b9) Cm7 F7(#9)

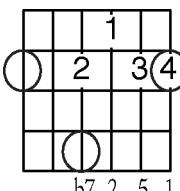
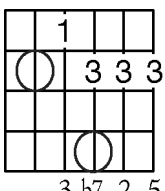
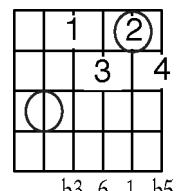
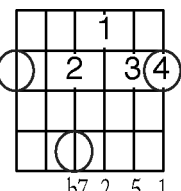
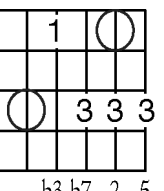
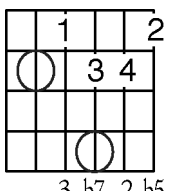
Major Pentatonic

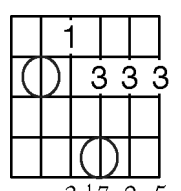
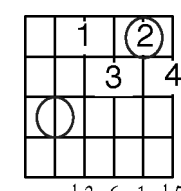
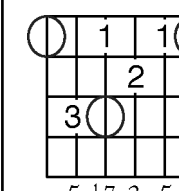
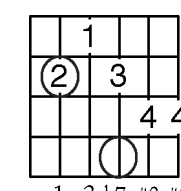
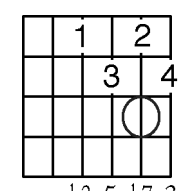
5-6-1-6, jazz blues

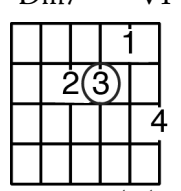
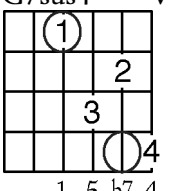
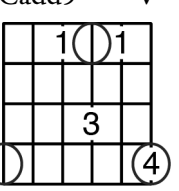
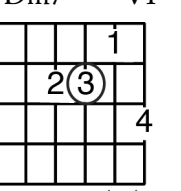
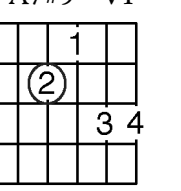
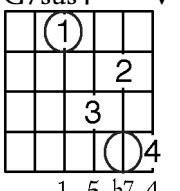
<p>C9 VII</p> <p>3 b7 2 5</p>	<p>F9 VIII</p> <p>1 5 b7 3</p>	<p>C9 VII</p> <p>b7 2 5 1</p>	<p>C9 VIII</p> <p>b7 3 5 2</p>	<p>F9 VII</p> <p>1 3 b7 2</p>	<p>F#dim7 VIII</p> <p>1 b5 6 b3</p>
<p>C9 VII</p> <p>b7 2 5 1</p>	<p>A7sus4 VII</p> <p>1 5 b7 4</p>	<p>Dm7/11 VIII</p> <p>1 b7 b3 4</p>	<p>G9 IX</p> <p>1 3 b7 2</p>		
bar 11					
<p>C7 VII</p> <p>b7 2 5 1</p>	<p>A7#9 VI</p> <p>1 3 b7 #2</p>	bar 12			
		<p>Dm7 X</p> <p>b7 b3 5 1</p>	<p>G9 IX</p> <p>3 b7 2 5</p>		

Common Tone And Cadences

common tones 5 and 1, harmonic and melodic minor cadences. G/E form

bar 1	bar 2	bar 3	bar 4
	G harmonic minor		Dbm(ma7) Gb9#11 Gb Lydian b7 Db mel. minor Bb Aeolian b5
C9 VII 	F9 VII 	F#dim7 VII 	C9 VII 
			Gm9 VIII 
			Gb9#11 VIII 

bar 5	bar 6	bar 7	bar 8
G harmonic minor			F melodic minor E super Locrian Bb Lyd. dom. D Aeolian b5 C Mixolydian sharp one D harmonic minor F major sharp five A Phrygian major
F9 VII 	F#dim7 VII 	C9 VII 	E7#5#9 VIII 
			A7b9 VIII 

bar 9	bar 10	bar 11	bar 12
		C Mixo. #1 D harmonic minor A Phrygian major A7#9 VI	Db Lydian (opt. b7) Ab major (opt. b3) F Aeolian (opt. b5)
Dm7 VI 	G7sus4 V 	Cadd9 V 	Dm7 VI 
		A7#9 VI 	G7sus4 V 

common tone 5, harmonic and melodic minor cadences, C form

bar 1	bar 2		bar 3	bar 4	
				Cm7b5 F7b9 F Phrygian major Ab Mixo. sharp one Bb harmonic minor Db major sharp five	
F7 VI 3 b7 1 5	Fm7 VI b3 b7 1 5	Bb9 VI b7 3 5 2	F9 VII 3 b7 2 5	Cm7 VIII b7 b3 5 1	F7b9 VII 3 b7 b2 5
bar 5	bar 6		bar 7	bar 8	
				F Mixolydian sharp one G harmonic minor A Locrian natural six Bb major sharp five D Phrygian major	
Bb9 VII b7 3 5 2	Fm7 VI b3 b7 1 5	Bb9 VI b7 3 5 2	F9 VII 1 3 b7 2 5	Am7b5 VII 1 b5 b7 b3	D7b9 VII 5 b2 3 b7
bar 9	bar 10	bar 11		bar 12	
	F major flat six C Mixolydian b2	F Mixo. sharp one G harmonic minor Bb major sharp five D Phrygian major			
Gm7/11 VIII 5 b3 b7 1 4	C13b9 VI b2 3 b7 6 1	F9 VII 1 3 b7 2 5	D7b9 VII 5 b2 3 b7	Gm7/11 VIII 5 b3 b7 1 4	C13b9 VI b2 3 b7 6 1

FOUR-BEAT CADENCES

How to Use These Cadences

the target chords

The last chord in each sequence is a target chord. The target chord is typically on beat one. When it works harmonically, the first four chords can be played with one on each of the four beats of a bar preceding the target chord.

A cadence version is shown for each of common chord types: a I chord, a IV chord, a II chord and a V chord.

top-voice melodic cells

The sequence of notes made up by the highest-pitched note of each chord makes a melodic cell. It is identified with the title of each example, such as “b3-1-b7-5-1”, indicating the numbered tones in the key.

using part of the four-beat cadence

It would often obscure the original progression if you play the first chord of these four-beat cadences (five chords including the target chord) on the first beat of the bar before the target chord. When the first chord is basically the same as in the original progression, it's obviously not a problem. But when the listener expects a IV chord (like bar two of a jazz blues) and you play a V chord, it can be a little disconcerting to the listener. Especially if you are playing with another musician that *is* playing the IV chord while you play the V chord. Just listen and make good decisions.

You don't have to use all four of the first four chords. You could use the fourth chord on the last beat before the target chord. You could use the third and fourth chords on the last two beats before the target chord. Or, you could use the second, third and fourth chords on the last three beats before the target chord.

rhythm

To make the rhythm more interesting, some of the chords could use pushes and pickups. See [Varying Rhythm](#) and [Hearing Pickups and Pushes](#). Pushes are generally better for the cadences, since they are less busy.

building chord melody style

To build a chord melody style like Joe Pass or Barney Kessel, you need to know a lot about [Voice Leading](#) and a lot about melodic cells. See [Four Steps To Improv/Melodic Cell Types](#). You can get started with a few melodic cell types and these Four-Chord Cadences.

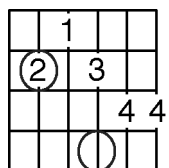
Also see [Melodically Superimposed Cadences](#), especially the Playing Melodically Cadences set of sections accessed from the table of contents on the first page.

Minor Pentatonic

b3-1-b7-5-1

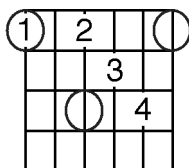
G major, target I

D7#5#9 IV



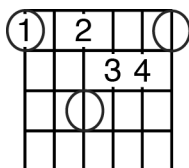
1 3 b7 #2 #5

Bb13 VI



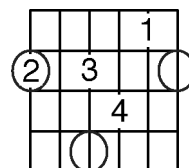
1 b7 3 6

A7#5 V



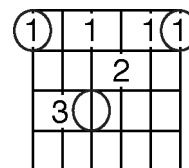
1 b7 3 #5

Ab7b5 III



1 b7 3 b5

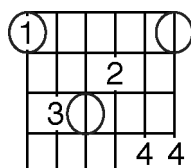
G7 III



1 5 b7 3 5 1

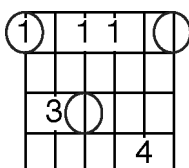
G major, target IV9

G7#9 III



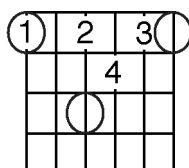
1 5 3 b7 #2

Am7 V



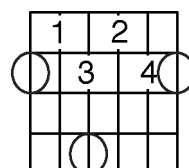
1 5 b7 b3 b7

Bb7 VI



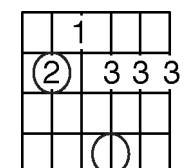
1 b7 3 5

G9 II



3 b7 2 5

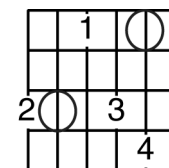
C9 II



1 3 b7 2 5

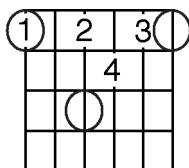
G major, target IIIm7

Gm7 VIII



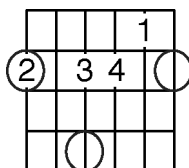
5 b3 b7 b3

C7 VIII



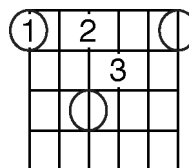
1 b7 3 5

Bm7b5 VI



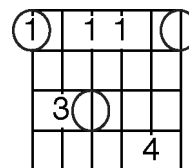
1 b7 b3 b5

Bb7 VI



1 b7 3

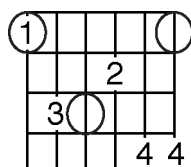
Am7 V



1 5 b7 b3 b7

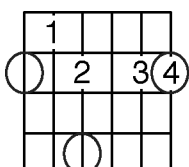
G major, target V7

G7#9 III



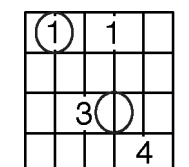
1 5 3 b7 #2

G7/B II



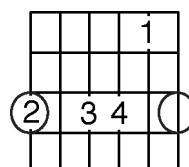
3 b7 5 1

C7sus4 III



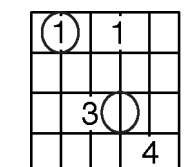
1 5 b7 4

Am7 III



1 b7 b3 4

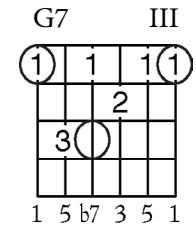
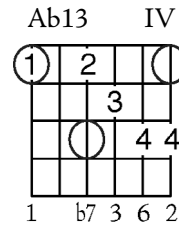
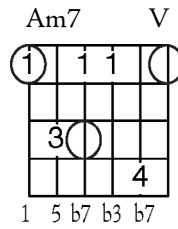
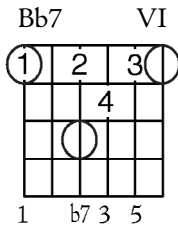
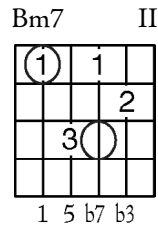
D7sus4 V



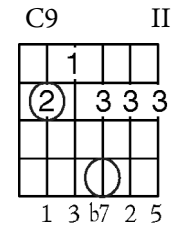
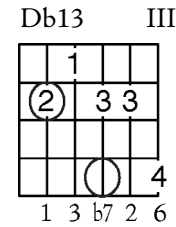
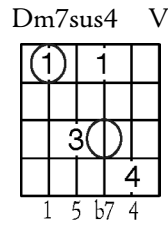
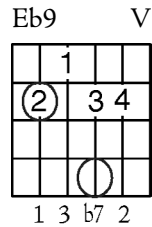
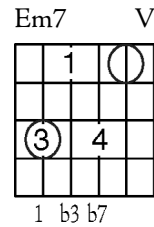
1 5 b7 4

5-b7-1-b3-1

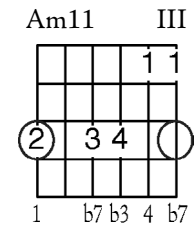
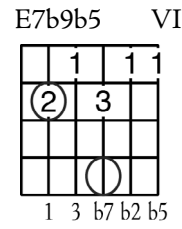
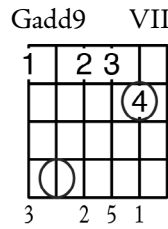
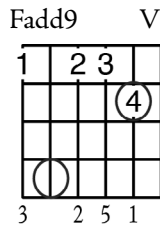
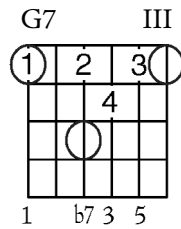
G major, target I



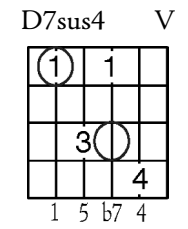
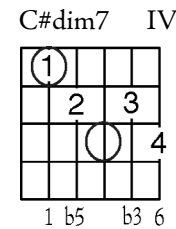
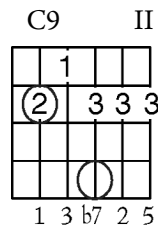
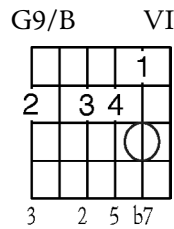
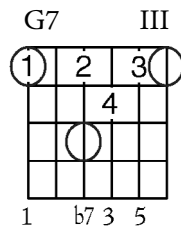
G major, target IV9



G major, target IIm7

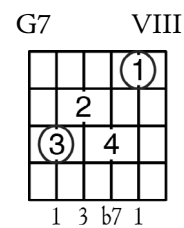
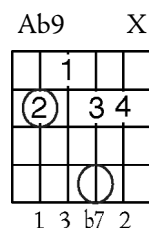
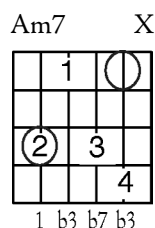
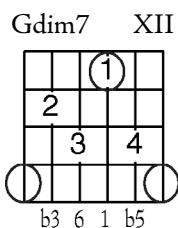
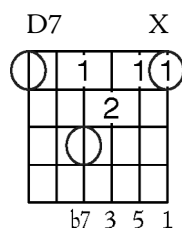


G major, target V7

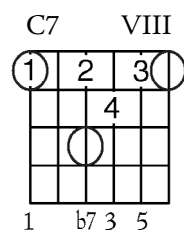
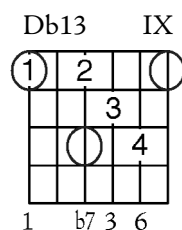
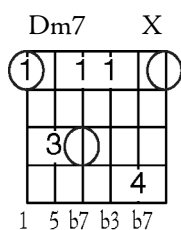
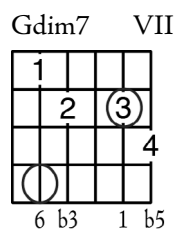
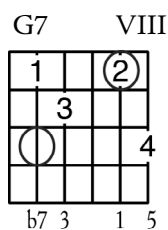


5 -b5-4-b3-1

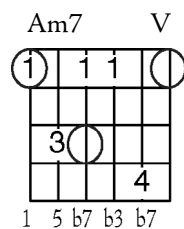
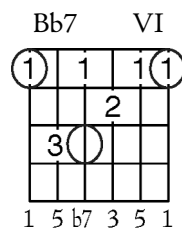
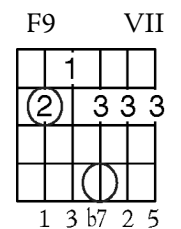
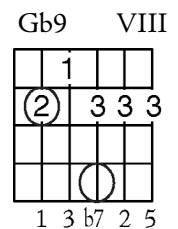
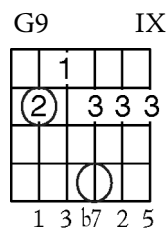
G major, target I



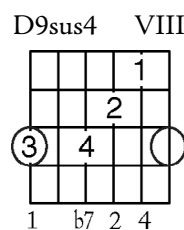
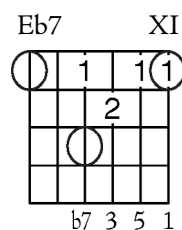
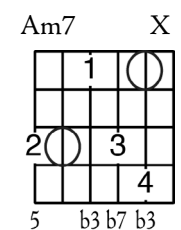
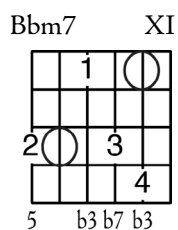
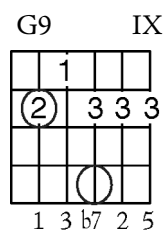
G major, target IV9



G major, target IIIm7



G major, target V7

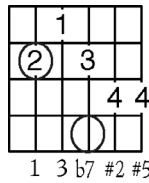


Major Pentatonic

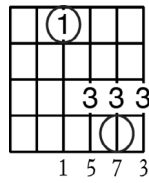
b3-2-1-6-1

C major, target I

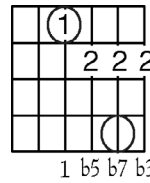
G7#5#9 IX



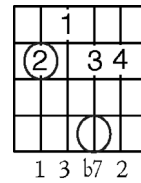
Bbma7 VIII



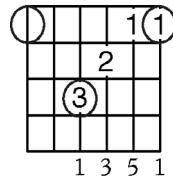
Am7b5 VII



G9 IX

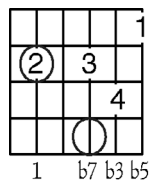


C VIII

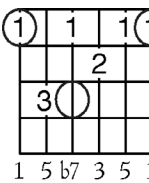


C major, target IV9

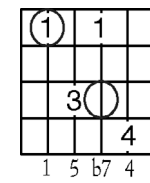
Am7b5 XI



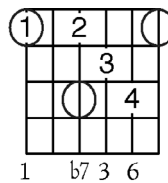
D7 X



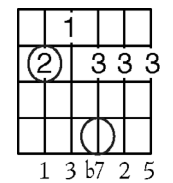
Gm7sus4 X



C13 VIII

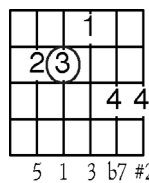


F9 VII

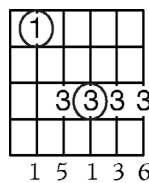


C major, target IIIm7

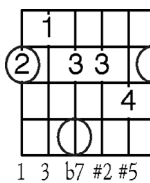
C7#9 IX



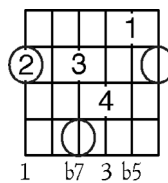
F6 VIII



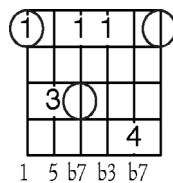
E7#9#5 XI



Eb7b5 X

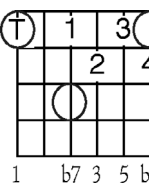


Dm7 X

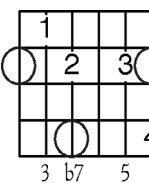


C major, target V7

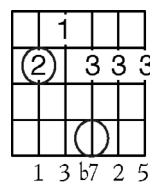
D7b9 X



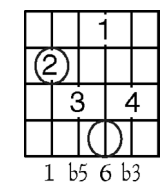
C9 VII



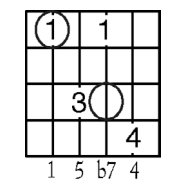
F9 VII



F#dim7 VIII



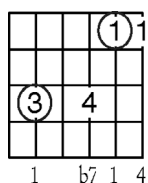
G7sus4 X



1-6-5-4-3

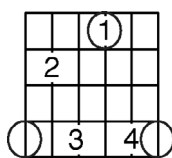
C major, target I

G7#5#9 IX



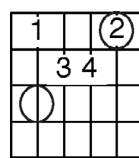
1 b7 1 4

Dm7 VII



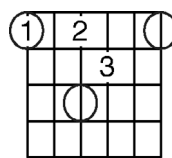
b3 b7 1 5

G13 VII



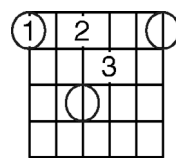
I b7 3 6 1

Db7 IX



1 b7 3

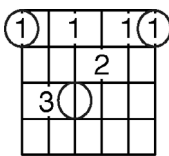
C7 VIII



1 b7 3

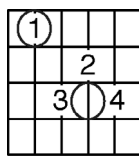
C major, target IV9

C7 VIII



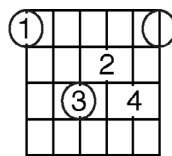
1 5 b7 3 5 1

Fma7 VIII



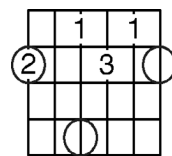
1 5 7 3

Bb6 VI



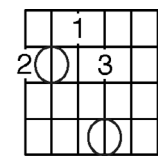
1 1 3 6

Bdim7 VI



1 6 b3 b5

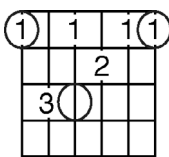
F7 VII



5 3 b7

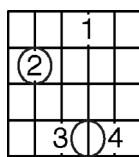
C major, target IIm7

C7 VIII



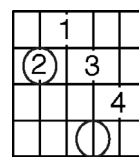
1 5 b7 3 5 1

F6 VII



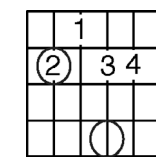
1 5 6 3

E7#9 VI



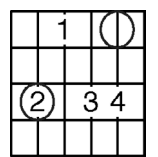
1 3 b7 #9

Eb9 V



1 3 b7 2

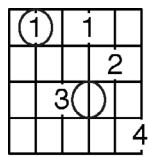
Dm9 III



1 b3 b7 2

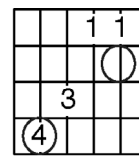
C major, target V7

Dm7 V



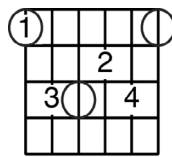
1 5 b7 b3 b7

Fma7 V



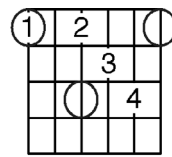
1 3 5 7 3

Bb6 VII



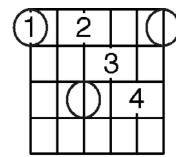
1 5 3 6

Ab13 IV



1 b7 3 6

G13 III

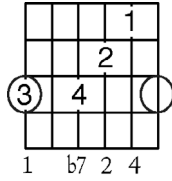


1 b7 3 6

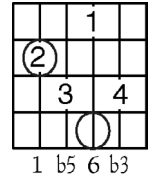
1-#2-3-6-5

C major, target I

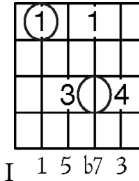
D9sus4 VIII



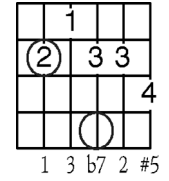
Gdim7 IX



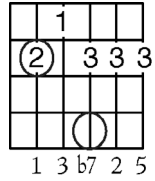
G7 X



Ab9#5 X

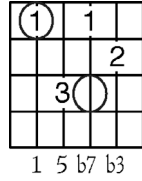


G9 IX

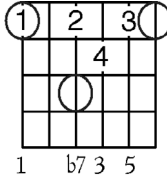


C major, target IV9

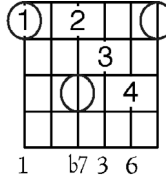
Em7 VII



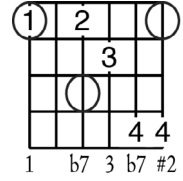
Eb7 XI



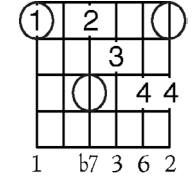
D13 X



Db7#9b5 IX

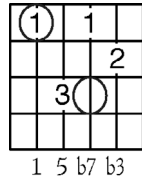


C13 VIII

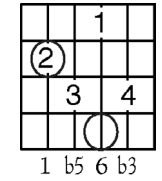


C major, target IIm7

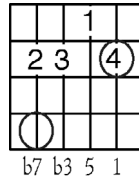
Em7 VII



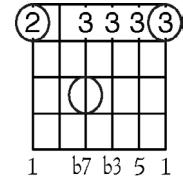
Gdim7 IX



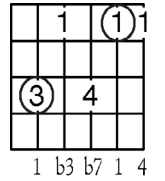
Bm7 XI



Em7 XII

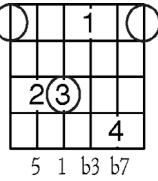


Am11 X

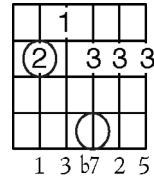


C major, target V7

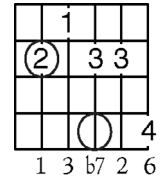
Am7 V



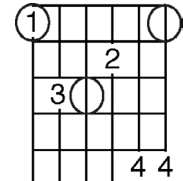
Eb9 V



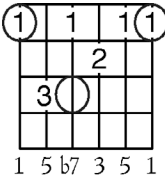
D13 IV



Cma7 VIII



D7 X



DIMINISHED-SOUNDING DOMINANT CADENCES

Play the examples on the first system (pair of staves with music notation and tablature) to get familiar. The second and third systems are a library of fingerings by string set. The bottom system shows the top voice leading options.

Build the ninth-not root chords from the third of the V chord of your target (C). Move up or down in minor thirds (B-D-F-Ab). In ascending order and in the key of your target, this will give you (G)13nr (major V type), (D)IIIm7b5 (harmonic minor II type), (Db)bII9 no root (meleodic minor IV type), (E)III7b9 no root. The III7b9 has a remote relationship, so avoid using last before resolving to the target.

Ninth No Root Type - [link to video](#)

Thirteen Flat Nine Type - [link to video](#)

Be careful with the voice leading when resolving these 13b9 types (more so than with the previous ninth no root type), especially the top and bottom voices (soprano and bass). Avoid chromatic changes when you can.

Two or more of these may be used to make a cadence to a target chord. The thirteen flat nine cadence tends to resolve better up a perfect fourth from the letter name of the last chord. So, if the last 13b9 chord is G13b9/Ab, it would resolve to a C chord.

Another way to look at these is that they are diminished seventh chords with a whole step voice movement on the top. Looking at it that way, any 13b9 voiced as you see it below could resolve up a major third from its bass note, such as G13b/Ab resolving to a C chord.

Chord sequence: G13(b9)/Ab Bb13(b9)/B C#13(b9)/D E13(b9)/F C#13(b9)/D E13(b9)/F G13(b9)/Ab Bb13(b9)/B C6/ Am9 F#m7 Ebmaj7

resolve to either

Chord sequence: Bb13(b9)/B G7(b9)/Ab E13(b9)/F C#13(b9)/D E13(b9)/F G13(b9)/Ab Bb13(b9)/B G13(b9)/Ab C6/ Am7 F#m7 Ebmaj7

resolve to either

Diagram 1 (Top):

Chord	T (Soprano)	A (Alto)	B (Bass)
G13(b9)/Ab	3	3	4
Bb13(b9)/B	5	6	7
C#13(b9)/D	6	7	10
E13(b9)/F	8	9	13
C#13(b9)/D	9	10	5
E13(b9)/F	11	12	8
G13(b9)/Ab	12	13	11
Bb13(b9)/B	14	15	14
C6/	15	12	15
Am9	12	12	12
F#m7	12	10	9
Ebmaj7	15	13	13

Diagram 2 (Bottom):

Chord	T (Soprano)	A (Alto)	B (Bass)
Bb13(b9)/B	15	13	14
G7(b9)/Ab	13	10	11
E13(b9)/F	12	7	8
C#13(b9)/D	10	6	5
E13(b9)/F	9	4	13
G13(b9)/Ab	7	9	10
Bb13(b9)/B	6	8	7
G13(b9)/Ab	4	3	4
C6/	14	12	13
Am7	11	9	10
F#m7	8	6	7
Ebmaj7	5	3	4

Using Diminished Scale For Diminished -Sounding Dominant Cadences

what chords does the diminished scale make?

All of the notes of the diminished scale can't be sustained at once on a six-string guitar, nor on a seven string guitar, since the scale has eight notes. The chord quality including all the notes of the scale would be $13\#11b9\#9$ where the repeating half step-whole step scale pattern would begin by ascending a half step from the root (followed by whole step, half step, whole step, etc.) or by descending a whole step from the root (followed by half step, whole step, half step, etc.).

minor V type chord subsets of the harmonized diminished scale

V type chords in minor keys typically have flat nine or sharp nine. Subset chords of the harmonized diminished scale can be used to get the same or similar sound and feel. See [Scale Ambiguity/Ambiguos Scales For Dominant chords/Compare Altered Dominants With Flat Nine Or Sharp Nine](#).

The composite of the first three chords below represents $A13\#11b9\#9$. $A13\#11b9\#9$ is the full chord, shown last,. It has eight notes and won't fit on the guitar.

link to video

♩ = 95
Swing Sixteenths

1 b7 3 6 #9 1 b7 3 6 b9 1 b7 3 #4 6

1 A13(#9) A13(b9) A13(b9) A13#11b9#9

TAB: 0 (5) (6) (7) (8) 0 (5) (6) (7) (6) 0 (5) (6) (4) (2) 0 (5) (6) (7) (8)

the 7b9 or 7#9 part of the scale for minor V types

The most typical alterations of minor key V type chords are #5, b9 and #9. The harmonized diminished scale ($13\#11b9\#9$) doesn't provide the sharp five. It does provide both the flat nine and sharp nine. In using the diminished scale for minor key V type chords, emphasize the $7b9\#9$ part of the scale, which is six of its eight notes. Don't over-emphasize the remaining two notes: the sharp eleven and the thirteen.

The thirteen is more acceptable than the sharp eleven. G Phrygian major (also called G Phrygian dominant) is the typical V type scale for C minor. C harmonic minor and G Phrygian major have the same notes. Each name is used to indicated the context as being the key of C minor (with a harmonic

minor scale) or the temporary key of G on the V of C. When a V type minor chord has a sharpened fifth, it is usually a flat six of the V type scale (G Phrygian major, 1-b2-3-4-5-b6-b7) that is used for the sharpened fifth. The flat six (equivalent to flat thirteen) of the G Phrygian major scale can represent the sharp five in the G7#5 chord. “b13” is sometimes part of a chord name, indicating that a chord has a fifth and a sharpened fifth, but calling the sharpened fifth a “flat thirteen”, so as not to break chord naming conventions. We don’t want to get a ticket from the harmony police! See [Chord-Naming Conventions/Chord-Naming Rules By Chord Tone/Altered Fifths](#).

With Escherian or deceptive cadences, the key of C minor could be expected, but the actual result may be the key of C major. See [Melodically Superimposed Cadences/Escherian Cadence](#) and see [Establishing A Key/Key Defined/Authentic And Deceptive Cadences](#).

The thirteen tone is the same tone as a “six” and contradicts the typical V type chord with a sharpened fifth (G7#5). Although the thirteen (the “E” note in G13b9 as a V chord in C minor) sometimes sounds cool if the other instrument parts don’t strongly emphasize the flat six, which could cause a conflict. In subtle arrangements, the six and the flat six can co-exist, but it takes finesse.

where the 13b9 chord is part of the song

Sometimes the 13b9 chord is actually part of the song. It is used in a few Jobim Tunes and other songs listed in (just click the link at the end of this sentence) [Half-Whole-Half Cells and Diminished Scale. /applying diminished scale to 13b9 chords](#).

identifying the diminished seventh part of the 13#11b9#9 chord

We want to emulate a V7b9 chord (G7b9 for the key of C minor). Without a root, that is a VII diminished seventh chord in the key of C minor, a B diminished seventh chord. Here’s the logic: Thinking in the key of V in the key of C minor, we can use the name “G diminished scale” (half/whole) where we ascend from the note G in repeating half steps and whole steps. In the key of V (G) the numbered tones are 1-b2-b3-3-#4-5-6-b7. The diminished seventh chord part of that scale we want to emphasize consists of tones b2-3-5-b7. In G, that’s Ab-B-D-F. Those tones make up a diminished seventh chord with four alternate names: Abdim7, Bdim7, Ddim7, Fdim7. Bdim7, the VIIIdim7 is usually most relevant, since its root is a half step below “C” the tone center of the key of C minor.

moving a chord part of 13#11b9#9 in minor thirds

Moving any subset chord of 13#11b9#9 (the harmonized diminished scale) up or down in minor thirds will produce all chords that are part of 13#11b9#9. Here are some examples: [link to video](#)

The image displays two staves of musical notation in 4/4 time, showing voice leading for chords derived from the 13#11b9#9 scale. The first staff contains measures 1 through 4, and the second staff contains measures 5 through 8. Each measure shows a chord in the treble clef and its constituent notes in the bass clef, labeled T (Trio), A (Alto), and B (Bass). The chords are: 1. Bb7(b9), 2. Bb(b9), 3. Bb7(#9), 4. Bb7(#11), 5. Bb(b9), 6. Bb7(#9), 7. Bb7(#11), 8. Bb13. The bass clef notes are: 1. 3, 4, 6; 2. 6, 7, 9; 3. 9, 10, 12; 4. 12, 13, 15; 5. 6, 7, 9; 6. 9, 10, 12; 7. 12, 13, 15; 8. 15, 16, 18. The notation includes accidentals and sharp signs to indicate the specific notes of each chord.

ornamenting the subset chord

If a tone is in the bII dim7 (Db dim7) part of the I13#11b9#9 chord (C13#11b9#9), ornament it with a whole step above or with a half step below.

OTHER CHAPTERS ABOUT VOICE LEADING

see these other chapters regarding voice leading:

- ✦ “Voice Leading Improv with Arpeggio Cadences”
- ✦ “Voice Leading Improv with Substitute Chords”
- ✦ “Phrases Built with Core Melody, Cell Elaboration and Filler”/Linear Voice Leading
- ✦ “Core Melody with Baroque-Bebop Ornamentation”
- ✦ “Top-Voice Leading Cadences in Song Progressions”

MODES

Modal use of a seven tone scale like the major scale can establish any note of the scale as a key, without changing the notes involved. This does, however, call for a renumbering of the scale. To renumber the scale, each mode is compared to a major scale on the same note chosen as a tone center. If “D”, the second step of the C major scale was chosen as a tone center, it could be compared to a major scale on the same note, “D”. Regardless of the key, this would produce the following mode formulas, expressing the relationship of each to a major scale on the same note.

Chords are typically built with an every-other note pattern, using the tertian cycle (cycle of thirds) 1-3-5-7-2-4-6-1 (repeating). Triads are built with every other note of the scale for three notes, such as 1-3-5 for the I chord and 2-4-6 for the IIIm chord. Seventh chords are built with every other note of the scale for four notes, such as 1-3-5-7 for the Ima7 and 2-4-6, 1 for the IIIm7.

Modes of the Major Scale

scale tone	letters in C	mode name	mode formula	triad	seventh chord
I	C-D-E-F-G-A-B-C	C major or Ionian	1-2-3-4-5-6-7	I major	Ima7
II	D-E-F-G-A-B-C-D	D Dorian	1-2-b3-4-5-6-b7 (of D major)	II minor	IIIm7
III	E-F-G-A-B-C-D-E	E Phrygian	1-b2-b3-4-5-b6-b7 (of E major)	III minor	IIIIm7
IV	F-G-A-B-C-D-E-F	F Lydian	1-2-3-#4-5-6-7 (of F major)	IV major	IVma7
V	G-A-B-C-D-E-F-G	G Mixolydian	1-2-3-4-5-6-b7 (of G major)	V major	V7
VI	A-B-C-D-E-F-G-A	A Aeolian	1-2-b3-4-5-b6-b7 (of A major)	VI minor	VIIm7
VII	B-C-D-E-F-G-A-B	B Locrian	1-b2-b3-4-b5-b6-b7 (of B major)	VII dim.	VIIIm7b5

By sharpening the fifth of the major scale, another system of modes is produced. The mode on the sixth step is the popular harmonic minor, which is Aeolian natural seven. Modes of major scale and major sharp five scale are freely combined, especially Aeolian and harmonic minor.

Modes of the Major Sharp Five Scale

scale tone	letters in C	mode name	mode formula	triad	seventh chord
I	C-D-E-F-G#-A-B-C	C major sharp five	1-2-3-4-#5-6-7	I augmented	Ima7#5
II	D-E-F-G#-A-B-C-D	D Dorian sharp four	1-2-b3-#4-5-6-b7 (of D major)	II minor	IIIm7
III	E-F-G#-A-B-C-D-E	E Phrygian major third	1-b2-3-4-5-b6-b7 (of E major)	III major	III7
IV	F-G#-A-B-C-D-E-F	F Lydian sharp two	1-#2-3-#4-5-6-7 (of F major)	IV major	IVma7
#V	G#-A-B-C-D-E-F-G#	G# Mixolydian sharp one	#1-2-3-4-5-6-b7 (of G major)	#V dim.	#V dim. 7
VI	A-B-C-D-E-F-G#-A	A Aeolian natural seven or A harmonic minor	1-2-b3-4-5-b6-7 (of A major)	VI minor	VIIm(ma7)
VII	B-C-D-E-F-G#-A-B	B Locrian natural six	1-b2-b3-4-b5-6-b7 (of B major)	VII dim.	VIIIm7b5

Melodic minor is used modally in its ascending form, which is major scale with a flatted third. The descending form of melodic minor is the same as Aeolian, but will not be used here. Modes of the melodic minor are less common, but occur often in jazz.

Modes of the Melodic Minor Scale

scale tone	letters in C	mode name	mode formula	triad	seventh chord
I	C-D-Eb-F-G-A-B-C	C major flat three or C melodic minor	1-2-b3-4-5-6-7	I minor	Im(ma7)
II	D-Eb-F-G-A-B-C-D	D Dorian flat two	1-b2-b3-4-5-6-b7 (of D major)	II minor	IIIm7
bIII	Eb-F-G-A-B-C-D-Eb	Eb Phrygian flat one	b1-b2-b3-4-5-b6-b7 (of E major)	III augmented	IIIIma7#5
IV	F-G-A-B-C-D-Eb-F	F Lydian flat seven	1-2-3-#4-5-6-b7 (of F major)	IV major	IV7
V	G-A-B-C-D-Eb-F-G	G Mixolydian flat six	1-2-3-4-5-b6-b7 (of G major)	V major	V7
VI	A-B-C-D-Eb-F-G-A	A Aeolian flat five	1-2-b3-4-b5-b6-b7 (of A major)	VI dimin.	VIIm7b5
VII	B-C-D-Eb-F-G-A-B	B Locrian flat four, super Locrian, or "flat all"	1-b2-b3-b4-b5-b6-b7 (of B major)	VII dimin.	VIIIm7b5

MAJOR SCALE-TONE TRIAD VOICE LEADING

Up stepwise: all three tones ascend one scale step.

Down stepwise: all three tones descend one scale step.

Up a third: the root moves down a scale step and the third and the fifth stay the same.

Down a third: the fifth moves up a scale step and the root and the third stay the same.

Up a fourth: the third and the fifth move up a scale step and the root stays the same.

Down a fourth: the root and the third move down a scale step and the fifth stays the same.

Three-Note Linear Scale-Tone Triads

Memorize linear major scale-tone triads in close voicing and in all three inversions (ascending 1-3-5, 3-5-1 or 5-1-3) with the lowest pitch fingered by (1) the first finger (2) the second or third finger or (3) the little finger.

You'll need to keep track of two things:

1. The major scale, which will progress from step "1" to "1" on one of the strings. (2) Once you establish the fingering for the major triad on step "1", move from step "1" to to step "2" on the string where the major scale is ascending and flat the third. Keep track of where the third is by the order of the tones. From the lowest to highest pitch, close-voiced triads are 1-3-5, 3-5-1 or 5-1-3. From the lowest to highest pitch, open-voiced triads are 1-5-3, 3-1-5 or 5-3-1.
2. As you progress up the major scale, the chord qualities should be as follows: I major, II minor, III minor, IV major, V major, VI minor, VII diminished. Once you have played the I major and II minor triads, you have established a fingering for major and minor triads. When you get to the VII diminished triad, you can attain it by one of three alterations of major or minor triads: diminished = minor b5 = major b3, b5= major #1 (then descend the entire triad one half step).

Inversion Cycles

When roots progress up in fourths or up in thirds, the inversion cycle is 1-3-5, 5-1-3, 3-5-1, 1-3-5, etc. With roots progressing down in fourths or down in thirds, the inversion cycle the opposite: 1-3-5, 3-5-1, 5-1-3, 1-3-5, etc.

SCALE-TONE SEVENTH CHORD VOICE LEADING

Important: the root movement referred to on the left of each table below is conceptual only. Think of that movement as what the bass player plays. If the root moves in your voice leading, it is mentioned on the right side of the columnar chart.

Neighboring and Passing Chords

In the same manner that a neighboring tone or passing tone can decorate chord tones of the current chord, groups of them can serve as neighboring or passing tone chords. As with the neighboring or passing tones, they should be de-emphasized rhythmically.

When any neighboring or passing chord is emphasized, it becomes a chord that is added to the composition. Be sure that you are communicating such a chord to the listener and other musicians as an appropriate chord for the arrangement.

Chord tones not mentioned on the right side below do not move.

root movement

root up a fourth

root down a fourth

root up a step

root down a step

voice movement from first chord

fifth and seventh move down a scale step

root and third move up a scale step

third, fifth and seventh move down a scale step

root, third and fifth up a scale step

Upper and Lower Harmony Chords

root up a third

When a scale-tone seventh chord is used on the third of the current chord, it produces a ninth no root named after the current root. This is not usually done on a major scale-tone III or VII chord. However, when the III^m7 chord is changed to dominant seventh chord, it can be used as a III⁷b9 chord, though this changes the scale to harmonic minor on the sixth step of the parent major scale (E⁷b9 is a V⁷b9 chord of A harmonic minor, built on the sixth step of C major).

root down a third

When a scale-tone seventh chord is used on the sixth of a I, IV or V chord (root down a third), a minor seventh chord is produced. This minor seventh is a synonym of a sixth chord on the original root. For example, an Am⁷ build on the sixth of C is a synonym of C⁶.

When a scale-tone seventh chord is used on the sixth of a IIm chord (root down a third), a minor seventh flat five chord is produced. This VIIIm7b5 is a synonym of IIm6: Bm7b5 = Dm6.

Chord tones not mentioned on the right side below do not move.

root movement

root up a third

root down a third

voice movement from first chord

root moves up a step

seventh moves down a step

I7-I°7-IIIm7b5 (=IVm6) I Voice Leading

Descend all notes of a dominant seventh chord without the root (I7) chromatically twice, then descend to the closest available tones of the “I” chord.

I-IV-I7n3-IV voice leading: ascend the voices which begin as the third and the fifth of the (I) by scale tones twice, then descend them once.

Scale-Tone Seventh Chords Are Tertian Quadrads

A scale-tone seventh chord is constructed with four notes in an every-other-note pattern called thirds. A series of notes made in thirds, such as a scale-tone seventh chord can be called *tertian*, meaning made of thirds. A three note chord is called a *triad*. Following the same series of Greek names, a four note chord can be called a *quadrads*. So, scale-tone seventh chords are *tertian quadrads*.

A five note chord is a *pentad*, six notes a *sextad* and seven notes a *heptad*.

STEPWISE QUADRAD VOICE LEADING

Parallel Scale-Tone Chords

Successions of scale-tone chords with their roots in stepwise order can be used to walk up or down the scale to a target chord. Although this is not all that exciting, you still need to know it, in order to do more sophisticated progression such as chromatic progression.

root position (root in bass), E form chords: string set 6-4-3-2, 107350 voicing

Fma7 I	Gm7 III	Am7 V	Bbma7 VI	C7 VIII	Dm7 X	Em7b5 XII
1 7 3 5	1 b7 b3 5	1 b7 b3 5	1 7 3 5	1 b7 3 5	1 b7 b3 5	1 b7 b3 b5

root position (root in bass), A form chords: string set 5-4-3-2, 015730 voicing

Bbma7 I	Cm7 III	Dm7 V	Ebma7 VI	F7 VIII	Gm7 X	Am7b5 XII
1 5 7 3	1 5 b7 b3	1 5 b7 b3	1 5 7 3	1 5 b7 3	1 5 b7 b3	1 b5 b7 b3

root position, combined E form and A form

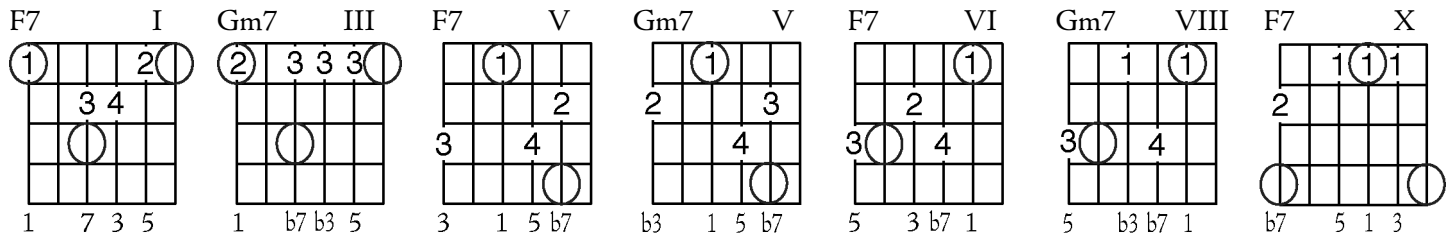
Bbma7 VI	Cm7 VIII	Dm7 V	Ebma7 VI	F7 VIII	Gm7 III	Am7b5 IV
1 7 3 5	1 b7 b3 5	1 5 b7 b3	1 5 7 3	1 5 b7 3	1 b7 b3 5	1 b7 b3 b5

Creating A Scalar Voice With Inversions

Stepwise voice leading can be used to create a scalar voice by combining the inversions of a seventh chords on each of two consecutive scale tones. Alternate the inversions of the two chords as shown below. Notice that every other chord makes a series of inversions of a single chord.

V7 alternated with VIIm7

F7 is V7 of Bb major and Gm7 is VIIm7 of Bb major



PERFECT FOURTH QUADRAD CADENCES

Diads are two note chords, triads are three note chords and quadrads are four note chords. Tertian chords are built with every other note of a seven tone scale, using the numeric sequence 1-3-5-7-2-4-6-1, etc. The every-other-note creates a sequence of thirds, since each note is inclusively three notes from the next. Seventh chords are tertian quadrads.

Harmonic cadences are devices to establish a chord as the expected ending chord, and therefore its root as the tone center. This can be established for the piece of music as a whole, and for secondary and temporary tone centers during the piece.

Secondary Dominants

The oldest cadence in music history is “V to I”, where the chord on the fifth step of the key scale (called the dominant) leads to the chord on the first step of the key scale. This chord on the fifth of the scale of the intended tonic is commonly a dominant seventh type chord (or altered dominant seventh in jazz). When the intended tonic is not the first step of the parent major scale, the the seventh type chord on the fifth of the intended tonic is called a *secondary dominant*. See [The Secondary Dominant Cycle](#).

Flat Five Substitute

In jazz, a [flat five substitute](#) chord replaces the chord on the fifth with one a flat fifth above or below the root of the chord on the fifth of the tonic. The note a flat fifth above or below any given note is the same note. The [flat five substitute](#) becomes a chord built on the upper chromatic neighbor to the tonic, on the root up a half step (one fret) from the root of the intended tonic chord.

The 7-3-6-2-5-1-4 Series of Perfect Fourths

This is the most common structural source for cadences. The major scale is the only scale whose notes can be ordered in a continuous series of seven perfect fourths.

Four-note scale-tone chords constructed in thirds can accurately be called *major scale-tone tertian quadrads*, but are commonly called *major scale-tone seventh chords*. See [Scale-Tone Seventh Chord Progression](#).

Major Scale-Tone Seventh Chords in Perfect Fourths, Three-Note Voicings

root in bass, trade three and seven, no fifth

VIIIm7b5	III7	VIIm7	IIm7	V7	Ima7	IVma7
F#m7(b5)nr XIV	B7 XIII	Em7 XII	Am7 X	D7 X	Gma7 IX	Cma7 VIII
F#m7(b5) VII	B7 VII	Em7 V	Am7 V	D7 IV	Gma7 III	Cma7 II
F#m7(b5) IX	B7 VIII	Em7 VII	Am7 V	D7 V	Gma7 IV	Cma7 III
F#m7(b5) XIV	B7 XIV	Em7 XII	Am7 XII	D7 XI	Gma7 X	Cma7 IX

Recognizing II-V-I Cadences in Chord Progressions

Memorize letter names in perfect fourths. The sequence is B-E-A-D-G-C-F with every note flat, followed by B-E-A-D-G-C-F (all natural), then B-E-A-D-G-C-F with all notes sharp, as shown below.

the perfect fourth series

B#-E#-A#-D#-G#-C#-F#-B-E-A-D-G-C-F-Bb-Eb-Ab-Db-Gb-Cb-Fb

Any consecutive seven of the letters in the perfect fourth series constitutes the numbered tones “7-3-6-2-5-1-4” for a particular major scale. Notice that “1” is the next to last letter in the series, so the major scale for any seven consecutive letters would be the next to last letter (reading left to right).

“II-V-I” would be the fourth through sixth letters of any consecutive seven letters, where the sixth letter is “1”. Go through a jazz fake book and look for “II-V-I” occurring multiple times in the same piece. The “II-V-I’s” will often occur in many keys in the same song. Next, you’ll need to determine whether those “II-V-I’s” are major or minor.

Recognizing II-V-I cadences is a beginning. You’ll then look for longer sequences of fourths in the “7-3-6-2-5-1-” order: VIIIm7b5-IIIm7 (usually III7)-VIm7-IIIm7-V7-Ima7-IVma7.

Major II-V-I Cadences

In major mode, “IIIm7 V7 Ima7” is a “II-V-I” cadence. IIm7 may be IIm9 or other versions of IIm7 that include 2, 4 or 6 in the key of the chord root. V7 may be V9, or other versions that include 2, 4 or 6 in the key of the chord root. Ima7 may be Ima9, I6, or other versions that include 2 or 6.

Minor II-V-I Cadences

In minor mode, “IIIm7b5 V7 Im7” is a “II-V-I” cadence. Their origin is VIIIm7b5, III7 VIm7, where the key is established on VI. The chord roots are then renumbered so VII becomes II, III becomes V and VI becomes I. IIIIm7 has been changed to III7 (which becomes V7 of the minor IIIm7b5 V7 Im7. In such a case, the III7 chord (functioning as V7) may optionally have #5, b9 or #9.

Flat Five Substitutes And II bII I Cadences

In jazz, bII7 is commonly substituted for V7, changing II-V7-I (Dm7-G7-Cma7) to II-bII-I (Dm7-Db7-Cma7). This is based on the synonym V7b5 = bII7b5. Scales to build harmony and melody based on this synonym are most notably derived from the melodic minor scale. Mode VII of melodic minor creates a V7#9b9#5b5 chord, which is a synonym of mode IV of melodic minor, which creates the bII13#11 chord, a [flat five substitute](#).

II-V-I Cadences Of Four Parent Scale Types

major scale	IIm13	V13	Ima9
harmonic minor scale	IIm7b5	V7b9b13	Im
melodic minor scale	IIm7b5	V9b13	Im
harmonic major scale	IIm13b9	V9b13	Ima9

other options:

melodic minor VIIb5#5b9#9 for the II chord, harmonic minor V and Im
V13b9#9#11 using half/whole diminished scale

Descend Five And Seven (roots up in fourths)

major scale-tone 7ths in fourths, descend 5 and 7, bass on sixth string

VIIIm7b5 Bm7b5 VI	IIIIm7 Em7 V	VIIm7 Am7 V	IIIm7 Dm7 III	V7 G7 III	IIm7 Cma7 I	IVma7 Fma7 I
Bm7b5 XII	Em7 XII	Am7 X	Dm7	G7 X	Cma7 VIII	Fma7* VI

major scale-tone 7ths in fourths, descend 5 and 7, bass on fifth string

VIIIm7b5 Em7b5 VII	IIIIm7 Am7 V	VIIm7 Dm7 V	IIIm7 Gm7 III	V7 C7 III	IIm7 Fma7* II	IVma7 Bbma7 I
Em7b5 XII	Am7 XII	Dm7 X	Gm7 X	C7 IX	Fma7 VIII	Bbma7 VII

major scale-tone 7ths in fourths, descend 5 and 7, bass on fourth string

VIIIm7b5 Am7b5 VII	IIIIm7 Dm7 VI	VIIm7 Gm7 V	IIIm7 Cm7 IV	V7 F7 III	IIm7 Bbma7 III	IVma7 Ebma7 I
Am7b5 XIII	Dm7 XII	Gm7 XI	Cm7 X	F7 X	Bbma7 VIII	Ebma7 VIII

voice leading

Descend the fifth and seventh a scale step to become the scale-tone seventh chord whose root is up a perfect fourth, in the cycle of root names 7362514

Major scale-tone seventh chords progress most smoothly with conservative voice leading, where each note in the chord moves to the same note in the next chord, or to the closest possible note in the next chord.

When the roots of major scale-tone seventh chords progress in perfect fourths with conservative voice leading, roots and fifths “switch” and thirds and sevenths “switch”, as you can see in the text below.

- ✦ the root remains on the same note to become the fifth of the next chord.
- ✦ the third remains on the same note to become the seventh of the next chord.
- ✦ the fifth descends a scale step to become the root of the next chord.
- ✦ the seventh descends a scale step to become the third of the next chord.

The root of each chord remains on the same note to become the fifth of the next chord. The third of each chord remains to become the seventh of the next chord. The fifth of each chord descends one scale tone to become the root of the next chord. The seventh of each chord descends one scale tone to become the third of the next chord.

Chords are primarily constructed with the every-other-note cycle of numbers called the cycle of thirds, shown at the left below. A four-note chord on the first step of the major scale built in thirds would use scale tones 1, 3, 5 and 7. A four-note chords built on the second step built in thirds would use scale tones 2, 4, 6, and 1. These are listed in the illustration below at the right, under the column headers “root, third, fifth, seventh”. For each chord, the major scale tone used for the root is shown in the root column, the major scale tone used for the third is shown in the third column, etc. The third of the chord built on step five, for example, is major scale tone “7”.

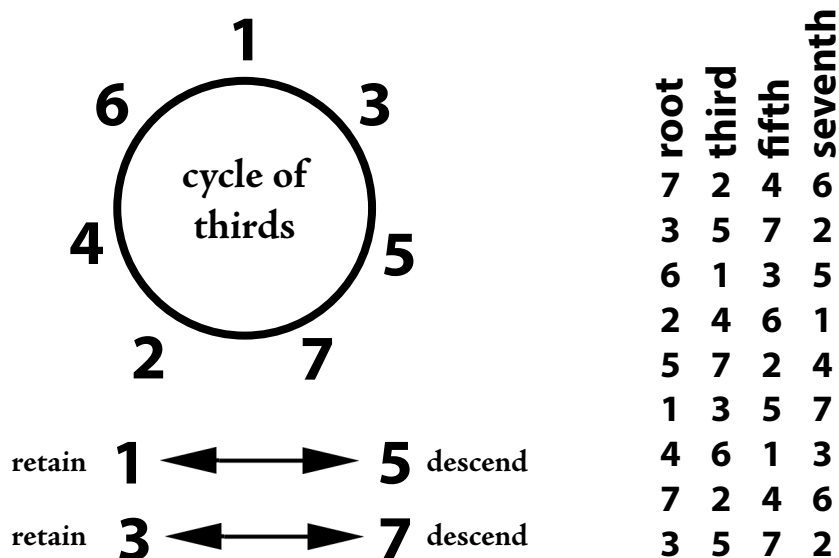
Four-note chords built on steps three, six and two are minor seventh (1-b3-5-b7). The four note chord built on step five is dominant seventh (1-3-5-b7). The chords built on steps one and four are major seventh (1-3-5-7).

In the chart at the right below, chords are listed in vertical order from top to bottom, built on major scale tones 7-3-6-2-5-1-4, respectively. This shows the root order of perfect fourths: 7-3-6-2-5-1-4, which repeats after “4” and is cyclical (serial).

Notice that “7” and “2” are root and third of the chord built on “7” (VII^m7 b5) and can be retained in progressing to the chord built on “3” (III^m7) as its fifth and seventh, respectively. Also, notice that the “4” and “6” are fifth and seventh of the chord built on “7” and can each descend in progressing to the chord built on “3” as its root and third, respectively. This pattern is consistent: the “3” and “5” of the

III^m7 chord retain to become the fifth and seventh of the VI^m7 chord and the “7” and “2” of the III^m7 chord each descend to become the root and third of the VI^m7 chord.

Roots become fifths by staying, fifths become roots by descending. Thirds become sevenths by staying, sevenths become thirds by descending. So, you could say that roots and fifths “trade” and thirds and sevenths “trade”. Descend the fifth and seventh of each chord to become the root and third of the next.



fourteen chord sets of voicings

Each two rows of chords below are a set. Play each cycle until you reach the chord at the first or second fret, then move that chord up twelve frets to continue the cycle. The “header” shows the chords by roman numeral in large type and possible connecting chords we’ll study later listed between them in smaller type.

two archetypal chords and four qualities

The last chord in each 7362514 series (each row at the beginning of this Descend Five and Seven section) is an archetype major seventh. Learn the four versions in its family on scale tones IV, V, VI, VII, every other chord in reverse order. The two families of archetypes will preview all chord voicings used in the fourteen chord set.

Memorize the order of qualities: VII^m7b5 III^m7 VI^m7 II^m7 V7 I^ma7 IV^ma7. II^m7 is often altered to III7. If you memorize the type archetype sets of four chords and know the quality that’s supposed to occur on each step, you can get very fluent on these voicings.

more detailed fingerings

For more detailed fingerings, see “[Scale-Tone Seventh Chord Progression](#)”/Major Scale-Tone Sevenths in Fourths, Descend Five and Seven, Bass on Sixth String, Fifth String and Fourth String.

in reverse order: roots down in fourths: ascend root and third

By playing the descend five and seven cycle shown earlier in reverse order, the root movement is down in fourths (instead of up in fourths). That is to say the root name in each case moves down as fourth. In this voice leading, the root and third both move up a scale step, while the note that names chord moves down a fourth. Roots down in fourths progressions uses the cycle of root names 4152637

This is essential in preparing for the next section, the [Secondary Dominant Cycle](#), in which each target chord is preceded by one whose root name is down a fourth.

<i>Bbma7</i> I 1 5 7 3	<i>Fma7</i> II 5 1 3 7	<i>C7</i> III 1 5 b7 3	<i>Gm7</i> III 5 1 b3 b7	<i>Dm7</i> V 1 5 b7 b3	<i>Am7</i> V 5 1 b3 b7 1	<i>Em7b5</i> VII 1 b5 b7 b3
<i>Bbma7</i> VII 5 1 3 7	<i>Fma7</i> VIII 1 5 7 3	<i>C7</i> IX 5 1 3 b7	<i>Gm7</i> X 1 5 b7 b3	<i>Dm7</i> X 5 1 b3 b7 1	<i>Am7</i> XII 1 5 b7 b3	<i>Em7b5</i> XII b5 1 b3 b7

Descend Seven (roots up in fourths)

The common use of *descend seven* voice leading is where the seventh of the current chord descends to create a ninth chord without a root (nr = no root) on the root up a fourth. See [two other voice leading possibilities for descend seven](#) at the end of this section.

up a fourth to ninth no root

Descending the seventh of a chord one scale tone to its sixth creates a ninth chord with no root for the chord whose root is up a perfect fourth.

In “descend five and seven” voice leading, the fifth and seventh of the first chord each descended a scale tone to become the root and third of the next chord, respectively. The fifth descended to become the root of the next chord and the seventh descended to become the third of the next chord.

If the fifth does not descend to become the root of the next chord, the next chord will be without a root, but instead will have a note a scale tone above the root: “2”, since it didn’t descend. The “2” can function as a ninth, but much be in the mid to upper range, not in the bass. In the bass, a ninth strongly weakens the sense of what is the root.

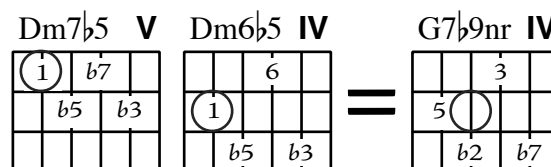
Since IIIIm9 and VIIIm7b5b9 are currently unaccepted chord qualities, the VIIIm7b5 and IVma7 chords that would otherwise create them are not usable with the descend seven voice leading.

If the second chord in the pair of chords (with roots ascending in perfect fourths) is a VIm7, IIm7, V7, Ima7 or IVma7 type, it will become a ninth no root (VIm9nr, IIm9nr, V9nr, Ima9nr, IVma9nr, where “nr” means “no root”). If the chord on the third step of the major scale is altered to a dominant seventh chord, as it typically is, the VIIIm7b5 chord that precedes it could descend its “b7” to “b6” (numbered in relation to the VII chord root) to become a III7b9nr.

Versions of Descend Seventh chord progressions are shown below for each of the seven steps of the major scale in perfect fourth order: 7-3-6-2-5-1-4 (VIIIm7b5-IIIm7-VIm7-IIm7-V7-Ima7-IVma7 in seventh chords).

VIIIm7b5 to VIIIm6b5 = III7b9 no root (Minor IIm7b5 to IIm6b5 = V7b9 no root)

In harmonic minor, these are IIm7b5 and V7b9. In *There Will Never Be Another You*, these chords occur as VIIIm7b5 and III7b9 no root of the Eb major scale, which are IIm7b5 (Dm7b5) and V7b9 no root (G7b9nr) of the C harmonic minor scale.



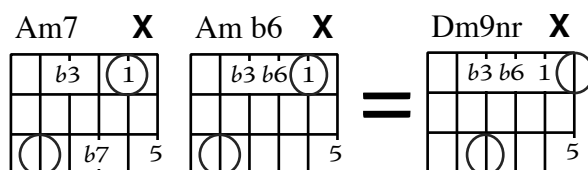
In terms of harmonic minor, lowering the b7 in the $\text{IIIm}7\flat5$ produces $\text{IIIm}6\flat5$, which is the same as II diminished seventh or $\text{V}7\flat9$ no root.

Notice that the $\text{III}7\flat9$ is an altered version of the major scale-tone $\text{IIIIm}7$ chord, adding the $\flat9$.

The fifth of the parent major scale is raised to change the minor seventh chord to dominant seventh, then the $\flat9$ can be added.

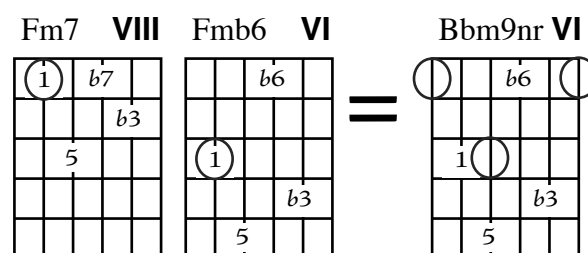
$\text{IIIIm}7$ to $\text{IIIIm}\flat6 = \text{VIIm}9$ no root

In *The Days Of Wine And Roses*, these chords occur as $\text{IIIIm}7$ ($\text{Am}7$) and $\text{VIIm}9$ no root ($\text{Dm}9\text{nr}$) of the F major scale.



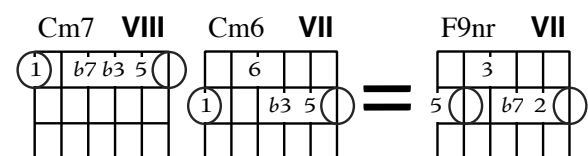
$\text{VIIm}7$ to $\text{IIIm}6 = \text{V}9$ no root

In *All The Things You Are*, bars one and two are $\text{Fm}7$ and $\text{Bbm}7$, which are represented below as $\text{VIIm}7$ and $\text{IIIm}9$ no root.



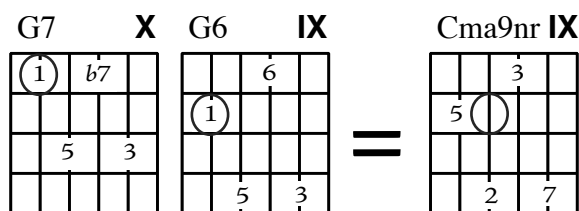
$\text{IIIm}7$ to $\text{IIIm}6 = \text{V}9$ no root

In *There Will Never Be Another You*, bars five and six are $\text{Cm}7$ and $\text{F}7$, represented below as $\text{Cm}7$ and $\text{F}9$ no root.



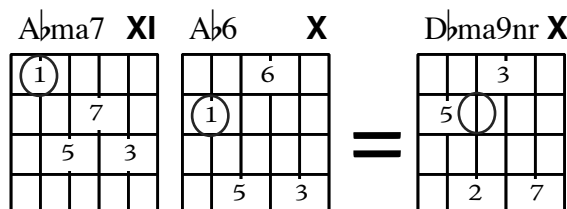
$\text{V}7$ to $\text{V}6 = \text{Ima}9$ no root

The $\text{Ima}9$ must have its root clearly identified aurally. In *All The Things You Are*, bars six and seven are $\text{G}7$ and $\text{Cma}7$, represented below as $\text{G}7$ and $\text{Cma}9$ no root.



I_{ma}7 to I₆ = IV_{ma}9 no root

In *All The Things You Are*, bars four and five are A_bma7 and D_bma7, represented below as A_bma7 and D_bma9 no root.



015730 to 052370 scale-tone voicings, roots in fourths

III_m7
b7 to 6

V_Im9 no root

II_m7
b7 to 6

V9 no root

I_{ma}7
7 to 6

IV_{ma}9 no root

A_m7 XII

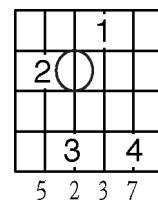
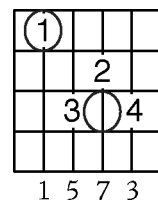
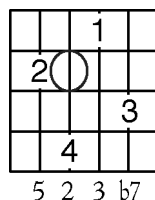
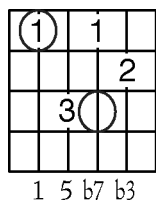
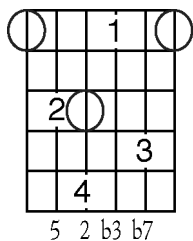
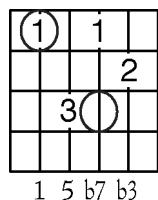
D_m9nr* X

G_m7 X

C9nr IX

F_{ma}7 VIII

B_bma9nr VII



VII_m7b5
b7 to 6

III7b9 no root

V_Im7
b7 to 6

II_m9 no root

V7
b7 to 6

I_{ma}9 no root

E_m7b5 VII

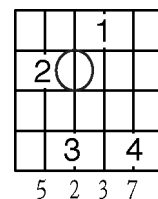
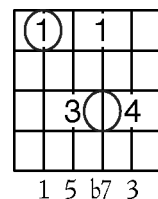
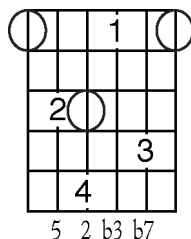
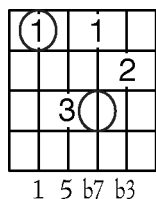
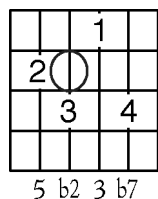
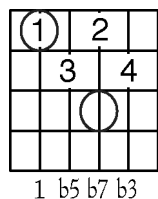
A7b9nr VI

D_m7 V

G_m9nr III

C7 III

F_{ma}9nr II



*These voicings have minor second intervals (half step or one fret) and can sound harsh. They can work when arpeggiated, or in an exotic style when appropriate.

107350 to 503720 scale-tone voicings, roots in fourths

IIIIm7
b7 to 6

VIIm9 no root

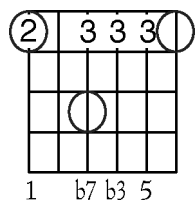
IIm7
b7 to 6

V9 no root

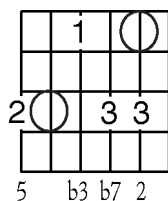
Ima7
7 to 6

IVma9 no root

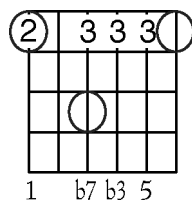
Em7 XII



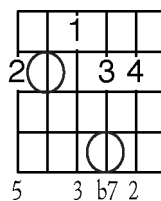
Am9nr X



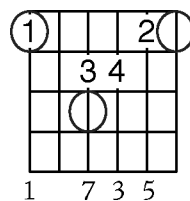
Dm7 X



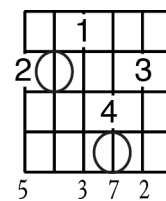
G9nr IX



Cma7 VIII



Fma9nr VII



VIIIm7b5
b7 to 6

III7b9 no root

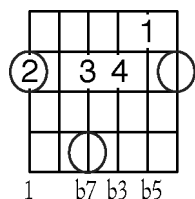
VIIm7
b7 to 6

IIm9 no root

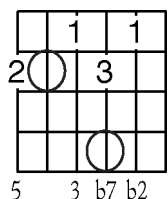
V7
b7 to 6

Ima9 no root

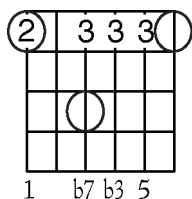
Bm7b5 VI



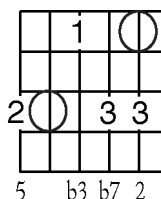
E7b9nr VI



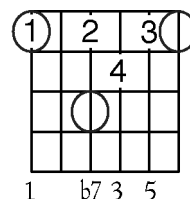
Am7 V



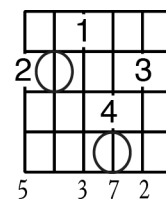
Dm9nr III



G7 III



Cma9nr II



001573 to 005237 scale-tone voicings, roots in fourths

IIIIm7
b7 to 6

VIm9 no root

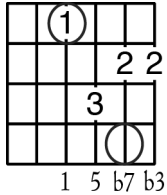
IIm7
b7 to 6

V9 no root

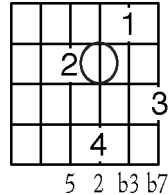
IIma7
7 to 6

IVma9 no root

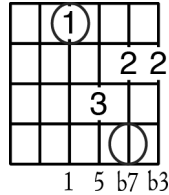
Dm7 XII



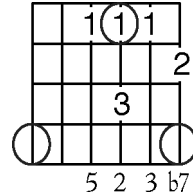
Gm9nr* XI



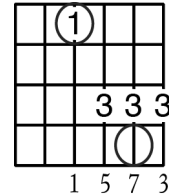
Cm7 X



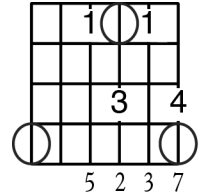
F9nr X



Bbma7 VIII



Ebma9nr VIII



VIIIm7b5
b7 to 6

III7b9 no root

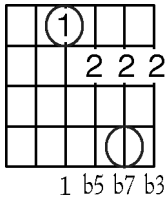
VIm7
b7 to 6

IIm9 no root

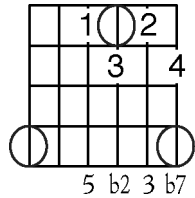
V7
b7 to 6

IIma9 no root

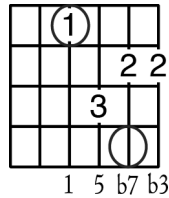
Am7b5 VII



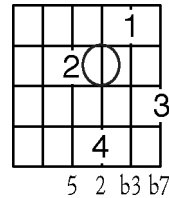
D7b9nr VII



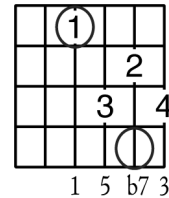
Gm7 V



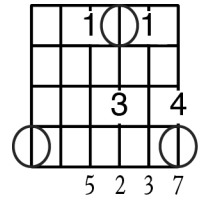
Cm9nr IV



F7 III



Bbma9nr III



*These voicings have minor second intervals (half step or one fret) and can sound harsh. They can work when arpeggiated, or in an exotic style when appropriate.

010735 to 050372 scale-tone voicings, roots in fourths

IIIIm7

b7 to 6

VIIm9 no root

IIIm7

b7 to 6

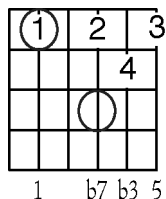
V9 no root

Ima7

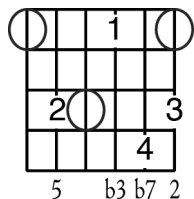
7 to 6

IVma9 no root

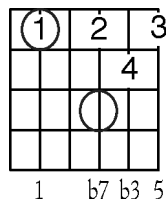
Am7 XII



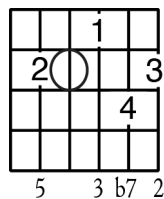
Dm9nr X



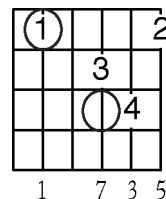
Gm7 X



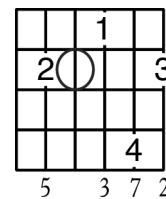
C9nr IX



Fma7 VIII



Bbma9nr* VII



VIIIm7b5

b7 to 6

III7b9 no root

VIIm7

b7 to 6

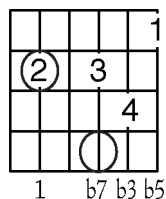
IIIm9 no root

V7

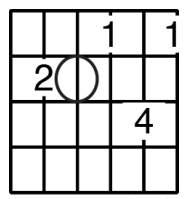
b7 to 6

Ima9 no root

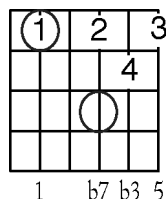
Em7b5 VI



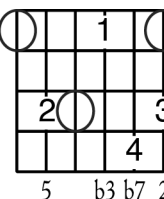
A7b9nr VI



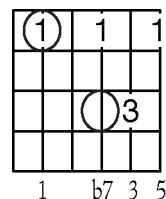
Dm7 V



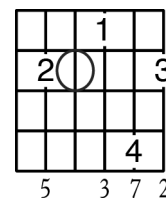
Gm9nr III



C7** III

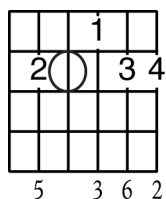


Fma9nr* II

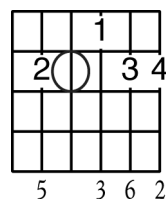


* an alternative for this major 9 no root is this 6/9 no root:

Bb6/9 nr VI

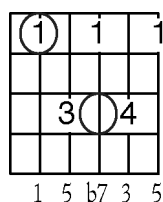


F6/9nr II



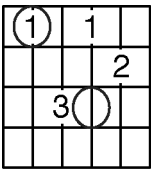
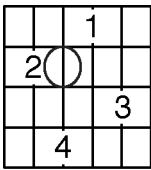
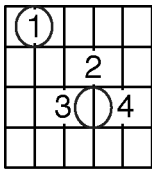
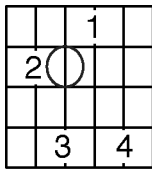
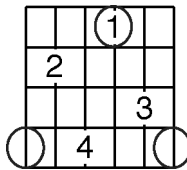
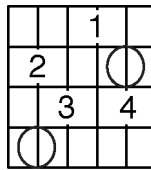
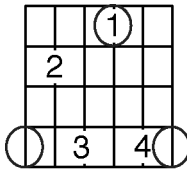
* a strum-able alternative for this seventh chord uses five strings:

C7 III



descend seven on Autumn Leaves chord changes

IIIm7		V9nr (IIIm6)		IIma7		IVma9nr		VIIIm7b5		III7b9nr (IIIm6b5)		VIIm7	
b7 to 6				7 to 6				b7 to 6					
Am7	V	D9nr	IV	Gma7	III	Cma9nr	II	F#m7b5	IV	B7b9	IV	Em7	II
= Am6 or F#m7b5						= G6 or Em7		= Am6 or D9nr		= F#dim.7 or F#m6b5			
Am7	V	D9nr	IV	Gma7	III	Cma9nr	II	F#m7b5	IV	B7b9	IV	Em7	II
= Am6 or F#m7b5						= G6 or Em7		= Am6 or D9nr		= F#dim.7 or F#m6b5			
Am7	VII	D9nr	VII	Gma7	V	Cma9nr	V	F#m7b5	VII	B7b9	VII	Em7	V
= Am6 or F#m7b5						= G6 or Em7		= Am6 or D9nr		= F#dim.7 or F#m6b5			
Am7	IX	D9nr	IX	Gma7	VII	Cma9nr	VII	F#m7b5	IX	B7b9	VIII	Em7	VII
= Am6 or F#m7b5						= G6 or Em7		= Am6 or D9nr		= F#dim.7 or F#m6b5			
Am7	X	D9nr	X	Gma7	VIII	Cma9nr	VIII	F#m7b5	X	B7b9	X	Em7	VIII
= Am6 or F#m7b5						= G6 or Em7		= Am6 or D9nr		= F#dim.7 or F#m6b5			

IIIm7		V9nr (IIIm6)		Ima7		IVma9nr		VIIIm7b5		III7b9nr (IIIm6b5)		VIIm7	
b7 to 6				7 to 6				b7 to 6					
Am7	XII	D9nr	XI	Gma7	X	Cma9nr	IX	F#m7b5	XI	B7b9	XI	Em7	IX
= Am6 or F#m7b5				= G6 or Em7				= Am6 or D9nr				= F#dim.7 or F#m6b5	
													
1 5 b7 b3	5 2 3 b7	1 5 7 3	5 2 3 7	b3 b7 1 b5	b7 3 5 b2	b3 b7 1 5							

descend seven cycles on ever other chord in perfect fourths: 7362514

Descend seven voice leading: the root of each chord remains on the same note to become the fifth of the next chord. The third remains to become the seventh of the next chord. The fifth remains to become the ninth of the next chord. The seventh descends to become the third of the next chord.

descend seven on the VIIIm7b5, VIIm7 and V chords

VIIIm7b5 to III7b9 no root, VIIm7 to IIm9 no root, V7 to V6 = Ima7 to IV9 no root.

b7 to 6 → F#m6b5 = F#dim7 b7 to b6 → Em"b6" = Am9nr b7 to 6 → D6 = Gma9nr

F#m7b5 IV b3 1 b5 b7	B7b9 IV b7 5 b2 3	Em7 II b3 1 5 b7	Am9nr I b7 5 2 b3	D7 III 1 3 b7 1	D6nr=Gma7nr III 1 3 6 1	Cma7 III 1 5 7 3
F#m7b5 IV 1 b5 b7 b3	B7b9 IV 5 b2 3 b7	Em7 II 1 5 b7 b3	Am9nr V 5 2 b3 b7	D7 III 3 b7 1 5	D6=Gma9nr III 3 6 1 5	Cma7 I 3 7 1 5
F#m7b5 VII b3 b7 1 b5	B7b9 VII b7 3 5 b2	Em7 V b3 b7 1 5	Am9nr VII b7 b3 5 2	D7 V 1 b7 3 5	D6=Gma9nr V 1 6 3 5	Cma7 V 3 7 1 5
F#m7b5 IX 1 b5 b7 b3	B7b9 VIII 5 b2 3 b7	Em7 VII 1 5 b7 b3	Am9nr IX 5 2 b3 b7	D7 VII 3 b7 1 5	D6=Gma9nr VII 5 1 b3 b7	Cma9 VII 6 3 5 1
F#m7b5 X b5 1 b3 b7	B7b9 X b2 5 b7 3	Em7 XII b7 b3 5 1	Am9nr X b3 b7 2 5	D7 X b7 3 5 1	D6=Gma9nr XII 6 3 5 1	Cma9 nr VIII 7 3 5 2

Descend seven on the IIIIm7, IIIm7 and Ima7 chords

IIIIm7 to VIIm9 no root, IIIm7 to V9 no root, Ima7 to IV9 no root

	b7 to b6 →	Bm ^{tr} b6 ^{tr} = Em9nr	b7 to 6 →	Am6 = D9nr	7 to 6 →	G6 = Cma9nr
F#m7b5 IV	Bm7 IV	Em9nr III	Am7 V	Am6=D9nr IV	Gma7 III	G6=Cma9nr=Em7 II
b3 1 b5 b7	b7 5 1 b3	b3 2 5 b7	1 b7 b3 5	1 6 b3 5	1 7 3 5	1 6 3 5
F#m7b5 IV	Bm7 III	Em9nr III	Am7 V	Am6=D9nr IV	Gma7 III	G6=Cma9nr=Em7 II
1 b5 b7 b3	5 1 b3 b7	2 5 b7 b3	b7 b3 5 1	6 b3 5 1	7 3 5 1	1 5 b7 b3
F#m7b5 VII	Bm7 VII	Em9nr V	Am7 VII	Am6=D9nr VII	Gma7 V	G6=Cma9nr=Em7 V
b3 b7 1 b5	b7 b3 5 1	b3 b7 2 5	1 5 b7 b3	1 5 6 b3	1 5 7 3	1 5 6 3
F#m7b5 VII	Bm7 VII	Em9nr VII	Am7 VII	Am6=D9nr VII	Gma7 V	G6=Cma9nr=Em7 VII
b5 b3 b7 1	1 b7 b3 5	5 b3 b7 2	b3 1 5 b7	b3 1 5 6	3 1 5 7	3 1 5 6
F#m7b5 IX	Bm7 VIII	Em9nr VII	Am7 IX	Am6=D9nr IX	Gma7 VII	G6=Cma9nr=Em7 VII
1 b5 b7 b3	5 1 b3 b7	2 5 b7 b3	b7 b3 5 1	6 b3 5 1	7 3 5 1	6 3 5 1
F#m7b5 XI	Bm7 XI	Em9nr X	Am7 XII	Am6=D9nr XI	Gma7 X	G6=Cma9nr=Em7 IX
b3 b7 1 b5	b7 b3 5 1	b3 b7 2 5	1 5 b7 b3	1 5 6 b3	1 5 7 3	1 5 6 3

F#m7b5 X	Bm7 IX	Em9nr VIII	Am7 X	Am6n5=D7nr X	Gma7 XII	G6=Cma9nr=Em7 XII

descend seven in fourths with change of mode

Some progressions in perfect fourths require changing more than one note.

- Ima7 to Im6 = IV9 no root. Changing from Ima7 to IV9 requires not only a “7 to 6” voice movement, but also a flatted third. The I chord must change from a major to a minor basis.

Abma7 IV	Abm6 III	Db9nr III

IIm7 to IIm6b5 = V7b9 no root. In Misty, the second and third chords, Bbm7 and Eb7b9 progress to the fourth chord, Abma7 as a IIm7 V7b9 Ima7 progression in the key of Ab. This darkens the mood of the major mode IIm7 V7 chord change by “borrowing” the V7b9 from Ab harmonic minor.

In terms of harmonic minor, lowering the b7 to 6 in the IIm7b5 produces IIm6b5, which is the same as II diminished seventh or V7b9 no root.

Bbm7 VI	Bbm6b5 V	Bbdim.7 V

two other voice leading possibilities for descend seven

Descending the seventh of a complete four-note seventh chord (with root, third, fifth and seventh) creates a chord with three possible names (synonyms):

- a chord with the same root name, but changed from seventh to sixth
- a scale-tone seventh chord down a third (Ima7 descend seven becomes VIm7)

change seventh chord to sixth chord

By descending the seventh of Ima7, IVma7, V7 or IIm7, *by a scale tone*, each of these seventh chords can be named instead as a sixth: I6, IV6, V6 or IIm6. In terms of the parent scale, Ima7 (1-3-5-7) changes to I6 (1-3-5-6), IVma7 (4-6-1-3) changes to IV6 (4-6-1-2), V7 (5-7-2-4) changes to V6 (5-7-2-3) and IIm7 (2-4-6-1) changes to IIm6 (2-4-6-7).

major seventh to sixth (major or Lydian)



minor seventh to minor sixth (Dorian)



dominant seventh to dominant seventh sharp five

In harmonic minor or Mixolydian b6, the sharp five can “proxy” as a flat six.



synonyms down a minor third

Another function of the descended seventh on I, II, IV or VI can be to create relative minor chords, each named on a root down two scale steps. VIIm7 is the relative minor of Ima7. IIIm7 is the relative minor of IVma7. IIIIm7 is the relative minor of V7. Also, IIIm7 with its flatted seventh descended to six becomes IIIm6 (2461) = VIIIm7b5.

Changing a scale-tone seventh chord to a scale-tone sixth chord means the last note in the series of parent scale thirds is lowered by one number. Descending the seventh of Ima7 by a scale tone, 1-3-5-7 becomes 1-3-5-6. Descending the seventh of IVma7 by a scale tone, 4-6-1-3 becomes 4-6-1-2. Descending the seventh of V7 by a scale tone, 5-7-2-4 becomes 5-7-2-3. Descending the flat seven of IIIm7 by a scale tone, 7-2-4-6 becomes 7-2-4-5.

DROP VOICING

drop voicing names the inversions of a chord

With chord inversion, one or more notes of a chord are each raised or lowered by an octave. Close voicing is where the notes of a chord are as close together as possible.

Drop voicing is a device used by arrangers to name the inversions of a chord, where a few or many chords in a row use the same inversion. Drop voicing usually pertains to four-note seventh chords.

the inversions of a close-voiced seventh chord

Drop voicing on seventh chords is based on the four close-voiced inversions of a seventh chord, which are easy to finger on a piano, yet would often require two hands on the fretboard to fret the four tones of each chord at once. Allan Holdsworth did this, but most of us don't.

Here are the four inversions of C major, fretted on string sets 6-5-4-3, 5-4-3-2 and 4-3-2-1:

figured bass numbering				figured bass numbering				figured bass numbering			
6	6	6		6	6	6		6	6	6	
5	4	4		5	4	4		5	4	4	
3	3	2		3	3	2		3	3	2	

	root position	first inversion	second inversion	third inversion	root position	first inversion	second inversion	third inversion	root position	first inversion	second inversion	third inversion
T												
A	4	5	9	12	0	1	5	8	7	8	12	15
B	5	9	10	14	0	4	9	10	8	12	15	17
	7	10	14	15	3	7	10	14	10	14	17	21
	8	12	15	19								

drop voicing lowers one or more notes by an octave

All of this pertains to four-note seventh chords. Drop two voicing lowers the next to the highest note one octave. Drop three voicing lowers the third highest note an octave. Drop four voicing lowers the lowest note in the chord by one octave. Drop one voicing is redundant, since dropping the top note of each inversion of a four-note seventh chord just produces another of the original inversions:

redundant drop one voicing

	root position	drop one voicing of root position	third inversion	first inversion	drop one voicing of first inversion	root position	second inversion	drop one voicing of second inversion	first inversion	third inversion	drop one voicing of third inversion	second inversion
T	12	8	8	13	12	12	17	13	13	8	17	17
A	12	9	9	16	12	12	17	16	16	17	17	17
B	14	10	10	17	14	14	22	19	19	10	22	22
	15	14	14	19	15	15						

drop two voicing lowers the next-highest note one octave

the same

the same

the same

the same

root position drop two voicing on strings 5-4-3-2 first inversion drop two voicing on strings 5-4-3-2 second inversion drop two voicing on strings 5-4-3-2 third inversion drop two voicing on strings 5-4-3-2

drop two voicing on strings 4-3-2-1 drop two voicing on strings 4-3-2-1 drop two voicing on strings 4-3-2-1 drop two voicing on strings 4-3-2-1

T	7	12	7	8	12	8	12	8	3
A	8	9	5	12	13	8	13	9	4
B	10	10	5	14	14	9	17	10	2

See Seventh Chord Inversions by String Set/[string set 5-4-3-2 \(drop 2 voicings\)](#) and [string set 4-3-2-1 \(drop 2 voicings\)](#).

drop three voicing lowers the third-highest note one octave

the same

the same

the same

the same

root position drop three voicing on strings 6-4-3-2 first inversion drop three voicing on strings 6-4-3-2 second inversion drop three voicing on strings 6-4-3-2 third inversion drop three voicing on strings 6-4-3-2

drop two voicing on strings 5-3-2-1 drop two voicing on strings 5-3-2-1 drop two voicing on strings 5-3-2-1 drop two voicing on strings 5-3-2-1

T	12	12	7	8	12	8	12	8	3
A	12	12	5	12	13	12	13	9	4
B	14	10	7	14	17	9	17	12	2

See Seventh Chord Inversions by String Set/[string set 6-4-3-2 \(drop 3 voicings\)](#) and [string set 5-3-2-1 \(drop 3 voicings\)](#).

drop four voicing lowers the fourth-highest note one octave

The fourth-highest note is the same as the lowest of the four notes.

root position drop four voicing on strings 6-3-2-1 first inversion drop four voicing on strings 6-3-2-1 second inversion drop four voicing on strings 6-3-2-1 third inversion drop four voicing on strings 6-3-2-1

T	7	7	8	8	12	12	8	8
A	8	8	12	12	13	13	9	9
B	10	9	14	12	16	16	10	10

See Seventh Chord Inversions by String Set/[string set 6-3-2-1 \(drop 4 voicings\)](#).

drop two *and* four voicing lowers the second and fourth-highest notes one octave

The fourth-highest note is the same as the lowest of the four notes.

The diagram illustrates the process of creating drop two and four voicings for a seventh chord. It shows a sequence of eight musical staves in 2/4 time, each representing a different voicing of a G7 chord. The first staff shows the root position. The second staff shows the result of dropping the 2nd and 4th notes one octave. The third staff shows the first inversion. The fourth staff shows the result of dropping the 2nd and 4th notes one octave from the first inversion. The fifth staff shows the second inversion. The sixth staff shows the result of dropping the 2nd and 4th notes one octave from the second inversion. The seventh staff shows the third inversion. The eighth staff shows the result of dropping the 2nd and 4th notes one octave from the third inversion. Below the staves, fretboard diagrams for the T, A, and B strings are provided for each voicing, with fret numbers indicated.

	root position	drop 2 and 4 voicing on strings 6-5-3-2	first inversion	drop 2 and 4 voicing on strings 6-5-3-2	second inversion	drop 2 and 4 voicing on strings 6-5-3-2	third inversion	drop 2 and 4 voicing on strings 6-5-3-2
T	7	12	8	8	12	12	3	3
A	8	9	12	8	13	12	5	1
B	10	10	14	9	16	10	9	2
		8		7		10		2

See Seventh Chord Inversions by String Set/[string set 6-5-3-2](#) and [string set 5-3-2-1](#).

using drop voicing in arrangements

This applies best to four-part arrangements, such as vocal quartets, ensembles of strings, horns, etc., piano or vibraphone arrangements, or guitar arrangements such chord solos or comping.

Drop voicing works particularly well in harmonizing stepwise melodies on a chord progression in seventh chords with notes in quarter notes below approximately 240 BPM or eighth notes below approximately 120 BPM. Those melody notes that are in a current chord can use inversions of the current chord.

Melody notes not in the current chord can be harmonized with any of the following chords, as long as the melody note being harmonized is in the chord being used:

- ✦ The modal V chord, such as Em7 as the V of Am7 with a C major parent scale
- ✦ The [secondary dominant](#) V chord, such as E7 as the V of Am7 with a C major scale (C major sharp five scale during the E7 chord)
- ✦ A chord built on an upper or lower neighbor chord root, such as Bm7b5 or G7 as a neighbor to Am7 with a C major parent scale
- ✦ A [flat-five substitute](#), such as a Db7 preceding a Cma7 chord with a C major parent scale
- ✦ A changed version of the original chord, such as using Dm7 instead of Dm6. Sometimes the relationship is secondary: since Dm6 is a synonym of Dm6, Dm7 could be used in place of Bm7b5.
- ✦ Using a IIm7 in place of a V7 in a major key or substituting a V7 for a IIm7 in a minor key. See Substitution/[Interchangeable II and V](#).

SEVENTH CHORD INVERSIONS BY STRING SET

string set 5-4-3-2 (drop 2 voicings)

generic family →

015730

037150

051370

073510

root 7
position

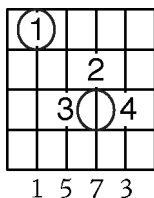
first 6 6
inversion 5 or 5
3

second 6 4
inversion 4 or 3
3

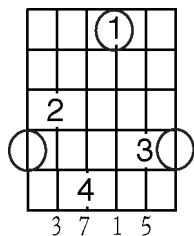
third 6 4 2
inversion 4 or 2 or
2

major seventh

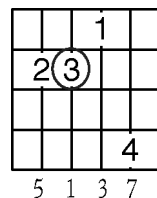
Cma7 III



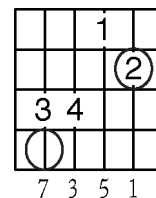
Cma7 V



Cma7 IX

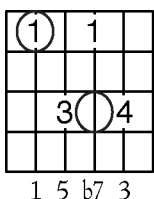


Cma7 XII

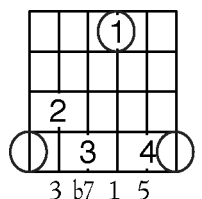


dominant seventh

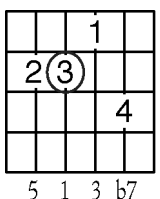
C7 III



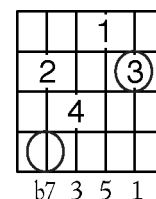
C7 V



C7 IX

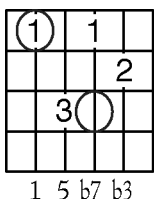


C7 XII

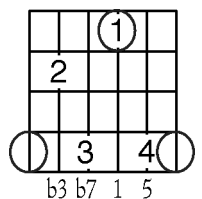


minor seventh

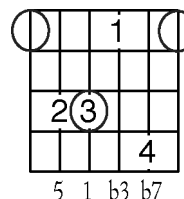
Cm7 III



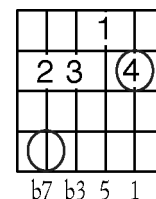
Cm7 V



Cm7 VIII

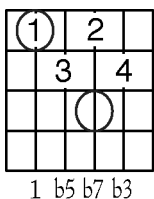


Cm7 XII

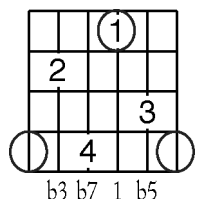


minor seventh
flat five

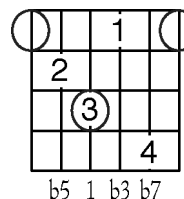
Cm7b5 III



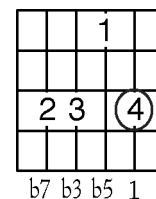
Cm7b5 V



Cm7b5 VIII

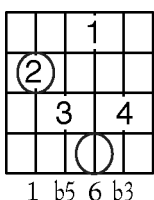


Cm7b5 XI

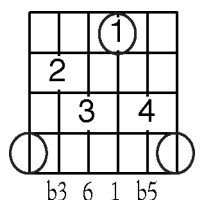


diminished
seventh

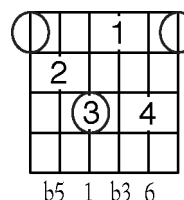
Cdim.7 II



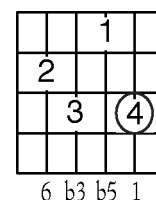
Cdim.7 V



Cdim.7 VIII



Cdim.7 XI



string set 4-3-2-1 (drop 2 voicings)

generic family →

001573

003715

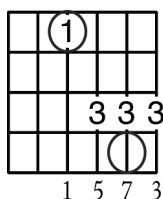
005137

007351

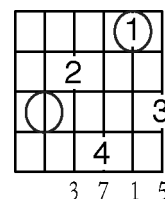
root 7
positionfirst 6 6
inversion 5 or 5
3second 6 4
inversion 4 or 3
3third 6 4 2
inversion 4 or 2 or
2

major seventh

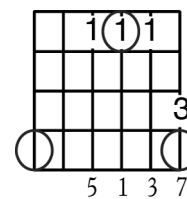
Fma7 III



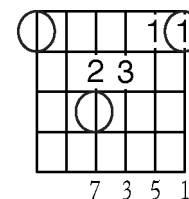
Fma7 VI



Fma7 X

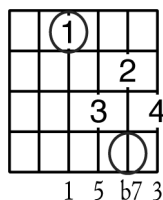


Fma7 XIII

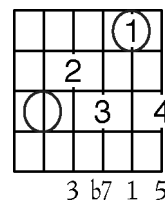


dominant seventh

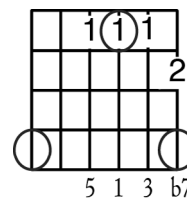
F7 III



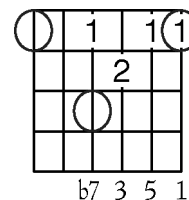
F7 VI



F7 X

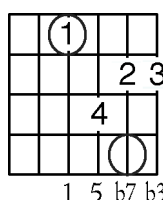


F7 XIII

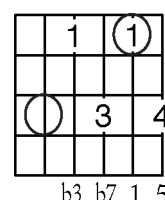


minor seventh

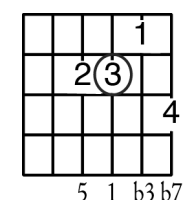
Fm7 III



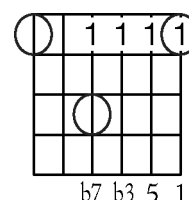
Fm7 VI



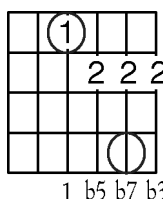
Fm7 IX



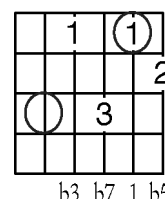
Fm7 XIII

minor seventh
flat five

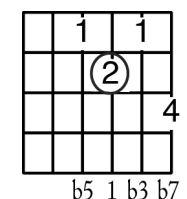
Fm7b5 III



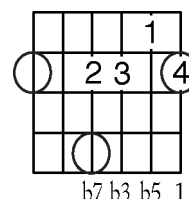
Fm7b5 VI



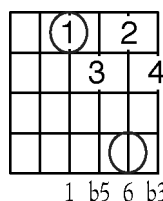
Fm7b5 IX



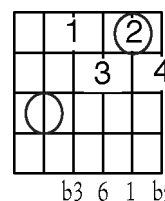
Fm7b5 XII

diminished
seventh

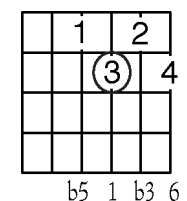
Fdim.7 III



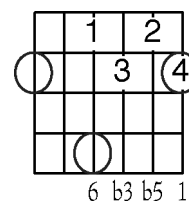
Fdim.7 VI



Fdim.7 IX



Fdim.7 XII



string set 6-5-4-3 (drop 2 voicings)

generic family →

157300

371500

513700

735100

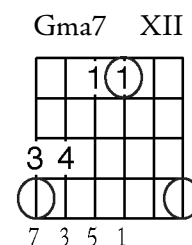
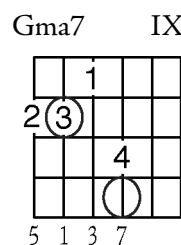
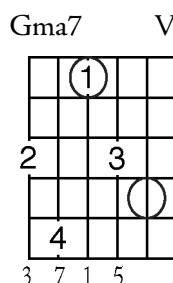
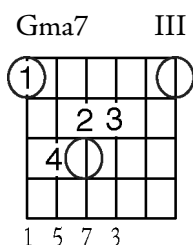
root 7
position

first 6 6
inversion 5 or 5
3

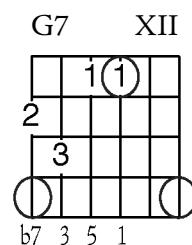
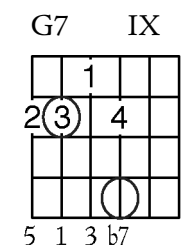
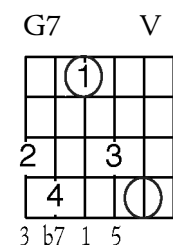
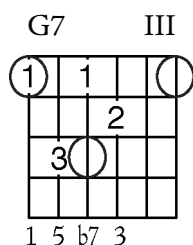
second 6 4
inversion 4 or 3
3

third 6 4 2
inversion 4 or 2 or
2

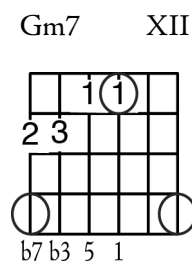
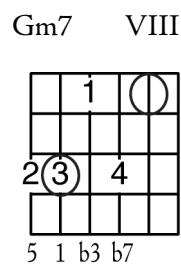
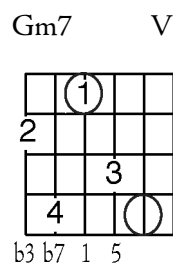
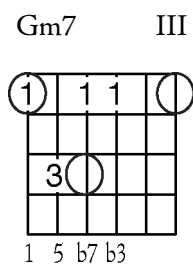
major seventh



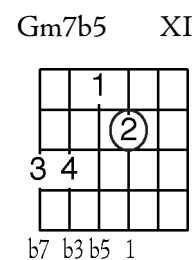
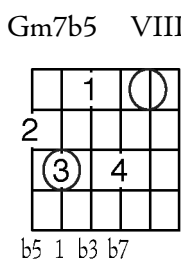
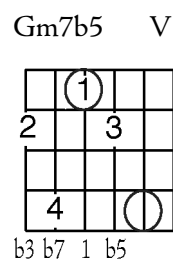
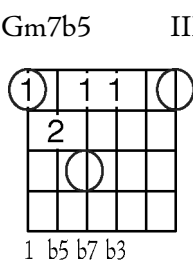
dominant seventh



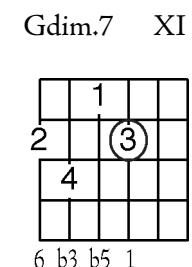
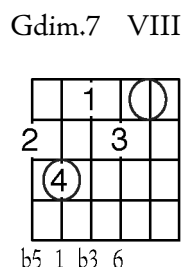
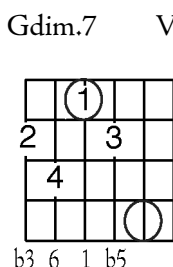
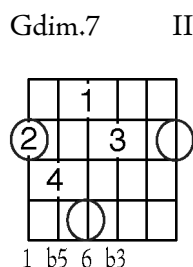
minor seventh



**minor seventh
flat five**



**diminished
seventh**



string set 6-4-3-2 (drop 3 voicings)

generic family →

107350

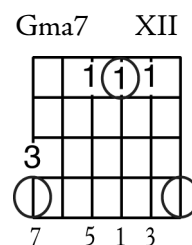
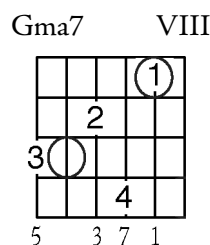
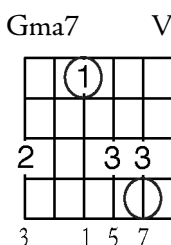
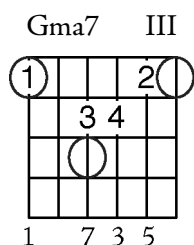
301570

503710

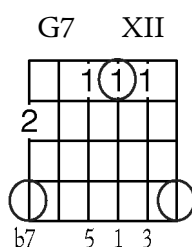
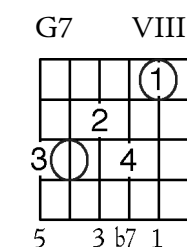
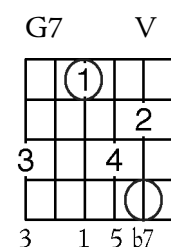
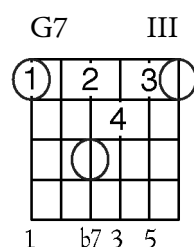
705130

root 7
positionfirst 6 6
inversion 5 or 5
3second 6 4
inversion 4 or 3
3third 6 4 2
inversion 4 or 2 or
2

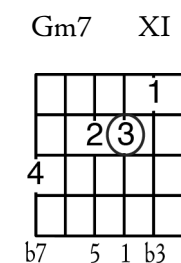
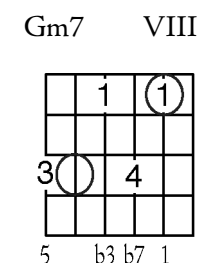
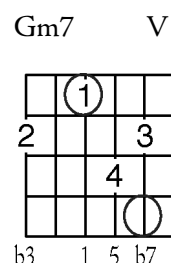
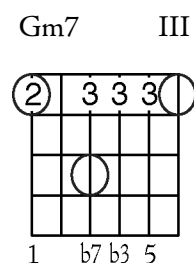
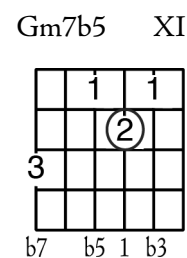
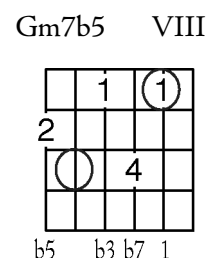
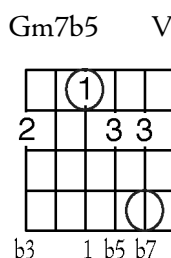
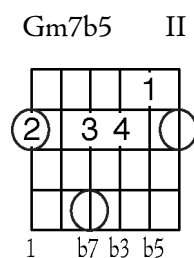
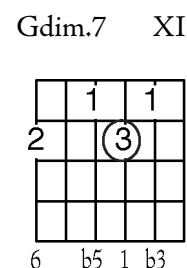
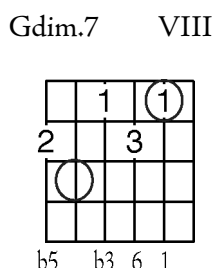
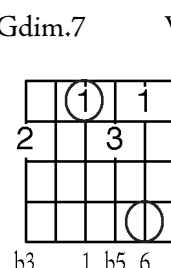
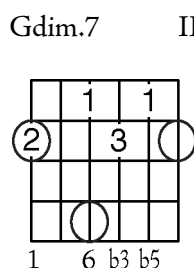
major seventh



dominant seventh



minor seventh

minor seventh
flat fivediminished
seventh

string set 5-3-2-1 (drop 3 voicings)

generic family →

010735

030157

050371

070513

root 7
position

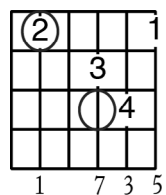
first 6 6
inversion 5 or 5
3

second 6 4
inversion 4 or 3
3

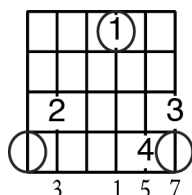
third 6 4 2
inversion 4 or 2 or
2

major seventh

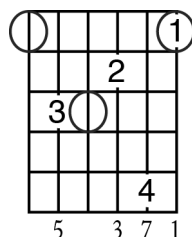
Cma7 III



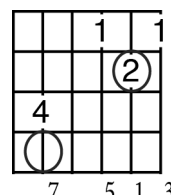
Cma7 V



Cma7 IX

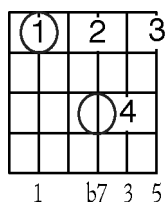


Cma7 XII

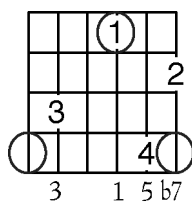


dominant seventh

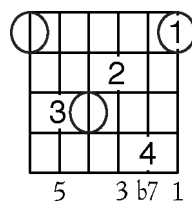
C7 III



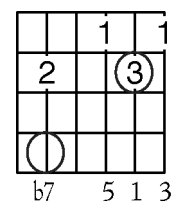
C7 V



C7 IX

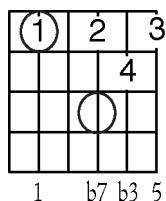


C7 XII

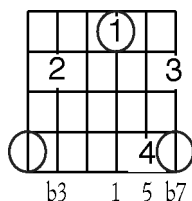


minor seventh

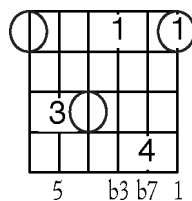
Cm7 III



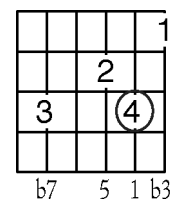
Cm7 V



Cm7 VIII

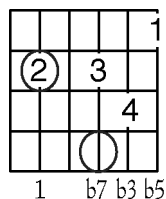


Cm7 XI

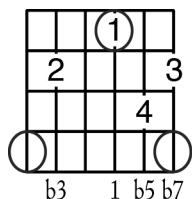


**minor seventh
flat five**

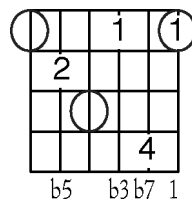
Cm7b5 II



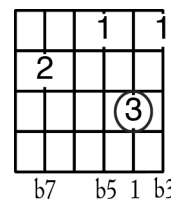
Cm7b5 V



Cm7b5 VIII

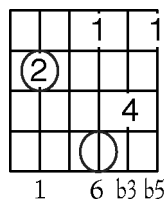


Cm7b5 XI

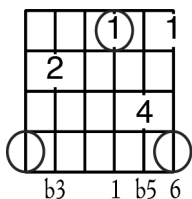


**diminished
seventh**

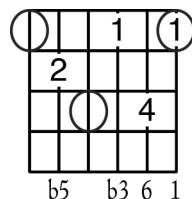
Cdim.7 II



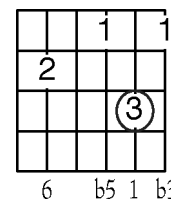
Cdim.7 V



Cdim.7 VIII



Cdim.7 XI



string set 6-3-2-1 (drop 4 voicings)

generic family →

100357

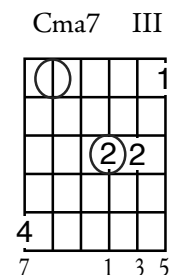
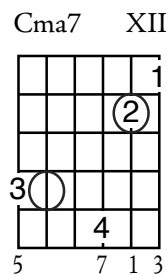
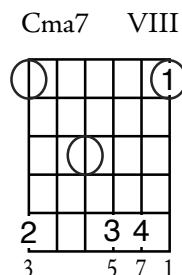
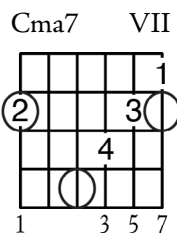
300571

500713

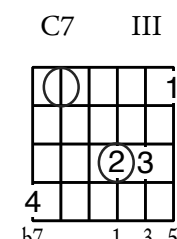
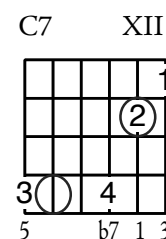
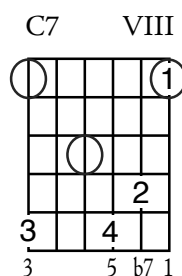
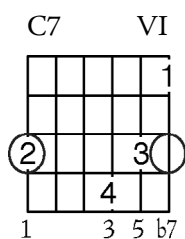
700135

root 7
positionfirst 6 6
inversion 5 or 5
3second 6 4
inversion 4 or 3
3third 6 4 2
inversion 4 or 2 or
2

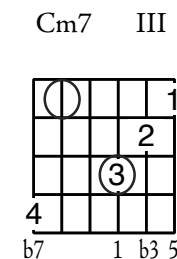
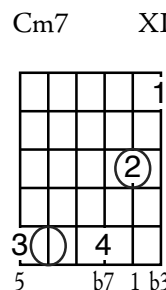
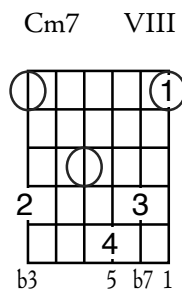
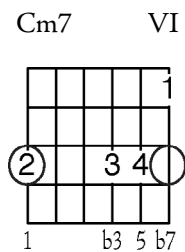
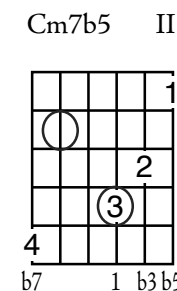
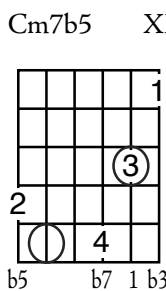
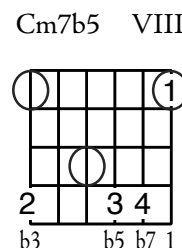
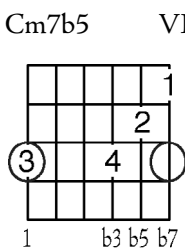
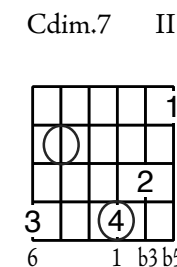
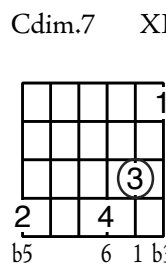
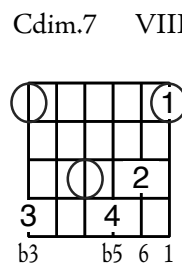
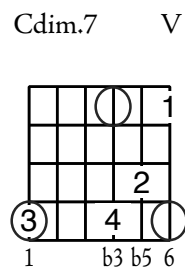
major seventh



dominant seventh



minor seventh

minor seventh
flat fivediminished
seventh

string set 6-5-3-2 (drop 2 and 4 voicings)

generic family →

150370

370510

510730

730150

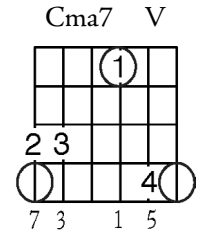
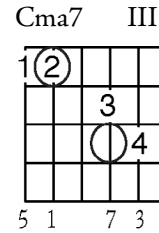
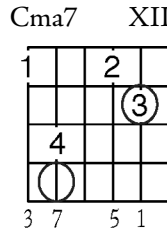
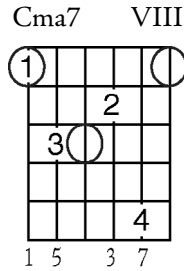
root 7
position

first 6 6
inversion 5 or 5
3

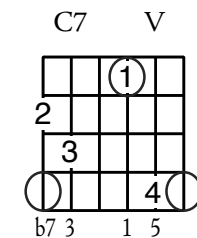
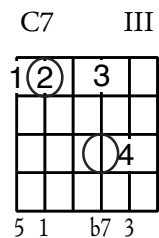
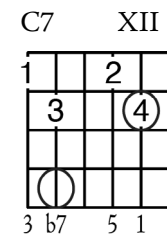
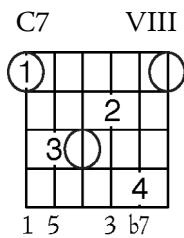
second 6 4
inversion 4 or 3
3

third 6 4 2
inversion 4 or 2 or
2

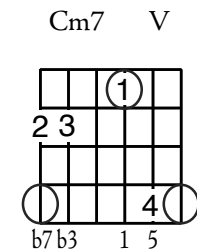
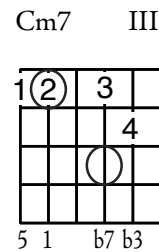
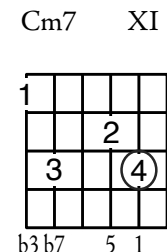
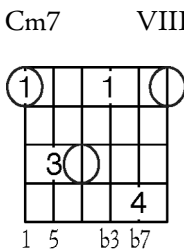
major seventh



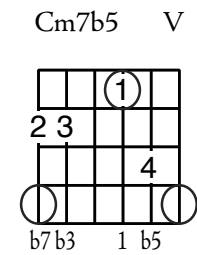
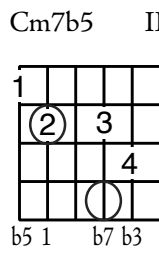
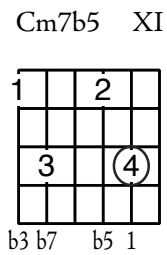
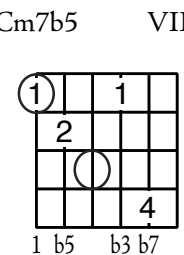
dominant seventh



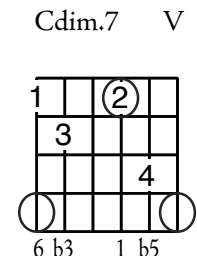
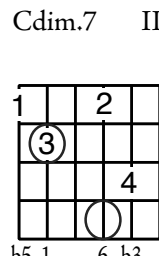
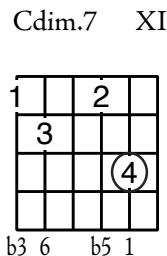
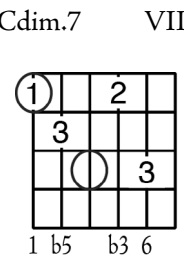
minor seventh



minor seventh
flat five



diminished
seventh



string set 5-4-2-1 (drop 2 and 4 voicings)

generic family →

015037

037051

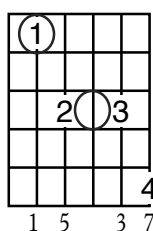
051073

073015

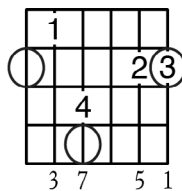
root 7
positionfirst 6 6
inversion 5 or 5
3second 6 4
inversion 4 or 3
3third 6 4 2
inversion 4 or 2 or
2

major seventh

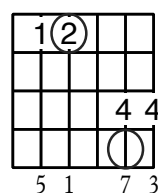
Cma7 VIII



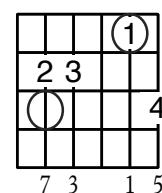
Cma7 XII



Cma7 III

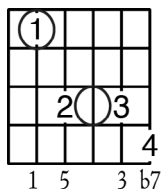


Cma7 V

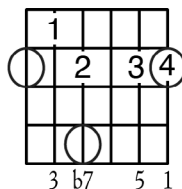


dominant seventh

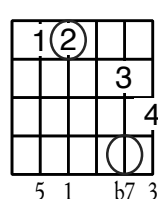
C7 VIII



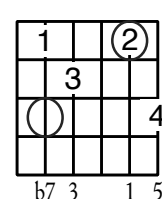
C7 XII



C7 III

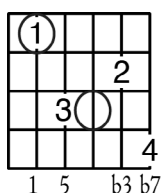


C7 V

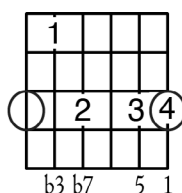


minor seventh

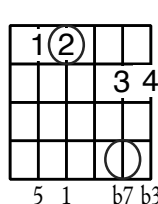
Cm7 VIII



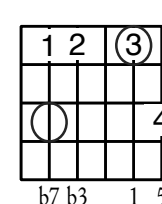
Cm7 XI



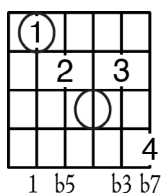
Cm7 III



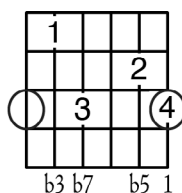
Cm7 V

minor seventh
flat five

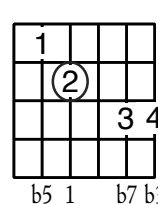
Cm7b5 VIII



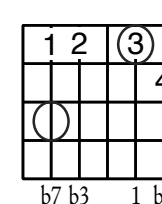
Cm7b5 XI



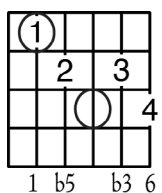
Cm7b5 II



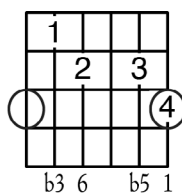
Cm7b5 V

diminished
seventh

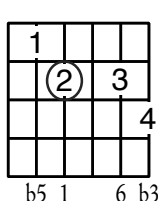
Cdim.7 VIII



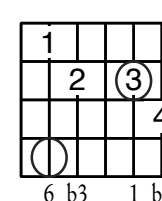
Cdim.7 XI



Cdim.7 II



Cdim.7 V



string set 5-4-3-2 and 4-3-2-1 - root position only

generic family →

013710

001371

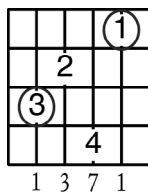
013570

001357

major seventh

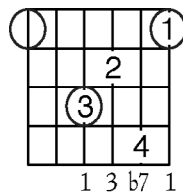
doubled root

Gma7 VIII



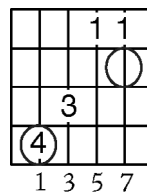
doubled root

Cma7 VIII



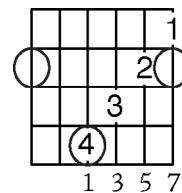
thirds

Gma7 VII



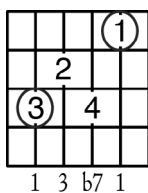
thirds

Cma7 VII

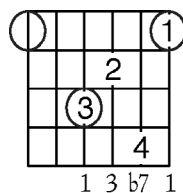


dominant seventh

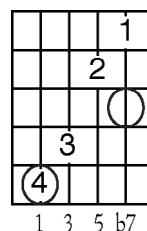
G7 VIII



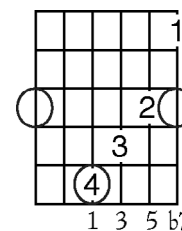
C7 VIII



G7 VI

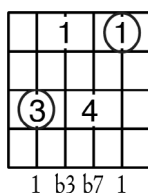


C7 VI

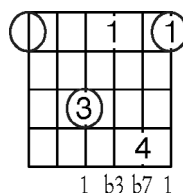


minor seventh

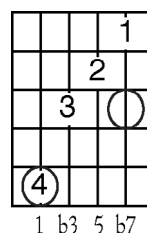
Gm7 VIII



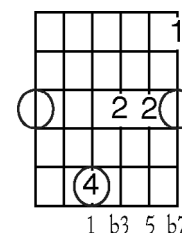
Cm7 VIII



Gm7 VI



Cm7 VI



**minor seventh
flat five**

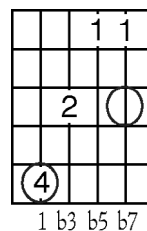
Gm7b5

no fifth, so same as
Gm7

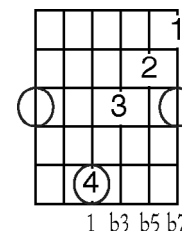
Cm7b5

no fifth, so same as
Cm7

Gm7b5 VI



Cm7b5 VI



**diminished
seventh**

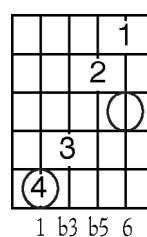
Gdim.7

no fifth, so same as
Gm6

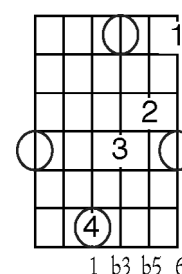
Cdim.7

no fifth, so same as
Cm6

Gdim.7 V



Cdim.7 V



COMBINING STEPWISE AND FOURTHS

Stepwise and fourths root movement can be combined. It is most familiar when the last chord before the target I chord is a V chord. So, the two progressions that generates are IV-V-I and VI-V-I.

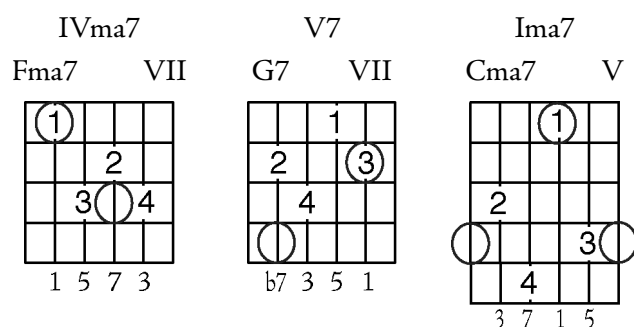
In minor mode, the parent scale's IVma7 III7-VIm7 (Fma7-E7-Am7) becomes the minor key scale bVI7-V7-Im7. IIIIm7 of the parent scale (IIIIm7 of C) is commonly changed to III7 (of C), which becomes V7 of the key (V7 of Am).

The darker and bluesier parent scale IV7-III7-VIm7 (F7-E7-Am7) of the parent scale is bVI7-V7-Im7 in the key scale (Am). The IV7 (F7 of C) of parent scale is bVI7 of the key scale (F7 in Am) and is usually harmonized with melodic minor mode IV (Lydian flat seven).

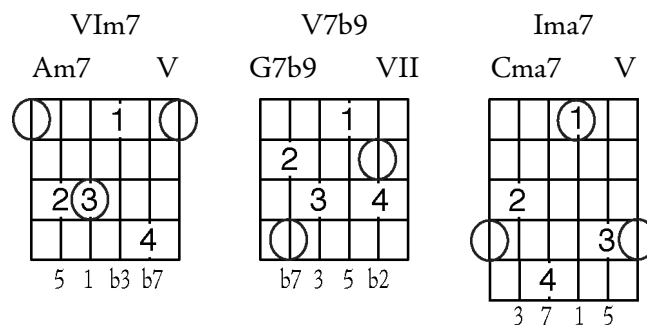
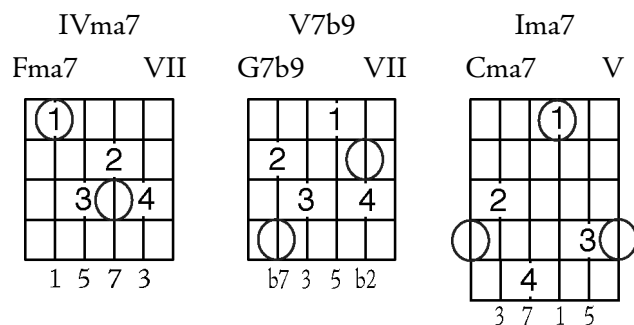
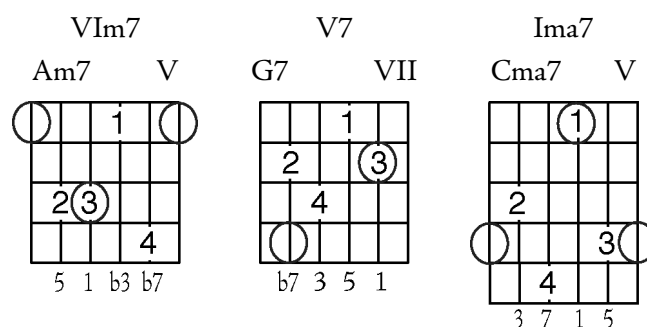
The organization of the voicings shown here is based on [descend five and seven voicings](#). For voicings organized by the top voice, see the [IV-V-I Cadence Library](#) and the [VI-V-I Cadence Library](#).

String Set 5-4-3-2

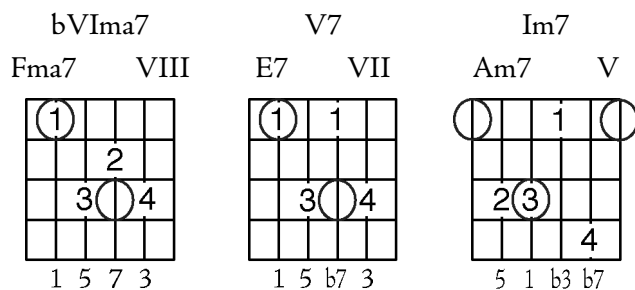
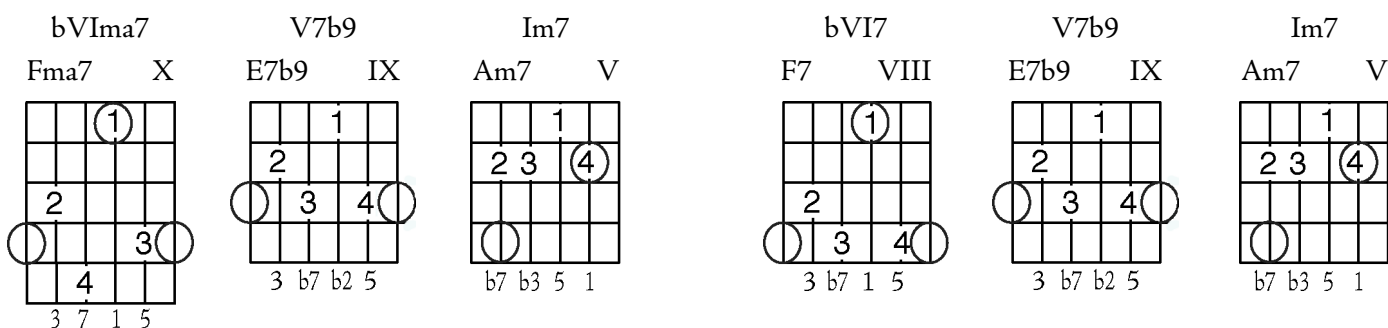
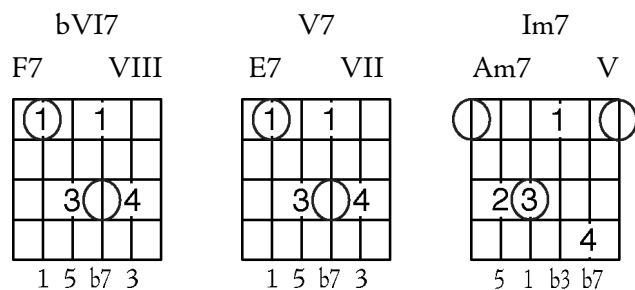
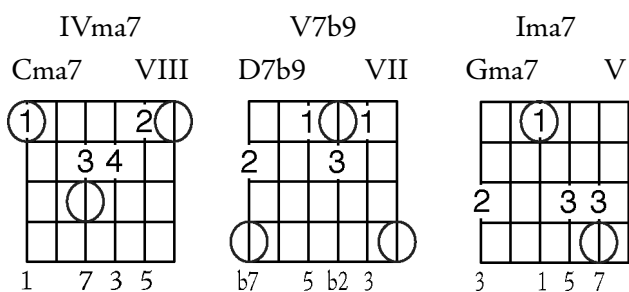
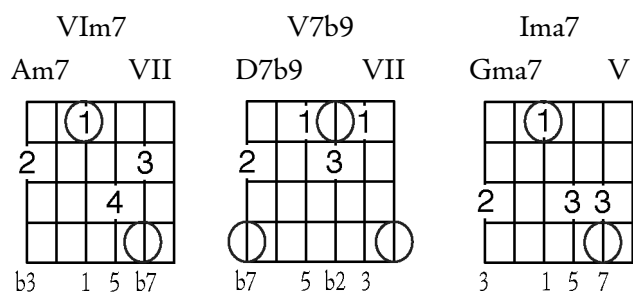
IVma7-V7-Ima7



VIm7-V7(b9)-Ima7



<p>IVma7 V7</p> <p>Fma7 X G7 X</p> <p>3 7 1 5</p>	<p>V7</p> <p>G7 X</p> <p>1 5 b7 3</p>	<p>Ima7</p> <p>Cma7 IX</p> <p>5 1 3 7</p>	<p>VIm7</p> <p>Am7 V</p> <p>b7 b3 5 1</p>	<p>V7</p> <p>G7 X</p> <p>1 5 b7 3</p>	<p>Ima7</p> <p>Cma7 IX</p> <p>5 1 3 7</p>
<p>IVma7</p> <p>Fma7 X</p> <p>3 7 1 5</p>	<p>V7b9</p> <p>G7b9 X</p> <p>b2 5 b7 3</p>	<p>Ima7</p> <p>Cma7 IX</p> <p>5 1 3 7</p>	<p>VIm7</p> <p>Am7 V</p> <p>b7 b3 5 1</p>	<p>V7b9</p> <p>G7b9 X</p> <p>b2 5 b7 3</p>	<p>Ima7</p> <p>Cma7 V</p> <p>3 7 1 5</p>
<p>IVma7</p> <p>Fma7 II</p> <p>5 1 3 7</p>	<p>V7</p> <p>G7 IV</p> <p>5 1 3 b7</p>	<p>Ima7</p> <p>Cma7 III</p> <p>1 5 7 3</p>	<p>VIm7</p> <p>Am7 II</p> <p>b3 b7 1 5</p>	<p>V7</p> <p>G7 IV</p> <p>5 1 3 b7</p>	<p>Ima7</p> <p>Cma7 III</p> <p>1 5 7 3</p>
<p>IVma7</p> <p>Fma7 II</p> <p>5 1 3 7</p>	<p>V7b9</p> <p>G7b9 IV</p> <p>5 b2 3 b7</p>	<p>Ima7</p> <p>Cma7 III</p> <p>1 5 7 3</p>	<p>VIm7</p> <p>Am7 II</p> <p>b3 b7 1 5</p>	<p>V7b9</p> <p>G7b9 IV</p> <p>5 b2 3 b7</p>	<p>Ima7</p> <p>Cma7 III</p> <p>1 5 7 3</p>

bVI_{ma}7-V7-Im7**bVI_{ma}7-V7(b9)-Im7****String Set 6-4-3-2****IV_{ma}7-V7-Ima7****VI_m7-V7b9-Ima7**

THE SECONDARY DOMINANT CYCLE

Apply a melodic curve implied by the graphics below to each chord in the secondary dominant chord cycle. See [Secondary Dominant](#). The repeating pattern for the cycle is up a scale tone third to a dominant seventh, then up a perfect fourth to a scale-tone triad (the seventh letter of the scale will be represented with b VII major). In C, this would be: C-E7-Am-C7-F-A7-Dm-F7-Bb-D7-G-B7-Em-G7, then repeat.

Represent seventh chords with their triad basis (1-3-5) and substitute the b7 for a root only if the root can still be represented at least once. Learn to alter major scale-tone chords to make dominant sevenths on every step of a major scale and be aware of the changes that makes in the major scale.

Conforming Modes to the Relative Major and Minor System

To practice establishing temporary or permanent keys on each step of the major scale, each of the chords that follow a seventh chord in the Secondary Dominant Chord Cycle is standardized to a major (Ionian) or minor (Aeolian) scale. This means melodies for major chords will use a major scale on their root and minor chords will use Aeolian mode (also called natural minor). Aeolian mode places a tone center on the sixth step of a major scale, so D Aeolian has the same notes as the F major scale and B Aeolian has the same notes as the D major scale. I usually make an exception with scale tone five and leave it in Mixolydian mode. So a Secondary Dominant Cycle for C major, would use the C major scale for a G major chord, but the scale would use the mode name “G Mixolydian”.

For scale tone seven, use a major chord on flat seven. Use a major scale on the root of the chord on flat seven. In Secondary Dominant Cycle for C major, the seventh step would be a Bb major chord with a Bb major scale.

SUBSTITUTE CHORDS

Chord on the Third

In effect, this adds an upper harmony. C and Em = Cma7. C and Em7 = Cma9. Dm and F = Dm7. Dm and Fma7 = Dm9.

Chord on the Sixth

Similarly to the chord on the third above, this adds a harmony below the original root.

Flat Five Substitute

Flat five substitutes replace a dominant type chord with another dominant type chord a root a flat fifth above or below (which produces the same note) the chord they replace.

When three consecutive chords have root movement in perfect fourths, the first and third chords have roots a whole step (two frets) apart. When, in such a case, the first and third chord are of the same quality, the middle of the three chords could be replaced with one that constitutes a chromatic root movement between three chords of the same quality. This commonly occurs by replacing IIIIm7-VIm7-IIIm7 with IIIIm7-bIIIm7-IIIm7. Another is V-I-IV, replaced with V-bV-IV. In either case the substitute chord is a flat five substitute.

Diminished Seventh Substitutes

stepwise diminished voicing

Diminished seventh chords progress best from a whole step above or a half step below the chord they precede.

chromatic diminished voicing

Diminished seventh chords can vary the quality of a dominant type chord by playing a diminished seventh version before it. They are commonly used in the progression I7-I°7-IIIm7b5-I, or its reverse order: I-IIIm7b5-I°7-I7.

The voice leading in I7-I°7-IIIm7b5-I is that the second chord descends the three notes other than the root chromatically (by one fret), then the third chord descends the notes other than the root chromatically again. Finally, the voices move to the nearest tones of a I major chord.

Turnarounds

alternate chords make turnarounds more interesting

The $\text{IIIIm7-VI7-IIIm7-V7}$ or III7-VI7-II7-V7 cadences are often voiced where the II-V chords are voiced up a whole step for the III-VI chords.

III	VI	II	V	I
IIIIm7	VIIm7 (or VI7)	IIIm7 (or II7)	V7	I
IIIIm7 (or IIIIm7b5)	VI7 or III°7	IIIm7 (or IIIm7b5)	V7 or II°7	I
IIIIm7	bIIIIm7 (or bIII7)	IIIm7	bII7 or V7 (or VIm7)	I
III7	VIIm7	IIIm7	V7	I
#V°7 (III7b9 nr)	VIIm7	IIIm7	V13/b9 (b9 in bass)	I

CHROMATIC VOICE LEADING

A Chromatic Chord Between Chords of the Same Quality

Chromatic chords between chords of the same quality is used extensively in [Building Cadences with Chromaticized Bass](#).

Tertian triads, quadrads and pentads are constructed in thirds (every other scale tone). Tertian triads are three-note chords built in thirds, tertian quadrads are four-note chords built in thirds and tertian pentads are five-note chords.

There are a few instances of triads or seventh chords built on two consecutive scale tones of seven-tone (heptatonic) scales. A chromatic chord may be inserted between two chords of the same quality whose roots are a whole step apart, filling a whole step with three chords progressing in half steps of the same quality. Parallel voicing is usually used, being the common practical choice. With this voicing, all tones move up and down chromatically (a half step at a time).

Major scale has the following consecutive chords of the same quality: IIm and IIIm; IIm7 and IIIm7. Melodic minor scale has many consecutive chords of the same quality: Im and IIm; IV and V major; IV7 and V7; IV9 and V9; VI^{dim} and VII^{dim}; VI^{m7b5} and VII^{m7b5}.

The only consecutive pentad in common use is the IV9 and V9 in melodic minor, ascending form. Melodic minor ascending is major scale with flat three. In classical music and sometimes elsewhere, the descending form of melodic minor is the same as Aeolian or natural minor (1-b7-b6-5-4-b3-2-1). In jazz, the ascending form (major flat three) is used for both ascending and descending.

Enharmonic notes are those with optional names with accidentals, such as F# and Gb or Cb and B. As with single notes, sharps the middle note of the three chromatic tones is sharp in ascending and flat in descending. When a natural note is a choice for the middle note, such as C-B-Bb versus C-Cb-Bb, the natural choice is best (C-B-Bb preferred over C-Cb-Bb).

IIm(m7, m9) and IIIm(m7, m9)

In either case, a chord progression may connect IIm and IIIm or IIm7 and IIIm7 chords with a chord of the same quality in-between.

connecting IIm and IIIm, ascending and descending

IIm Dm7 V	#IIm D#m VI	IIIm Em VII	IIIm Em7 VII	bIIIm Ebm7 VI	IIm Dm7 V
1 5 1 b3	1 5 1 b3	1 5 1 b3	1 5 b7 b3	1 5 b7 b3	1 5 b7 b3

connecting IIm7 and IIIm7, ascending and descending

IIm7 Dm7 V	#IIm7 D#m7 VI	IIIm7 Em7 VII	IIIm7 Em7 VII	bIIIm7 Ebm7 VI	IIm7 Dm7 V
1 5 b7 b3	1 5 b7 b3	1 5 b7 b3	1 5 b7 b3	1 5 b7 b3	1 5 b7 b3

IIIm9 is not commonly used, since the ninth would be a #4 of the parent scale. When it is used, it follows the same rules. Doesn't the progression below sound a little odd?

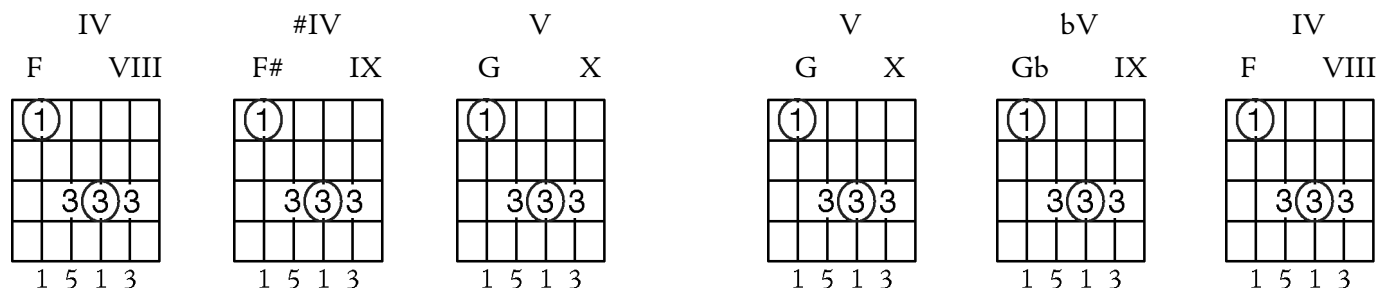
connecting IIm9 and IIIm9 (uncommon), ascending and descending

IIm9 Dm9 III	#IIm9 D#m9 IV	IIIm9 Em9 V	IIIm9 Em9 V	bIIIm9 Ebm9 IV	IIm9 Dm9 III
1 b3 b7 2 5	1 b3 b7 2 5	1 b3 b7 2 5	1 b3 b7 2 5	1 b3 b7 2 5	1 b3 b7 2 5

IV (7, 9) and V (7, 9) triads

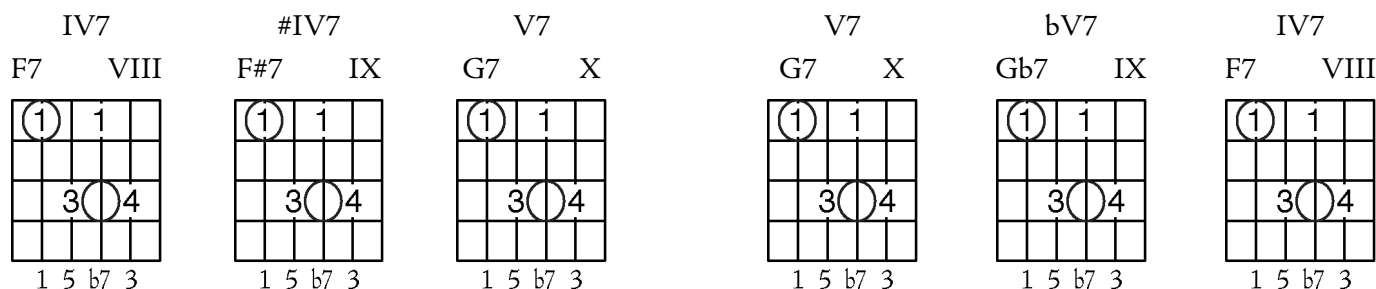
connecting IV and V, ascending and descending

These occur in major scale and in melodic minor (ascending form).



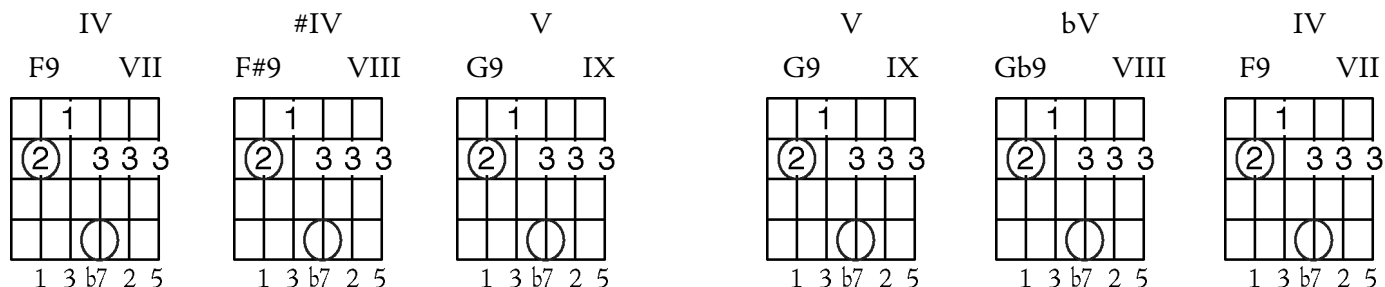
connecting IV7 and V7, ascending and descending

These occur in melodic minor and in progressions with changing modes, where the V chord is key scale major (chord scale V Mixolydian) and the IV chord is key scale Dorian (chord scale IV Mixolydian).



connecting IV9 and V9 (melodic minor = major b3), ascending and descending

Like the IV7 and V7 chromatically connected progressions above, these occur in melodic minor and in progressions with changing modes, where the V chord is key scale major (chord scale V Mixolydian) and the IV chord is key scale Dorian (chord scale IV Mixolydian).



melodic minor VI and VII

These occur in melodic minor. VI diminished or VIm7b5 can be used as a secondary on the third of a melodic minor IV chord (IV9 no root is VIm7b5). Likewise, VII diminished or VIIm7b5 can be used as a secondary on the third of a melodic minor IV chord (IV9 no root is VIm7b5).

connecting VI dim. and VI dim., ascending and descending

VI dim. (IV7 no root)	#VI dim. (#IV7 no root)	VII dim. (V7 no root)	VII dim. (V7 no root)	bVII dim. (bV7 no root)	VI dim. (IV7 no root)
A dim. IV	A# dim. V	B dim VI	B dim VI	Bb dim. V	A dim. IV
F7 no root IV	F#7 no root V	G7 no root VI	G7 no root VI	Gb7 no root V	F7 no root IV

connecting VIm7b5 and VIm7b5, ascending and descending

VIm7b5 (IV9 no root)	#VIm7b5 (#IV9 no root)	VIIIm7b5 (V9 no root)	VII dim. (V9 no root)	bVII dim. (bV9 no root)	VI dim. (IV9 no root)
Am7b5 II	A#m7b5 III	Bm7b5 IV	Bm7b5 IV	Bbm7b5 III	Am7b5 II
F9 no root II	F#9 no root III	G9 no root IV	G9 no root IV	Gb9 no root III	F9 no root II

Diminished Ascending Chromatic Voice Leading

Ascending a whole step root movement with chords of different quality can use a diminished seventh chord rooted on the chromatic note between.

IV7-#IV°7-I

#IV diminished seventh (#IV°7) is commonly played in jazz and jazz blues during the later part of a IV chord. Since #IV°7 is equivalent to I°7, it creates parallel chromatic voice leading back to the I7 chord. In I°7, three and five are flat; seven is double flat (bb7 = 6). Each of the tones of the I°7 (= #IV°7) move up a half step *except* the root: b3 to 3, b5 to 5 and bb7 to b7.

This same voice leading occurs by using IV7b9, since IV7b9 no root is the same as #IV°7. Because of this, an improvised accompaniment can use #IV diminished seventh during the later part of IV7 *even if the bass player stays on the root of IV*. If the bass player is playing the root of IV and a chordal instrument plays #IV°7, the composite is IV7b9.

See the [IV7-#IV°7-I7 Library](#).

IVm7-#IV°7-Im7

Similar to the IV7-#IV°7-I progression above, this chromatically voice-leads the #IV°7 to I7. The third, fifth and seventh each ascend chromatically. In this case, the #IV°7 is not a subset of a larger IV chord. More care should be taken to play what is compatible with the rest of the arrangement and not indiscriminately use a #IV°7 when IVm7 is played by the other musicians.

See the [IVm7-#IV°7-I7 Library](#).

IIm7-#II°7-I7/3

This is an *alternate* chord progression for the common IIm7-V7-Ima7 (or I7) progression. It is not a usable *substitute* chord progression and should not be played at the same time that other musicians play IIm7-V7-I7. The second chord would be in direct conflict with the V7 chord. To illustrate this, V7b9 contains all of the notes of II°7, all of which are a half step below the tones of #II°7. This would create an unacceptable dissonance.

See the [Major IIm7\(b5\)-#II°7-I7 Library](#).

Descending Diminished Chromatic Voice Leading Within One Chord

See [Descending Diminished](#).

Descending Chromatic Voices

Descending whole step root movement with chords of different quality can be usually use a dominant seventh type chord rooted on the chromatic note between.

II-bII-I

See the [II-bII-I Library](#).

II-II°7-I

Chromatic Movement of a Single Voice

minor chromatic descent root to sixth

See [Chromatic Descending Minor](#).

major chromatic descent root to sixth

dominant seventh chromatic flat seven to five

major or minor with chromatic between 5 & 6

CADENCE LIBRARIES

II-V-I LIBRARY

Playing the major scale-tone 7-3-6-2-5-1 chord progression is a great way to practice minor II-V-I and major II-V-I (251) in one fell swoop. Minor II-V-I is derived from the parent major scale-tone chords VIIIm7b5-IIIm7-VIm (Bm7b5-Em7-Am7). By establishing the key on VIm of the major scale, VIIIm7b5-IIIm7-VIm becomes IIm7b5-V7-Im (Bm7b5-E7-Am7). So, Bm7b5-E7-Am7 is VIIIm7b5-IIIm7-VIm in the C major parent scale and Bm7b5-E7-Am7 is IIm7b5-V7-Im in the A minor key scale.

III is commonly changed from III minor (Em in the key of C) to III major (E) or dominant (E7).

This changes the major scale-tone original chords to VIIIm7b5-IIIm7-VIm, which are IIm7b5-III7-Im in the key of VIm. Common alterations of the parent major III chord, as used in a minor key are #5, b9, #9 (E7#5, E7b9, E7#9, or combinations such as E7#5b9 or E7#5#9).

Here are links to various ways to finger 7-3-6-2-5-1:

[Descend Five and Seven Voicings](#)

[7-3-6-2-5-1-4 Common Tone](#)

[Major Scale-Tone Seventh Chords in Perfect Fourths, Three Note Voicings](#)

[Major Scale-Tone Seventh Progression/Major Scale-Tone Sevenths in Fourths](#)

[Major Scale-Tone Seventh Progression/Fourths in Five Octave Shapes](#)

II-V-I Top Voice Leading links: [Common Tone](#), [Best Three-Note](#), [E/D form](#), [C/A Form](#), [G Form](#)

II bII I LIBRARY

Here are links to other related chapters or sections, followed by the library of fingerings.

Substitution/[Flat Five Substitute](#)

[II-V-I Top Voice Leading](#). II-bII-I is on the right side of most pages in the section. Note that the bIIIm7 chords can be used in place of bII7 by using bII Lydian instead of bII Lydian dominant.

Melodically Superimposed Cadences/Four Types Of Superimposed Cadences/[Flat Five Substitute Chord Progression](#)

[Abbreviating and Elaborating Chord Progression/Cadences in Fourths with Optional Flat Five Substitutes](#)

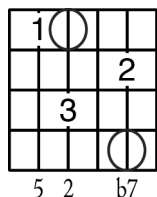
II-bII-I String Set 6-4-3-2

<p>Gm7 III</p>	<p>Gb7 II</p>	<p>F7 I</p>	<p>alternate targets:</p>	<p>Fma7 I</p>	<p>Fm7 I</p>
<p>Gm7 VI</p>	<p>Gb7/Bb V</p>	<p>F7/A IV</p>	<p>alternate targets:</p>	<p>Fma7 III</p>	<p>Fm7 III</p>
<p>Gm9 VIII</p>	<p>Gb9 VIII</p>	<p>F9 VII</p>	<p>alternate targets:</p>	<p>Fma9 VII</p>	<p>Fm9 VI</p>

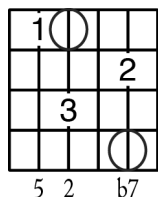
II-bII-I String Set 5-4-3-2

<p>Cm9 III</p>	<p>B9n3 II</p>	<p>Bb9n3 I</p>	<p>alternate targets:</p>	<p>Bbma9n3 I</p>	<p>Bbm9n3 I</p>
<p>Cm9nr VI</p>	<p>B9 VI</p>	<p>Bb9 V</p>	<p>alternate targets:</p>	<p>Bbma9 V</p>	<p>Bbm9 IV</p>

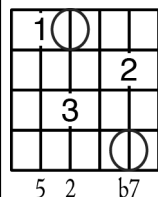
Cm9 X



B9 IX

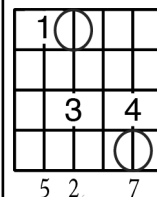


Bb9 VIII

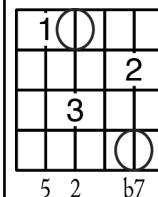


alternate targets:

Bbma9 VIII

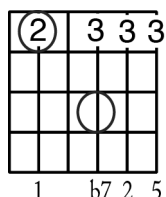


Bbm9 VIII

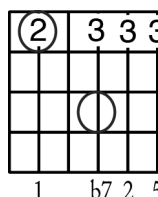


II-bII-I String Set 5-3-2-1

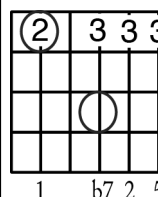
Ab9n3 XI



A9n3 XII

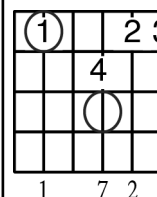


Bb9n3 XIII

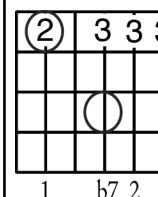


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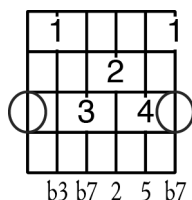
Bbma9n3 I



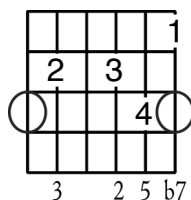
Bbm9n3 I



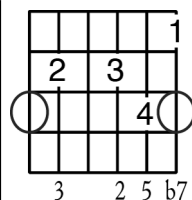
Cm9 VI



B9 V

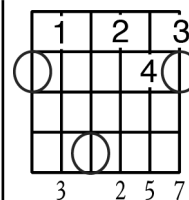


Bb9 IV

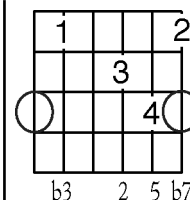


alternate targets:

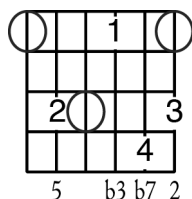
Bbma9nr V



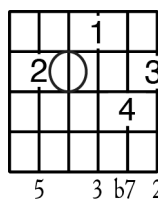
Bbm9nr IV



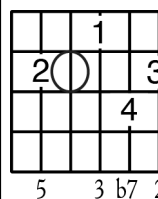
Cm9 VIII



B9 VIII

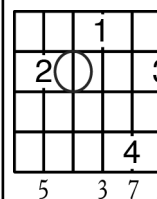


Bb9 VII

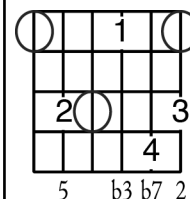


alternate targets:

Bbma9nr VII



Bbm9nr VI



II-bII-I String Set 4-3-2-1

<div><div>Fm9 III</div><div><div><div></div><div>1</div><div></div><div></div><div>1</div></div><div><div></div><div></div><div></div><div>2</div><div></div></div><div><div></div><div></div><div>3</div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>1 5 b7 2</div></div>	<div><div>E79n3 II</div><div><div><div></div><div>1</div><div></div><div></div><div>1</div></div><div><div></div><div></div><div></div><div>2</div><div></div></div><div><div></div><div></div><div>3</div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>1 5 b7 2</div></div>	<div><div>Eb9n3 I</div><div><div><div></div><div>1</div><div></div><div></div><div>1</div></div><div><div></div><div></div><div></div><div>2</div><div></div></div><div><div></div><div></div><div>3</div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>1 5 b7 2</div></div>	alternate targets:	<div><div>Ebma9n3 I</div><div><div><div></div><div>1</div><div></div><div></div><div>1</div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div>3</div><div>4</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>1 5 7 2</div></div>	<div><div>Ebm9n3 I</div><div><div><div></div><div>1</div><div></div><div></div><div>1</div></div><div><div></div><div></div><div></div><div>2</div><div></div></div><div><div></div><div></div><div>3</div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>1 5 b7 2</div></div>
<div><div>Fm9nr VI</div><div><div><div></div><div></div><div></div><div>1</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div>3</div><div>3</div><div>3</div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>b3 b7 2 5</div></div>	<div><div>E9 VI</div><div><div><div></div><div>1</div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div>3</div><div>3</div><div>3</div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>3 b7 2 5</div></div>	<div><div>Eb9 V</div><div><div><div></div><div>1</div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div>3</div><div>3</div><div>3</div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>3 b7 2 5</div></div>	alternate targets:	<div><div>Ebma9nr I</div><div><div><div></div><div>1</div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div>2</div><div>3</div></div><div><div></div><div></div><div></div><div>4</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>3 7 2 5</div></div>	<div><div>Ebm9nr I</div><div><div><div></div><div></div><div></div><div>1</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div>2</div><div></div></div><div><div></div><div></div><div></div><div>3</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>1 5 b7 2</div></div>
<div><div>Fm7 IX</div><div><div><div></div><div></div><div></div><div>1</div><div></div></div><div><div></div><div></div><div></div><div>2</div><div>3</div></div><div><div></div><div></div><div></div><div></div><div>4</div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>5 1 b3 b7</div></div>	<div><div>E9nr IX</div><div><div><div></div><div>1</div><div>1</div><div>1</div><div></div></div><div><div></div><div></div><div></div><div></div><div>2</div></div><div><div></div><div></div><div></div><div>3</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>5 2 3 b7</div></div>	<div><div>Eb9nr VIII</div><div><div><div></div><div>1</div><div>1</div><div>1</div><div></div></div><div><div></div><div></div><div></div><div></div><div>2</div></div><div><div></div><div></div><div></div><div>3</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>5 2 3 b7</div></div>	alternate targets:	<div><div>Ebma9nr VIII</div><div><div><div></div><div>1</div><div></div><div>1</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div></div><div><div></div><div></div><div></div><div>3</div><div>4</div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>5 2 3 7</div></div>	<div><div>Ebm9nr VII</div><div><div><div></div><div></div><div></div><div>1</div><div></div></div><div><div></div><div></div><div></div><div>2</div><div></div></div><div><div></div><div></div><div></div><div></div><div>3</div></div><div><div></div><div></div><div></div><div>4</div><div></div></div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div>5 2 b3 b7</div></div>

IV7-#IV°7-I LIBRARY

Dominant Seventh Target (Blues IV7 to I7 or V7 to I7)

IV7-#IV°7-I7 with key scale common tone 1 on top

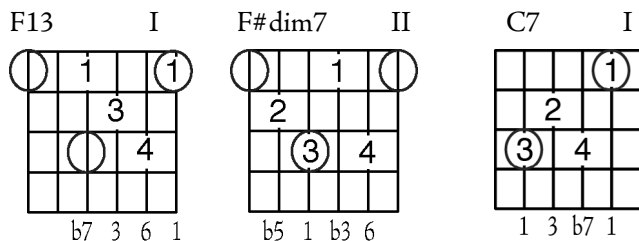
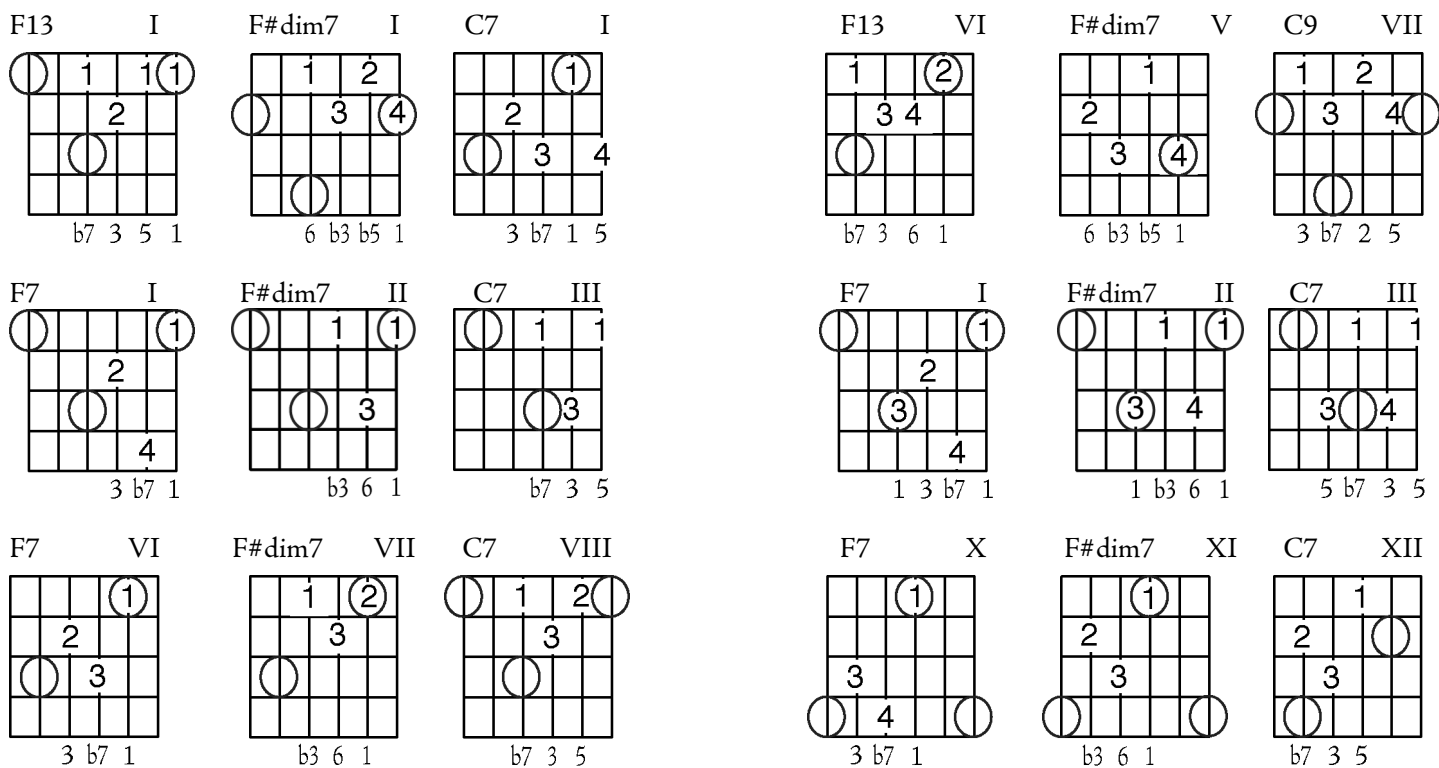
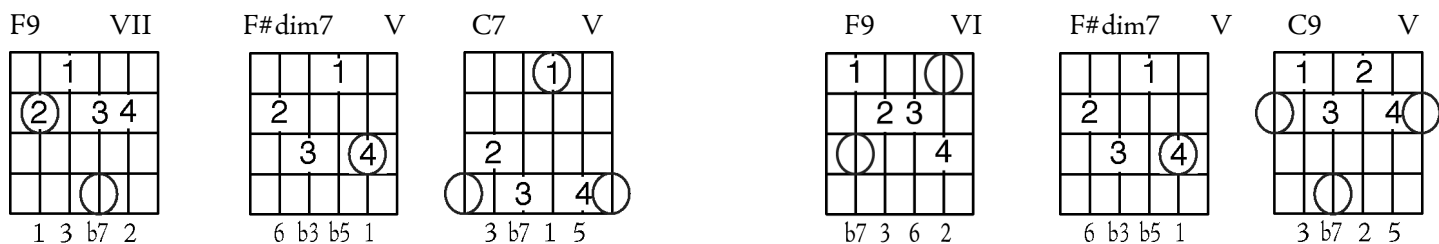
<p>F7 VI</p> <p>3 b7 1 5</p>	<p>F#dim7 VII</p> <p>b3 6 1 b5</p>	<p>C7 VIII</p> <p>b7 3 5 1</p>	<p>F7 I</p> <p>1 b7 3 5</p>	<p>F#dim7 I</p> <p>1 6 b3 b5</p>	<p>C7 I</p> <p>5 3 b7 1</p>
<p>F7 X</p> <p>3 b7 1 5</p>	<p>F#dim7 XI</p> <p>b3 6 1 b5</p>	<p>C7 VIII</p> <p>b7 3 5 1</p>			

IV7-#IV°7-I7 with key scale 1-6-5 on top

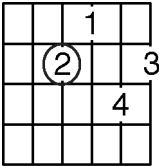
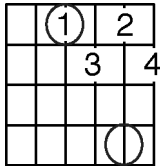
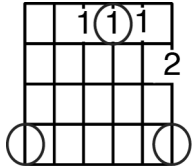
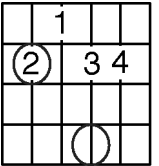
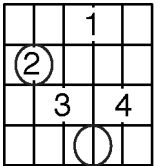
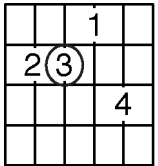
<p>F9 VII</p> <p>1 3 b7 2 5</p>	<p>F#dim7 VIII</p> <p>1 b5 6 b3</p>	<p>C7 VIII</p> <p>5 b7 3 5</p>
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IV7-#IV°7-I7 with key scale 2-b3-3 on top

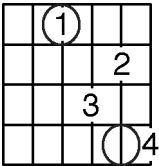
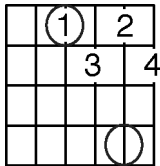
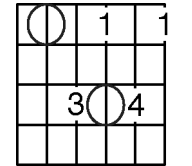
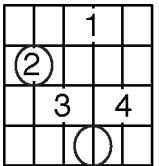
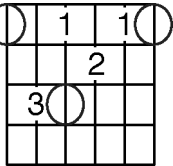
<p>F13 I</p> <p>5 b7 3 6</p>	<p>F#dim7 II</p> <p>b5 1 b3 6</p>	<p>C7 III</p> <p>1 5 b7 3</p>
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IV7-#IV°7-I7 with key scale 4-b3-1 on top**IV7-#IV°7-I7 with key scale 4-#4-5 on top****IV7-#IV°7-I7 with key scale 5-#4-5 on top**

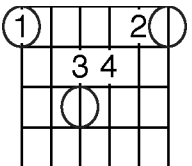
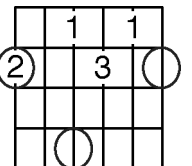
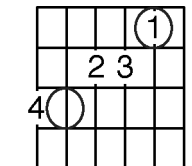
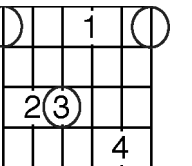
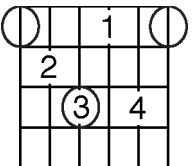
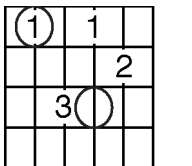
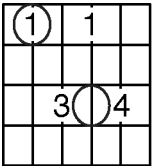
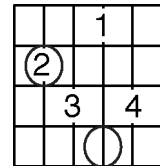
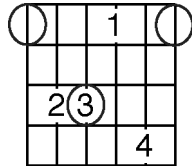
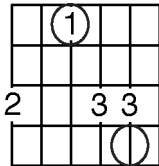
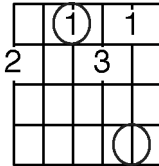
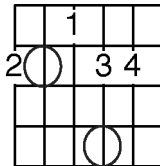
IV7-#IV°7-I7 with key scale 5-6-b7 on top

F9 II	F#dim7 IV	C7 V	F9 VII	F#dim7 VIII	C7 IX
					
1 3 b7 2	1 b5 6 b3	5 1 3 b7	1 3 b7 2	1 b5 6 b3	5 1 3 b7

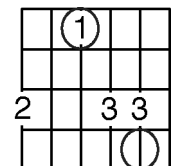
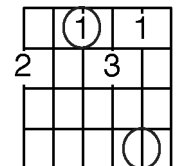
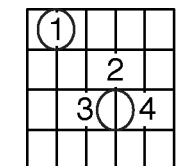
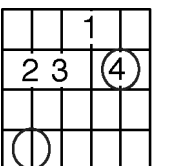
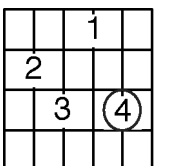
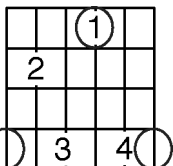
IV7-#IV°7-I7 with key scale b7-6-5 on top

F7sus4 III	F#dim7 IV	C7 III	F7sus4 VIII	F#dim7 VIII	C7 VIII
					
1 5 b7 4	1 b5 6 b3	5 b7 3 5	1 5 b7 4	1 b5 6 b3	5 b7 3 5

IV-#IV°7-I, I-VI-II-V Targets - D/C Form for the Key of F

Bbma7 VI	B°7 VI	F6 VI	Gm7 III	G°7 IV	Dm7 V
					
1 7 3 5	1 6 b3 b5	5 3 6 1	5 1 b3 b7	b5 1 b3 6	1 5 b7 b3
C7 III	C#°7 III	Gm7 III	Fma7 III	F#°7 IV	C9 II
					
1 5 b7 3	1 b5 6 b3	5 1 b3 b7	3 1 5 7	b3 1 b5 6	5 3 b7 2

IV-#IV°7-I, I-VI-II-V targets - C/A Form for the Key of F

Bbma7 X	B°7 IX	Fma7 VIII	Gm7 VII	G°7 VI	Dm7 VII
					
3 1 5 7	b3 1 b5 6	1 5 7 3	b7 b3 5 1	6 b3 b5 1	b3 b7 1 5

C7 V	C#°7 VI	Gm7 VI	F7 VI	F#°7 V	C9 VII

IV-#IV-dim7-I, I-VI-II-V targets - G/E Form for the Key of F

Bbma7 X	B°7 X	F6 X	Gm7 X	G#°7 X	Dm7 X
C13 XIII	C#°7 XII	Gm7 XII	F7 XIII	F#°7 XIII	C7 XIII

Dorian Minor 7 Target (V7 to IIm7 types)

IV7-#IV°7-I7 with key scale common tone 1 on top

F7 VI	F#dim7 VII	Cm7 VIII	F7 I	F#dim7 I	Cm7 I
F7 X	F#dim7 XI	Cm7 VIII			

IV7-#IV°7-Im7 with key scale 1-6-5 on top

F9	VII	F#dim7	VIII	Cm7	VIII
1 3 b7 2 5	1 b5 6 b3	5 b7 b3 5			

IV7-#IV°7-Im7 with key scale 2-b3-3 on top

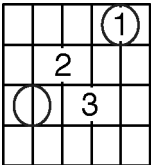
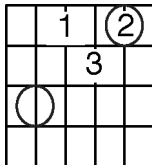
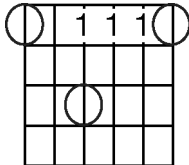
F13	I	F#dim7	II	Cm7	III
5 b7 3 6	b5 1 b3 6	1 5 b7 b3			

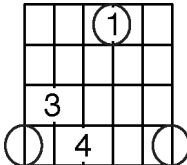
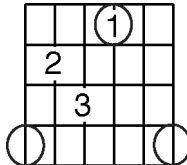
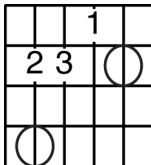
IV7-#IV°7-Im7 with key scale 4-b3-1 on top

F13	I	F#dim7	II	Cm7	I
b7 3 6 1	b5 1 b3 6	1 b3 b7 1			

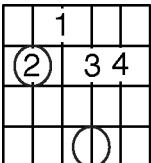
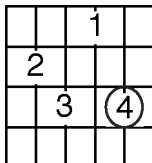
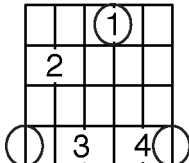
IV7-#IV°7-Im7 with key scale 4-#4-5 on top

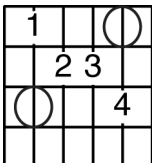
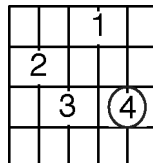
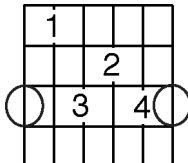
F13	I	F#dim7	I	Cm7	I	F13	VI	F#dim7	V	Cm9	VII
b7 3 5 1	6 b3 b5 1	b3 b7 1 5		b7 3 6 1	6 b3 b5 1	b3 b7 2 5					
F7	I	F#dim7	II	Cm7	III	F7	I	F#dim7	II	Cm7	III
3 b7 1	b3 6 1	b7 b3 5		1 3 b7 1	1 b3 6 1	5 b7 b3 5					

F7 VI	F#dim7 VII	Cm7 VIII
		
3 b7 1	b3 6 1	b7 b3 5

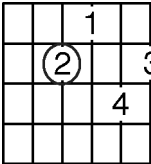
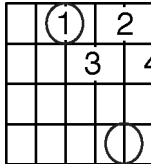
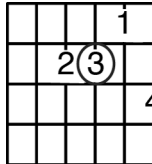
F7 X	F#dim7 XI	Cm7 XII
		
3 b7 1	b3 6 1	b7 b3 5

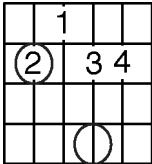
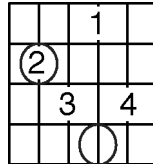
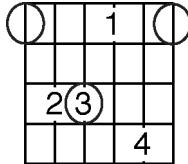
IV7-#IV°7-Im7 with key scale 5-#4-5 on top

F9 VII	F#dim7 V	Cm7 V
		
1 3 b7 2	6 b3 b5 1	b3 b7 1 5

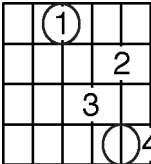
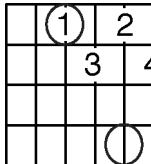
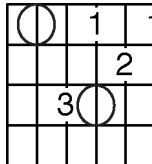
F9 VI	F#dim7 V	Cm9 V
		
b7 3 6 2	6 b3 b5 1	b3 b7 2 5

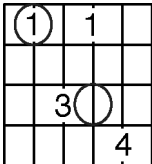
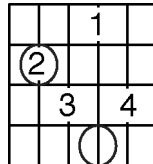
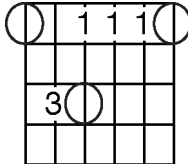
IV7-#IV°7-Im7 with key scale 5-6-b7 on top

F9 II	F#dim7 IV	Cm7 IV
		
1 3 b7 2	1 b5 6 b3	5 1 b3 b7

F9 VII	F#dim7 VIII	Cm7 VIII
		
1 3 b7 2	1 b5 6 b3	5 1 b3 b7

IV7-#IV°7-Im7 with key scale b7-6-5 on top

F7sus4 III	F#dim7 IV	Cm7 III
		
1 5 b7 4	1 b5 6 b3	5 b7 b3 5

F7sus4 VIII	F#dim7 VIII	Cm7 VIII
		
1 5 b7 4	1 b5 6 b3	5 b7 b3 5

IVm7-#IV°7-Im7 LIBRARY

IVm7-#IV°7-Im7 with key scale common tone 1 on top

<p>Fm7 VI</p> <p>b3 b7 1 5</p>	<p>F#dim7 VII</p> <p>b3 6 1 b5</p>	<p>Cm7 VIII</p> <p>b7 b3 5 1</p>	<p>F7 I</p> <p>1 b7 b3 5</p>	<p>F#dim7 I</p> <p>1 6 b3 b5</p>	<p>Cm7 I</p> <p>5 b3 b7 1</p>
<p>Fm7 X</p> <p>b3 b7 1 5</p>	<p>F#dim7 XI</p> <p>b3 6 1 b5</p>	<p>Cm7 XII</p> <p>b7 b3 5 1</p>			

IVm7-#IV°7-Im7 with key scale common tone b3 on top

<p>Fm7 I</p> <p>5 1 b3 b7</p>	<p>F#dim7 II</p> <p>b5 1 b3 6</p>	<p>Cm7 III</p> <p>1 5 b7 b3</p>	<p>Fm7 IX</p> <p>5 1 b3 b7</p>	<p>F#dim7 X</p> <p>b5 1 b3 6</p>	<p>Cm7 X</p> <p>1 5 b7 b3</p>
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IVm7-#IV°7-Im7 with key scale 4, #4, 5 on top

<p>Fm7 V</p> <p>b7 b3 5 1</p>	<p>F#dim7 V</p> <p>6 b3 b5 1</p>	<p>Cm7 V</p> <p>b3 b7 1 5</p>	<p>Fm7 I</p> <p>b7 b3 5 1</p>	<p>F#dim7 I</p> <p>6 b3 b5 1</p>	<p>Cm7 I</p> <p>b3 b7 1 5</p>
<p>Fm7 VI</p> <p>5 b3 b7 1</p>	<p>F#dim7 VII</p> <p>b5 b3 6 1</p>	<p>Cm7 VIII</p> <p>1 b7 b3 5</p>			

IVm7-#IV°7-Im7 with key scale b6, 6, b7 on top

Fm7 III

1 5 b7 b3

F#dim7 IV

1 b5 6 b3

Cm7 IV

5 1 b3 b7

Fm7 VIII

1 5 b7 b3

F#dim7 VIII

1 b5 6 b3

Cm7 VIII

5 1 b3 b7

MAJOR II^m7(b5)-#II^o7-I LIBRARY

Major II^m7(b5)-#II^o7-I Starting with Key Scale Tone 1 on Top

major-II-#II^o7-I with key scale common tone 1 on top

Dm7 VI 	D#dim7 VII 	C7 VIII 	Dm7b5 VI 	D#dim7 VII 	C7 VIII
Dm7 X 	D#dim7 XI 	C7 XII 	Dm7b5 X 	D#dim7 XI 	C7 XII

Major II^m7(b5) #II^o7 I Starting with Key Scale Tone 2 on Top

major-II-#II^o7-I : 2-#2-3 on top

Dm7 II 	D#dim7 II 	C7 III 	Dm7b5 II 	D#dim7 II 	C7 III
Dm7 X 	D#dim7 X 	C7 X 	Dm7b5 IX 	D#dim7 X 	C7 X

Major II^m7(b5) #II^o7 I Starting with Key Scale Tone 4 on Top

major-II-#II^o7-I : 4-#4-5 on top

<p>Dm7 V</p> <p>1 5 b7 b3</p>	<p>D#dim7 V</p> <p>1 b5 6 b3</p>	<p>C7 V</p> <p>3 b7 1 5</p>	<p>Dm7b5 V</p> <p>1 b5 b7 b3</p>	<p>D#dim7 VIII</p> <p>1 b5 6 b3</p>	<p>C7 V</p> <p>3 b7 1 5</p>
<p>Dm7 V</p> <p>1 5 b7 b3</p>	<p>D#dim7 V</p> <p>1 b5 6 b3</p>	<p>C7 VII</p> <p>3 b7 2 5</p>	<p>Dm7b5 V</p> <p>1 b5 b7 b3</p>	<p>D#dim7 VIII</p> <p>1 b5 6 b3</p>	<p>C9 VII</p> <p>3 b7 2 5</p>
<p>Dm7 XII</p> <p>1 5 b7 b3</p>	<p>D#dim7 XIII</p> <p>1 b5 6 b3</p>	<p>C7 XIII</p> <p>3 b7 1 5</p>	<p>Dm7b5 XII</p> <p>1 b5 b7 b3</p>	<p>D#dim7 XIII</p> <p>1 b5 6 b3</p>	<p>C7 XIII</p> <p>3 b7 1 5</p>
<p>Dm7 XII</p> <p>1 5 b7 b3</p>	<p>D#dim7 XIII</p> <p>1 b5 6 b3</p>	<p>C9 XIV</p> <p>3 b7 2 5</p>	<p>Dm7b5 XII</p> <p>1 b5 b7 b3</p>	<p>D#dim7 XIII</p> <p>1 b5 6 b3</p>	<p>C7 XIV</p> <p>3 b7 2 5</p>
<p>Dm7 VII</p> <p>b7 5 1 b3</p>	<p>D#dim7 VII</p> <p>1 b5 6 b3</p>	<p>C7 VIII</p> <p>1 b7 3 5</p>	<p>Dm7 I</p> <p>b7 5 1 b3</p>	<p>D#dim7 II</p> <p>6 b5 1 b3</p>	<p>C7 III</p> <p>1 5 b7 3 5</p>

Major II^m7(b5)-#II^o7-I with Key Scale Common Tone 6 on Top

major-II-#II^o7-I I with common tone 6 on top

<p>Dm7 VII</p> <p>b3 b7 1 5</p>	<p>D#dim7 VIII</p> <p>b3 6 1 b5</p>	<p>C6 IX</p> <p>5 1 3 6</p>	<p>Dm7 III</p> <p>b3 b7 1 5</p>	<p>D#dim7 IV</p> <p>b3 6 1 b5</p>	<p>C6 V</p> <p>5 1 3 6</p>
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DESCENDING DIMINISHED LIBRARY

I7nr-I dim7nr-IIIm7b5-I major, 3-Note by String Set

The third chord is abbreviated with IIdim for this three-note voicing. The four-note voicing has the root of the first and last chords in every chord, while the IIdim would need to be IIIm7b5 to include the root of the I7 and I major chord.

I7nr-IIdim nr-IIdim-I major, close-voiced, strings 3-2-1

F7 XI 3 5 b7	F dim7 X b3 b5 6	Gdim IX 1 b3 b5	F VIII 1 3 5	F7 VIII b7 3 5	F dim7 VII 6 b3 b5	Gdim VI b5 1 b3	F V 5 1 3
F7 IV 5 b7 3	F dim7 III b5 6 b3	Gdim II b3 b5 1	F I 3 5 1				

I7nr-IIdim nr-IIdim-I major, close-voiced, strings 4-3-2

Bb7 XIII 5 b7 3	Bb dim7 XII b5 6 b3	Cdim XI b3 b5 1	Bb X 3 5 1	Bb7 IX 3 5 b7	Bb dim7 VIII 3 5 b7	Cdim VII 1 b3 b5	Bb VI 1 3 5
Bb7 VI b7 3 5	Bb dim7 V 6 b3 b5	Cdim IV b5 1 b3	Bb III 5 1 3				

I7nr-I dim nr-I dim-I major, close-voiced, strings 5-4-3

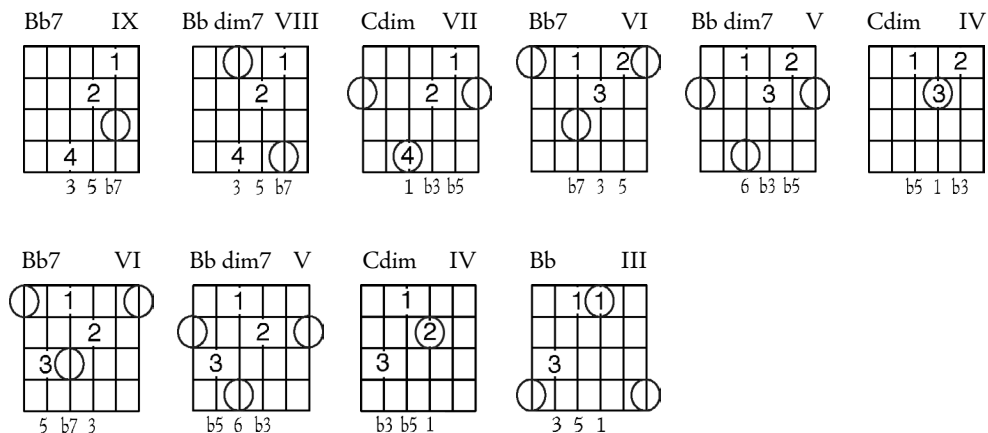
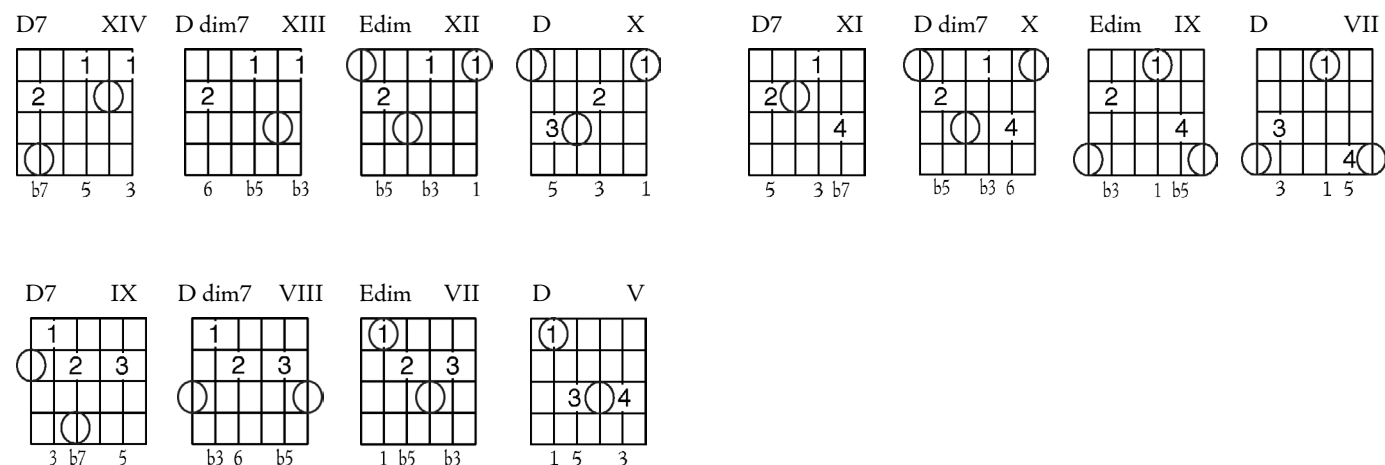
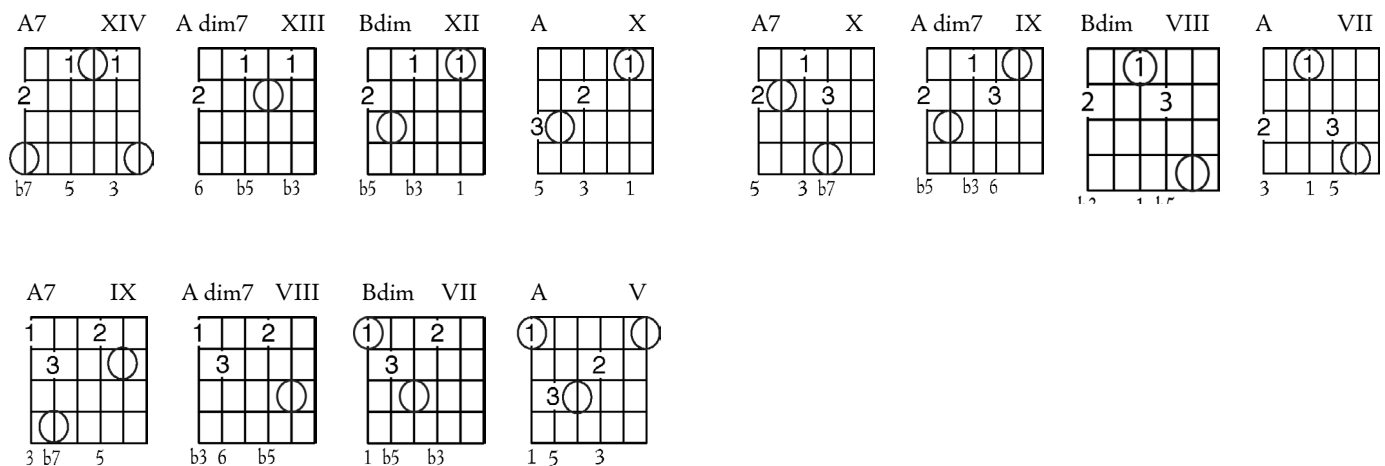
<p>A7] XII</p> <p>3 5 b7</p>	<p>A dim7 XI</p> <p>b3 b5 6</p>	<p>Bdim X</p> <p>1 b3 b5</p>	<p>A IX</p> <p>1 3 5</p>	<p>A7 IX</p> <p>b7 3 5</p>	<p>A dim7 VIII</p> <p>6 b3 5</p>	<p>Bdim VII</p> <p>b5 1 b3</p>	<p>A VI</p> <p>5 1 3</p>
<p>A7] IV</p> <p>5 b7 3</p>	<p>A dim7 III</p> <p>b5 6 b3</p>	<p>Bdim II</p> <p>b3 b5 1</p>	<p>A II</p> <p>3 5 1</p>				

I7nr-I dim nr-I dim-I major, close-voiced, strings 6-5-4

<p>A7 XIV</p> <p>b7 3 5</p>	<p>A dim7 XIII</p> <p>6 b3 b5</p>	<p>Bdim XII</p> <p>b5 1 b3</p>	<p>A XI</p> <p>5 1 3</p>	<p>A7 X</p> <p>5 b7 3</p>	<p>A dim7 IX</p> <p>b5 6 b3</p>	<p>Bdim VIII</p> <p>b3 b5 1</p>	<p>A VII</p> <p>3 5 1</p>
<p>A7 V</p> <p>3 5 b7</p>	<p>A dim7 IV</p> <p>b3 b5 6</p>	<p>Bdim III</p> <p>1 b3 b5</p>	<p>A II</p> <p>1 3 5</p>				

I7nr-I dim nr-I dim three times, then I major, close-voiced, strings 1-4

<p>F7 XI</p> <p>3 5 b7</p>	<p>F dim7 X</p> <p>b3 b5 6</p>	<p>Gdim IX</p> <p>1 b3 b5</p>	<p>F7 XIII</p> <p>b7 3 5</p>	<p>F dim7 XII</p> <p>6 b3 b5</p>	<p>Gdim XI</p> <p>b5 1 b3</p>
<p>F7 VIII</p> <p>5 b7 3</p>	<p>F dim7 VII</p> <p>b5 6 b3</p>	<p>Gdim VI</p> <p>b3 b5 1</p>	<p>F V</p> <p>3 5 1</p>		

I7nr-Ildim nr-Ildim three times, then I major, close-voiced, strings 2-5**I7nr-Ildim nr-Ildim-I major, open-voiced, strings 1-5****I7nr-Ildim nr-Ildim-I major, open-voiced, strings 2-6**

I-I7nr-I dim nr-IVm6n5 (=II dim) repeating cycle in tab

close-voiced strings 3-2-1

1

C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C

close-voiced strings 4-3-2

9

C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C

close-voiced strings 5-4-3

17

C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C

close-voiced strings 5-4-3

25

C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C C^{o7} C^{o7} Fm⁶ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C

open-voiced top

33

C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C

open-voiced middle

41

C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C

open-voiced bass

49

C C⁷ C^{o7} Fm⁶ C C⁷ C^{o7} Fm⁶ C C^{o7} C^{o7} Fm⁶ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C Fm⁶ C^{o7} C⁷ C

I major-I dim7-IIIm7b5-I major, 4-Note by String Set

I major-I dim7-IIIm7b5-I major, strings 4-3-2-1

<p>F7 XIII</p> <p>b7 3 5 1</p>	<p>F dim7 XII</p> <p>6 b3 b5 1</p>	<p>Gm7b5 XI</p> <p>b5 1 b3 b7</p>	<p>F X</p> <p>5 1 3 1</p>	<p>F7 X</p> <p>5 1 3 b7</p>	<p>F dim7 IX</p> <p>b5 1 b3 6</p>	<p>Gm7b5 VIII</p> <p>b3 b7 1 b5</p>	<p>F VII</p> <p>3 1 3 5</p>
<p>F7 VI</p> <p>3 b7 1 5</p>	<p>F dim7 VI</p> <p>b3 6 1 b5</p>	<p>Gm7b5 V</p> <p>1 b5 b7 b3</p>	<p>F V</p> <p>3 5 1 3</p>	<p>F7 III</p> <p>1 5 b7 3</p>	<p>F dim7 III</p> <p>1 b5 6 b3</p>	<p>Gm7b5 II</p> <p>b7 b3 b5 1</p>	<p>F I</p> <p>1 3 5 1</p>

I major-I dim7-IIIm7b5-I major, strings 5-4-3-2

<p>Bb7 XIII</p> <p>1 5 b7 3</p>	<p>Bb dim7 XII</p> <p>1 b5 6 b3</p>	<p>Cm7b5 XI</p> <p>b7 b3 b5 1</p>	<p>Bb X</p> <p>1 3 5 1</p>	<p>Bb7 X</p> <p>b7 3 5 1</p>	<p>Bb dim7 IX</p> <p>6 b3 b5 1</p>	<p>Cm7b5 VIII</p> <p>b5 1 b3 b7</p>	<p>Bb VI</p> <p>5 1 3 1</p>
<p>Bb7 VII</p> <p>5 1 3 b7</p>	<p>Bb dim7 VI</p> <p>b5 1 b3 6</p>	<p>Cm7b5 V</p> <p>b3 b7 1 b5</p>	<p>Bb V</p> <p>3 1 3 5</p>	<p>Bb7 III</p> <p>3 b7 1 5</p>	<p>Bb dim7 III</p> <p>b3 6 1 b5</p>	<p>Cm7b5 III</p> <p>1 b5 b7 b3</p>	<p>Bb I</p> <p>1 5 1 3</p>

I major-I dim7-IIIm7b5-I major, strings 5-3-2-1

<p>Bb7 XIII</p> <p>1 b7 3 5</p>	<p>Bb dim7 XII</p> <p>1 6 b3 b5</p>	<p>Cm7b5 XI</p> <p>b7 b5 1 b3</p>	<p>Bb X</p> <p>1 5 1 3</p>	<p>Bb7 X</p> <p>b7 5 1 3</p>	<p>Bb dim7 IX</p> <p>6 b5 1 b3</p>	<p>Cm7b5 VIII</p> <p>b5 b3 b7 1</p>	<p>Bb VI</p> <p>5 3 5 1</p>
<p>Bb7 VI</p> <p>5 3 b7 1</p>	<p>Bb dim7 VI</p> <p>b5 b3 6 1</p>	<p>Cm7b5 V</p> <p>b3 1 b5 b7</p>	<p>Bb III</p> <p>3 1 5 1</p>	<p>Bb7 III</p> <p>3 1 5 b7</p>	<p>Bb dim7 III</p> <p>b3 1 b5 6</p>	<p>Cm7b5 II</p> <p>1 b7 b3 b5</p>	<p>Bb I</p> <p>1 1 3 5</p>

I major-I dim7-IIIm7b5-I major, strings 6-4-3-2

<p>F7 XIII</p> <p>1 b7 3 5</p>	<p>F dim7 XII</p> <p>1 6 b3 b5</p>	<p>Gm7b5 XI</p> <p>b7 b5 1 b3</p>	<p>F X</p> <p>1 5 1 3</p>	<p>F7 X</p> <p>b7 5 1 3</p>	<p>dim7 IX</p> <p>6 b5 1 b3</p>	<p>Gm7b5 VIII</p> <p>b5 b3 b7 1</p>	<p>F VI</p> <p>5 3 1 1</p>
<p>F7 VI</p> <p>5 3 b7 1</p>	<p>F dim7 VI</p> <p>b5 b3 6 1</p>	<p>Gm7b5 V</p> <p>b3 1 b5 b7</p>	<p>F III</p> <p>3 1 5 1</p>	<p>F7 III</p> <p>3 1 5 b7</p>	<p>F dim7 III</p> <p>b3 1 b5 6</p>	<p>Gm7b5 II</p> <p>1 b7 b3 b5</p>	<p>F I</p> <p>1 1 3 5</p>

V6-Vdim7-I6-IIIdim7-IV6-IVdim7-bVII (ascending roots in fourths)

<p>G6 IX</p> <p>1 5 6 3</p>	<p>Gdim7 IX</p> <p>1 b5 6 b3</p>	<p>C6 IX</p> <p>5 1 3 6</p>	<p>Cdim7 XIII</p> <p>b5 1 b3 6</p>	<p>F6 VII</p> <p>1 5 6 3</p>	<p>Fdim7 VII</p> <p>1 b5 6 b3</p>	<p>Bb6 VI</p> <p>5 1 3 6</p>
<p>G6 XII</p> <p>5 1 3 6</p>	<p>Gdim7 XI</p> <p>b5 1 b3 6</p>	<p>C6 X</p> <p>1 5 6 3</p>	<p>Cdim7 X</p> <p>1 b5 6 b3</p>	<p>F6 X</p> <p>5 1 3 6</p>	<p>Fdim7 IX</p> <p>b5 1 b3 6</p>	<p>Bb6 VIII</p> <p>1 5 6 3</p>

I6-IIIdim7-IV6-dim7-I6

<p>C6 IX</p> <p>5 1 3 6</p>	<p>Cdim7 XIII</p> <p>b5 1 b3 6</p>	<p>F6 VII</p> <p>1 5 6 3</p>	<p>Cdim7 XIII</p> <p>b5 1 b3 6</p>	<p>C6 IX</p> <p>5 1 3 6</p>
<p>C6 X</p> <p>1 5 6 3</p>	<p>Cdim7 X</p> <p>1 b5 6 b3</p>	<p>F6 X</p> <p>5 1 3 6</p>	<p>Cdim7 X</p> <p>1 b5 6 b3</p>	<p>C6 X</p> <p>1 5 6 3</p>

CHROMATIC DESCENDING MINOR LIBRARY

close-voiced, three-note voicings (easier to fret) - E/D form arc

Am V b3 5 1	Am(ma7) IV b3 5 7	Am7 III b3 5 b7	Am6 II b3 5 6	Am V 1 b3 5	Am(ma7) V 7 b3 5	Am7 V b7 b3 5	Am6 IV 6 b3 5
Am V 5 1 b3	Am(ma7) V 5 7 b3	Am7 V 5 b7 b3	Am6 IV 5 6 b3	Am VII b3 5 1	Am(ma7) VI b3 5 7	Am7 V b3 5 b7	Am6 IV b3 5 6

close-voiced, three-note voicings (easier to fret) - C form arc

Am VIII 5 1 b3	Am(ma7) VIII 5 7 b3	Am7 III 5 b7 b3	Am6 II 5 6 b3	Am IX b3 5 1	Am(ma7) IX b3 5 7	Am7 VIII b3 5 b7	Am6 VII b3 5 6
Am IX 1 b3 5	Am(ma7) IX 7 b3 5	Am7 IX b7 b3 5	Am6 IX 6 b3 5	Am X 5 1 b3	Am(ma7) X 5 7 b3	Am7 X b5 b7 b3	Am6 IX 5 6 b3

close-voiced, three-note voicings (easier to fret) - A/G form arc

Am XII 1 b3 5	Am(ma7) XII 7 b3 5	Am7 XII b7 b3 5	Am6 XI 6 b3 5	Am XIII 5 1 b3	Am(ma7) XIII 5 7 b3	Am7 XII 5 b7 b3	Am6 XI 5 6 b3
Am XIV b3 5 1	Am(ma7) XIII b3 5 7	Am7 XII b3 5 b7	Am6 XI b3 5 6	Am II or XIV 1 b3 5	Am(ma7) II or XIV 7 b3 5	Am7 II or XIV b7 b3 5	Am6 II or XIV 6 b3 5

close-voiced, four and five-note voicings

Am V 1 b3 5 1	Am(ma7) V 7 b3 5 1	Am7 V b7 b3 5 1	Am6 IV 6 b3 5 1	Am V 1 b3 5	Eaug. V 1 3 #5 1	Am7 V 1 b7 b3 5	D9 IV 1 3 b7 2
Am V 1 5 1 b3 5	Am(ma7) V 1 5 7 b3 5	Am7 V 1 5 b7 b3 5	Am6 IV 1 6 b3 5	Am V 5 1 b3 5	Am(ma7) V 5 7 b3 5	Am7 V 5 b7 b3 5	D9 IV 1 3 b7 2
Am VII 1 5 1 b3	Am(ma7) VII 1 5 7 b3	Am7 VII 1 5 b7 b3	Am6 VII 1 5 6 b3	Am VII 5 b3 5 1	Am(ma7) VII 5 b3 5 7	Am7 VII 5 b3 5 b7	Am6 VII 5 b3 5 6
Am VII b3 5 5 1	Am(ma7) VII 5 b3 5 7	Am7 VII 5 b3 5 b7	Am6 VII 5 b3 5 6	Am VII b3 1 5 1	Am(ma7) VII b3 1 5 7	Am7 VII b3 1 5 b7	Am6 VII b3 1 5 6
Am VIII b3 5 1 b3	Am(ma7) VIII b3 5 7 b3	Am7 VII b3 5 7 b3	Am6 VII b3 5 6 b3	Am VII b3 1 5 1	Am(ma7) VII b3 1 5 7	Am7 VII b3 1 5 b7	Am6 VII b3 1 5 6
Am II 5 b3 5 1	Am(ma7) II 5 b3 5 7	Am7 III 5 b3 5 b7	D II 1 5 1 3	Am II b3 5 1 5	Am(ma7) I b3 5 7 5	Am7 II b3 b7 1 5	D9 IV 1 3 b7 2

<p>Am II</p> <p>1 b3 5 1</p>	<p>Am(ma7) II</p> <p>7 b3 5 1</p>	<p>Am7 III</p> <p>b7 b3 5 1</p>	<p>Am6 II</p> <p>6 b3 5 1</p>	<p>Am VII</p> <p>b3 5 1</p>	<p>Am(ma7) VI</p> <p>b3 5 7</p>	<p>Am7 V</p> <p>b3 5 b7</p>	<p>Am6 IV</p> <p>b3 5 6</p>
<p>Am IX</p> <p>b3 5 1 5</p>	<p>Am(ma7) IX</p> <p>b3 5 7 5</p>	<p>Am7 VIII</p> <p>b3 5 7 5</p>	<p>Am6 X</p> <p>b3 6 1 5</p>	<p>Am IX</p> <p>b3 5 1 5</p>	<p>Am(ma7) IX</p> <p>b3 5 7 5</p>	<p>Am7 X</p> <p>b3 b7 1 5</p>	<p>Am6 X</p> <p>b3 6 1 5</p>
<p>Am IX</p> <p>1 b3 5 1</p>	<p>Am(ma7) IX</p> <p>1 b3 5 7</p>	<p>Am7 VIII</p> <p>1 b3 5 b7</p>	<p>Am6 X</p> <p>1 b3 6 1</p>	<p>Am IX</p> <p>1 b3 5 1</p>	<p>Eaug. IX</p> <p>1 3 #5 1 3</p>	<p>Am7 X</p> <p>1 b3 b7 1</p>	<p>D7 X</p> <p>1 b7 3 5</p>
<p>Am XII</p> <p>1 5 1 b3</p>	<p>Am(ma7) XII</p> <p>1 5 7 b3</p>	<p>Am7 XII</p> <p>1 5 b7 b3</p>	<p>Am6 XI</p> <p>1 5 6 b3</p>	<p>Am XII</p> <p>1 5 1 b3</p>	<p>Am(ma7) XII</p> <p>1 5 7 b3</p>	<p>Am7 XII</p> <p>1 5 b7 b3</p>	<p>D7 XI</p> <p>5 1 3 b7</p>
<p>Am XII</p> <p>5 1 b3 5</p>	<p>Eaug. XII</p> <p>1 3 #5 1</p>	<p>Am7 XII</p> <p>5 b7 b3 5</p>	<p>D9 XI</p> <p>1 3 b7 2</p>				

Minor Chromatically Descending Root Song Examples

most of these are on a youtube video - [click to play](#)

And Your Bird Can Sing-bridge

♩ = 120

bridge *p*

The score is in 4/4 time with a tempo of 120. It features a melody in the treble clef and a bass line in the bass clef. The melody starts with a half rest, followed by a series of eighth notes and quarter notes. The bass line consists of a series of quarter notes. Chords are indicated above the staff: G#m, G#m(maj7), G#m7, and G#m6. A box labeled 'bridge' and 'p' (piano) is placed over the first measure.

Autumn Leaves

♩ = 125 Swing Eighths

The score is in 4/4 time with a tempo of 125. It features a melody in the treble clef and a bass line in the bass clef. The melody starts with a half rest, followed by a series of eighth notes and quarter notes. The bass line consists of a series of quarter notes. Chords are indicated above the staff: Cm7, F9, Bbmaj7, Ebmaj7, Am7(b5), D7(b9), Gm, Gm9(ma7), Gm7, Gdim7, Gm6, Abma7, Ebdim7, Adim7, Gm7(ma7), Gm7, Gm7(ma7), Cm7, F9, Bbmaj7, Ebmaj7, Cm, Cm(ma7), Cm7, F13, F7/C, Dm, Dm(ma7), Dm7, Eb6/9, Am7(b5), D7(b9), Gm7, Gb7, F7(sus4), E7(b5), Am7(b5), D7(b9), Gm, Gm9(ma7), Gm7, Gm. The score is divided into measures 1-4, 5-8, 9-12, 13-16, 17-20, and 21-24.

Ballad of A Thin Man

$\text{♩} = 90$ Swing Eighths

Chords: Bm, Bm(maj7), Bm7, E7

The score is in 4/4 time with a tempo of 90 beats per minute. The key signature has two sharps (F# and C#). The melody is written on a single staff, and the bass line is on a separate staff. The bass line consists of eighth notes and quarter notes, with some triplets. The melody features eighth notes and quarter notes, with some triplets. The chords are indicated above the melody.

Being for the Benefit of Mr. Kite-beginning of verse

$\text{♩} = 111$ Swing Eighths

Chords: Cm, G+, Bb, Dm/A, G

The score is in 4/4 time with a tempo of 111 beats per minute. The key signature has three flats (Bb, Eb, and Ab). The melody is written on a single staff, and the bass line is on a separate staff. The bass line consists of eighth notes and quarter notes. The melody features eighth notes and quarter notes. The chords are indicated above the melody.

Billie's Bounce-minor chromatic descend root bars 9-10

$\text{♩} = 140$ Swing Eighths

Chords: F9, F13, Bb9, Bb7, F9, F13, Bb13, Bb9, Bb13, Bb7, F9, F13, Am7, D7(#9), D7(b9), Gm, Gm(maj7), Gm7, C9/E, F13, D7(#9), Gm7, C7(sus4)

The score is in 4/4 time with a tempo of 140 beats per minute. The key signature has three flats (Bb, Eb, and Ab). The melody is written on a single staff, and the bass line is on a separate staff. The bass line consists of eighth notes and quarter notes. The melody features eighth notes and quarter notes. The chords are indicated above the melody. The score includes fingerings for the left hand and right hand. The bass line is written in a simplified manner, using numbers 1-5 for the fingers. The melody is written in a simplified manner, using numbers 1-4 for the fingers. The chords are indicated above the melody.

Body and Soul-McCoy Tyner comping from Coltrane version

♩ = Swing Eighths

1 Em/A Em(maj7)/A Em7/A A⁹ A^{7(sus2)} Em/A Em(maj7)/A Em7/A A⁹ A^{9(sus4)}

5 Em/A Em(maj7)/A Em7/A A⁹ A^{7(sus2)} Em/A Em(maj7)/A Em7/A A⁹ A^{9(sus4)}

9 F#m/A A^{7(b9)} G#+/A Dmaj9 A^{7(sus4)} Fm⁹ Bb¹³

13 Em/A Em(maj7)/A Em7/A A⁹ A^{7(sus2)} A¹³ Cm⁷ D^{9(#5)}

17 D^{+/A} E^{+/A} D^{+/A} E^{+/A} D^{+/A} D^{+/A} A¹³ Dmaj9 F#m⁷ B⁷

21 Em/A Em(maj7)/A Em7/A A⁹ A^{7(sus2)} Em/A Em(maj7)/A Em7/A A⁹ A^{9(sus4)}

Cry Baby Cry

♩ = 84

verse

The musical score for the 'Verse' section of 'The Sound of Silence' is presented in standard notation and guitar tablature. The tempo is marked as ♩ = 84. The key signature has one sharp (F#) and the time signature is 4/4. The score begins with a double bar line and a '2' indicating a second ending. The guitar part features a series of chords: Em, Em(maj7)/D#, Em7/D, Em6/C#, C7, and G. The tablature below the staff shows the fret numbers for each note, with fingerings (1-4) indicated above the notes. The score ends with a double bar line.

8 8 10 7 8 8 10 7 8 8 10 7 8 9 8 9 11 8 4 4 4 4 5 5 5 5 3 3

Don't You Worry 'Bout a Thing

The image displays a musical score for the song "The Sound of Silence" by Simon & Garfunkel. The score is written for guitar and piano. The tempo is marked as 124 beats per minute. The key signature is B-flat major (three flats). The guitar part is in standard notation, and the piano part is in tablature. The score is divided into two systems, each with a measure number (1 and 6) at the beginning. Chord names are written above the guitar staff, and the piano tablature includes fret numbers and bar lines. The guitar part features a mix of chords, including Ebm, Bb+, Ebm7, Ab9, Dbm7, Gb7, Cbmaj7, and E7. The piano part includes a variety of chords and a complex rhythm pattern.

Fixing a Hole

1 ♩ = 108 Swing Eighthths

1 2 3 4 5 6 7 8 9 10

Fm C⁺ Fm⁷ B^b7 Fm Fm⁶

Fm Fm⁶ Fm Fm⁶

Girl from Ipanema

$\text{♩} = 125$

Chords and Fingerings (Bass Staff):

- System 1: Fmaj9 (T: 8, A: 8, B: 8), Dm (T: 8, A: 10, B: 12), Dm(ma7) (T: 10, A: 12, B: 12), Dm7 (T: 10, A: 10, B: 10).
- System 2: Gm7 (T: 8, A: 10, B: 10), Gm (T: 7, A: 7, B: 7), Gm(ma7) (T: 7, A: 9, B: 8), Gm7 (T: 7, A: 8, B: 7), Gb7#5 (T: 7, A: 7, B: 7), Gb7b5 (T: 5, A: 5, B: 5), Fmaj9 (T: 8, A: 8, B: 8), Gb7(b5) (T: 5, A: 5, B: 5).
- System 3: F#maj9 (T: 9, A: 10, B: 10), B9 (T: 7, A: 7, B: 7), B7 (T: 7, A: 6, B: 6), F#m (T: 6, A: 6, B: 6), F#m(ma7) (T: 6, A: 7, B: 7), F#m7 (T: 6, A: 6, B: 6), B9 (T: 7, A: 7, B: 7).
- System 4: F#m9 (T: 9, A: 9, B: 9), D9 (T: 5, A: 5, B: 5), Am (T: 5, A: 7, B: 7), Am(ma7) (T: 5, A: 7, B: 7), Am7 (T: 5, A: 7, B: 7), D9 (T: 5, A: 7, B: 7).
- System 5: Gm9 (T: 10, A: 10, B: 10), Eb9 (T: 6, A: 6, B: 6), Bbm (T: 6, A: 8, B: 8), Bbm(ma7) (T: 6, A: 8, B: 8), Bbm7 (T: 6, A: 8, B: 8), Eb9 (T: 6, A: 6, B: 6).
- System 6: Am7 (T: 5, A: 7, B: 7), Am (T: 5, A: 7, B: 7), Am(ma7) (T: 5, A: 7, B: 7), Am7 (T: 5, A: 7, B: 7), D9#11 (T: 4, A: 4, B: 4), Gm7 (T: 4, A: 4, B: 4), Gm (T: 3, A: 3, B: 3), Gm(ma7) (T: 3, A: 3, B: 3), Gm7 (T: 3, A: 3, B: 3), C9#11 (T: 3, A: 3, B: 3).
- System 7: Fmaj9 (T: 8, A: 8, B: 8), Dm (T: 8, A: 10, B: 12), Dm(ma7) (T: 10, A: 12, B: 12), Dm7 (T: 10, A: 10, B: 10), G9 (T: 10, A: 10, B: 10).
- System 8: Gm7 (T: 8, A: 10, B: 10), Gm (T: 7, A: 7, B: 7), Gm(ma7) (T: 7, A: 9, B: 8), Gm7 (T: 7, A: 8, B: 7), Gb7#5 (T: 7, A: 7, B: 7), Gb7b5 (T: 5, A: 5, B: 5), Fmaj9 (T: 8, A: 8, B: 8), Gb7(b5) (T: 5, A: 5, B: 5).
- System 9: Fmaj9 (T: 8, A: 8, B: 8), Gb7(b5) (T: 5, A: 5, B: 5), Fmaj9 (T: 8, A: 8, B: 8).

God Bless the Child

♩ = 76 Swing Eighths

Chord progression for "God Bless the Child":

Chords: Ebmaj7 Eb7 Ab6 Ebmaj7 Eb7 Ab6 Bbm Bbm(maj7)/A Bbm7/Ab Eb7/G

Chord progression for the second system:

Chords: Abmaj7 Ab6 Abm(maj7) Abm6 Gm7 C7 Fm11 Bb7

Chord progression for the third system:

Chords: 1. Eb6 3 Gm7 Gbm7 F7 B7 Bb7 2. Eb6 3 Dm7(b5) G7

Golden Lady chorus

♩ = 200 Swing Eighths

Chord progression for "Golden Lady chorus":

Chords: Gm Gm(maj7) Gm7 Gm6

Chord progression for the second system:

Chords: Abmaj7

Got to Get You Into My Life bridge

$\text{♩} = 137$

Chords: Bm, Bm(maj7), Bm7, Bm6, Bm, Bm(maj7), Bm7, Bm6, C, C/B, Am7, D, G.

I Me Mine chorus

$\text{♩} = 204$

Chords: Am, Am(maj7)/G, Am7/G, Am6/F#, Fmaj7.

Into the Great Wide Open

$\text{♩} = 82$

Chords: Em, Em(maj7), Em7, Em6, Em, Em(maj7), Em7, Em6, Am, Am/G, Am/F#, C/G, G, F, C, G, C, G.

It Don't Mean a Thing

$\text{♩} = 180$ Swing Eighths

Chords: Gm, Gm(maj7), Gm7, Gm6, Eb7, D7, Gm, Eb7, D7, C7, F7sus4, Bb, Gm7, Eb7, D7.

Loan Me a Dime

♩ = 90 Swing Sixteenths Am⁷

The musical score for "Loan Me a Dime" is presented in a system of six staves, each containing a vocal line (treble clef) and a guitar line (tenor and bass clefs). The tempo is marked as ♩ = 90 Swing Sixteenths. The key signature is A minor, indicated by the Am⁷ chord at the beginning.

The score is divided into measures, with measure numbers 1 through 25 indicated. The guitar line includes fingerings (numbers 1-5) and bar lines. The vocal line includes lyrics and musical notation.

Chord progressions and voicings are indicated above the guitar line:

- Measures 1-4: Am⁷, Dm⁷, Am, Am(maj⁷)/G[#], Am⁷/G, Am⁷/F[#]
- Measures 5-8: Dm⁷, Am, Am(maj⁷)/G[#], Am⁷/G, Am⁷/F[#]
- Measures 9-12: F[#]maj⁷, Dm⁷, Am⁷, Dm⁷, Am⁷, E⁷([#]₉)
- Measures 13-16: Am⁷, Dm⁷, Am, Am(maj⁷)/G[#], Am⁷/G, Am(maj⁷)/F[#]
- Measures 17-20: Dm⁷, Am, Am(maj⁷)/G[#], Am⁷/G, Am(maj⁷)/F[#]
- Measures 21-25: F[#]maj⁷, Dm⁷, Am⁷, Dm⁷, Am⁷, E⁷([#]₉), Am

Lyrics and musical notation are provided for each measure, including notes, rests, and bar lines.

Michelle

♩ = 110 Swing Eighths

Fm/C Fm(maj7)/C Fm7 Bb9/F Bbm9/F C

Minor Chromatically Descending from Root Blues

♩ = 110 Swing Eighths

Gm Gm(ma7) Gm7 Gm6 Dm Dm(ma7) Dm7 Dm6 Gm Gm(ma7) Gm7 Gdim7=C#dim7 Bm7b5 Bbma7 F/A G#dim7=E7b9nr Am7 Am Am(ma7) Am7 Am6=D9 D9 G7 E7(#9) Am7 D9 G9

Mississippi Half Step

♩ = 125 Swing Eighths

D7 Em7 E#o7 D7/F# G7 Am7 A#o7 G7/B C

My Funny Valentine section A

$\text{♩} = 90$ Swing Eighths

The score is in B-flat major, 4/4 time, with a tempo of 90 beats per minute and a swing feel. It consists of two systems of music. The first system has four measures, each with a chord: Cm, Cm9(ma7) (highlighted in red), Cm7, and Cm9/6. The second system has seven measures with chords: A♭maj7, A♭maj9, G7(sus4), Fm9, Fm7/Eb, Dm7(b5), and G7. The bass line is written on a grand staff (T, A, B) with fingerings indicated by numbers 1-5. The treble line has a key signature of two flats and a common time signature.

Oye Como Va

$\text{♩} = 115$
"A" Dorian

The score is in D minor, 4/4 time, with a tempo of 115 beats per minute. It features a melodic line in the treble and a bass line in the grand staff (T, A, B). The melody includes triplets and a 'play 3 times' instruction. Chords are indicated above the staff: Am7, Am(maj7), D9(sus4), D9, Am7, Am(maj7), Am7, and Am6. The bass line includes fingerings (1-5) and a triplet of 3s at the end.

Save Me

$\text{♩} = 143$

Something-end of verse

$\text{♩} = 65$

Stairway to Heaven intro

$\text{♩} = 84$

Tenor Madness-minor chromatically descending from root in bars 9-10

bar 1	bar 2	bars 3-4	bar 5	bar 6	bar 7, beat 1	bar 7, beat 3	bar 8, beat 1	bar 8, beat 3
Bb9 V	Eb9 V	Bb9 V	Eb9 V	Edim7 VI	Bb7 XI	A7b9 XI	Ab9 X	G7#9 IX
3 b7 2 5	1 3 b7 2	3 b7 2 5	1 3 b7 2	1 b5 6 b3	1 3 b7 1	1 3 b7 b2	1 3 b7 2	1 3 b7 #9
bar 9, beat 1	bar 9, beat 3	bar 10, beat 1	bar 10, beat 3	bar 9, beat 1	bar 9, beat 3	bar 10, beat 1	bar 10, beat 3	bar 1
Cm VIII	Cm(ma7) VIII	Cm7 VIII	F9 VII	Bb13 XI	G7#9 IX	Cm7 VIII	F7sus4 VIII	Bb9 X
5 1 b3 5	5 7 b3 5	5 b7 b3 5	1 3 b7 2	b7 3 6 1	1 3 b7 #9	5 1 b3 b7	1 5 b7 4	3 b7 2 5 1

This Masquerade verse

♩ = 90

1 *♩* = 90

Fm Fm(maj7) Fm7 Bb7/F Fm Db7

8 Gm7(b5) C7(#9) Fm Fm(maj7) Fm7 Bb7/F

14 Db7 Gm7(b5) C7(b9) Fm

Town Without Pity

♩ = 70

1 *♩* = 70

Bm Bm(maj7) Bm7 Bm6 Em Em(maj7) Em7 Em6

6 Am B7 Em7 Gm6 D/A A+ G6 G7 F#7(sus4) F#7(#5) Bm

You Are the Sunshine of My Life-bridge

♩ = 135

1 *♩* = 135

G#maj7 A#m7 D#9 G#m G#m(maj7) G#m7

6 C#7 C#m7 F#7 Bmaj7

Time in a Bottle

Descend the root of Im four times to get Dm-Dm(maj7)-Dm7-G9nrn5. Descend the ninth of Gm9nrn5 to the root, making Gm7n5. Descend the b7 of the Gm7b5 to make an Edim triad. Move the Edim triad up a minor third to make A7b9nrn5. Repeat, beginning with any close-voiced Dm triad.

1 $\text{♩} = 140$

Dm Dm(maj7) Dm7 G9nrn5

6 Gm9nrn3 Gm7n3 E° E°

1 Dm Dm(maj7) Dm7 G9nrn5

6 Gm9nrn3 Gm7n3 E° E°

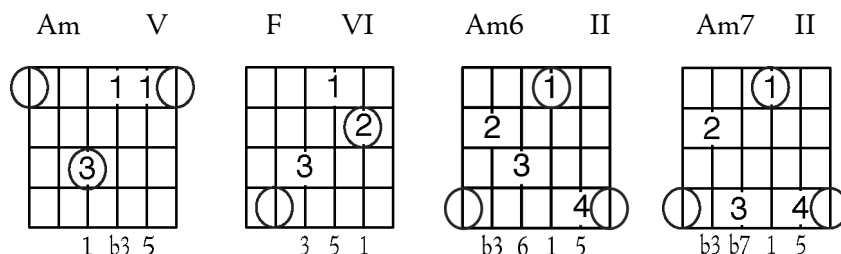
1 Dm Dm(maj7) Dm7 G9nrn5

6 Gm9nrn3 Gm7n3 E° E°

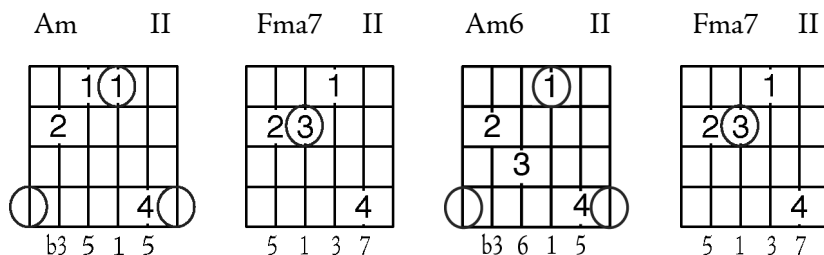
CHROMATIC ASCENDING MINOR LIBRARY

The versions shown here each ascend chromatically from the fifth to the flatted seventh of a minor chord. For the “James Bond” version, change the last chord to the same as the second chord:

four-note ascending chromatic from the fifth of a minor chord

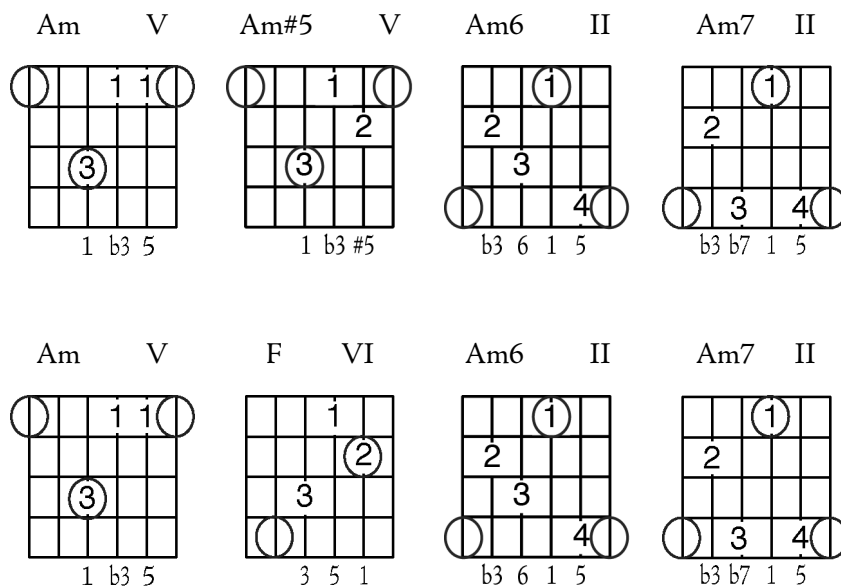


James Bond version



with the alternate name for “F”

The traditional name for a minor chord with a chromatically raised fifth is a major chord named after the “#5” note (“F”).



Four-Note Ascending Versions

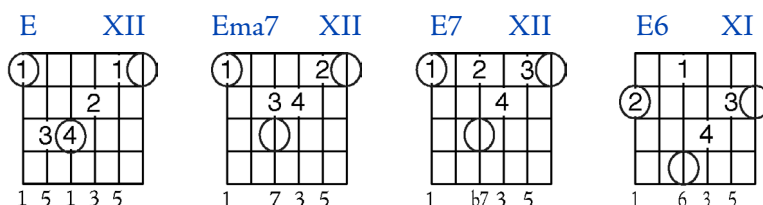
Am II	Fma7 II	Am6 II	Am7 II
Am II	Fma7 III	Am6 IV	Am7 V
Am V	F V	Am6 V	Am7 V
Am V	Fma7 V	Am6 V	Am7 V
Am VII	F VII	Am6 VII	Am7 VII

Am VII	F VII	Am6 VII	Am7 VII
Am IX	F X	Am6 X	Am7 X
Am XII	Fma7 XII	Am6 XII	Am7 XII

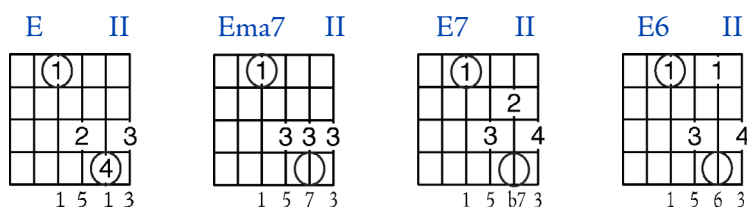
CHROMATIC DESCENDING MAJOR LIBRARY

This can be used as an elaboration of a major chord in major modes. It is also effective way to learn sets of chords based on the major chord. Learn the E form, A form and C form first.

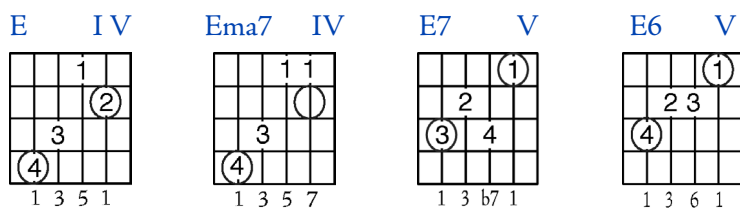
E Form E-Ema7-E7-E6



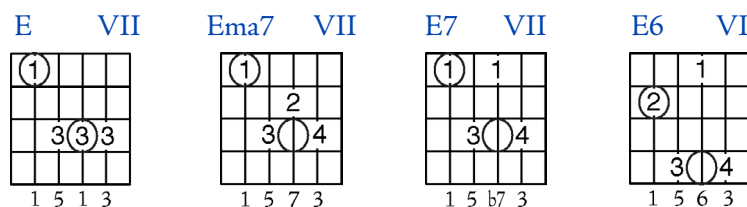
D Form E-Ema7-E7-E6



C Form E-Ema7-E7-E6

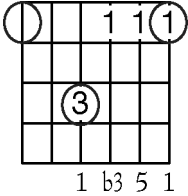
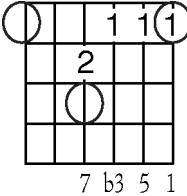
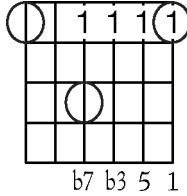
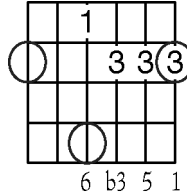
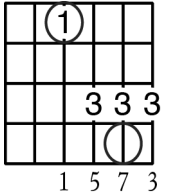
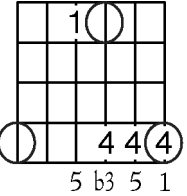
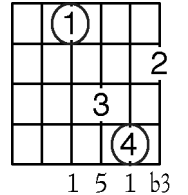
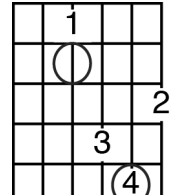
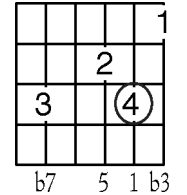
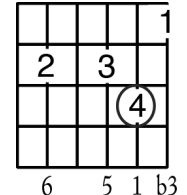
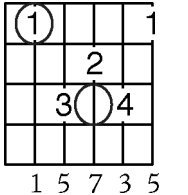
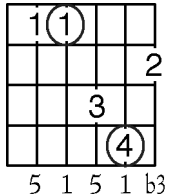
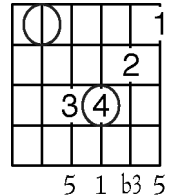
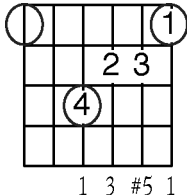
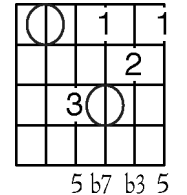
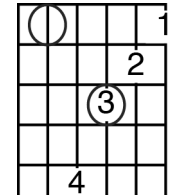
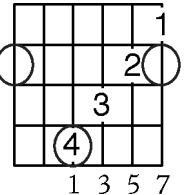
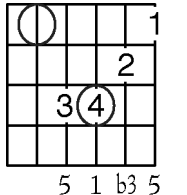


A Form E-Ema7-E7-E6



CHROMATIC DESCENDING MIXED MODE LIBRARY

This combines two earlier progressions. The first four chords in each progression below are the same as the progression shown in [Chromatic Descending Minor Library](#). The last four chords in each progression below are the same those in the [Chromatic Ascending Minor Library](#), but in reverse order.

Am V	Am(ma7) V	Am7 V	Am6 IV	Fma7 III	Am II
					
Am VII	Am(ma7) VI	Am7 VIII	Am6 VIII	Fma7 VIII	Am VII
					
Am XII	Eaug. XII	Am7 XII	Am6 XII	Fma7 XII	Am VII
					

(b)VI-V-I LIBRARY

Major bVI-V-I Starting with Key Scale Tone b3 on Top

major bVI V I: b3-2-1 on top

<p>Ab7 IV</p>	<p>G7 III</p>	<p>C7 I</p>	<p>Ab7 IX</p>	<p>G7 VIII</p>	<p>C7 VIII</p>
<p>Ab9 nr III</p>	<p>G9 II</p>	<p>C7 I</p>	<p>Ab9 nr X</p>	<p>G9 nr IX</p>	<p>C7 VIII</p>

major bVI V I: b7-6-5 on top

<p>Ab9 X</p>	<p>G9 IX</p>	<p>C7 VIII</p>	<p>Ab9 V</p>	<p>G9 IV</p>	<p>C7 III</p>
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I-VI-II-V (“RHYTHM” CHANGES) LIBRARY

I-VI-II-V Top Voice Table (also in “Core Melody with Baroque-Bebop Ornamentation”)

	ascend	descend
chromatic	series: 1-#1-2-#2-3, 1-#1-2-b3-1, 3-4-#4-5-1, 5-#5-6-b7-1 2-#2-3-4-3, b3-3-4--5-1, b7-7-1-#1-2	series: 1-7-b7-6-5, 3-b3-2-b2-1, 5-b5-4-3-2 1-b7-6-b6-5, 2-b2-1-7-1, 5-4-3-b3-3, 6-b6-5-4-3, b7-6 b6-5-3, 7-b7-6-b6-5
linear 7-tone	1-2-3-4-5, 3-4-5-6-5, 5-6-1-2-1	1-7-6-5-1, 3-2-1-7-1, 5-4-3-2-1 7-6-5-4-3
non-linear 7-tone	1-3-2-4-3 3-4-5-6-5, 3-4-5-b6-5, b3-4-5-b6-5 5-b7-6-2-1, 5-6-7-6-7	1-b7-6-5-1(3) b3-b2-1-7-1 5-4-3-2-1, 5-4-b3-2-1(b3)
scalar encircling	1 3 2 7 1; 3 5 4 2 3; 5 b7 6 4 5	1-5-6-4-5, 3-7-1-6-5, 5-2-3-7-1
linear min. pent.	1-b3-4-5-1, b3-4-5-b7-1, 5-b7-1-b3-5	1-b7-5-4-b3, b3-1-b7-5-b3, 5-4-b3-1-5
linear maj. pent.	1-2-3-5-1, 3-5-6-1-3, 5-6-1-2-3	1-6-5-3-5, 3-2-1-6-5, 5-3-2-1-5
non-linear minor pentatonic	series: 1-b3-4-b3-1, b3454b3, 5b71b71 series: 1b31b71, b34b31b3, 5b7545 series: 154b31, b3b754b3, 5b31b75 major 1-5-4-b3-1, minor 1-5-4-b3-1 b3-4-5-b7-5(1) 5-6-1-6-1, 5-6-1-2-3, major 5-b7-1-b3-1, minor 5-b7-1-b3-1	series: 1b75b71, b31b71b3, 54b345 series: 1b71b31, b31b34b3, 545b75 series: 145b71, b35b71b3, 51b345 1-b7-5-b7-1, 1-6-5-3-5 5-3-2-3-5
non-linear major pentatonic	series: 12161, 35313, 56535 series: 12321, 35653, 56165 series: 15321, 31653, 52165	series: 16121, 32353, 53532 series: 16535, 32161, 53212 series: 13561, 36123, 51235
paired thirds bullets (“•”) are scale steps instead of thirds	1-3-2-4-5, 1-b3-2-4-5 3-5-2-4-b3, b3-5-2-4-b3, 3-5-4-6-5 5-b7-6-#1-2, 5-b7-b6•7-1	1-6-2-7-1 3-1-2-7-1, b3-1-2-7-1 3-1-4-2-1(3), b3-1-4-2-1(b3) 5-3-4-2-1(3), 5-b7-b6•7-1
fourth and fifth intervals	1-5-4-7-1 3-b7-4-7-1 5-#1-6-#2-3, 5-#1-b6-2-b3	1-5-4-7-1 3-b7-4-7-1 5-#1-4-7-1
tertian arpeggio	1-3-5-7-1 (Ima7) 5-b7-2-4-3 (Vm7)	1-6-4-2-1(3) (IIIm7), 1-6-4-2-1(b3) (IIIm7) 3-#1-6-4-3 (IIIIma7#5) 5-3-1-6-5 (VIIm7), 5-3-1-b6-5 (bVIIma7#5)
common tone or pivot tone	for all (major, minor, ascend, descend): use a tone of the parent scale major pentatonic or the parent scale minor pentatonic	

substitute chords implied by the numbered tones on the table above:

second note ascending:	#1 is VI7(13#11), b3 is bIII7(13#11) or VI7b5(13#11)
second note descending:	b2 is VI7b9, 4 is VI7#5, b7 is VI7b9
third note ascending:	b3 is II7b9, #4 or b5 is II7 or bVI7(13#11), 5 is m11 or m7/11b5
fourth note ascending:	b2 is bII7(13#11) or V7b5, #2 is V7#9, b6 is V7b9
fourth note descending:	b3 is Vaug. (V7#5) or bII7(13#11), b6 is V7b9 or V13b9
fifth note:	2 is Ima9, I7, Ima9, I9

E Form I Chord

I_{ma}7-V_Im7-II_m7-V7, un-altered chords (E form I chord)

I _{ma} 7	V _I m7	II _m 7	V7	III _m 7	V _I m7	II _m 7	V7
G _{ma} 7 III	E _m 7 V	A _m 7 V	D7 V	B _m 7 VII	E _m 7 V	A _m 7 V	D7 V
1 5 3 7	1 b3 b7 b3	1 b7 b3 5	1 5 b7 3	1 b7 b3 5	1 b3 b7 b3	1 b7 b3 5	1 5 b7 3

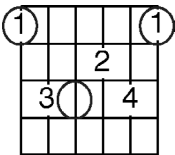
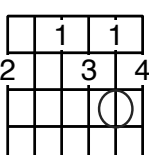
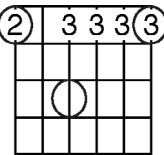
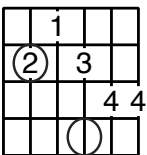
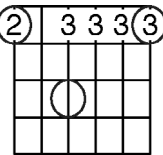
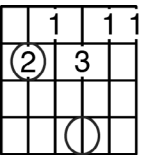
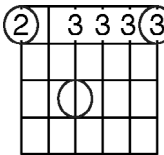
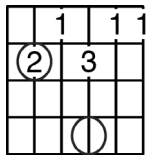
I-VI-II-V altered chords with chromatic top voice leading (E form I chord)

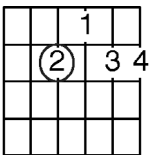
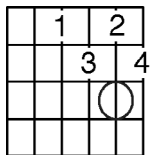
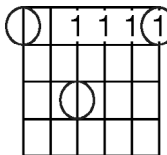
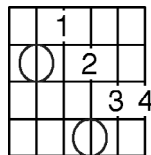
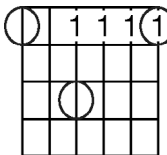
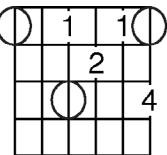
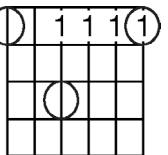
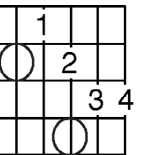
this example has a chromatic bass line and a common tone top voice

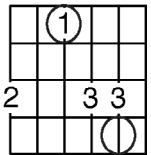
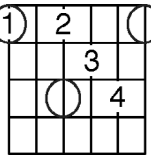
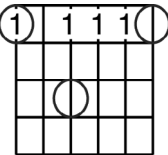
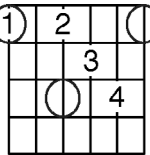
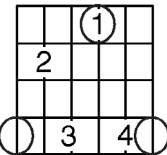
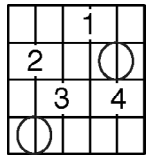
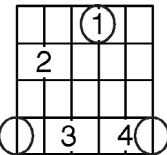
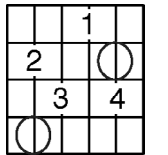
I _{ma} 7	VI7b9	II _m 11	V _{aug}	III _m 7	bIII7	II _m 11	bII7b5
G _{ma} 7 III	E7b9 III	A _m 11 III	D _{aug} III	B _m 7 II	Bb7 I	A _m 11 III	Ab7b5 II
1 7 3 5	3 b2 5 b7	1 b7 b3 4	#5 3 #5 1	1 5 b7 b3	1 5 b7 3	1 b7 b3 4	1 b7 3 b5

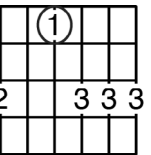
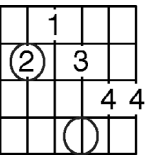
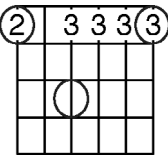
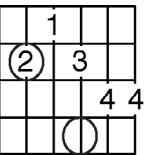
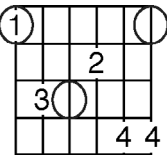
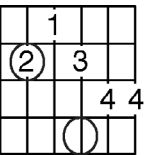
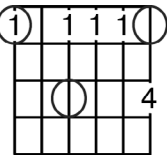
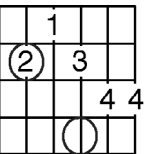
I6	VI7b9	II _m 7	V7#5#9	III _m 7	bIII13	II _m 7	bII13
G _{ma} 7 III	E7b9 III	A _m 7 III	D7#5#9 III	B _m 7 VII	Bb13 VI	A _m 7 III	Ab13 IV
1 3 6 1	b2 5 b7 3	b7 b3 5 1	1 3 b7 #2 #5	b7 b3 5 1	b7 3 6 2	b7 b3 5 1	b7 3 6 2

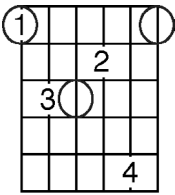
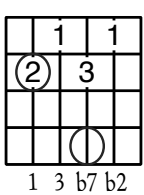
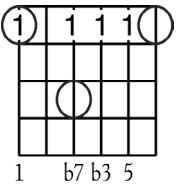
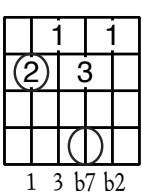
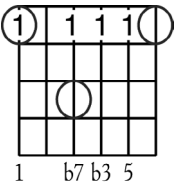
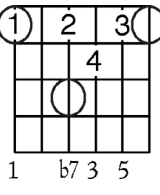
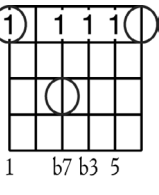
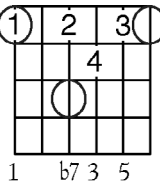
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G _{ma} 7 IV	E7b9 IV	A _m 7 II	D7b9 II	B _m 7 VII	E13 V	A _m 7 V	D13 III
5 1 3 7	b7 3 5 b2	b3 b7 1 5	b7 3 5 b2	1 b7 b3	b7 3 6	1 b7 b3	b7 3 6

Ima6 G6 III	VI7b9 E7b9 III	IIm7 Am7 V	V7#5#9 D7#5#9 IV	IIIIm7 Bm7 VII	VIb5b9 E7b5b9 VI	IIm7 Am7 V	V7b5b9 D7b5b9 IV
							
1 5 3 6 1	3 b2 5 b7 3	1 b7 b3 5 1	1 3 b7 #2 #5	1 b7 b3 5 1	1 3 b7 b2 b5	1 b7 b3 5 1	1 3 b7 b2 b5

I6/9 G6/9 IV	VI7b9 E7b9 III	IIm7 Am7 V	V7#5#9 D7#5#9 IV	IIIIm7 Bm7 VII	bIII9 Bb9 VI	IIm7 Am7 V	V7#5#9 D7#5#9 IV
							
1 3 6 2	b2 5 b7 3	b7 b3 5 1	3 b7 #2 #5	b7 b3 5 1	b7 3 5 2	b7 b3 5 1	3 b7 #2 #5

Ima7 Gma7 V	bIII13 Bb13 VI	IIm7 Am7 V	bII13 Ab13 IV	IIIIm7 Bm7 IV	VI7b9 E7b9 IV	IIm7 Am7 II	V7b9 D7b9 II
							
3 1 5 7	1 b7 3 6	1 b7 b3 5	1 b7 3 6	b3 b7 1 5	b7 3 5 b2	b3 b7 1 5	b7 3 5 b2

Ima7 Gma7 V	VI7#5#9 E7#5#9 VI	IIm7 Am7 V	V7#5#9 D7#5#9 IV	III7#9 B7#9 VII	VI7#5#9 E7#5#9 VI	IIm9 Am9 V	V7#5#9 D7#5#9 IV
							
3 1 5 7 3	1 3 b7 #2 #5	1 b7 b3 5 1	1 3 b7 #2 #5	1 5 3 b7 #2	1 3 b7 #2 #5	1 b7 b3 5 2	1 3 b7 #2 #5

Ima7 Gma7 III	VI7b9 E7b9 VI	IIm7 Am7 V	V7b9 D7b9 IV	IIIIm7 Bm7 VII	bIII7 Bb7 VI	IIm7 Am7 V	bII7 Ab7 IV
							
1 5 3 7	1 3 b7 b2	1 b7 b3 5	1 3 b7 b2	1 b7 b3 5	1 b7 3 5	1 b7 b3 5	1 b7 3 5

I69	VI7#5#9	IIIm9	V7#5#9	IIIIm7	VI7#5#9	IIIm9	V13b9
G69 V	E7#5b9 VI	Am9 V	D7#5b9 IV	Bm7 V	E7#5b9 VI	Am9 V	D13b9 V

5 3 6 2 1 3 b7 #2 #5 1 b7 b3 5 2 1 3 b7 #2 #5 1 b3 5 b7 1 3 b7 #2 #5 1 b7 b3 5 2 b2 b7 3 6

I-VI-II-V altered chords with minor pentatonic top voice leading (E form I chord)

Ima7	VI7#9	IIIm9	V7#9	IIIIm7	VI7#9	IIIm9	V7#9
G7#9 III	E7#9 VI	Am7/11 III	D7#9 IV	Bm7 b5 VI	E7#9 VI	Am7/11 III	D7#9 IV

1 5 3 b7 #2 1 3 b7 #9 1 b7 b3 4 1 3 b7 #9 1 b7 b3 b5 1 3 b7 #9 1 b7 b3 4 1 3 b7 #9

I7	VI7b9	IIIm9	V7#9	III7#5	VI7b9	IIIm9	V7#9
G7 III	E7b9 VI	Am7/11 III	D7#9 IV	B7#5 VI	E7#9 VI	Am7/11 III	D7#9 IV

1 5 b7 3 5 1 1 3 b7 b2 1 b7 b3 4 1 3 b7 #9 1 b7 3 #5 1 3 b7 b2 1 b7 b3 4 1 3 b7 #9

A Form I Chord

Ima7-VIm7-IIIm7-V7, un-altered chords (A form I chord)

Ima9	VIm7	IIIm7	V13	IIIIm7	VIm7	IIIm11	V13
Cma7 II	Am7 V	Dm7 III	G13 III	Em7 II	Am7 V	Dm11 III	G13 III

1 3 7 2 1 b7 b3 5 1 b3 b7 b3 1 b7 3 6 1 5 b7 b3 1 b7 b3 5 1 b3 b7 1 4 b7 3 6 1

I-VI-II-V altered chords with chromatic top voice leading (A form I chord)

Ima7	VI7b9	IIm7	V7b9	IIIm7	VI7b9	IIm7	V7b9
Cma7 III	A7b9 V	Dm9 III	G7b9 III	Em7 VII	A7b9 V	Dm9 III	G7b9 III

Ima7	VI7b9	IIm7	V7b9	IIIm7	VIb9	IIm7	V7b9
Cma7 III	A7b9 V	D9 IV	G7b9 III	Em7 VII	A7b9 V	D9 IV	G7b9 III

Ima7	VI7#5b9	IIm7	VI7#5b9	IIIm7	VI7#5b9	IIm7	VI7#5b9
Cma7 III	A7#5b9 V	D9 IV	G7#5b9 III	Em7 VII	A7#5b9 V	D9 IV	G7#5b9 III

Ima7	VI7#5b9	IIm7	VI7#5b9	IIIm9	bIII9	IIm7	bIIb9
Cma7 III	A7#5b9 III	Dm7 V	G7#5b9 IV	Em9 V	Eb9 V	Dm9 III	Db9 III

Ima7	VI7b9	IIm7	VI7#5b9	IIIm7	bIII9	IIm7	bIIb9
Cma7 III	A7b9 V	Dm9 V	G7b9 III	Em7 VII	A7b9 V	Dm9 V	G7b9 III

I-VI-II-V altered chords altered chords with minor pentatonic top voice leading

I9 C9 II	VI7#5#9 A7#5#9 V	IIIm7 Dm7 III	V7#5 G7#5 III	IIIIm7 Em7 III	VI7#5#9 A7#5#9 V	IIIm7 Dm7 III	V7#5 G7#5 III
1 3 b7 2 5	1 b7 3 #5 b2	1 b3 b7 b3	1 b7 3 #5 1	1 b3 b7 b3	1 b7 3 #5 b2	1 b3 b7 b3	1 b7 3 #5 1
I9 C9 II	VI7#5#9 A7#5#9 V	II7#9 D7#9 IV	V7#5 G7#5 III	III7#5#9 E7#5#9 VI	VI7#5#9 A7#5#9 V	II7#9 D7#9 IV	V7#5 G7#5 III
1 3 b7 2 5	1 b7 3 #5 b2	1 3 b7 #9	1 b7 3 #5 1	1 3 b7 #2 #5	1 b7 3 #5 b2	1 3 b7 #9	1 b7 3 #5
I9 C9 II	VI7#5 A7#5 V	II7b9 D7b9 III	V7 G7 III	IIIIm7 Em7 V	VI7#5 A7#5 V	II7b9 D7b9 III	V9sus4 G9sus4 I
1 3 b7 2 5	1 b7 3 #5	1 3 b7 b2	1 5 3 b7	1 b3 b7 b3	1 b7 3 #5	1 3 b7 b2	1 b7 2 4
I7 C7 II	VI7 A7 V	II7#9 D7#9 IV	V7#5 G7#5 IV	III7b5#9 E7b5#9 V	VI7 A7 V	II7#9 D7#9 IV	V7#5 G7#5 IV
1 5 1 3 b7	1 5 3 b7	1 3 b7 #9	1 b7 3 #5 1	1 3 b7 #2 b5	1 5 3 b7	1 3 b7 #9	1 b7 3 #5 1

I-#Idim7-IIIm7-V7 LIBRARY

#I diminished seventh is a hidden root chord. It is E7b9 without a root. See the chapter “[Substitution](#)”/Hidden Roots.

E Form I Chord

I_{ma}7-V_{Im}7-II_m7-V7, un-altered chords (E form I chord)

I _{ma} 7	V _{Im} 7	II _m 7	V7
G _{ma} 7 III	E _m 7 II	A _m 7 V	D9 IV
1 7 3 5	b3 1 5 b7	1 b7 b3 5	1 3 b7 2

I-#Idim7-II-V with altered chords

I _{ma} 7 G _{ma} 7 III 1 7 3 5	#Idim7 G#dim7 III 3 b2 5 b7	II _m 11 A _m 11 III 1 b7 b3 4	V _{aug} D _{aug} III #5 3 #5 1
I6 G _{ma} 7 III 1 3 6 1	#Idim7 G#dim7 III 6 b3 b5 1	II _m 7 A _m 7 III b7 b3 5 1	V7#5#9 D7#5#9 III 1 3 b7 #2 #5
I _{ma} 7 G _{ma} 7 IV 5 1 3 7	#Idim7 G#dim7 IV b5 1 b3 6	II _m 7 A _m 7 II b3 b7 1 5	V7b9 D7b9 II b7 3 5 b2

I _{ma} 6 G6 III	#I _{dim} 7 G#dim7 III	II _m 7 Am7 V	V7#5#9 D7#5#9 IV
1 5 3 6 1	1 6 b3 b5	1 b7 b3 5 1	1 3 b7 #2 #5

I ₆ /9 G6/9 IV	#I _{dim} 7 G#dim7 III	II _m 7 Am7 V	V7#5#9 D7#5#9 IV
1 3 6 2	6 b3 b5 1	b7 b3 5 1	3 b7 #2 #5

I _{ma} 7 Gma7 V	#I _{dim} 7 G#dim7 V	II _m 7 Am7 V	V7#5#9 D7#5#9 IV
3 1 5 7 3	b3 1 b5 6 b3	1 b7 b3 5 1	1 3 b7 #2 #5

I _{ma} 7 Gma7 III	#I _{dim} 7 G#dim7 IV	II _m 7 Am7 V	V7b9 D7b9 IV
1 5 3 7	3 b7 5 1	1 b7 b3 5	1 3 b7 b2

I ₆ 9 G69 V	#I _{dim} 7 G#dim7 VI	II _m 9 Am9 V	V7#5#9 D7#5b9 IV
1 5 7 3	1 b5 6 b3	1 b7 b3 5 2	1 3 b7 #2 #5

A Form I Chord

I_{ma}7-VI_m7-II_m7-V7, un-altered chords (A form I chord)

I _{ma} 9	VI _m 7	II _m 7	V13
C _{ma} 7 II	A _m 7 V	D _m 7 III	G13 III

1 3 7 2

1 b7 b3 5

1 b3 b7 b3

1 b7 3 6

I-#Idim7-II-V with altered chords

I _{ma} 7	#Idim7	II _m 7	V7b9
C _{ma} 7 III	C#dim7 III	D _m 9 III	G7b9 III

1 5 7 3 5

1 b5 6 b3 b5

1 b3 b7 2 5

1 b7 3 5 b2

I _{ma} 7	#Idim7	II _m 7	VI7#5b9
C _{ma} 7 III	C#dim7 III	D9 IV	G7#5b9 III

1 5 7 3 5

1 b5 6 b3 b5

1 3 b7 2 5

1 b7 3 #5 b2

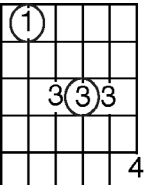
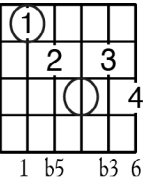
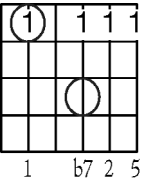
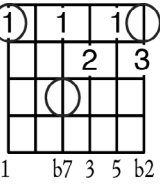
I _{ma} 7	#Idim7	II _m 7	VI7#5b9
C _{ma} 7 III	C#dim7 III	D _m 7 V	G7#5b9 IV

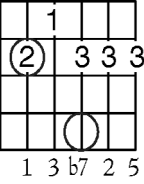
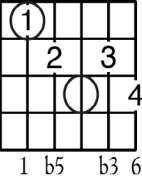
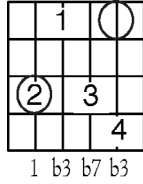
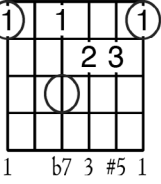
1 5 7 3 5

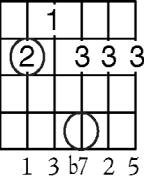
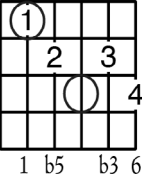
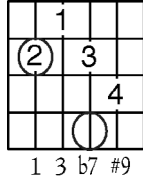
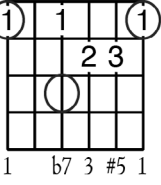
1 b5 6 b3 b5

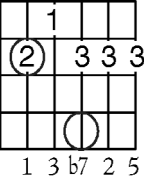
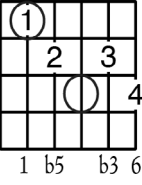
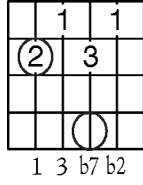
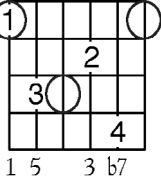
1 b7 b3 5

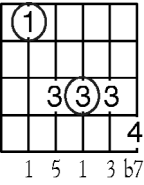
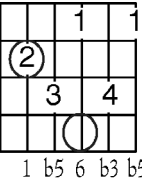
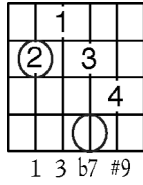
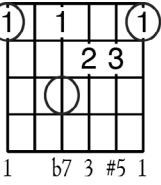
#5 3 b7 b2

Ima7 Cma7 III	#Idim7 C#dim7 IV	IIm7 Dm9 V	VI7#5b9 G7b9 III
			
1 5 1 3 7	1 b5 b3 6	1 b7 2 5	1 b7 3 5 b2

I9 C9 II	#Idim7 C#dim7 IV	IIm7 Dm7 III	V7#5 G7#5 III
			
1 3 b7 2 5	1 b5 b3 6	1 b3 b7 b3	1 b7 3 #5 1

I9 C9 II	#Idim7 C#dim7 IV	II7#9 D7#9 IV	V7#5 G7#5 III
			
1 3 b7 2 5	1 b5 b3 6	1 3 b7 #9	1 b7 3 #5 1

I9 C9 II	#Idim7 C#dim7 IV	II7b9 D7b9 III	V7 G7 III
			
1 3 b7 2 5	1 b5 b3 6	1 3 b7 b2	1 5 3 b7

I7 C7 II	#Idim7 C#dim7 III	II7#9 D7#9 IV	V7#5 G7#5 IV
			
1 5 1 3 b7	1 b5 6 b3 b5	1 3 b7 #9	1 b7 3 #5 1

I-IVma9-VIIm7b5-III7-VIm LIBRARY

E form I chord

I type-IV9-VIIm7b5-III7-VIm7, un-altered chords

approach steps from:

I6 Eb6 XI	IVma9 Abma9 X	VIIIm7b5 Dm7b5 IX	IIIIm7 Gm7 IX	VIm7 Cm7 VIII
↑ ½, ↓ 1	↑ ½, ↓ 1	↑ ½ or 1, ↓ ½	↑ ½ or 1, ↓ ½	↑ ½ or 1, ↓ 1
1 1 3 6	1 3 7 2	1 b7 b3 b5	1 b3 b7 b3	1 b7 b3 5

I type-IV9-VIIm7b5-III7-VIm7, altered chords with scalar voice leading

approach steps from:

I6 Eb6 XI	IV9 Ab9 X	VIIIm7b5 Dm7b5 IX	III7#9 G7#9 IX	VIm7 Cm7 VIII
↑ ½, ↓ 1	↑ ½ or 1, ↓ 1	↑ ½ or 1, ↓ ½	↑ ½ or 1, ↓ ½	↑ ½ or 1, ↓ 1
1 1 3 6	1 3 b7 2	1 b7 b3 b5	1 3 b7 #9	1 b7 b3 5

approach steps from:

I6 Ebma7 XI	IV9 Ab7 IX	VIIIm7b5 Dm7b5 IX	III7#9 G7 VIII	VIm7 Cm7 VIII
↑ ½, ↓ 1	↑ ½ or 1, ↓ 1	↑ ½ or 1, ↓ ½	↑ ½ or 1, ↓ ½	↑ ½ or 1, ↓ 1
1 7 3 5	1 3 b7 1	1 b7 b3 b5	1 3 b7 1	1 b7 b3 5

approach steps from:

Ima7 Ebma7 XI	IV9 Ab9 X	VIIIm7b5 Dm7b5 IX	III7b9 G7b9 IX	VIm7 Cm7 VIII
↑ ½, ↓ 1	↑ ½ or 1, ↓ 1	↑ ½ or 1, ↓ ½	↑ ½ or 1, ↓ ½	↑ ½ or 1, ↓ 1
1 7 3 5	1 3 b7 2	1 b7 b3 b5	1 3 b7 b2	1 b7 b3 5

	Ima7 Ebma7 XI	IV9 Ab7 XI	VII7#5 D7#5 X	III7b9 G7b9 IX	VIIm7 Cm7 VIII
approach steps from:	$\uparrow \frac{1}{2}, \downarrow 1$	$\uparrow \frac{1}{2}$ or 1, $\downarrow 1$	$\uparrow \frac{1}{2}$ or 1, $\downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or 1, $\downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or 1, $\downarrow 1$
	1 1 3 7	1 5 b7 3	1 b7 3 #5	1 3 b7 b2	1 b7 b3 5

A Form I Chord

I type-IV9-VIIm7b5-III7-VIIm7, un-altered chords

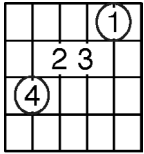
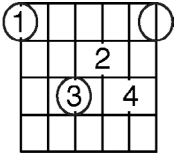
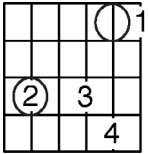
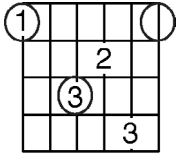
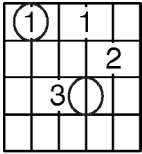
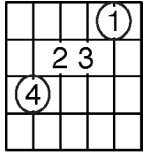
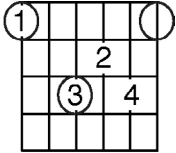
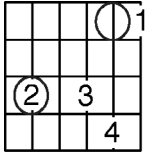
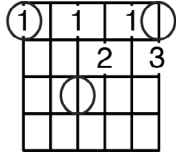
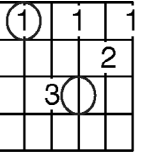
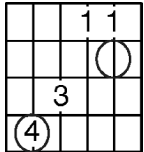
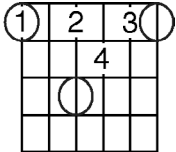
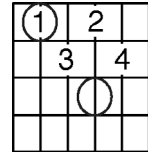
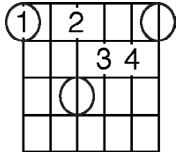
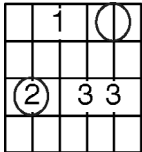
	Ima7 Ebma7 VI	IVma7 Abma7 IV	VIIIm7b5 Dm7b5 V	IIIIm7 Gm7 IX	VIIm7 Cm7 VIII
approach steps from:	$\uparrow \frac{1}{2}, \downarrow 1$	$\uparrow \frac{1}{2}, \downarrow 1$	$\uparrow \frac{1}{2}$ or 1, $\downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or 1, $\downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or 1, $\downarrow 1$
	1 5 7 3	1 1 3 7	1 b5 b7 b3	1 5 1 b3 b7	1 5 b7 b3

I type-IV9-VIIm7b5-III7-VIIm7, altered chords with scalar voice leading

	Ima7 Ebma7 VI	IV7 Ab7 IV	VIIIm7b5 Dm7b5 V	III7#5 G7#5 III	VIIm9 Cm9 III
approach steps from:	$\uparrow \frac{1}{2}, \downarrow 1$	$\uparrow \frac{1}{2}$ or 1, $\downarrow 1$	$\uparrow \frac{1}{2}$ or 1, $\downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or 1, $\downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or 1, $\downarrow 1$
	1 5 7 3	1 1 3 b7	1 b5 b7 b3	1 b7 3 #5	1 b3 b7 2

	Ima7 Ebma9 V	IV7 Ab7 IV	VIIIm7b5 Dm7b5 III	III7#5 G7#5 III	VIIm9 Cm9 III
approach steps from:	$\uparrow \frac{1}{2}, \downarrow 1$	$\uparrow \frac{1}{2}$ or 1, $\downarrow 1$	$\uparrow \frac{1}{2}$ or 1, $\downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or 1, $\downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or 1, $\downarrow 1$
	1 3 7 2	1 b7 3 5	1 b3 b7 1	1 b7 3 #5	1 b3 b7 2

I type-IV9-VIIIm7b5-III7-VIm7, altered chords with scalar voice leading

	Ima6 Ebma7 III	IV6 Ab6 IV	VIIIm7sus4 Dm7sus4 V	III7 G7 III	VIm7 Cm9 III
approach steps from:	$\uparrow \frac{1}{2}, \downarrow 1$	$\uparrow \frac{1}{2}$ or $1, \downarrow 1$	$\uparrow \frac{1}{2}$ or $1, \downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or $1, \downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or $1, \downarrow 1$
					
	Ima6 Ebma7 III	IV6 Ab6 IV	VIIIm7sus4 Dm7sus4 V	III7 G7b III	VIm7 Cm7 III
approach steps from:	$\uparrow \frac{1}{2}, \downarrow 1$	$\uparrow \frac{1}{2}$ or $1, \downarrow 1$	$\uparrow \frac{1}{2}$ or $1, \downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or $1, \downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or $1, \downarrow 1$
					
	Ima7 Ebma7 III	IV7 Ab7 IV	VIIIm7b5 Dm7b5 V	III7#5 G7#5 III	VIm9 Cm9 III
approach steps from:	$\uparrow \frac{1}{2}, \downarrow 1$	$\uparrow \frac{1}{2}$ or $1, \downarrow 1$	$\uparrow \frac{1}{2}$ or $1, \downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or $1, \downarrow \frac{1}{2}$	$\uparrow \frac{1}{2}$ or $1, \downarrow 1$
					

MAJOR-6-MAJOR 7-6 LIBRARY

This can be in the order I-I6-I_{ma}7-I6 or I-I_{ma}7-I6-I_{ma}7.

Import the file "All Favored.html" into iReal pro at the the link [All Favored](#). Use the iReal [All Favored](#) "song" zz-ma-6-ma7-6" (search for "zz-ma-6-ma7-6"). You can also use the list of abbreviations in that folder to find a great number of chord progressions and chord types. All the chord and scale diagrams below show finger numbers.

G form in E

chords .E IX E6 IX E_{ma}7 IX E6 IX scale .E major IX

G form in E

chords .E IX E_{ma}7 IX E6 IX E_{ma}7 IX scale .E major IX

C form in A

chords A IX A6 X A_{ma}7 IX A6 X scale .A major IX

chords	A IX	A6 X	Ama7 IX	A6 X	scale	·A major IX

C form in B

chords	B XI	B6 XII	Bma7 XI	B6 XII	scale	·B major XI

chords	B XI	Bma7 XI	B6 XII	Bma7 XI	scale	·B major XI

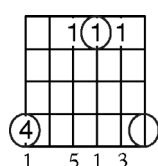
MAJOR-6-DOMINANT 7-6 LIBRARY

This can be in the order I-I6-I7-I6 or I-I7-I6-I7.

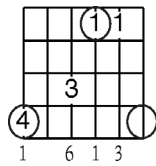
Import the file "All Favored.html" into iReal pro at the the link [All Favored](#). Use the iReal [All Favored](#) "song" zz-ma-6-7-6" (search for "zz-ma-6-7-6"). You can also use the list of abbreviations in that folder to find a great number of chord progressions and chord types. All the chord and scale diagrams below show finger numbers.

G form in E

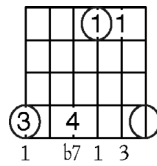
chords .E IX



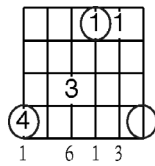
E6 IX



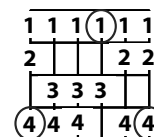
E7 IX



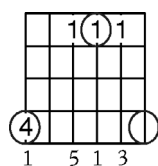
E6 IX



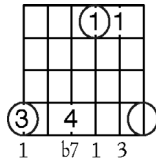
scale E Mixolydian IX



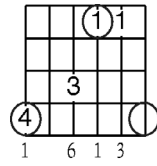
chords .E IX



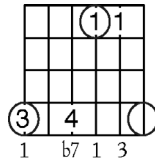
E7 IX



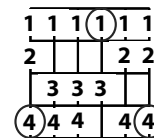
E6 IX



E7 IX

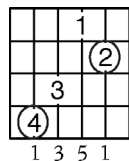


scale E Mixolydian IX

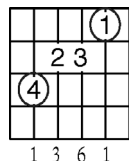


C form in A

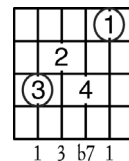
chords A IX



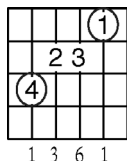
A6 X



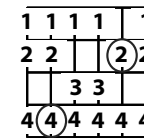
A7 X



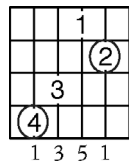
A6 X



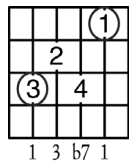
scale A Mixolydian IX



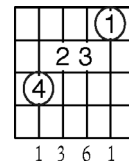
chords A IX



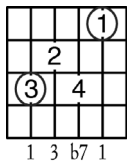
A7 X



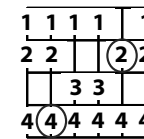
A6 X



A7 X



scale A Mixolydian IX



C form in B

chords

B
XI

B6
XII

B7
XII

B6
XII

scale
B Mixolydian
XI

chords

B
XI

B7
XII

B6
XII

B7
XII

scale
B Mixolydian
XI

Back Cycling Chords

- **Back Cycling with Major Scale-Tone Fourths**
- **Multi-Key II-V Cadences in Repertoire**
- **Back Cycling with Dominant Sevenths**
- **Back Cycling with II V Pairs**
- **Back Cycling Thirds**

BACK CYLCING WITH MAJOR SCALE-TONE FOURTHS

Memorize the major scale tone chord qualities and their order in fourths. With back cycling, you need to determine which chord is before a particular chord in the ascending root progression in fourths. In the key of "F", for example the IIm7 chord is Gm7. The Am7 chord before it can be used melodically or compositionally to lead to it. As a secondary dominant, Am7 could be changed to A7.

Major Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	3	4	5	6	7
mode	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
triad tones	major 1-3-5	minor 2-4-6	minor 3-5-7	major 4-6-1	major 5-7-2	minor 6-1-3	dimin. 7-2-4
seventh tones	ma7 1-3-5-7	m7 2-4-6-1	m7 3-5-7-2	ma7 4-6-1-3	7 5-7-2-4	m7 6-1-3-5	m7b5 7-2-4-6
ninth tones	ma9 1-3-5-7-2	m9 2-4-6-1-3	not acceptable	ma9 4-6-1-3-5	9 5-7-2-4-6	m9 6-1-3-5-7	not acceptable
secondary dominant	7 or 9	7 9 or 7#9	7 or 7b9	7 or 9	7, 7#5 or 7#5	7 9 or 7#9	7 or 7b9
key of C#	C#	D#m	E#m	F#	G#	A#m	B#dim
key of F#	F#	G#m	A#m	B	C#	D#m	E#dim.
key of B	B	C#m	D#m	E	F#	G#m	A#dim
key of E	E	F#m	G#m	A	B	C#m	D#dim
key of A	A	Bm	C#m	D	E	F#m	G#dim.
key of D	D	Em	F#m	G	A	Bm	C#dim.
key of G	G	Am	Bm	C	D	Em	F#dim.
key of C	C	Dm	Em	F	G	Am	Bdim.
key of F	F	Gm	Am	Bb	C	Dm	Edim.
key of Bb	Bb	Cm	Dm	Eb	F	Gm	Adim.
key of Eb	Eb	Fm	Gm	Ab	Bb	Cm	Ddim.
key of Ab	Ab	Bbm	Cm	Db	Eb	Fm	Gdim.
key of Db	Db	Ebm	Fm	Gb	Ab	Bbm	Cdim.
key of Gb	Gb	Abm	Bbm	Cb	Db	Ebm	Fdim.
key of Cb	Cb	Dbm	Ebm	Fb	Gb	Abm	Bbdim.

ascending root progression in fourths

	7	3	6	2	5	1	4
mode	Locrian	Phrygian	Aeolian	Dorian	Mixolydian	Ionian	Lydian
triad tones	dimin. 7-2-4	minor 3-5-7	minor 6-1-3	minor 2-4-6	major 5-7-2	major 1-3-5	major 4-6-1
seventh tones	m7b5 7-2-4-6	m7 3-5-7-2	m7 6-1-3-5	m7 2-4-6-1	7 5-7-2-4	ma7 1-3-5-7	ma7 4-6-1-3
ninth tones	not acceptable	not acceptable	m9 6-1-3-5-7	m9 2-4-6-1-3	9 5-7-2-4-6	ma9 1-3-5-7-2	ma9 4-6-1-3-5
secondary dominant	7 or 7b9	7 or 7b9	7 9 or 7#9	7 9 or 7#9	7 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E#m	A#m	D#m	G#	C#	F#
key of F#	E#dim.	A#m	D#m	G#m	C#	F#	B
key of B	A#dim	D#m	G#m	C#m	F#	B	E
key of E	D#dim	G#m	C#m	F#m	B	E	A
key of A	G#dim.	C#m	F#m	Bm	E	A	D
key of D	C#dim.	F#m	Bm	Em	A	D	G
key of G	F#dim.	Bm	Em	Am	D	G	C
key of C	Bdim.	Em	Am	Dm	G	C	F
key of F	Edim.	Am	Dm	Gm	C	F	Bb
key of Bb	Adim.	Dm	Gm	Cm	F	Bb	Eb
key of Eb	Ddim.	Gm	Cm	Fm	Bb	Eb	Ab
key of Ab	Gdim.	Cm	Fm	Bbm	Eb	Ab	Db
key of Db	Cdim.	Fm	Bbm	Ebm	Ab	Db	Gb
key of Gb	Fdim.	Bbm	Ebm	Abm	Db	Gb	Cb
key of Cb	Bbdim.	Ebm	Abm	Dbm	Gb	Cb	Fb

Harmonic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	b3	4	5	b6	7
mode	Aeolian	Locrian natural 6	Major #5	Dorian #4	Phrygian dominant	Lydian #2	Mixolydian #1
1	minor 1-b3-5	dimin. 2-4-b6	aug- mented b3-5-7	minor 4-b6-1	major 5-7-2	major b6-1-b3	dimin. 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7b5 2-4-b6-1	ma7#5 b3-5-7-2	m7 4-b6-1- b3	7 5-7-2-4	ma7 b6-1- b3-5	7 7-2-4-b6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7- 2-4	m9 4-b6-1- b3-5	7b9 5-7-2-4- b6	not acceptable	not acceptable
secondary dominant	7, 7#5, 9 or 7#9	7, 7#5 or 7b9	7, 7#5 or 9	7, 9, 7#9 or 7#11	7#9 or 7#5	7 or 7#9	n/a
key of A#m	A#m	B#dim.	C# aug	D#m	E#	F#	G##dim
key of D#m	D#m	E#dim.	F# aug	G#m	A#	B	C## dim
key of G#m	G#m	A#dim.	B aug	C#m	D#	E	F## dim
key of C#m	C#m	D#dim	E aug	F#m	G#	A	B# dim
key of F#m	F#m	G#dim.	A aug	Bm	C#	D	E# dim
key of Bm	Bm	C#dim.	D aug	Em	F#	G	A# dim
key of Em	Em	F#dim.	G aug	Am	B	C	D# dim
key of Am	Am	Bdim.	C aug	Dm	E	F	G#dim
key of Dm	Dm	Edim.	F aug	Gm	A	Bb	C# dim
key of Gm	Gm	Adim.	Bb aug	Cm	D	Eb	F# dim
key of Cm	Cm	Ddim.	Eb aug	Fm	G	Ab	B dim
key of Fm	Fm	Gdim.	Ab aug	Bbm	C	Db	E dim
key of Bbm	Bbm	Cdim.	Db aug	Ebm	F	Gb	A dim
key of Ebm	Ebm	Fdim.	Gb aug	Abm	Bb	Cb	D dim
key of Abm	Abm	Bbdim.	Cb aug	Dbm	Eb	Fb	G dim

ascending root progression in fourths

	7	b3	b6	2	5	1	4
mode	Mixolydian #1	Major #5	Lydian #2	Locrian natural 6	Phrygian dominant	Aeolian	Dorian #4
triad tones	dimin. 7-2-4	augmented b3-5-7	major b6-1-b3	dimin. 2-4-b6	major 5-7-2	minor 1-b3-5	minor 4-b6-1
seventh tones	7 7-2-4-b6	ma7#5 b3-5-7-2	ma7 b6-1-b3-5	m7b5 2-4-b6-1	7 5-7-2-4	m(ma7) 1-b3-5-7	m7 4-b6-1-b3
ninth tones	not acceptable	ma9#5 b3-5-7-2-4	not acceptable	not acceptable	7b9 5-7-2-4-b6	m9(ma7) 1-b3-5-7-2	m9 4-b6-1-b3-5
secondary dominant	n/a	7, 7#5 or 9	7 or 7#9	7, 7#5 or 7b9	7#9 or 7#5	7, 7#5, 9 or 7#9	7, 9, 7#9 or 7#11
key of A#m	G##dim	C# aug	F#	B#dim.	E#	A#m	D#m
key of D#m	C## dim	F# aug	B	E#dim.	A#	D#m	G#m
key of G#m	F## dim	B aug	E	A#dim.	D#	G#m	C#m
key of C#m	B# dim	E aug	A	D#dim	G#	C#m	F#m
key of F#m	E# dim	A aug	D	G#dim.	C#	F#m	Bm
key of Bm	A# dim	D aug	G	C#dim.	F#	Bm	Em
key of Em	D# dim	G aug	C	F#dim.	B	Em	Am
key of Am	G#dim	C aug	F	Bdim.	E	Am	Dm
key of Dm	C# dim	F aug	Bb	Edim.	A	Dm	Gm
key of Gm	F# dim	Bb aug	Eb	Adim.	D	Gm	Cm
key of Cm	B dim	Eb aug	Ab	Ddim.	G	Cm	Fm
key of Fm	E dim	Ab aug	Db	Gdim.	C	Fm	Bbm
key of Bbm	A dim	Db aug	Gb	Cdim.	F	Bbm	Ebm
key of Ebm	D dim	Gb aug	Cb	Fdim.	Bb	Ebm	Abm
key of Abm	G dim	Cb aug	Fb	Bbdim.	Eb	Abm	Dbm

Melodic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	b3	4	5	6	7
mode	melodic minor	Dorian b2	Phrygian b1	Lydian dominant	Mixolydian b6	Aeolian b5	super Locrian
triad tones	minor 1-b3-5	minor 2-4-6	augmented b3-5-7	major 4-6-1	major 5-7-2	diminished 6-1-3	diminished 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7 2-4-6-1	ma7#5 b3-5-7-2	7 4-6-1-b3	7 5-7-2-4	m7b5 6-1-3-5	7#5, 7b5 or m7b5 7-2 or b3 -4-6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7-2-4	9 4-6-1-b3-5	9 5-7-2-4-6	m9b5 6-1-b3-5-7	9b5, 9#5 7-b3-4 or 5-6
secondary dominant	7 or 9	7 9 or 7#9	7, 7#5 or 9	7 or 9	7, 7#5 or 7#9	7b5 9 or 7#9	7 with b5, #5, b9 or #9
key of C#m	C#	D#m	E aug	F#	G#	A# dim	B#dim
key of F#m	F#	G#m	A aug	B	C#	D# dim	E#dim.
key of Bm	B	C#m	D aug	E	F#	G# dim	A#dim
key of Em	E	F#m	G aug	A	B	C# dim	D#dim
key of Am	A	Bm	C aug	D	E	F# dim	G#dim.
key of Dm	D	Em	F aug	G	A	B dim	C#dim.
key of Gm	G	Am	Bb aug	C	D	E dim	F#dim.
key of Cm	C	Dm	Eb aug	F	G	A dim	Bdim.
key of Fm	F	Gm	Ab aug	Bb	C	D dim	Edim.
key of Bbm	Bb	Cm	Db aug	Eb	F	G dim	Adim.
key of Ebm	Eb	Fm	Gb aug	Ab	Bb	C dim	Ddim.
key of Abm	Ab	Bbm	Cb aug	Db	Eb	F dim	Gdim.
key of Dbm	Db	Ebm	Fb aug	Gb	Ab	Bb dim	Cdim.
key of Gbm	Gb	Abm	Bbb aug	Cb	Db	Eb dim	Fdim.
key of Cbm	Cb	Dbm	Ebb aug	Fb	Gb	Abm	Bbdim.

ascending root progression in fourths

	7	b3	6	2	5	1	4
mode	Locrian	Phrygian b1	Aeolian b5	Dorian b2	Mixolydian b6	melodic minor	Lydian
triad tones	dimin. 7-2-4	aug- mented b3-5-7	dimin- ished 6-1-3	minor 2-4-6	major 5-7-2	minor 1-b3-5	major 4-6-1
seventh tones	m7b5 7-2-4-6	ma7#5 b3-5-7-2	m7b5 6-1-3-5	m7 2-4-6-1	7 5-7-2-4	m(ma7) 1-b3-5-7	ma7 4-6-1-3
ninth tones	not acceptable	ma9#5 b3-5-7- 2-4	m9b5 6-1-b3- 5-7	not acceptable	9 5-7-2-4-6	m9(ma7) 1-b3-5-7-2	ma7 4-6-1-3-5
secondary dominant	7 or 7b9	7, 7#5 or 9	7b5 9 or 7#9	7 9 or 7#9	7, 7#5 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E aug	A# dim	D#m	G#	C#	F#
key of F#	E#dim.	A aug	D# dim	G#m	C#	F#	B
key of B	A#dim	D aug	G# dim	C#m	F#	B	E
key of E	D#dim	G aug	C# dim	F#m	B	E	A
key of A	G#dim.	C aug	F# dim	Bm	E	A	D
key of D	C#dim.	F aug	B dim	Em	A	D	G
key of G	F#dim.	Bb aug	E dim	Am	D	G	C
key of C	Bdim.	Eb aug	A dim	Dm	G	C	F
key of F	Edim.	Ab aug	D dim	Gm	C	F	Bb
key of Bb	Adim.	Db aug	G dim	Cm	F	Bb	Eb
key of Eb	Ddim.	Gb aug	C dim	Fm	Bb	Eb	Ab
key of Ab	Gdim.	Cb aug	F dim	Bbm	Eb	Ab	Db
key of Db	Cdim.	Fb aug	Bbm	Ebm	Ab	Db	Gb
key of Gb	Fdim.	Bbb aug	Ebm	Abm	Db	Gb	Cb
key of Cb	Bbdim.	Ebb aug	Abm	Dbm	Gb	Cb	Fb

Harmonic Major Scale-Tone Triads, Sevenths and Ninths in All Keys

stepwise root movement

	1	2	3	4	5	b6	7
mode	major b6	Dorian b5	super Phrygian	Lydian dimin- ished	Mixolydian b2	Aeolian b1	Locrian bb7
triad tones	major 1-3-5 or aug. 1-3-b6	dimin- ished 2-4-b6	minor 3-5-7 or aug. 3-b6-1	minor 4-b6-1 or dim. 4-b6-7	major 5-7-2	augmented b6-1-3 or dim b6-7-2	dimin- ished 7-2-4
seventh tones	ma7 1-3-5-7	m7b5 2-4-b6-1 or dim7 2-4-b6-7	m7 3-5-7-2	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2	7 5-7-2-4	ma7 b6-1-3-#5 or dim7 b6-7-2-4	dim. 7 7-2-4-b6
ninth tones	ma9 1-3-5-7-2	m9b5 2-4-b6- 7 or 1-3	not acceptable	m9(ma7) 4-b6-1-3-5	7b9 5-7-2-4- b6	not acceptable	not acceptable
secondary dominant	7 or 9	7b5 or 9b5	7 or 7b9	7 or 9	7b9 or 7#9	7, 7#5, 9 or 7#9	7 or 7b9
key of C#	C#	D# dim	E#m	F#m	G#	A aug or dim	B#dim
key of F#	F#	G# dim	A#m	Bm	C#	D aug or dim	E#dim.
key of B	B	C# dim	D#m	Em	F#	G aug or dim	A#dim
key of E	E	F# dim	G#m	Am	B	C aug or dim	D#dim
key of A	A	B dim	C#m	Dm	E	F aug or dim	G#dim.
key of D	D	E dim	F#m	Gm	A	Bb aug or dim	C#dim.
key of G	G	A dim	Bm	Cm	D	Eb aug or dim	F#dim.
key of C	C	D dim	Em	Fm	G	Ab aug or dim	Bdim.
key of F	F	G dim	Am	Bbm	C	Db aug or dim	Edim.
key of Bb	Bb	C dim	Dm	Ebm	F	Gb aug or dim	Adim.
key of Eb	Eb	F dim	Gm	Abm	Bb	Cb aug or dim	Ddim.
key of Ab	Ab	Bb dim	Cm	Dbm	Eb	Fb aug or dim	Gdim.
key of Db	Db	Eb dim	Fm	Gbm	Ab	Bbb aug or dim	Cdim.
key of Gb	Gb	Ab dim	Bbm	Cbm	Db	Ebb aug or dim	Fdim.
key of Cb	Cb	Db dim	Ebm	Fbm	Gb	Abb aug or dim	Bbdim.

ascending root progression in fourths

	7	3	b6	2	5	1	4
mode	Locrian bb7	super Phrygian	Aeolian b1	Dorian b5	Mixolydian b2	major b6	Lydian dimin- ished
triad tones	dimin- ished 7-2-4	minor 3-5-7 or aug. 3-b6-1	augmented b6-1-3 or dim b6-7-2	dimin- ished 2-4-b6	major 5-7-2	major 1-3-5 or aug. 1-3-b6	minor 4-b6-1 or dim. 4-b6-7
seventh tones	dim. 7 7-2-4-b6	m7 3-5-7-2	ma7 b6-1-3-#5 or dim7 b6-7-2-4	m7b5 2-4-b6-1 or dim7 2-4-b6-7	7 5-7-2-4	ma7 1-3-5-7	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2
ninth tones	not acceptable	not acceptable	not acceptable	m9b5 2-4-b6- 7 or 1-3	7b9 5-7-2-4- b6	ma9 1-3-5-7-2	m9(ma7) 4-b6-1-3-5
secondary dominant	7 or 7b9	7 or 7b9	7, 7#5, 9 or 7#9	7b5 or 9b5	7b9 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E#m	A aug or dim	D# dim	G#	C#	F#m
key of F#	E#dim.	A#m	D aug or dim	G# dim	C#	F#	Bm
key of B	A#dim	D#m	G aug or dim	C# dim	F#	B	Em
key of E	D#dim	G#m	C aug or dim	F# dim	B	E	Am
key of A	G#dim.	C#m	F aug or dim	B dim	E	A	Dm
key of D	C#dim.	F#m	Bb aug or dim	E dim	A	D	Gm
key of G	F#dim.	Bm	Eb aug or dim	A dim	D	G	Cm
key of C	Bdim.	Em	Ab aug or dim	D dim	G	C	Fm
key of F	Edim.	Am	Db aug or dim	G dim	C	F	Bbm
key of Bb	Adim.	Dm	Gb aug or dim	C dim	F	Bb	Ebm
key of Eb	Ddim.	Gm	Cb aug or dim	F dim	Bb	Eb	Abm
key of Ab	Gdim.	Cm	Fb aug or dim	Bb dim	Eb	Ab	Dbm
key of Db	Cdim.	Fm	Bbb aug or dim	Eb dim	Ab	Db	Gbm
key of Gb	Fdim.	Bbm	Ebb aug or dim	Ab dim	Db	Gb	Cbm
key of Cb	Bbdim.	Ebm	Abb aug or dim	Db dim	Gb	Cb	Fbm

Using the 7-3-6-2-5-1-4 Series

Major scale-tone chords with their roots ascending in perfect fourths use the number series 7-3-6-2-5-1-4. Major scale-tone seventh chords for Bb major are shown below with their roots ascending in perfect fourths. Note that the cycle continues through both rows.

VIIIm7b5 Am7b5 X b5 b7 b7 1	IIIIm7 Dm7 X 1 b7 b3 5	VIIm7 Gm7 VIII 5 b3 b7 1	IIIm7 Cm7 VIII 1 b7 b3 5	V7 F7 VI 5 3 b7 1	IIma7 Bbma7 VI 1 7 3 5	IVma7 Ebma7 IV 5 3 7 1
v						
VIIIm7b5 Am7b5 IV 1 b7 b3 b5	IIIIm7 Dm7 III 5 b3 b7 1	VIIm7 Gm7 III 1 b7 b3 5	IIIm7 Cm7 I 5 b3 b7 1	V7 F7 I 1 b7 3 5	IIma7 Bbma7 I 1 5 7 3	IVma7 Ebma7 I 3 1 5 7

II-V-I Turnarounds For All Seven Major Scale-Tone Chords

At times, you may find it useful to think in different contexts for all of the chords in the cadence in terms of (1) the parent scale, (2) altered parent scale for the V chord, (3) the chord scale for the dominant V mode, (4) the unaltered II-V of the target chord and (5) the altered II-V of the target chord. The unaltered parent scale for all of the chords in the table below is I major.

target	VIIIm11b5b9	IIIIm11b9	VIIm9	IIIm9	V9	IIma9	IVma9
seventh tones of parent	7246	3572	6135	2461	5724	1357	4613
unaltered V of	IVma9	VIIIm7b5 (VIIIm11b5b9)	IIIm7 (m11b9)	VIIm9	IIIm9	V9	IIma9
dominant V of	IV9	VII#5#9	III7b9	VI9	II9	V9	I9
altered parent scale	I major b3 (mel. min)	I major b3 (mel. min)	I major #5 or I major b6	I major #1*	I major #4	no change	I major b7
dominant V mode	IV Lydian dominant	VII super Locrian	III Phry. dom. or III super Phry.	VI Aeolian dominant	II Mixolydian (II mel. minor)	V Mixo.	I Mixo
unaltered II V of	IIma9-IVma9	IVma9-VIIIm11b5b9	VIIIm11b5b9 IIIIm11b9	IIIIm11b9-VIIm9	VIIm9-IIIm9	IIIm9-V9	V9-IIma9
II-dominant V of target	IIma7-IV9(13#11)	IVma9-VII#5#9	VIIIm11b5b9 III7b9	IIIIm11b9-VI9	VIIm9-II9	IIIm9-V9	V9-I9

BACK CYCLING WITH DOMINANT SEVENTHS

"Back-Cycling" Defined

Back-cycling is planning a series of chords in a series with a target in mind. It is most often a series of chords with their roots ascending in perfect fourths. Perfect fourths use the major scale number cycle 7362514. Extending perfect fourths beyond the scope of the major scale produces the longer series #4-7-3-6-2-5-1-4-b7-b3-b6-b2-b5. Perfect fourths use the major scale letter cycle BEADGCF (bead go-catch-fish). Extending the letter cycle beyond the scope of the major scale produces the series B#-E#-A#-D#-G#-C#-F#-B-E-A-D-G-C-F-Bb-Eb-Ab-Db-Gb-Cb-Fb.

The 12-Chord Cycle of Dominant Sevenths in C

notice that the notes on the third string descend chromatically.

#IV7 F#7 XIV 	VII7 B7 XIII 	III7 E7 XII 	VI7 A7 XI 	II7 D7 X 	V7 G7 IX 	continued below
I7 C7 VIII 	IV7 F7 VII 	bVII7 Bb7 VI 	bIII7 Eb7 V 	bVI7 Ab7 IV 	bII7 Db7 III 	bV7 Gb7 II

notice that the notes on the second string descend chromatically.

#IV7 F#7 XV 	VII7 B7 XIV 	III7 E7 XIII 	VI7 A7 XII 	II7 D7 XI 	V7 G7 X 	continued below
I7 C7 IX 	IV7 F7 VIII 	bVII7 Bb7 VII 	bIII7 Eb7 VI 	bVI7 Ab7 V 	bII7 Db7 IV 	bV7 Gb7 III

Flat Five Substitutes

A flat five substitute uses a bII of a target, instead of a V of target. See [Substitution](#)/Flat Five Substitute.

When chords progress with their roots ascending in perfect fourths, each chord can be considered the fifth of the next chord. With Dm7-G7-Cma7 in the key of C, for example, G7 is the V7 chord. A flat five substitute for G7 would be Db7, making the replacement chord (Db7) a flattened second of the chord it precedes. Db7 is a bII7 of C.

In the longer progression Em7b5-A7-Dm7-G7-Cma7, where A7 is V7 of Dm7 and G7 is V7 of Cma7, A7 could have the flat five substitute Eb7 and G7 could have the flat five substitute Db7, making Em7b5-Eb7-Dm7-Db7-Cma7.

Targeting a Chord

the 12-note cycle of ascending perfect fourth progression

The order of ascending fourths with, the major scale is 7-3-6-2-5-1-4. Extending perfect fourths to include all chromatic notes creates the cycle #IV-VII-III-VI-II-V-I-IV-bVII-bIII-bVI-bII-bV. Since the thirteenth root, flat five (b5), is equal to the first root , sharp four (#4), flat five (bV) can be replaced with sharp four (#IV) and repeat the series cyclically.

the cycles of flat five substitutes the 12-note ascending perfect fourth progression

There are two series of flat five substitute target roots, “#4-3-2-1-b7-b6-5” and “4-b3-b2-7-6-5”, as shown on the table below. When the flat five substitutes are added between the target roots, a chromatic progression is produced. Any one of the target roots could be used as a key.

In the gray “#4-3-2-1-b7-b6-5” root progression, the white series of seventh chord flat five substitutes between them are “7-6-5-4-b3-b2” as you can see on the third row below.

In the white “4-b3-b2-7-6-5” root progression in the fourth row below, the gray series of seventh chord flat five substitutes that precede them are “b5-3-2-1-b7-b6” as you can see on the fifth row below (b5=#4).

original	#IV	VII	III	VI	II	V	I	IV	bVII	bIII	bVI	bII	bV
#4-3-2-1-b7-b6-5 targets	I		bVII		bVI		bV		III		II		I
	I	VII7	bVII	VI7	bVI	V7	bV	IV7	III	bIII7	II	bII7	I
4-b3-b2-7-6-5 targets		IV		bIII		bII		VII		VI		V	
	bV7	IV	III7	bIII	II7	bII	I7	VII	bVII7	VI	bVI7	V	bV7

Autumn Leaves example in fourths with flat five substitutes

Each of the target chords named above the staff (except not the D7 in bar six) is treated as a target. Three chords are used to setup for each target chord by back-cycling, using four roots in perfect fourths with the target as the fourth chord.

Autumn Leaves in fourths with flat five substitutes - [click to play](#)

Am7(b5) Dm7 G7(#9) Cm7 Cm7 Cm7 F9 Gm7 Cm7 B7 Bbmaj7 Bbmaj7 Ebmaj7 F9 Bbmaj7 Ebmaj7

1 2 3 4

b5 sub. for F7

5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 98

Blues in G with back-cycled sevenths in fourths

videotab

Swing Eighthths

♩ = 110

Measure 1: G⁷ Ab⁷ Db⁷ C⁷ (3) G⁷ C Cm G Ab⁷ G⁷ Db⁷

Measure 2: bVI bII of target "C" bII of target "G" bII of target "G"

Measure 3: 5 C⁷ (3) F⁷ Bb⁷ Eb⁷ Ab⁷ G⁷ C⁷ F⁷ E⁷

Measure 4: bVII bIII bVI bII of target "G" V of target "F" bII of target "E"

Measure 5: 9 Am⁹ Eb⁷ D⁷ Ab⁷ G⁷ F⁷ E⁷ Bb⁷ A⁷ Eb⁷ D⁷ Ab⁷ G⁷

Measure 6: bII of target "D" bII of target "G" bII of target "E" bII of target "A" bII of target "D" bII of target "G"

MULTI-KEY II-V CADENCES IN REPERTOIRE

Joe Pass and Wes Montgomery were my earliest inspirations for this [globabization](#). Extended cadences in fourths with [flat five substitutes](#) and stand-alone II-V chord changes would not be easily understood if played along with another chord progression and another bass line. They need to be used alone, not simultaneously with another chord progression, unless the second progression was composed to be made compatible. For that reason, they are used in solo guitar, such as Joe Pass style or in composition.

Joe Pass used them extensively in his solo guitar performances and when he accompanied Ella Fitzgerald. He used dominant chords with their roots progressing in perfect fourths as connective filler.

II-V is sometimes used as a stand-alone pair of chords without progressing to "I". Here's a list of songs in which they were used as part of the composition:

- 1931 - Just Friends (John Klenner, lyrics by Sam M. Lewis)
- 1943 - Speak Low, bars 9-12 (Kurt Weill)
- 1944 - Round Midnight (Thelonius Monk)
- 1945 - Groovin' High (Dizzy Gillespie)
- 1946 - Tenderly (Walter Gross)
- 1954 - Four (Miles Davis)
- 1955 - Joy Spring (Clifford Brown)
- 1956 - When Sunny Gets Blue (Marvin Fisher and Jack Segal)
- 1960 - West Coast Blues (Wes Montgomery)
- 1960 - Meditation (Antonio Carlos Jobim)
- 1960 - Four on Six (Wes Montgomery)
- 1964 - Girl from Ipanema, B section (Antonio Carlos Jobim)
- 1965 - Ceora (Lee Morgan)
- 1967 - Wave (Antonio Carlos Jobim)
- 1968 - Road Song, bar four of the B section (Wes Montgomery)
- 1973 - Valdez in The Country (Donny Hathaway)
- 1976 - Knocks Me off My Feet (Stevie Wonder)
- 1976 - Ordinary Pain (Stevie Wonder)

BACK-CYCLING WITH II V PAIRS

Use the IIm-V part of cadences shown in [Voice Leading/II-V-I Top Voice Leading](#). Tend to use the voicings with the root in the bass.

Back Cycling is Different with IIm V Pairs

Back-cycling is planning a series of chords in a series with a target in mind. It is more straight-forward when used in fourths. See [Back Cycling with Dominant Sevenths](#).

Voice Leading the Bass According to the II Chord

IIm-V pairs commonly voice-lead stepwise or chromatically down from the IIm chord of the IIm-V pair to a target IIm type chord, such as IIm7. This is commonly IIm V starting on IIIIm to setup the progression to II minor, or as IIIIm-VI7-bIIIIm-bVI to II minor. See [Jazz Bass Harmonization/Dorian Harmonized Bass Scale](#).

Voice Leading the Bass According to the V Chord

IIm-V pairs also voice-lead chromatically down from the V chord of the IIm V pair to a target dominant chord. See [Jazz Bass Harmonization/Mixolydian Harmonized Bass Scale](#).

bIIm7-bV7 to IV7

By using a flat five substitute for the V chord in a IIm-V pair, the pair becomes IIm7-bII7. See [Substitution/Flat Five Substitute](#).

I-VIm-IIIm-V example - **videotab**

♩ = 125

Swing Eighths

1 Bbmaj7 2 Gm7 3 Cm7 4 F9

5 Dm7 6 G9 7 Cm7 8 F9

9 Bbmaj7 10 Gm7 11 Cm7 12 F9

13 Dm7 14 Dm7 G9 15 Dbm7 Gb9 16 Cm7 17 F9 18 Db7 19 C7 20 Cb7 21 Bbmaj7

IIIm7 of C target V9 of C target

II V of C II V of Cb bII of C II of Bb bII of Bb

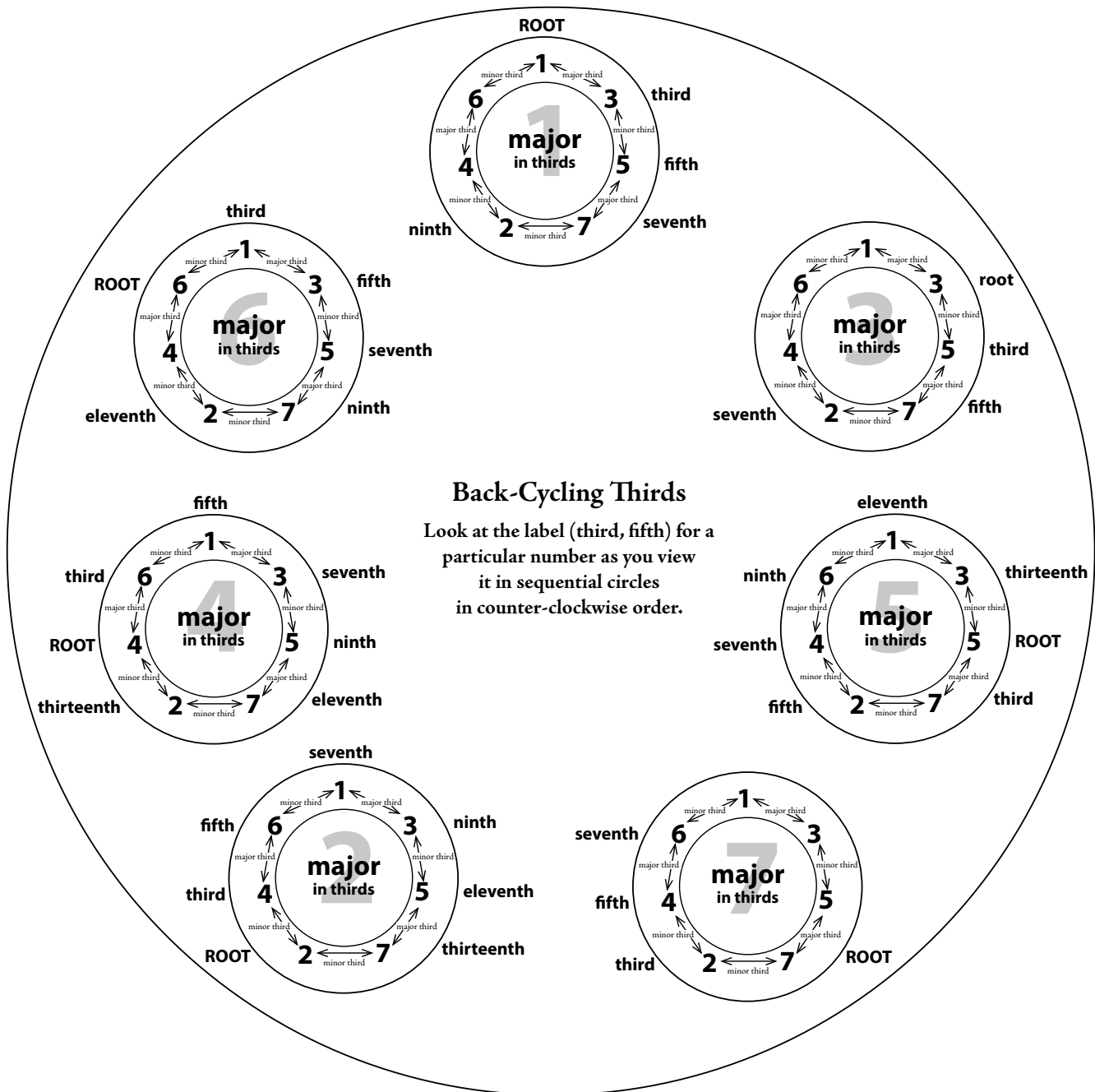
BACK CYCLING THIRDS

Finding the Harmonic Roles of a Particular Scale Tone

To voice lead melodic tones on a chord progression, you need to recognize when a tone is in a chord and which chord tone it is (root, fifth, etc.). Learn to do this by “back-cycling thirds”, shown below.

back-cycling thirds in the major scale

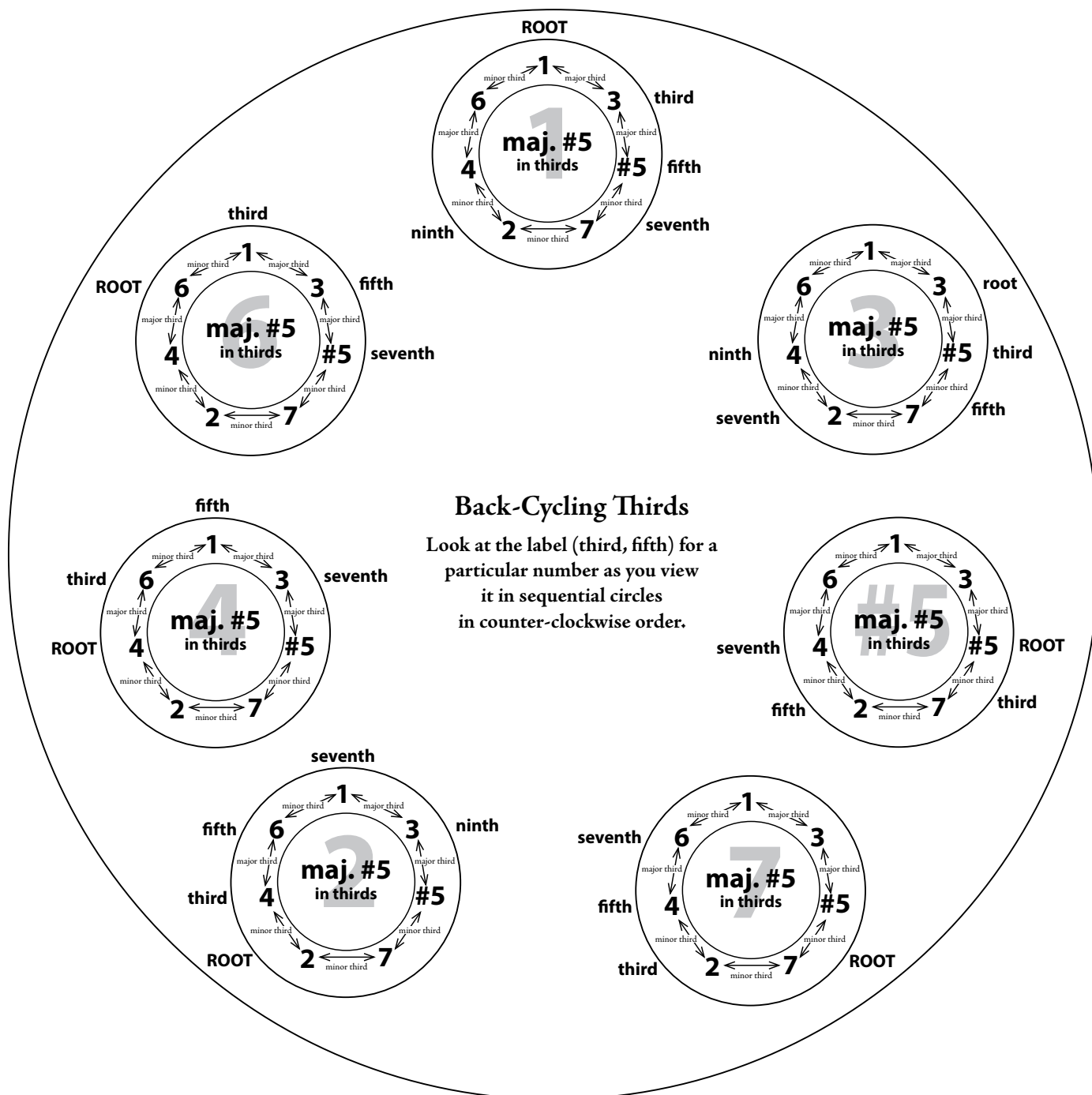
triad..... I major II minor..... III minor IV major V major VI minor VII dimin.
 seventh chord Ima7 IIIm7 IVma7 V7 VIIm7 VIIIm7b5
 ninth chord Ima9 IIIm9 no chord IVma9 V9 VIIm9 no chord



back-cycling thirds in the major sharp five and harmonic minor scale

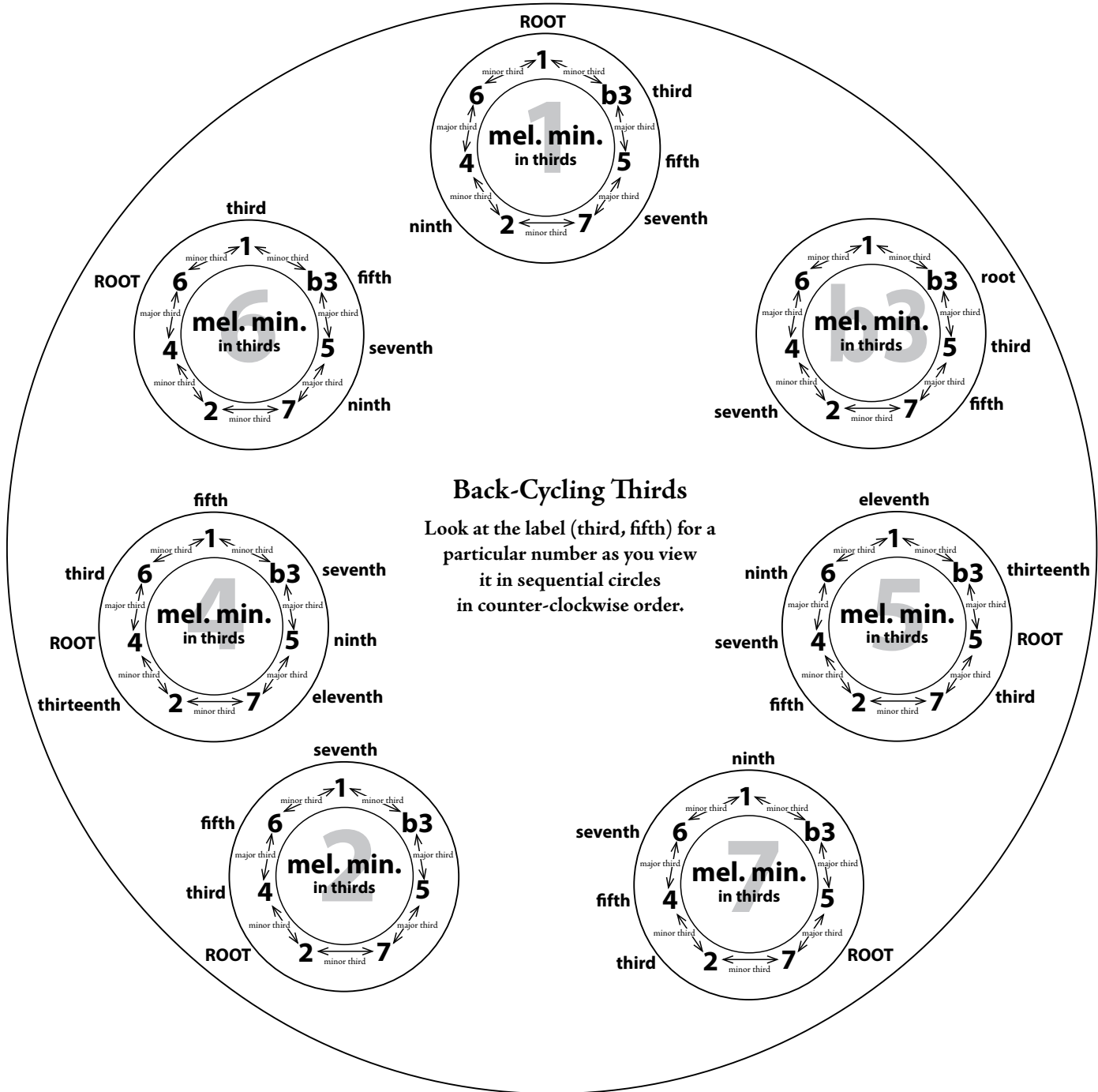
Harmonic minor is a mode of major sharp five scale as you can see in this table:

mode names	major #5	Dorian #4	Phryg. dom.	Lydian #2	Mixo. #1	Aeolian nat.7	Locrian nat.6
major #5 scale tones	I	II	III	IV	#V	VI	VII
I major #5 chords	I _{ma} 9#5	II _m 13#11	III ₇ b9(/11)b13	IV _{ma} 7/6(#11)	#V _{dim} 7	VI _m 9(ma7)	VII _m 7b5(/11)
C ma#5 chords	C _{ma} 9/6#5	D _m 13#11	E ₇ b9(/11)b13	F _{ma} 7/6(#11)		A _m 9(ma7)	B _m 7b5(/11)
harmonic minor tones	bIII	IV	V	bVI	VII	I	II
VI har. min. chords	bIII _{ma} 9#5	IV _m 13#11	V ₇ b9(/11)b13	bVI _{ma} 7/6(#11)	VII _{dim} 7	I _m 9(ma7)	II _m 7b5(/11)
A harmonic minor chords	C _{ma} 9/6#5	D _m 13#11	E ₇ b9(/11)b13	F _{ma} 7/6(#11)		A _m 9(ma7)	B _m 7b5(/11)



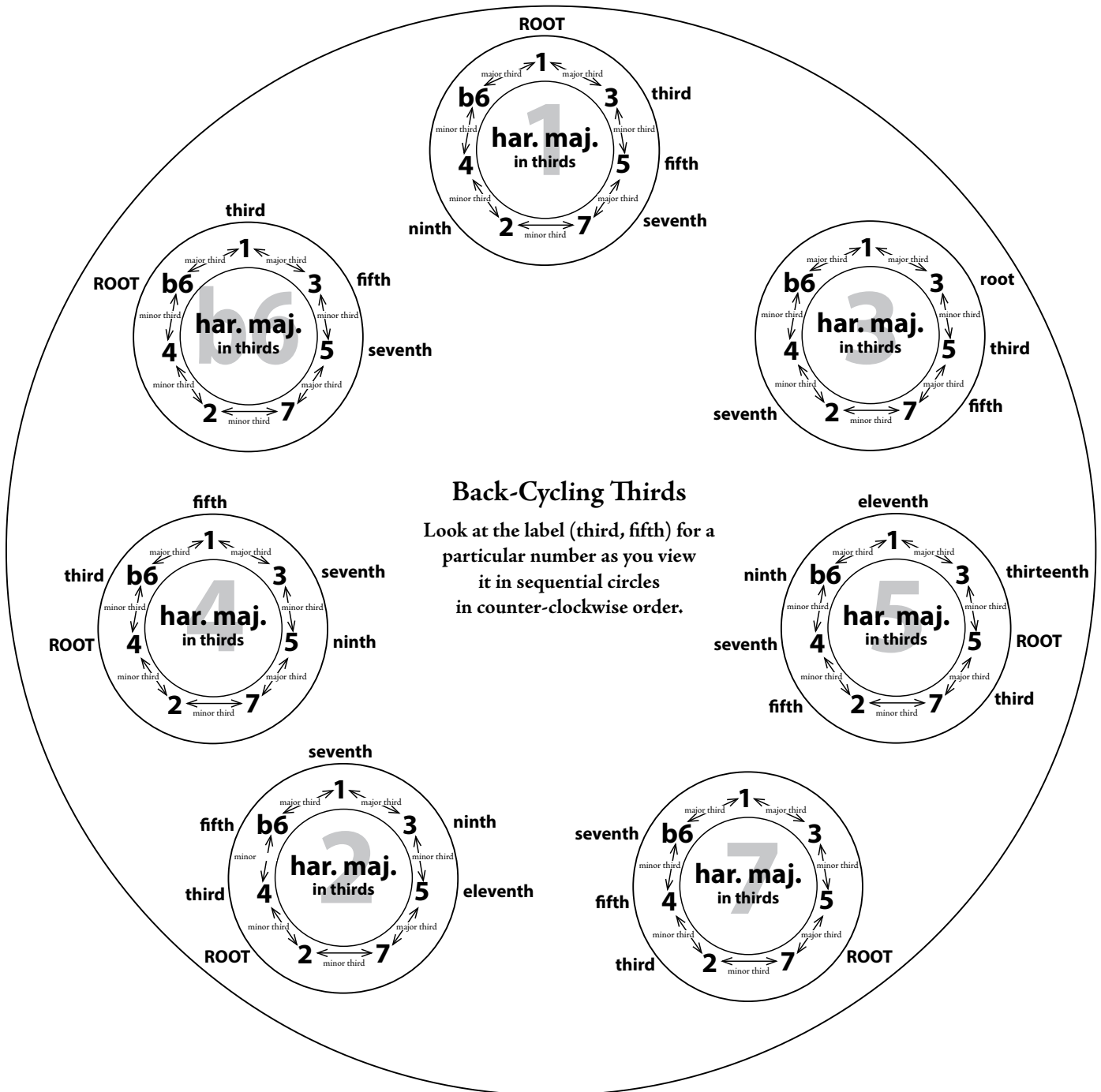
back-cycling thirds in the melodic minor scale

triad..... I minor..... II minor..... bIII aug..... IV major..... V major..... VI dim..... VII dim.
 seventh chord Im(ma7) IIIm7..... bIIIIma7#5..... IV7..... V7..... VIIm7b5..... VIIIm7b5
 ninth chord Im9(ma7) IIIm9..... bIIIIma9#5..... IV9..... V9..... VIIm9b5..... VII7#5b5#9b9



back-cycling thirds in the harmonic major scale

triad..... I major II dim. III minor IV major V major bVI aug. VII dim.
 seventh chord Ima7 IIIm7b5 IIIm7 IVm(ma7) V7 bVIma7#5 VIIIm7b5
 ninth chord Ima9 IIIm9b5 no chord IVm9(ma7) V9 no chord no chord



Learn About Applications of Back Cycling Thirds

See [Pedal Point Chord Progression](#)/Other Pedal Point Triad Progression/[Finding the Harmonic Roles of a Particular Scale Tone](#). Also see [Top-Voice-Leading Cadences in Song Progressions](#)/Heptatonic Voice Leading.

Top-Voice-Leading Cadences in Song Progressions

- **What is Top-Voice Leading?**
- **Heptatonic Voice Leading**
- **Dominant Chords in Fourths with Flat Five Substitutes**
- **Top-Voice-Lead Any Chord with Any Key Tone**
- **Fingering Any Chromatic Top Voice with Any Chromatic Root**
- **Top Voice Sequences on 7-3-6-2-5-1-4**
- **Minor Pentatonic Top Voice**
- **Major Pentatonic Top Voice**

Top Voice Examples

- **II-V-I Cadences in I-IV-V Major Key Blues**
- **II-V-I Cadences in I-IV-V Minor Key Blues**
- **I-VI-II-V Cadences**
- **II-V-I Cadences on I-VI-II-V**
- **II-V-I Cadences in Jazz Blues**
- **II-V-I Cadences in Minor Key Songs**
- **II-V-I Cadences in Songs with Multiple II-V-I**
- **II-V-I Cadences in Songs with Quasi-Diatonic Progression**

WHAT IS TOP-VOICE LEADING?

Chords with similar numbers of notes can be thought of as voices, as in a vocal or instrumental ensemble. A melodic line made from the series of the top note from each chord makes the soprano part or the “top voice” part. A melodic line made from the series of the bottom note from each chord makes the bass part. In four-voice harmony, the next to bottom note is the alto and the next to the top notes is the tenor.

The most prominent voice is usually the soprano, or top voice. Learn to voice chords so they make a melody with their series of top voice notes, sometimes doubling the main melody of the song or creating a counter melody.

HEPTATONIC VOICE LEADING

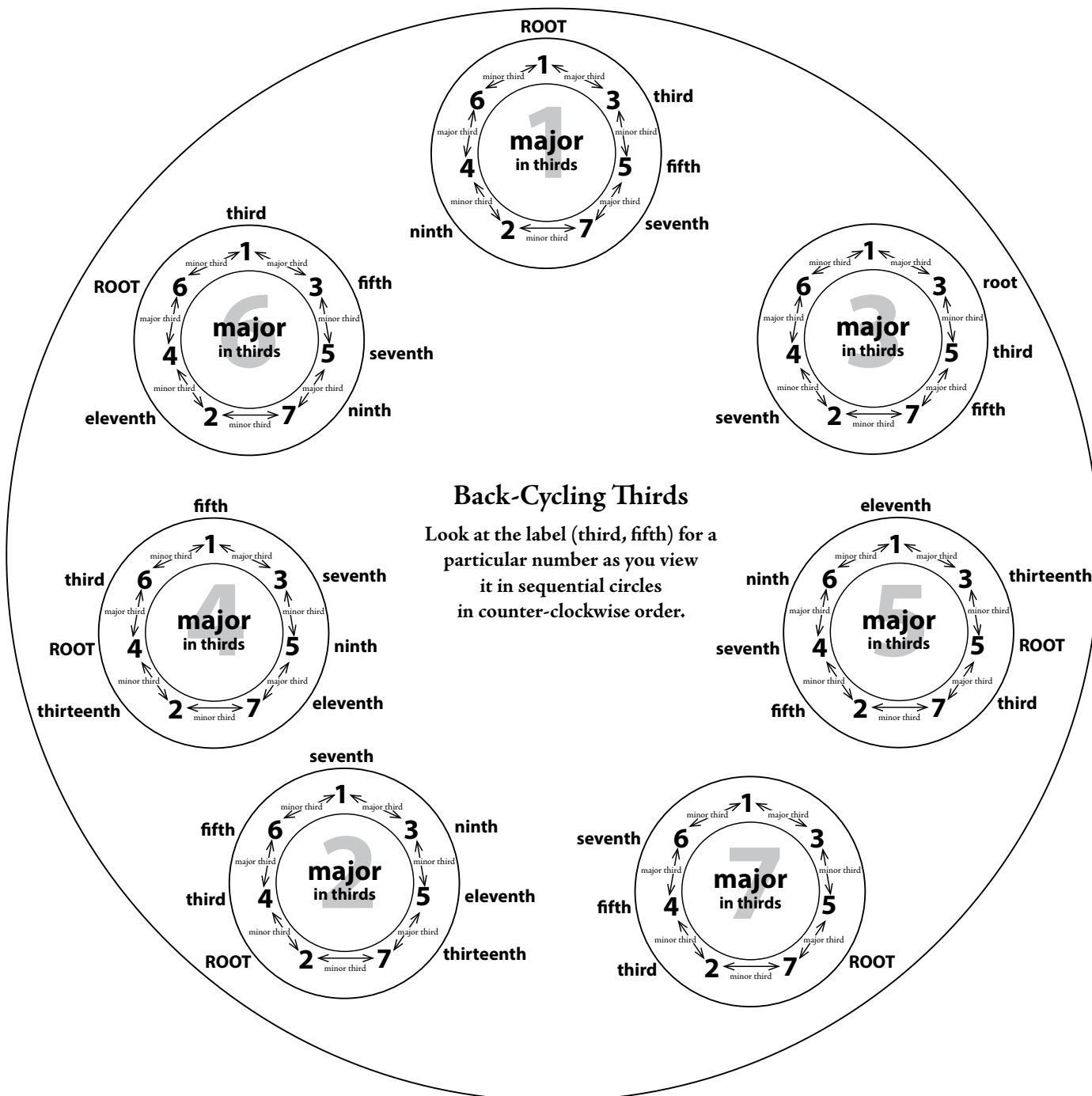
To voice lead melodic tones on a chord progression, you need to recognize when a tone is in a chord and which chord tone it is (root, fifth, etc.). Learn to do this by “back-cycling thirds”, shown below.

back-cycling thirds in the major scale

triad..... I major II minor..... III minor IV major V major..... VI minor VII dimin.

seventh chord Ima7 IIIm7..... IIIIm7 IVma7..... V7..... VIIm7 VIIIm7b5

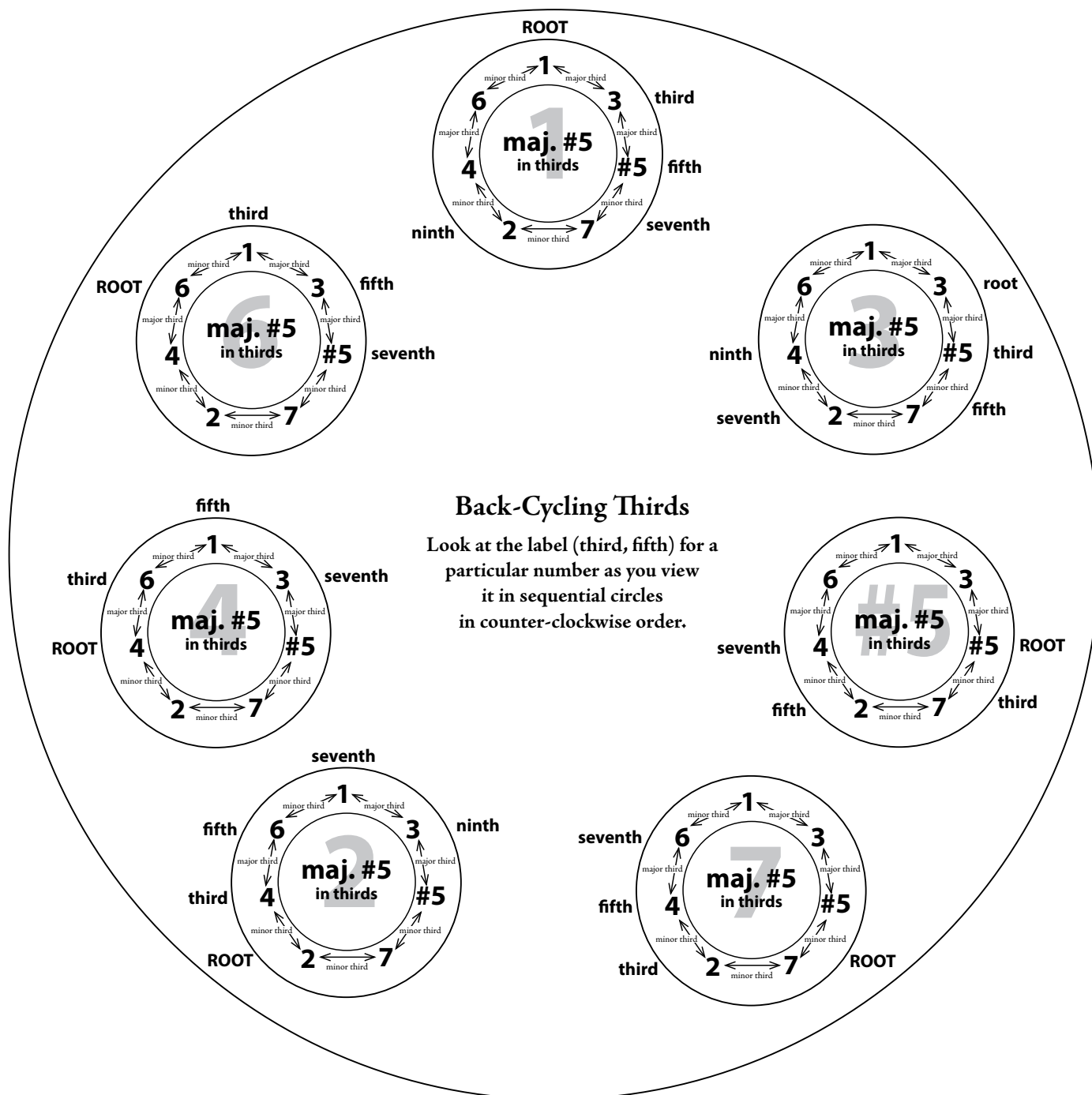
ninth chord Ima9 IIIm9..... no chord IVma9..... V9..... VIIm9 no chord



back-cycling thirds in the major sharp five and harmonic minor scale

Harmonic minor is a mode of major sharp five scale as you can see in this table:

mode names	major #5	Dorian #4	Phryg. dom.	Lydian #2	Mixo. #1	Aeolian nat.7	Locrian nat.6
major #5 scale tones	I	II	III	IV	#V	VI	VII
I major #5 chords	I _{ma} 9#5	II _m 13#11	III ₇ b9(/11)b13	IV _{ma} 7/6(#11)	#V _{dim} 7	VI _m 9(ma7)	VII _m 7b5(/11)
C ma#5 chords	C _{ma} 9/6#5	D _m 13#11	E ₇ b9(/11)b13	F _{ma} 7/6(#11)		A _m 9(ma7)	B _m 7b5(/11)
harmonic minor tones	bIII	IV	V	bVI	VII	I	II
VI har. min. chords	bIII _{ma} 9#5	IV _m 13#11	V ₇ b9(/11)b13	bVI _{ma} 7/6(#11)	VII _{dim} 7	I _m 9(ma7)	II _m 7b5(/11)
A harmonic minor chords	C _{ma} 9/6#5	D _m 13#11	E ₇ b9(/11)b13	F _{ma} 7/6(#11)		A _m 9(ma7)	B _m 7b5(/11)

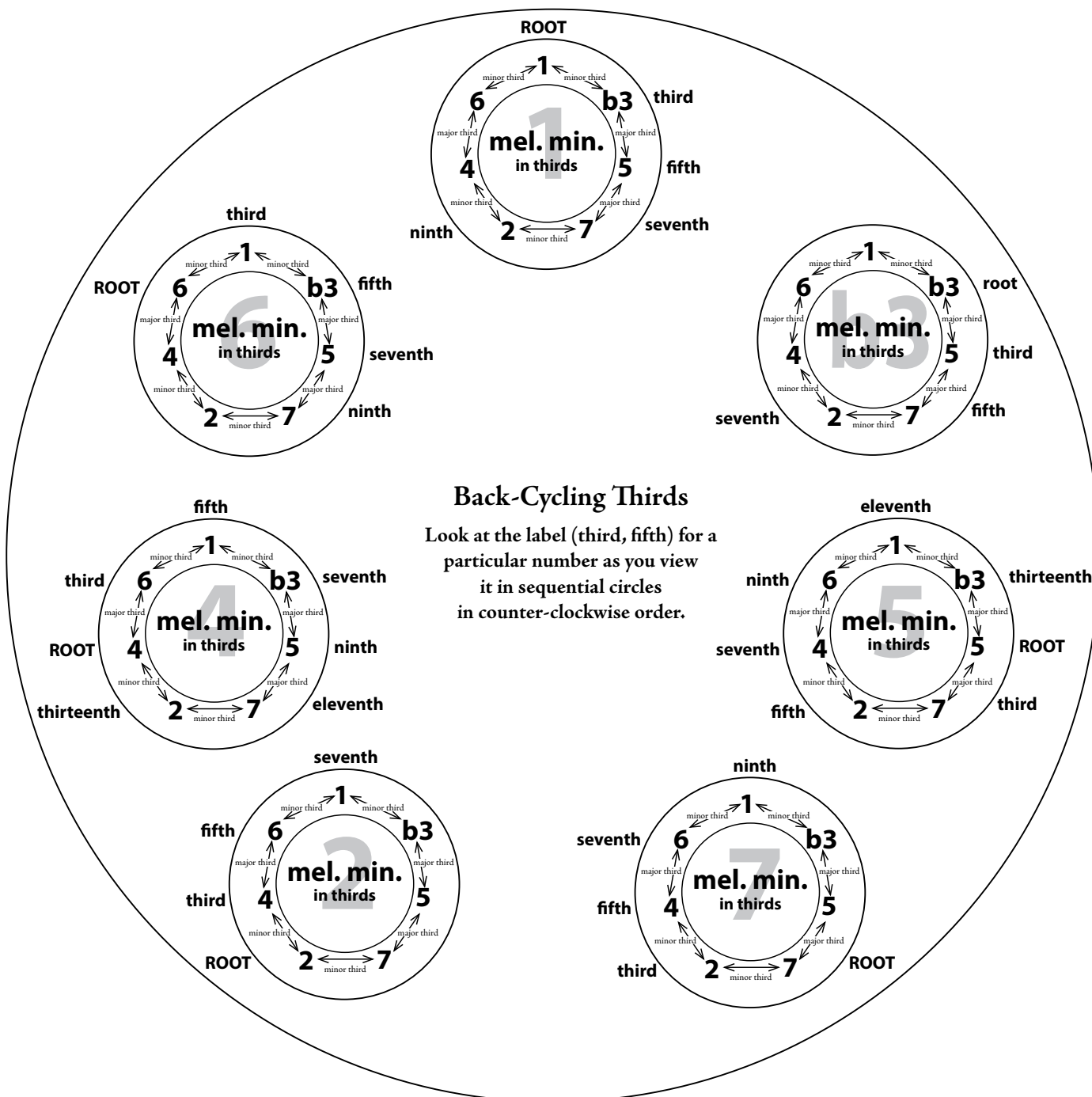


back-cycling thirds in the melodic minor scale

triad..... I minor..... II minor..... bIII aug..... IV major..... V major..... VI dim..... VII dim.

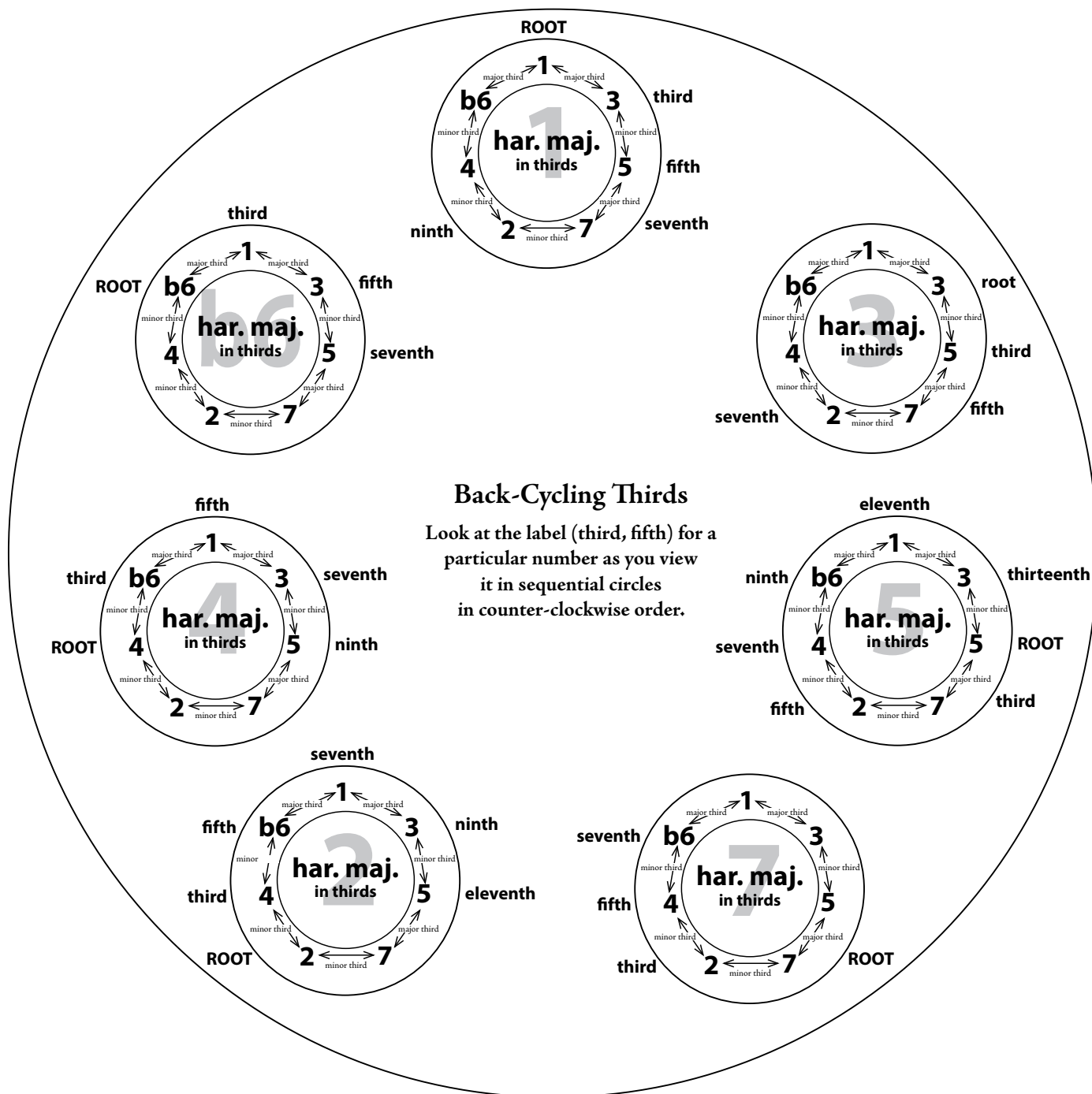
seventh chord Im(ma7) IIIm7..... bIIIIma7#5..... IV7..... V7..... VIIm7b5..... VIIIm7b5

ninth chord Im9(ma7) IIIm9..... bIIIIma9#5..... IV9..... V9..... VIIm9b5..... VIIIm9b5#5#9b9



back-cycling thirds in the harmonic major scale

triad..... I major II dim. III minor IV major V major bVI aug. VII dim.
 seventh chord Ima7 IIIm7b5 IIIm7 IVm(ma7) V7 bVIma7#5 VIIIm7b5
 ninth chord Ima9 IIIm9b5 no chord IVm9(ma7) V9 no chord no chord



DOMINANT CHORDS IN FOURTHS WITH FLAT FIVE SUBSTITUTES

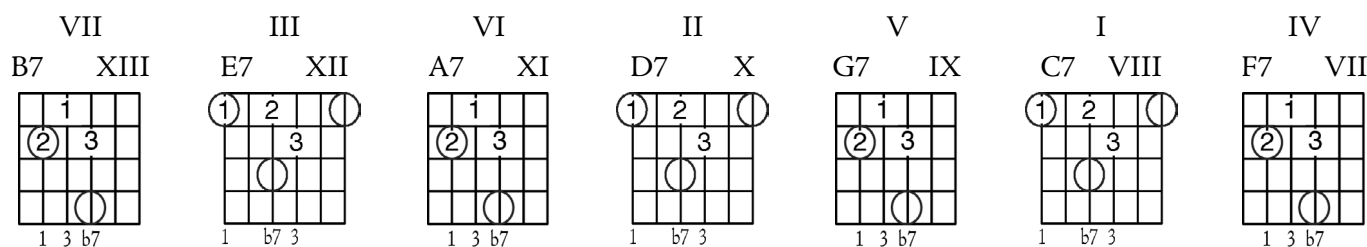
Making Modal II-V-I Cadences with Three Sevenths in Fourths

This cycle features a chromatically-descending top voice. Each of the common target chords, I, IV, V, II and VI can be cadenced as a II-V-I with three dominant seventh chords in perfect fourths. Use the cycle of fourths 7-3-6-2-5-1-4 (key scale numbers), such as B-E-A-D-G-C-F for C major. Three numbers in a row in the cycle, such as 7-3-6, 3-6-2 or 6-2-5 can make a substitute for a II-V-I cadence to a target. To target the VI chord with a II-V-I, use the cadence VII7-III7-VI7. These are jazz blues chord changes with dominant sevenths. They could also be used with major scale-tone qualities VIIm7b5-IIIIm7-VIm7 or a combination such as VIIIm7b5-III7-VIm7.

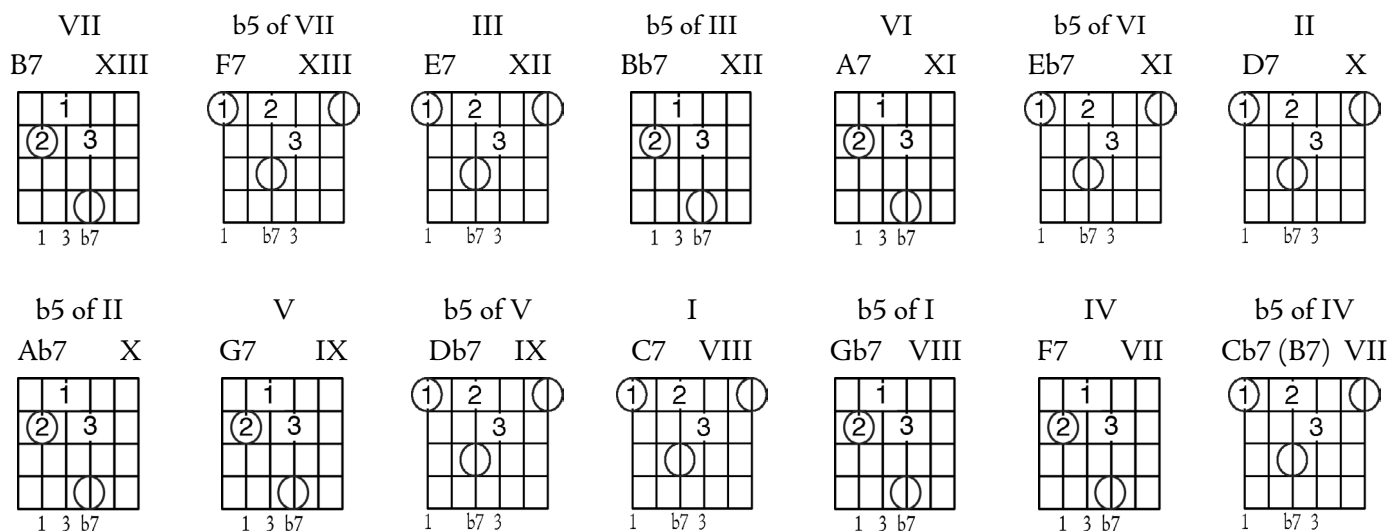
Each chord that is changed from another quality to a dominant seventh becomes a secondary dominant. See the chapter [Secondary Dominant](#).

Dominant Sevenths with Roots in Fourths, C major

dominant sevenths with roots in fourths



dominant seventh cycle with roots in fourths, each followed by its flat five substitute



Dominant Sevenths with Roots in Fourths, G major

dominant sevenths with roots in fourths

VII F#7 IX	III B7 VIII	VI E7 VII	II A7 VI	V D7 V	I G7 III	IV C7 III
1 b7 3	1 3 b7	1 b7 3	1 3 b7	1 b7 3	1 3 b7	1 b7 3

dominant seventh cycle with roots in fourths, each followed by its flat five substitute

VII F#7 IX	b5 of VII C7 IX	III B7 VIII	b5 of III F7 VIII	VI E7 VII	b5 of VI Bb7 VII	II A7 VI
1 b7 3	1 3 b7	1 b7 3	1 b7 3	1 b7 3	1 3 b7	1 3 b7

b5 of II Eb7 VI	V D7 V	b5 of V Ab7 V	I G7 IV	b5 of I Db7 IV	IV C7 III	b5 of IV Gb7 (F#7) III
1 b7 3	1 b7 3	1 3 b7	1 3 b7	1 b7 3	1 b7 3	1 3 b7

TOP-VOICE-LEAD ANY CHORD WITH ANY KEY TONE

Table of All Top-Voice Cadences

chord root , top-voice numbering and parent scales

The chord roots numbered at the top of the columns and the top-voice tones numbered in a gray box at the left of each row group are numbered in terms of the parent scale. See [Key Scales, Parent Scales and Chord Scales/Parent Scale](#). The top-voice numbers after a back slash (“\”) in each chord name are in the key of the chord root.

every chromatic root of a key is shown in a column, labled at the top of the column

Each Roman numeral at the top of a column shows the step of the key scale on which a chord is built. These follow across each set of two facing pages. These are shown in an order of fourths so that any three in a row can make a modal II-V-I cadence to the third chord as a target “I” chord.

Since columns organize the chord roots in perfect fourths, any three consecutive chords in a row can be used as a II-V-I cadence, where the third chord is the temporary key (or permanent key if the duration and emphasis is great enough).

“back slash” (“\”) chords

The top voice tone for each chord in the table is shown by number after a backslash (“\”). “7b9\b2” is a seven flat nine chord with “b2” in the key of the chord root as the highest pitch. With the root on “C”, “7b9\b2” would be C7b9\Db specifying a chord with C-E-G-Bb-Db where “Db” is the highest pitch. Forward slash chords specify a bass note, where C7/Bb is a C7 chord with “Bb” in the bass. These two forms of slash can be combined. “C7/Bb\E” is a C7 chord with “Bb” in the bass and “E” as the highest pitch.

every top-voice tone of a key is shown in a row

Each Arabic numeral in the gray box at the upper left of a row group shows the top voice in the key scale. Some top-voice tones are not compatible with the unaltered scale-tone chord qualities built on a particular numbered tone, indicated by “n/a”. #5 or b9 is not acceptable on a minor chord. Natural three is not acceptable on a minor chord. When the unaltered scale tone chord doesn’t contain the desired top voice, a secondary dominant or flat five substitute chord can be used, as shown in the middle and bottom rows of each group.

the “SD” rows show secondary dominants

Secondary dominant versions are particularly used in bebop, blues and related styles. They dramatize the progression to a chord whose root is up a perfect fourth, so the current chord is a V chord of its target. See [Secondary Dominant](#).

Secondary Dominant (“SD”) Rows and Mood

Using alternate chords from the secondary dominant row makes a cadence more dramatic and stronger. See the Secondary Dominant chapter. The secondary dominant chords are darker in mood. Don't change moods too frequently. A few dark consecutive altered dominant chords can move to a major seventh, sixth or other chord of a bright mood with a pleasing effect. A three-chords sequence with dark angry chord to bright happy chord to dark angry chord can be confusing, especially if the change is fast. The effect of mood changes is time-based, so take that into account in sequencing chords in an arrangement.

Using Flat Five Substitutes

After each roman numeral at the top of a column, the alternate flat five tone is shown. This indicates that you should consider the alternative flat five chord by looking at the column with the numbered tone suggested as a flat five substitute. See [Substitution/Flat Five Substitute](#).

flat five substitute (“b5 sub.”) rows

Chords from the flat five substitute provide an alternate for the secondary dominant. The flat five substitute chords are usually dominant type or altered dominant chord with their chord root on a note a flattened fifth from the secondary dominant chord. In some cases, they are 7sus4 or major seventh to accommodate the needed top voice tone.

	VII	III	VI	II	V	I	IV	bVII	bIII	bVI	bII	bV/#IV
1	n/a	n/a	m7\ b3	m7\ b7	7sus4\ 4	6\ 1	ma7\ 5	ma9\ 2	6\ 6	ma7\ 3	ma7\ 7	ma7\ #11\ #4
SD	7b9\ b9	7#5\ 9\ #5	7#9\ b3	7\ b7	same ↑	7\ 1	7 or 9\ 5	7 or 9\ 2	13\ 6	7 or 9\ 3	n/a	9#11\ #4
b5 sub.	IV7\ 5	bVII13\ 2	bIII13\ 6	bVI7\ 3	bIIma7\ 7	bV7b5\ b5	VII7b9\ b2	III7#5\ #5	VI7#9\ b3	II7\ b7	V7sus4\ 4	I7\ 1
#1/b2	9#5\ 2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6\ 1	ma7\ 5
SD	9b5\ 2	13(b9)\ 6	7\ 3	n/a	7#11\ #4	7b9\ b2	7#5\ 9\ #5	7#9\ #2	7\ b7	7sus4\ 4	7\ 1	9\ 5
b5 sub.	IV7#5\ #5	bVII7#9\ b3	bIII7\ b7	bVI7sus4\ 4	bII7\ 1	bV7\ 5	VII9\ 2	III13b9\ 6	VI7\ 3	IIma7\ 7	V7b5\ b5	I7b9\ b2
2	m7b5\ b3	m7\ b7	7sus4\ 4	m7\ 1	7\ 5	ma9\ 2	IV6\ 6	ma7\ 3	ma7\ 7	ma7\ #11\ #4	n/a	n/a
SD	7b5\ 9	7\ b7	same ↑	7\ 1	7 or 9\ 5	9\ 2	13\ 6	7 or 9\ 3	n/a	9#11\ #4	7b9\ b2	7#5\ 9\ #5
b5 sub.	IV13\ 6	bVII7\ 3	bIIIma7\ 7	bVI7b5\ b5	bII7b9\ b2	bV7#5\ #5	VII7#9\ b3	III7\ b7	VI7sus4\ 4	II7\ 1	V7\ 5	I9\ 2
#2/b3	n/a	n/a	m7b5\ b5	n/a	n/a	n/a	n/a	n/a	6\ 1	ma7\ 5	ma9\ 2	n/a
SD	7b5\ 3	n/a	7b5\ b5	7b9\ b2	7#5\ 9\ #5	7#9\ b3	7\ b7	7sus4\ 4	7\ 1	7 or 9\ 5	9\ 2	13b9\ 6
b5 sub.	IV7\ b7	bVIIIsus4\ 4	bIIIma7\ 1	bVI7\ 5	bII9\ 2	bV13\ 6	VII7b9\ 3	n/a	VI7b5\ b5	II7b9\ b2	V7#5\ #5	I7#9\ b3
3	m7/11b5\ 4	m7\ 1	m7\ 5	m7\ 2	13\ 6	6 or ma7\ 3	ma7\ 7	ma7\ #11\ #4	n/a	n/a	n/a	n/a
SD	n/a	7\ 1	7\ 5	9\ 2	13#9\ 6	7\ 3	n/a	9#11\ #4	7b9\ b2	7#5\ 9\ #5	7#9\ b3	7b5\ b7
b5 sub.	IVma7\ 7	bVII7b5\ b5	bIII7b9\ b2	bVI7#5\ #5	bII7#9\ b3	bV7\ b7	VII7sus4\ 4	III7\ 1	VI7\ 5	II9\ 2	V13\ 6	I7\ 3
4	m7b5\ b3	n/a	n/a	m7\ b3	7\ b7	ma7sus4\ 4	6\ 1	ma7\ 5	ma9\ 2	IV6\ 6	ma7\ 3	n/a
SD	7b5#9\ b3	7b9\ b2	7#5#9\ #5	7#9\ b3	same ↑	7sus4\ 4	7\ 1	9\ 5	9\ 2	13\ 6	7 or 9\ 3	n/a
b5 sub.	IV7\ 1	bVII7\ 5	bIII9\ 2	bVI13\ 6	bII7\ 3	bVma7\ 7	VII7b5\ b5	III7b9\ b2	VI7#5\ #5	II7#9\ #2	V7\ b7	I7sus4
#4/b5	m7\ 5	m9\ 2	m6\ 6	7\ 3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SD	7\ 5	9\ 2	13\ 6	7 or 9\ 3	n/a	7b5\ b5	7b9\ b2	7#5\ #5	7#9\ b3	7\ b7	7sus4\ 4	7b5\ 1
b5 sub.	IV7b9\ b2	bVII7#5\ #5	bIII7#9\ b3	bVI7\ b7	bII7sus4\ 4	bV7\ 1	VII7b9\ 5	III9\ 2	VI 13\ 6	II7\ 3	n/a	I7b5\ b5
5	n/a	m7\ b3	m7\ b7	m11\ 4	7 or 9\ 1	6 or ma7\ 5	ma9\ 2	6\ 6	ma7\ 3	ma7\ 7	ma7\ #11\ #4	n/a
SD	7#5\ #5	7#9\ b3	7 or 9\ b7	9sus4\ 4	same ↑	7 or 9\ 5	9\ 2	13\ 6	7\ 3	n/a	9#11\ #4	7b9\ b2
b5 sub.	IV9\ 2	bVII13\ 6	bIII7\ 3	bVIma7\ 7	bII7b5\ b5	bV7b9\ b2	VII7#5b9\ #5	III7#9\ b3	VI7\ b7	II7sus4\ 4	V7\ 1	I7\ 5
#5/b6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ma7\ 5	n/a
SD	13b5\ 6	7 or 7b9\ 3	n/a	9#11\ #4	7b9\ b2	7#5\ #5	7#9\ b3	7 or 9\ b7	7sus5\ 4	7 or 9\ 1	7\ 5	9\ 2
b5 sub.	IV7#9\ b3	bVII7\ b7	bIII7sus4\ 4	bVI7\ b1	bII7\ 5	bV9\ 2	VII 13b9\ 6	III7\ 3	VIma7\ 7	II7b5\ b5	V7b9\ b2	I7#5\ #5
6	m7b5\ b7	m11\ 4	m7\ 1	m7\ 5	9\ 2	6\ 6	ma7\ 3	ma7\ 7	ma7\ #11\ #4	n/a	n/a	n/a
SD	7b5\ b7	9sus4\ 4	7\ 1	7 or 9\ 5	same ↑	13\ 6	n/a	n/a	9#11\ #4	7b9\ b2	7#5\ #5	7#9\ b3
b5 sub.	IV7\ 3	bVIIma7\ 7	bIII7#11\ #4	bVI7b9\ b2	bII7#5\ #5	bV7#9\ b3	VII7b5b9\ b7	III9sus4\ 4	VI7\ 1	II7\ 5	V9\ 2	I 13\ 6
#6/b7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6\ 1	ma7\ 5	ma9\ 2	6\ 6	n/a
SD	n/a	7b5\ b5	7b9\ b2	7#5\ #5	7#9\ b3	7\ b7	7sus4\ 4	13\ 1	7 or 9\ 5	9\ 2	13\ 6	7\ 3
b5 sub.	IV7sus4\ 4	bVIIma7\ 1	bIII7\ 5	bVI79\ 2	bII13\ 6	bV7\ 3	VII7b9\ b2	III7b5\ b5	VI7b9\ b2	II7#5\ #5	V7#9\ b3	I7\ b7
7	m7b5\ 1	m7\ 5	m9\ 2	m6\ 6	7 or 9\ 3	ma7\ 7	ma7\ #11\ #4	n/a	n/a	n/a	n/a	n/a
SD	7b5\ 1	7 or 7b9\ 5	9\ 2	13\ 6	same ↑	n/a	9#11\ #4	7b9\ b2	7#5\ #5	7#9\ b3	7\ b7	7sus4\ 4
b5 sub.	IV7b5\ b5	bVII7b9\ b2	bIII7#5\ #5	bVI7#9\ b3	bII7\ b7	bV7sus4\ 4	VII9b5\ 2	III7\ 5	VI9\ 2	II 13\ 6	V7\ 3	Ima7\ 7
	VII	III	VI	II	V	I	IV	bVII	bIII	bVI	bII	bV/#IV
parent scale	I major							bVII major	bIII major	bIII or bVI major	bII major	bII mel. min.

FINGERING ANY CHROMATIC TOP VOICE WITH ANY CHROMATIC ROOT

This is a graphic expression of the top voice table in the previous section. It shows harmonizations for every chromatic root in a key and for every chromatic top voice. Each player and style may use different qualities and voicings to satisfy the same chromatic roots and chromatic top voices. It shows the collective harmonic awareness of great chord melody players, including Joe Pass, Barney Kessel, Wes Montgomery, Martin Taylor, Tuck Andress and Ted Greene.

C major Top Voice 1 in G/E/D Forms in the middle of the fretboard for the C major parent scale

1 high	VII (b5 is IV) B7b9 VII	III (b5 is bVII) E7#5#9 VI	VI (b5 is bIII) Am7 VII	II (b5 is bVI) Dm7 VI	V (b5 is bII) G7sus4 VIII	I (b5 is bV) C6 VIII	IV (b5 is VII) Fma7 VIII
	1 b7 3 5 b2	1 3 b7 #2 #5	1 5 b7 b3	5 1 b3 b7	1 b7 1 4	1 3 6 1	1 5 7 3 5
bVII (b5 is III) Bbma9 VI	bIII (b5 is VI) Eb6 VI	bVI (b5 is II) Abma7 VI	bII (b5 is V) Dbma7 IV	bV (b5 is I) Gbma9#11 VIII			
1 7 3 5 2	1 5 1 3 6	1 5 7 3	1 5 1 3 7	1 3 7 2 #4			
1 low	VII (b5 is IV) B7b9 V	III (b5 is bVII) E7#5 IV	VI (b5 is bIII) Am7 V	II (b5 is bVI) Dm7 III	V (b5 is bII) G7sus4 III	I (b5 is bV) C6 V	IV (b5 is VII) F V
	1 3 b7 b2	3 b7 3 #5	1 5 b7 b3	5 1 b3 b7	1 5 b7 4	1 3 6 1	5 1 3 5
bVII (b5 is III) Bbma9 V	bIII (b5 is VI) Eb6 V	bVI (b5 is II) Abma7 IV	bII (b5 is V) Dbma7 IX	bV (b5 is I) Gb7b5 VI			
1 3 7 2	5 1 3 6	1 5 7 3	5 1 3 7	b7 3 b5			

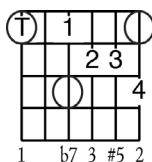
C major Top Voice #1 or b2 in G/E/D Forms

in the middle of the fretboard for the C major parent scale

#1/b2
high

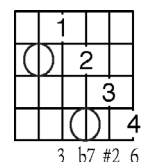
VII (b5 is IV)

B9#5 VII



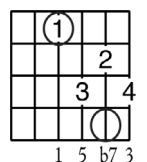
III (b5 is bVII)

E13#9 VI



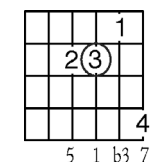
VI (b5 is bIII)

A7 VII



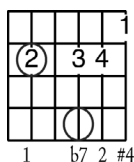
II (b5 is bVI)

Dm(ma7) VI



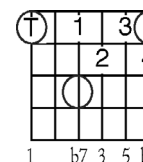
V (b5 is bII)

G9#11 IX



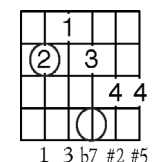
I (b5 is bV)

C7b9 IX



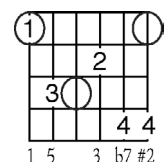
IV (b5 is VII)

F7#5#9 VII



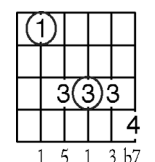
bVII (b5 is III)

Bb7#9 VI



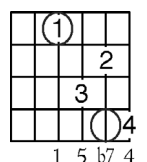
bIII (b5 is VI)

Eb6 VI



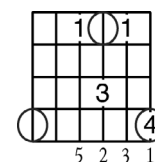
bVI (b5 is II)

Ab7sus4 VI



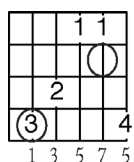
bII (b5 is V)

Db6 VI



bV (b5 is I)

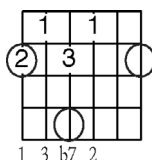
Gb VI



#1/b2
low

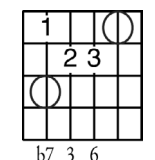
VII (b5 is IV)

B9 VI



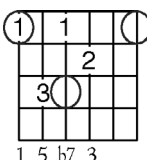
III (b5 is bVII)

E13 V



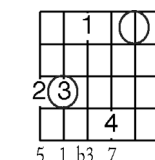
VI (b5 is bIII)

A7 V



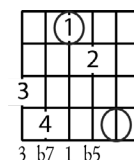
II (b5 is bVI)

Dm(ma7) III



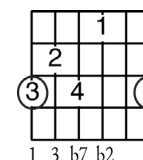
V (b5 is bII)

G7b5 V



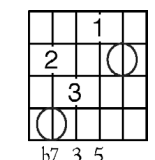
I (b5 is bV)

C7b9 VI



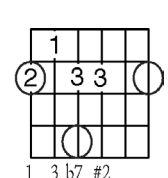
IV (b5 is VII)

Gb7 VI



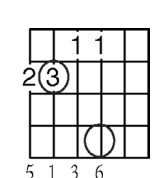
bVII (b5 is III)

Bb7#9 V



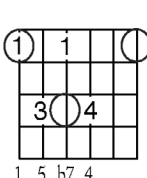
bIII (b5 is VI)

Eb6 V



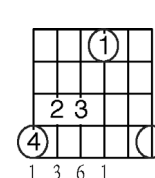
bVI (b5 is II)

Ab7sus4 IV



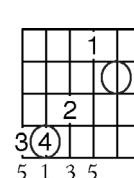
bII (b5 is V)

Db6 VI



bV (b5 is I)

Gb VI



C major Top Voice 2 in G/E/D Forms

in the middle of the fretboard for the C major parent scale

2 high	VII (b5 is IV) Bm7b5 IX 	III (b5 is bVII) E7 IX 	VI (b5 is bIII) A7sus4 VII 	II (b5 is bVI) Dm7 X 	V (b5 is bII) G9 IX 	I (b5 is bV) Cma9 VIII 	IV (b5 is VII) F6 VIII
	bVII (b5 is III) Bbma7 VIII 	bIII (b5 is VI) Ebma7 V 	bVI (b5 is II) Ebma7 VI 	bII (b5 is V) Db7b9 IX 	bV (b5 is I) Gb7#5#9 VIII 		
2 low	VII (b5 is IV) Bm7b5 VII 	III (b5 is bVII) E7 VI 	VI (b5 is bIII) A7sus4 V 	II (b5 is bVI) Dm7 VII 	V (b5 is bII) G VII 	I (b5 is bV) Cma9 VII 	IV (b5 is VII) F6 VII
	bVII (b5 is III) Bbma7 VIII 	bIII (b5 is VI) Ebma7 V 	bVI (b5 is II) Ab7b5 III 	bII (b5 is V) Db7b9 VII 	bV (b5 is I) Gbaug VII 		

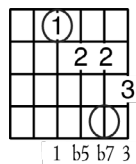
C major Top Voice b3 in G/E/D Forms

in the middle of the fretboard for the C major parent scale

b3
high

VII (b5 is IV)

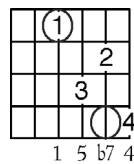
B7b5 IX



1 b5 b7 3

III (b5 is bVII)

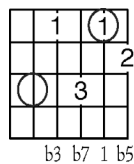
Bb7sus4 VIII



1 5 b7 4

VI (b5 is bIII)

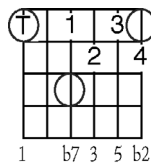
Am7b5 X



b3 b7 1 b5

II (b5 is bVI)

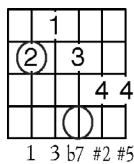
D7b9 X



1 b7 3 5 b2

V (b5 is bII)

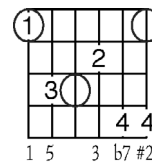
G#5#9 IX



1 3 b7 #2 #5

I (b5 is bV)

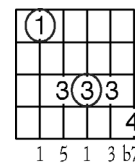
C7#9 VIII



1 5 3 b7 #2

IV (b5 is VII)

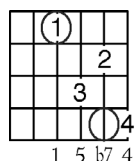
F7 VIII



1 5 1 3 b7

bVII (b5 is III)

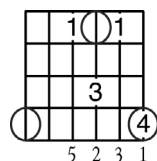
Bb7sus4 VIII



1 5 b7 4

bIII (b5 is VI)

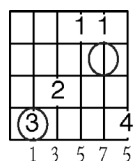
Ebadd9 VIII



5 2 3 1

bVI (b5 is II)

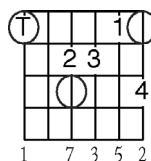
Abma7 VIII



1 3 5 7 5

bII (b5 is V)

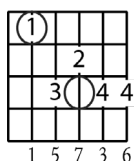
Dbma9 IX



1 7 3 5 2

bV (b5 is I)

Gbma13 IX

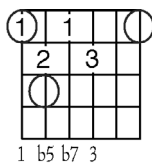


1 5 7 3 6

b3
low

VII (b5 is IV)

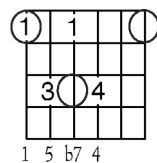
B7b5 VII



1 b5 b7 3

III (b5 is bVII)

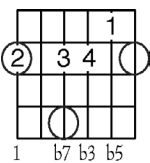
Bb7 VI



1 5 b7 4

VI (b5 is bIII)

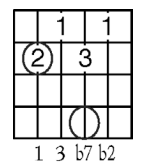
Am7b5 IV



1 b7 b3 b5

II (b5 is bVI)

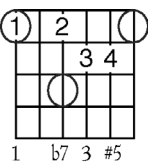
D7b9 IV



1 3 b7 b2

V (b5 is bII)

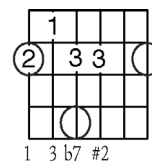
G7#5 III



1 b7 3 #5

I (b5 is bV)

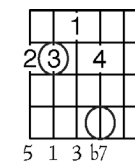
C7#9 VII



1 3 b7 #2

IV (b5 is VII)

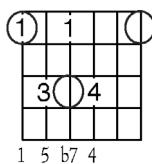
F7 VII



5 1 3 b7

bVII (b5 is III)

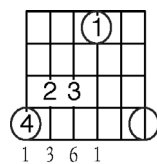
Bb7sus4 VI



1 5 b7 4

bIII (b5 is VI)

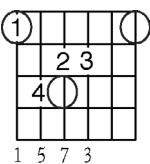
Eb6 VIII



1 3 6 1

bVI (b5 is II)

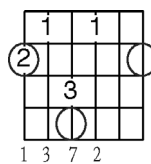
Abma7 IV



1 5 7 3

bII (b5 is V)

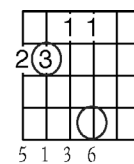
Dbma9 VIII



1 3 7 2

bV (b5 is I)

Gb6 VIII



5 1 3 6

C major Top Voice 3 in G/E/D Forms

in the middle of the fretboard for the C major parent scale

3
high

VII (b5 is IV) Bm7b5sus4 IX	III (b5 is bVII) E7b9 IX	VI (b5 is bIII) Am7 X	II (b5 is bVI) Dm9 X	V (b5 is bII) G13 IX	I (b5 is bV) Cma7 X	IV (b5 is VII) Fma7 VIII
1 b5 b7 4	b7 b2 5 1	b3 b7 1 5	1 b7 b3 5 2	1 3 b7 2 6	1 5 7 3	1 5 1 3 7

bVII (b5 is III) Bb9#11 XII	bIII (b5 is VI) Eb7b9 XI	bVI (b5 is II) Ab7#5#9 X	bII (b5 is V) Db7#9 IX	bV (b5 is I) Gbma13 IX
1 b7 2 #4	1 b7 3 5 b2	1 3 b7 #2 #5	1 5 3 b7 #2	1 b5 1 3 b7

3
low

VII (b5 is IV) Bm7b5sus4 VII	III (b5 is bVII) E7b9 IX	VI (b5 is bIII) Am7 VII	II (b5 is bVI) Dm9 VIII	V (b5 is bII) G13 VIII	I (b5 is bV) Cma7 VIII	IV (b5 is VII) Fma7 VII
1 b5 b7 4	1 3 b7 1	b3 b7 1 5	1 b3 b7 2	5 b7 3 6	1 5 7 3	5 1 3 7

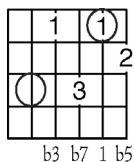
bVII (b5 is III) Bb7b5 V	bIII (b5 is VI) Eb7b9 IX	bVI (b5 is II) Ab7#5 IV	bII (b5 is V) D7#9 VIII	bV (b5 is I) Gb7 VIII
1 b7 3 b5	1 3 b7 b2	1 b7 3 #5	1 3 b7 #2	5 1 3 b7

C major Top Voice 4 in G/E/D Forms

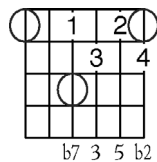
in the middle of the fretboard for the C major parent scale

4
high

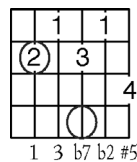
VII (b5 is IV)
Bm7b5 XII



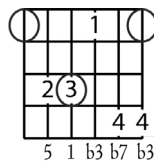
III (b5 is bVII)
E7b9 XII



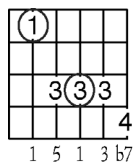
VI (b5 is bIII)
A7#5b9 XI



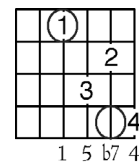
II (b5 is bVI)
Dm7 X



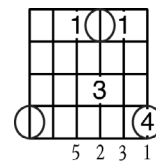
V (b5 is bII)
G7 XII



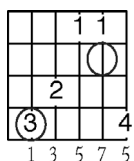
I (b5 is bV)
C7sus4 X



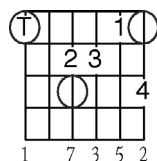
IV (b5 is VII)
Fadd9 X



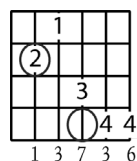
bVII (b5 is III)
Bbma7 X



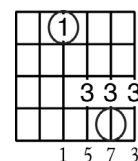
bIII (b5 is VI)
Ebma9 XI



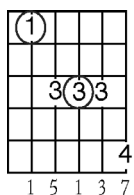
bVI (b5 is II)
Abma13 X



bII (b5 is V)
Dbma7 XI

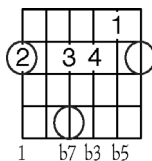


bV (b5 is I)
Gbma7 IX

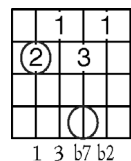


4
low

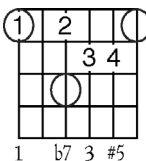
VII (b5 is IV)
Bm7b5 VI



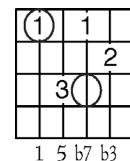
III (b5 is bVII)
E7b9 VI



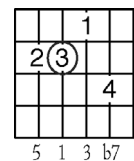
VI (b5 is bIII)
A7#5 V



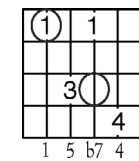
II (b5 is bVI)
Dm7 V



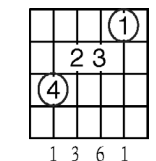
V (b5 is bII)
G7 IV



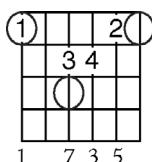
I (b5 is bV)
C7sus4 III



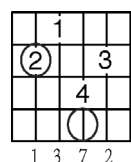
IV (b5 is VII)
F6 VI



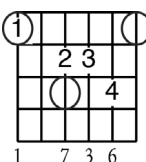
bVII (b5 is III)
Bbma7 VI



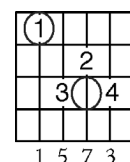
bIII (b5 is VI)
Ebma9 V



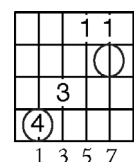
bVI (b5 is II)
Abma13 IV



bII (b5 is V)
Dbma7 IV



bV (b5 is I)
Gbma7 VI



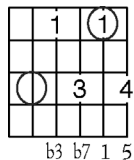
C major Top Voice #4 or b5 in G/E/D/C Forms

in the middle of the fretboard for the C major parent scale

#4/b5
high

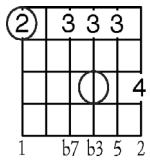
VII (b5 is IV)

Bm7 XII



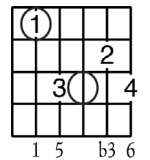
III (b5 is bVII)

Em9 XII



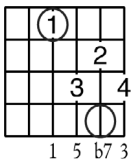
VI (b5 is bIII)

Am6 XII



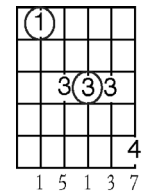
II (b5 is bVI)

D7 XII



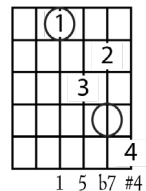
V (b5 is bII)

Gma7 XII



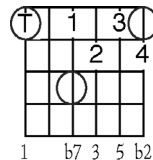
I (b5 is bV)

C7#11 X



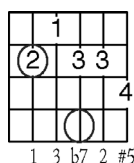
IV (b5 is VII)

F7b9 XIII



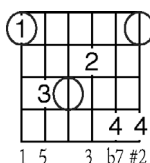
bVII (b5 is III)

Bb9#5 XII



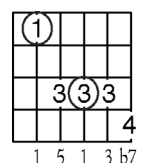
bIII (b5 is VI)

Eb7#9 XI



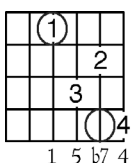
bVI (b5 is II)

Ab7 XI



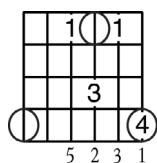
bII (b5 is V)

Db7sus4 XI



bV (b5 is I)

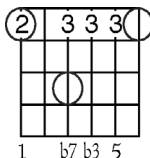
Gbadd9 XI



#4/b5
low

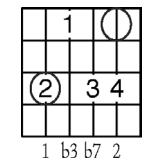
VII (b5 is IV)

Bm7 VII



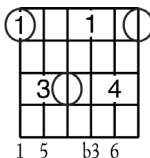
III (b5 is bVII)

Em9 V



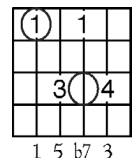
VI (b5 is bIII)

Am6 V



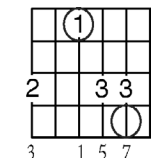
II (b5 is bVI)

D7 V



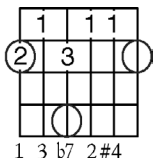
V (b5 is bII)

Gma7 V



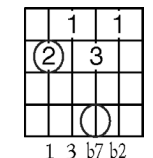
I (b5 is bV)

C9#11 VII



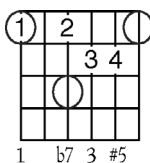
IV (b5 is VII)

F7b9 VII



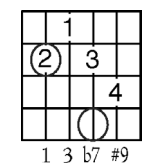
bVII (b5 is III)

Bb7#5 VI



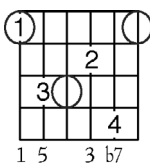
bIII (b5 is VI)

Eb7#9 V



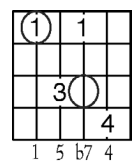
bVI (b5 is II)

Ab7 IV



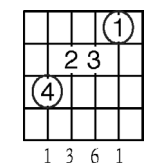
bII (b5 is V)

Db7sus4 IV



bV (b5 is I)

Gb6 VII

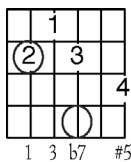


C major Top Voice 5 in E/D/C Forms

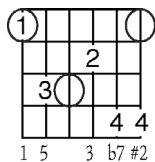
in the middle of the fretboard for the C major parent scale

5
high

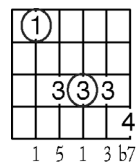
VII (b5 is IV)
B7#5 XIII



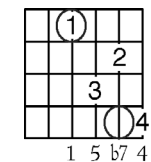
III (b5 is bVII)
E7#9 XII



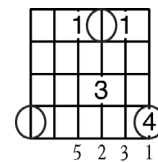
VI (b5 is bIII)
A7 XII



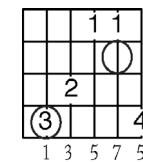
II (b5 is bVI)
Dm7sus4 XII



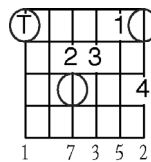
V (b5 is bII)
Gadd9 XII



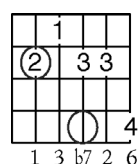
I (b5 is bV)
Cma7 XII



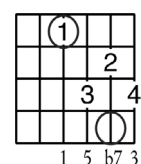
IV (b5 is VII)
Fma9 XIII



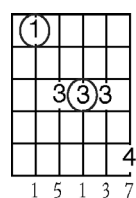
bVII (b5 is III)
Bb13 XII



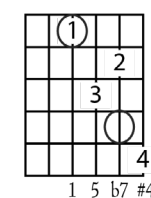
bIII (b5 is VI)
Eb7 XIII



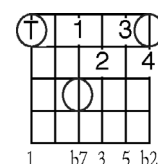
bVI (b5 is II)
Abma7 XI



bII (b5 is V)
Db7#11 XI

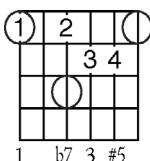


bV (b5 is I)
Gb7b9 XIV

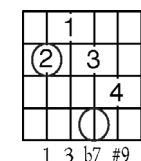


5
low

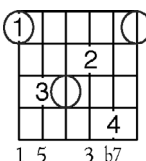
VII (b5 is IV)
B7#5 VII



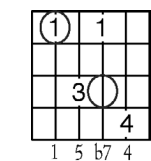
III (b5 is bVII)
E7#9 VI



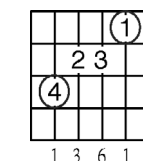
VI (b5 is bIII)
A7 V



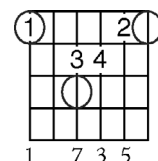
II (b5 is bVI)
Dm7sus4 V



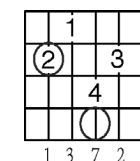
V (b5 is bII)
G6 VIII



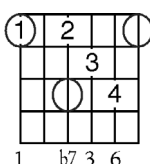
I (b5 is bV)
Cma7 VIII



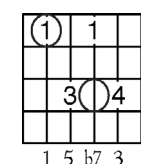
IV (b5 is VII)
Fma9 VII



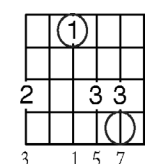
bVII (b5 is III)
Bb13 VI



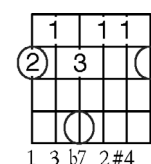
bIII (b5 is VI)
Eb7 VI



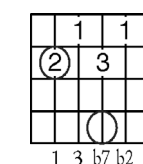
bVI (b5 is II)
Abma7 VI



bII (b5 is V)
Db9#11 VIII



bV (b5 is I)
Gb7b9 VIII



G major Top Voice 5 in D/C/A Forms

in the middle of the fretboard for the G major parent scale

5 high	VII (b5 is IV) F#7#5#9 VIII	III (b5 is bVII) Bm7 IX	VI (b5 is bIII) Em7 VIII	II (b5 is bVI) Am7sus4 VII	V (b5 is bII) D7 X	I (b5 is bV) Gma7 X	IV (b5 is VII) Cma9 VIII
	bVII (b5 is III) F6 VIII	bIII (b5 is VI) Bbma7 VIII	bVI (b5 is II) Ebma7 VI	bII (b5 is V) Ab7#11 VI	bV (b5 is I) Db7b9 IX		
5 low	VII (b5 is IV) C9 VII	III (b5 is bVII) Bm7 VII	VI (b5 is bIII) Em7 V	II (b5 is bVI) Am7sus4 V	V (b5 is bII) D7 VII	I (b5 is bV) G6 VII	IV (b5 is VII) Cma9 VII
	bVII (b5 is III) F6 VII	bIII (b5 is VI) Bbma7 VI	bVI (b5 is II) Ebma7 V	bII (b5 is V) Ab7b5 VI	bV (b5 is I) Db7b9 VI		

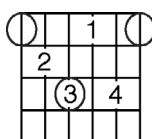
C major Top Voice #5 or b6 in E/D/C Forms

in the middle of the fretboard for the C major parent scale

#5/b6
high

VII (b5 is IV)

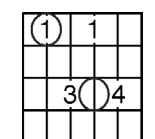
Bdim7 VII



b5 1 b3 6

III (b5 is bVII)

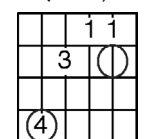
E7 VII



1 5 b7 3

VI (b5 is bIII)

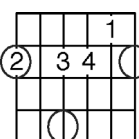
Am(ma7) IX



1 b3 5 7

II (b5 is bVI)

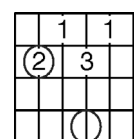
Dm7b5 IX



1 b7 b3 b5

V (b5 is bII)

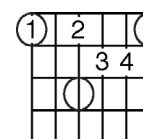
G7b9 IX



1 3 b7 b2

I (b5 is bV)

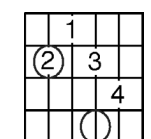
C7#5 VIII



1 b7 3 #5

IV (b5 is VII)

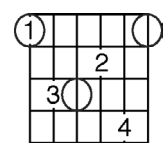
F7#9 VII



1 3 b7 #9

bVII (b5 is III)

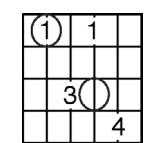
Bb7 VI



1 5 3 b7

bIII (b5 is VI)

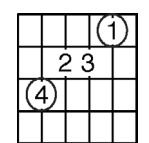
Eb7sus4 VI



1 5 b7 4

bVI (b5 is II)

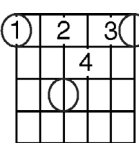
Ab6 IX



1 3 6 1

bII (b5 is V)

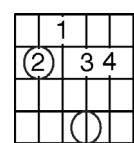
Db7 IX



1 b7 3 5

bV (b5 is I)

Gb9 VIII

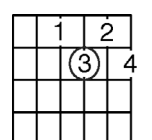


1 3 b7 2

#5/b6
low

VII (b5 is IV)

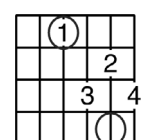
Bdim7 III



b5 1 b3 6

III (b5 is bVII)

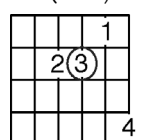
E7 II



1 5 b7 3

VI (b5 is bIII)

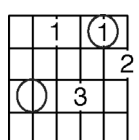
Am(ma7) I



5 1 b3 7

II (b5 is bVI)

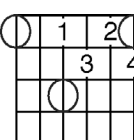
Dm7b5 III



b3 b7 1 b5

V (b5 is bII)

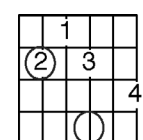
G7b9 III



b7 3 5 b2

I (b5 is bV)

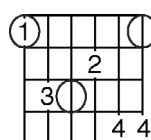
C7#5 II



1 3 b7 #5

IV (b5 is VII)

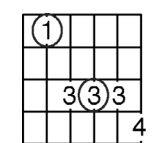
F7#9 I



1 5 3 b7 #2

bVII (b5 is III)

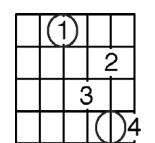
Bb7 I



1 5 1 3 b7

bIII (b5 is VI)

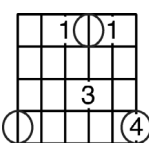
Eb7sus4 I



1 5 b7 4

bVI (b5 is II)

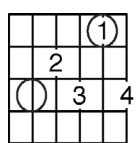
Abadd9 I



5 2 3 1

bII (b5 is V)

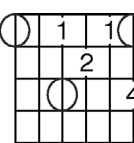
Db7 II



3 b7 1 5

bV (b5 is I)

Gb9 II



b7 3 5 2

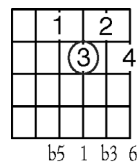
G major Top Voice #5 or b6 in D/C/A Forms

in the middle of the fretboard for the G major parent scale

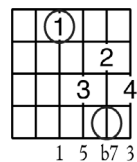
#5/b6
high

VII (b5 is IV)

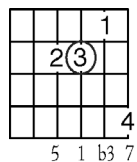
F#dim7 X

**III** (b5 is bVII)

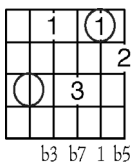
B7 IX

**VI** (b5 is bIII)

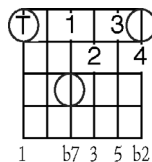
Em(ma7) VIII

**II** (b5 is bVI)

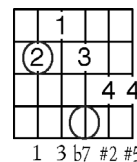
Am7b5 X

**V** (b5 is bII)

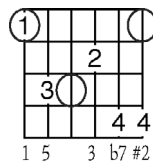
D7b9 X

**I** (b5 is bV)

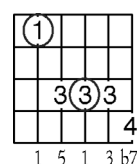
G7#5#9 IX

**IV** (b5 is VII)

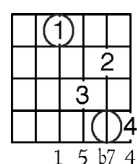
C7#9 VIII

**bVII** (b5 is III)

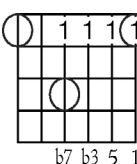
F7 VIII

**bIII** (b5 is VI)

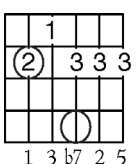
Bbm7sus4 VIII

**bVI** (b5 is II)

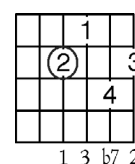
Ebm7 XI

**bII** (b5 is V)

Ab9 X

**bV** (b5 is I)

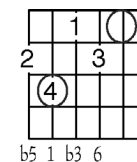
Db9 X



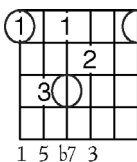
#5/b6
low

VII (b5 is IV)

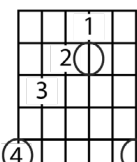
F#dim7 VII

**III** (b5 is bVII)

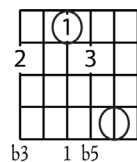
B7 VII

**VI** (b5 is bIII)

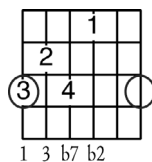
Em(ma7) VIII

**II** (b5 is bVI)

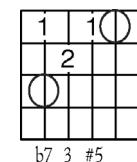
Am7b5 VII

**V** (b5 is bII)

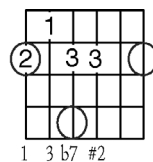
D7b9 VIII

**I** (b5 is bV)

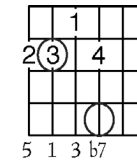
G7#5 VIII

**IV** (b5 is VII)

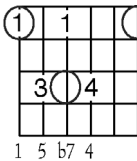
C7#9 VIII

**bVII** (b5 is III)

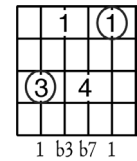
F7 VIII

**bIII** (b5 is VI)

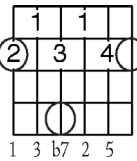
Bbm7sus4 VI

**bVI** (b5 is II)

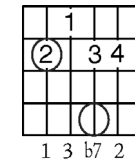
Ebm7 IV

**bII** (b5 is V)

Ab9 III

**bV** (b5 is I)

Db9 III



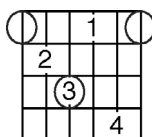
C major Top Voice 6 in E/D/C Forms

in the middle of the fretboard for the C major parent scale

6
high

VII (b5 is IV)

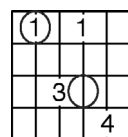
Bm7b5 VII



b5 1 b3 b7

III (b5 is bVII)

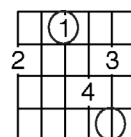
E7sus4 VII



1 5 b7 4

VI (b5 is bIII)

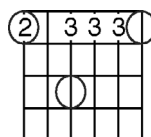
Am7 VIII



b3 1 5 b7

II (b5 is bVI)

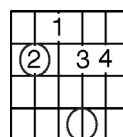
Dm7 X



1 b7 b3 5

V (b5 is bII)

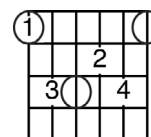
G9 IX



1 3 b7 2

I (b5 is bV)

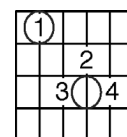
C6 VIII



1 5 3 6

IV (b5 is VII)

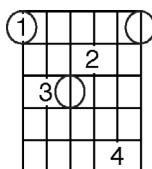
Fma7 VIII



1 5 7 3

bVII (b5 is III)

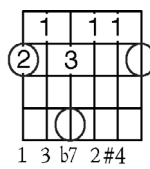
Bbma7 VI



1 5 3 7

bIII (b5 is VI)

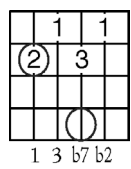
Eb9#11 X



1 3 b7 2#4

bVI (b5 is II)

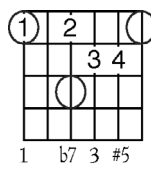
Ab7b9 X



1 3 b7 b2

bII (b5 is V)

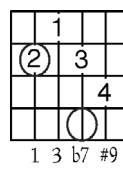
Db7#5 IX



1 b7 3 #5

bV (b5 is I)

Gb7#9 VIII

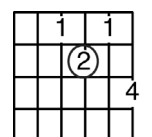


1 3 b7 #9

6
low

VII (b5 is IV)

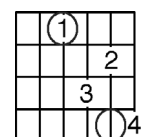
Bm7b5 III



b5 1 b3 b7

III (b5 is bVII)

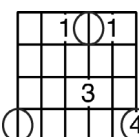
E7sus4 II



1 5 b7 4

VI (b5 is bIII)

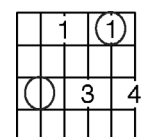
Aadd9 II



5 2 3 1

II (b5 is bVI)

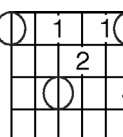
Dm7 III



b3 b7 1 5

V (b5 is bII)

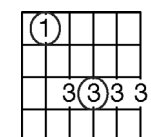
G9 III



b7 3 5 2

I (b5 is bV)

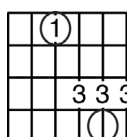
C6 III



1 5 1 3 6

IV (b5 is VII)

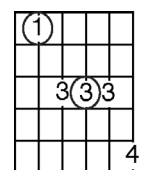
Fma7 III



1 5 7 3

bVII (b5 is III)

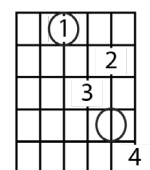
Bbma7 I



1 5 1 3 7

bIII (b5 is VI)

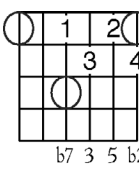
Eb7#11 I



1 5 b7 #4

bVI (b5 is II)

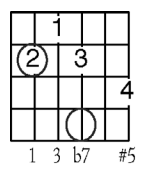
Ab7b9 IV



b7 3 5 b2

bII (b5 is V)

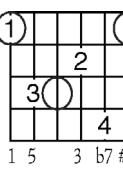
Db7#5 III



1 3 b7 #5

bV (b5 is I)

Gb7#9 II



1 5 3 b7 #2

G major Top Voice 6 in C/A/G Forms

in the middle of the fretboard for the G major parent scale

6 high	VII (b5 is IV) F#m7b5 X	III (b5 is bVII) Bm7sus4 IX	VI (b5 is bIII) Em X	II (b5 is bVI) Am7 X	V (b5 is bII) D9 X	I (b5 is bV) G6 X	IV (b5 is VII) Cma7 X
	bVII (b5 is III) Fma7 VIII	bIII (b5 is VI) Bb7#11 VIII	bVI (b5 is II) Eb7b9 XI	bII (b5 is V) Ab7#5#9 X	bV (b5 is I) Db7#9 IX		
6 low	VII (b5 is IV) F#m7b5 VII	III (b5 is bVII) Bm7sus4 VII	VI (b5 is bIII) Em V	II (b5 is bVI) Am7 V	V (b5 is bII) D9 IV	I (b5 is bV) G6 III	IV (b5 is VII) Cma7 III
	bVII (b5 is III) Fma7 V	bIII (b5 is VI) Bb7b5 V	bVI (b5 is II) Eb7b9 V	bII (b5 is V) Ab7#5 IV	bV (b5 is I) Db7#9 III		

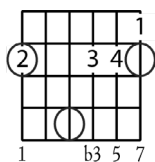
C major Top Voice #6 or b7 in G/E/D Forms

in the middle of the fretboard for the C major parent scale

#6/b7
high

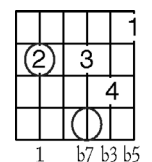
VII (b5 is IV)

Bm(ma7) VI



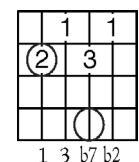
III (b5 is bVII)

Em7b5 VI



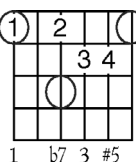
VI (b5 is bIII)

A7b9 XI



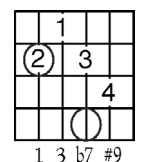
II (b5 is bVI)

D7#5 X



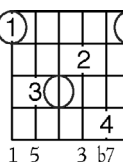
V (b5 is bII)

G7#9 IX



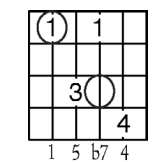
I (b5 is bV)

C7 VIII



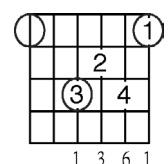
IV (b5 is VII)

F7sus4 VIII



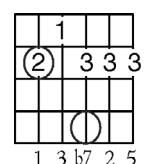
bVII (b5 is III)

Bb6 VI



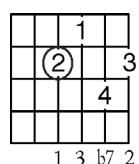
bIII (b5 is VI)

Eb9 V



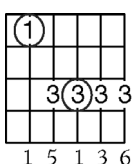
bVI (b5 is II)

Ab9 V



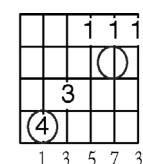
bII (b5 is V)

Db6 IV



bV (b5 is I)

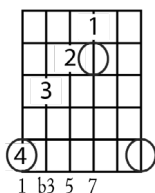
Gbma7 VI



#6/b7
low

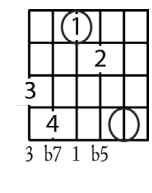
VII (b5 is IV)

Bm(ma7) III



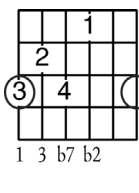
III (b5 is bVII)

E7b5 II



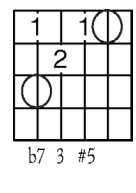
VI (b5 is bIII)

A7b9 III



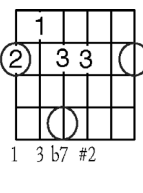
II (b5 is bVI)

D7#5 III



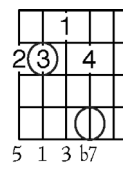
V (b5 is bII)

G7#9 II



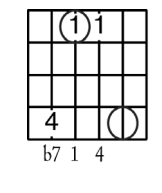
I (b5 is bV)

C7 II



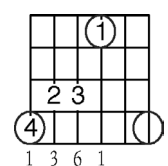
IV (b5 is VII)

F7sus4 III



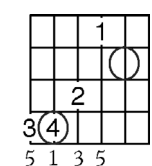
bVII (b5 is III)

Bb6 III



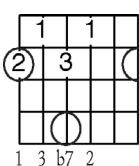
bIII (b5 is VI)

Eb III



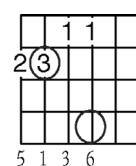
bVI (b5 is II)

Ab9 III



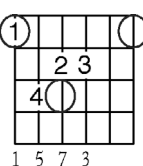
bII (b5 is V)

Db6 III



bV (b5 is I)

Gbma7 II



G major Top Voice #6 or b7 in C/A/G Forms

in the middle of the fretboard for the G major parent scale

#6/b7

high

VII (b5 is IV) F#m(ma7) X	III (b5 is bVII) Bm7b5 XII	VI (b5 is bIII) E7b9 XII	II (b5 is bVI) A7#5#9 XI	V (b5 is bII) D7#9 X	I (b5 is bV) G7 X	IV (b5 is VII) C7sus4 X

bVII (b5 is III) Fm7b5 XII	bIII (b5 is VI) Bbma7 X	bVI (b5 is II) Eb9 XI	bII (b5 is V) Ab6 XI	bV (b5 is I) Dbma7 XI

#6/b7

low

VII (b5 is IV) F#m(ma7) VI	III (b5 is bVII) Bm7b5 VI	VI (b5 is bIII) E7b9 VI	II (b5 is bVI) A7#5 V	V (b5 is bII) D7#9 IV	I (b5 is bV) G7 III	IV (b5 is VII) C7sus4 III

bVII (b5 is III) Fm7b5 IV	bIII (b5 is VI) Bbma7 VI	bVI (b5 is II) Eb9 V	bII (b5 is V) Ab6 IV	bV (b5 is I) Dbma7 IV

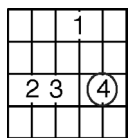
C major Top Voice 7 in G/E/D Forms

in the middle of the fretboard for the C major parent scale

7
high

VII (b5 is IV)

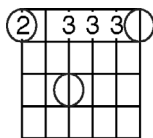
Bm7b5 X



b7 b3 b5 1

III (b5 is bVII)

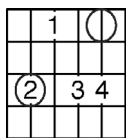
Em7 XII



1 b7 b3 5

VI (b5 is bIII)

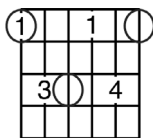
Am9 X



1 b3 b7 2

II (b5 is bVI)

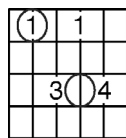
Dm6 X



1 5 b3 6

V (b5 is bII)

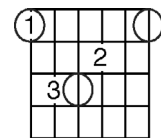
G7 X



1 5 b7 3

I (b5 is bV)

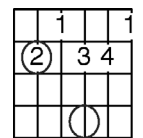
Cma7 VIII



1 5 3 7

IV (b5 is VII)

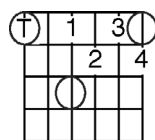
F9#11 VII



1 3 b7 2#4

bVII (b5 is III)

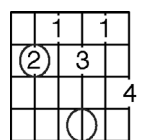
Bb7b9 VI



1 b7 3 5 b2

bIII (b5 is VI)

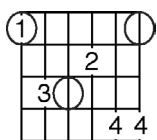
Eb7#5b9 V



1 3 b7 b2 #5

bVI (b5 is II)

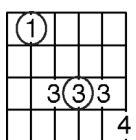
Ab7#9 IV



1 5 3 b7 #2

bII (b5 is V)

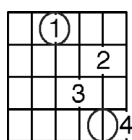
Db7 IV



1 5 1 3 b7

bV (b5 is I)

Gb7sus4 IV

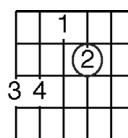


1 5 b7 4

7
low

VII (b5 is IV)

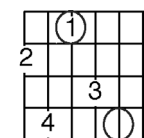
Bm7b5 III



b7 b3 b5 1

III (b5 is bVII)

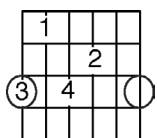
Em7 II



b3 b7 1 5

VI (b5 is bIII)

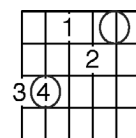
Am9 III



1 b3 b7 2

II (b5 is bVI)

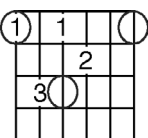
Dm6 III



5 1 b3 6

V (b5 is bII)

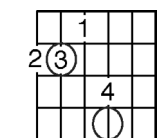
G7 III



1 5 b7 3

I (b5 is bV)

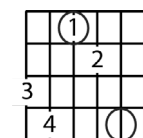
Cma7 II



5 1 3 7

IV (b5 is VII)

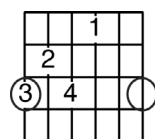
F7b5 III



3 b7 1 b5

bVII (b5 is III)

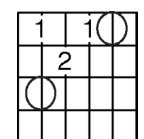
Bb7b9 VI



1 3 b7 b2

bIII (b5 is VI)

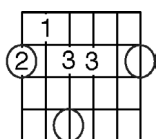
Eb7#5 III



b7 3 #5

bVI (b5 is II)

Ab7#9 III



1 3 b7 #2

bII (b5 is V)

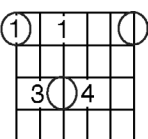
Db7 III



5 1 3 b7

bV (b5 is I)

Gb7sus4 II



1 5 b7 4

G major Top Voice 7 in A/G/E Forms

in the middle of the fretboard for the G major parent scale

7 high	VII (b5 is IV) F#m7b5 XIII b7 b3 b5 1	III (b5 is bVII) Bm7 XII b3 b7 1 5	VI (b5 is bIII) Em9 XII 1 b7 b3 5 2	II (b5 is bVI) Am6 XIII 5 1 b3 6	V (b5 is bII) D7 XII 1 5 b7 3	I (b5 is bV) Gma7 X 1 5 1 3 7	IV (b5 is VII) C7#11 XII 1 5 b7 #4
	bVII (b5 is III) F7b9 XIII 1 b7 3 5 b2	bIII (b5 is VI) Bb7#5#9 XII 1 3 b7 #2 #5	bVI (b5 is II) Eb7#9 XI 1 5 3 b7 #2	bII (b5 is V) Ab7 XI 1 5 1 3 b7	bV (b5 is I) Db7sus4 XI 1 5 b7 4		
7 low	VII (b5 is IV) F#m7b5 VII b5 b3 b7 1	III (b5 is bVII) Bm7 VII 1 b7 b3 5	VI (b5 is bIII) Em9 V 1 b3 b7 2	II (b5 is bVI) Am6 V 1 5 b3 6	V (b5 is bII) D7 V 1 5 b7 3	I (b5 is bV) Gma7 V 3 1 5 7	IV (b5 is VII) C9#11 VII 1 3 b7 2#4
	bVII (b5 is III) F7b9 VII 1 3 b7 b2	bIII (b5 is VI) Bb7#5 VI 1 b7 3 #5	bVI (b5 is II) Eb7#9 V 1 3 b7 #9	bII (b5 is V) Ab7 IV 1 5 3 b7	bV (b5 is I) Db7sus4 IV 1 5 b7 4		

TOP VOICE SEQUENCES ON 7-3-6-2-5-1-4

Think of These Sequences as a Game

Using the “Table of All Top-Voice Cadences” in the previous section, “[Top-Voice Lead any Chord with Any Key Tone](#)”, the sequences below repeat at top voice sequence, such as a “3-2-1” fragment (any three consecutive descending scale tones), scale tones 3-2-1 (literally) or “1-b7-5”.

Serial Sequences

Three-note top voice sequences such as the “3-2-1 key scale tone” sequence below are an endless cycle.

C major top voice example with “3-2-1” key scale tones

root	VII	III	VI	II	V	I	IV
top voice	3	2	1	3	2	1	3
chord name	Bm7b5sus4 IX	E7b9 IX	Am7 X	Dm9 X	G9 IX	C6 VIII	Fma7 VIII
	1 b5 b7 4	5 b2 3 b7	1 b3 b7 b3	1 b7 b3 5 2	1 3 b7 2 5	1 3 6 1	1 5 1 3 7
root	VII	III	VI	II	V	I	IV
top voice	2	1	3	2	1	3	2
chord name	Bm7b5 IX	E7#5 XII	Am7 XII	Dm7 X	G7sus4 X	Cma7 X	F6 VIII
	1 b5 b7 b3	1 b7 3 #5	1 5 b7 b3 5	1 b7 b3 5 1	1 5 b7 4	1 5 7 3	1 5 1 3 6
root	VII	III	VI	II	V	I	IV
top voice	1	3	2	1	3	2	1
chord name	B7b9 XIII	E7 XII	Am7sus4 XII	Dm7 X	G13 IX	Cma9 VIII	Fma7 VIII
	1 3 b7 b2	1 5 b7 3 5 1	1 5 b7 4	5 1 b3 b7	1 3 b7 2 6	1 7 3 5 2	1 5 7 3 5

C major top voice example with "2-1-7" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	2	1	7	2	1	7	2
chord name	Bm7b5 IX	E7#5 XII	Am9 X	Dm7 X	G7sus4 X	Cma7 VIII	F6 VIII
root	VII	III	VI	II	V	I	IV
top voice	1	7	2	1	7	2	1
chord name	B7b9 XIII	E7 XII	Am7sus4 XII	Dm7 X	G7 X	Cma7 VIII	Fma7 VIII
root	VII	III	VI	II	V	I	IV
top voice	7	2	1	7	2	1	7
chord name	Bm7b5 X	E7b9 IX	Am7 X	Dm13 X	G9 IX	C6 VIII	Fma9#11 VII

C major top voice example with "1-7-6" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	1	7	6	1	7	6	1
chord name	B7b9 XIII	E7 XII	Am7 X	Dm7 X	G7 X	C6 VIII	Fma7 VIII
root	VII	III	VI	II	V	I	IV
top voice	7	6	1	7	6	1	7
chord name	Bm7b5 X	Em11 X	Am7 X	Dm13 X	G9 IX	C6 VIII	Fma9#11 VII
root	VII	III	VI	II	V	I	IV
top voice	6	1	7	6	1	7	6
chord name	Bm7b5 IX	E7#5 XII	Am9 X	Dm7 X	G7sus4 IX	Cma7 VIII	Fma7 VIII

C major top voice example with "7-6-5" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	7	6	5	7	6	5	7
chord name	Bm7b5 X	Em11 X	Am7 VII	Dm13 X	G9 IX	Cma7 VIII	Fma9#11 VII
	b7 b3 b5 1	1 b7 b3 4	b3 1 5 b7	1 5 b7 b3 6	1 3 b7 2	1 7 3 5	1 3 7 2 #4
root	VII	III	VI	II	V	I	IV
top voice	6	5	7	6	5	7	6
chord name	Bm7b5 IX	Em7 VII	Am9 X	Dm7 X	G7 VIII	Cma7 VIII	Fma7 VIII
	b3 1 b5 b7	1 5 b7 b3	1 b3 b7 2	1 b7 b3 5	1 3 b7 1	1 5 3 7	1 5 7 3
root	VII	III	VI	II	V	I	IV
top voice	5	7	6	5	7	6	5
chord name	B7#5 VII	E7 IX	Am7 X	Dm11 VIII	G7 X	C6 VIII	Fma9 VII
	1 b7 3 #5	3 b7 1 5	1 b3 b7 1	1 b7 b3 4	1 5 b7 3	1 5 3 6	1 3 7 2

C major top voice example with "6-5-4" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	6	5	4	6	5	4	6
chord name	Bm7b5 IX	Em7 VII	A7#5 VII	Dm7 X	G7 VIII	C7sus4 VIII	Fma7 VIII
	b3 1 b5 b7	1 5 b7 b3	3 b7 1 #5	1 b7 b3 5	1 3 b7 1	1 5 b7 4	1 5 7 3
root	VII	III	VI	II	V	I	IV
top voice	5	4	6	5	4	6	5
chord name	B7#5 VII	E7b9 VI	Am7 X	Dm11 VIII	G7 IX	C6 VIII	Fma9 VII
	1 b7 3 #5	1 3 b7 b2	1 b3 b7 1	1 b7 b3 4	5 1 3 b7	1 5 3 6	b3 1 5 b7
root	VII	III	VI	II	V	I	IV
top voice	4	6	5	4	6	5	4
chord name	Bm7b5 VI	Em7sus4 VII	Am7 VII	Dm7 V	G9 IX	Cma7 VIII	F6 VI
	1 b7 b3 b5	1 5 b7 4	b3 1 5 b7	1 5 b7 b3	1 3 b7 2	1 7 3 5	1 3 6 1

C major top voice example with "5-4-3" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	5	4	3	5	4	3	5
chord name	B7#5 VII	E7b9 VI	Am7 V	D7sus4 V	G7 IV	Cma7 III	Fma9 VII
	1 b7 3 #5	1 3 b7 b2	1 b7 b3 5	1 5 b7 4	5 1 3 b7	1 5 7 3	b3 1 5 b7
root	VII	III	VI	II	V	I	IV
top voice	4	3	5	4	3	5	4
chord name	Bm7b5 VI	E7 V	Am7 V	Dm7 V	G13 III	Cma7 VIII	F6 VI
	1 b7 b3 b5	1 3 b7 1	5 1 b3 b7	1 5 b7 b3	1 b7 3 6	1 7 3 5	1 3 6 1
root	VII	III	VI	II	V	I	IV
top voice	3	5	4	3	5	4	3
chord name	Bm7b5sus4 V	Em7 V	A7#5 V	Dm9 III	G7 III	C7sus4 III	Fma7 III
	1 b7 b3 4	1 b3 b7 b3	1 b7 3 #5	1 b3 b7 2	1 5 b7 3 5 1	1 5 b7 4	3 1 5 7

C major top voice example with "4-3-2" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	4	3	2	4	3	2	4
chord name	Bm7b5 VI	E7 V	Am11 III	Dm7 V	G13 III	Cma9 II	F6 VI
	1 b7 b3 b5	1 3 b7 1	1 b7 b3 4	1 5 b7 b3	1 b7 3 6	1 3 7 2	1 3 6 1
root	VII	III	VI	II	V	I	IV
top voice	3	2	4	3	2	4	3
chord name	Bm7b5sus4 V	E7 II	A7#5 V	Dm9 III	G7 III	C7sus4 III	Fma7 III
	1 b7 b3 4	3 1 5 b7	1 b7 3 #5	1 b3 b7 2	1 b7 3 5	1 5 b7 4	3 1 5 7
root	VII	III	VI	II	V	I	IV
top voice	2	4	3	2	4	3	2
chord name	Bm7b5 II	E7b9 VI	Am7 V	Dm7 III	G7 III	Cma7 III	F6 III
	1 b5 b7 b3	1 3 b7 b2	1 b7 b3 5	1 b3 b7 1	1 5 3 b7	1 5 7 3	1 5 3 6

C major top voice example with "1-2-3" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	1	2	3	1	2	3	1
chord name	B7b9 XIII	E7b9 XII	Am7 XII	Dm7 X	G9 IX	Cma7 VIII	Fma7 VIII
	1 3 b7 b2	1 5 3 b7	1 5 b7 b3 5	5 1 b3 b7	1 3 b7 2 5	1 5 7 3	1 5 7 3 5
root	VII	III	VI	II	V	I	IV
top voice	2	3	1	2	3	1	2
chord name	Bm7/11b5 IX	E7 XII	Am7 X	Dm7 X	G13 IX	C6 VIII	F6 VIII
	1 b5 b7 b3	1 5 b7 3 5 1	1 b7 b3 b3	1 b7 b3 5 1	1 3 b7 2 6	1 3 6 1	1 5 1 3 6
root	VII	III	VI	II	V	I	IV
top voice	3	1	2	3	1	2	3
chord name	Bm7/11b5 IX	E7#5 XII	Am7sus4 X	Dm9 X	G7sus4 X	Cma9 VIII	Fma7 VIII
	1 b5 b7 4	1 b7 3 #5	1 5 b7 4	1 b7 b3 5 2	1 5 b7 4	1 7 3 5 2	1 5 1 3 7

C major top voice example with "2-3-4" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	2	3	4	2	3	4	2
chord name	Bm7/11b5 IX	E7 XII	A7#5#9 XI	Dm7 X	G13 IX	C7sus4 X	F6 VIII
	1 b5 b7 b3	1 5 b7 3 5 1	1 3 b7 #2 #5	1 b7 b3 5 1	1 3 b7 2 6	1 5 b7 4	1 5 1 3 6
root	VII	III	VI	II	V	I	IV
top voice	3	4	2	3	4	2	3
chord name	Bm7/11b5 IX	E7b9 XII	Am7sus4 XII	Dm9 X	G7 X	Cma9 VIII	Fma7 VIII
	1 b5 b7 4	b7 3 5 b2	1 5 b7 4	1 b7 b3 5 2	1 5 1 3 b7	1 7 3 5 2	1 5 1 3 7
root	VII	III	VI	II	V	I	IV
top voice	4	2	3	4	2	3	4
chord name	Bm7b5 XII	E7b9 XII	Am7 XII	Dm7 X	G9 IX	Cma7 VIII	Fadd9 X
	b3 b7 1 b5	1 5 3 b7	1 5 b7 b3 5	1 b3 b7 b3	1 3 b7 2 5	1 5 7 3	5 2 3 1

C major top voice example with "3-4-5" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	3	4	5	3	4	5	3
chord name	Bm7b5sus4 V	E7b9 VI	Am7 V	Dm9 III	G7 IV	Cma7 III	Fma7 V
	1 b7 b3 4	1 3 b7 b2	5 1 b3 b7	1 b3 b7 2	5 1 3 b7	1 5 7 3 5	1 3 5 7

root	VII	III	VI	II	V	I	IV
top voice	4	5	3	4	5	3	4
chord name	Bm7b5 VI	E7#9 VI	Am7 V	Dm7 V	G13 VIII	Cma7 III	F6 VI
	1 b7 b3 b5	1 3 b7 #9	1 b7 b3 5	1 5 b7 b3	b7 3 6 1	1 5 7 3	1 3 6 1

root	VII	III	VI	II	V	I	IV
top voice	5	3	4	5	3	4	5
chord name	B7#5 VII	E7 V	A7#5 V	Dm7sus4 V	G13 III	C7sus4 III	Fadd9 V
	1 b7 3 #5	1 3 b7 1	1 b7 3 #5	1 5 b7 4	1 b7 3 6	1 5 b7 4	1 3 5 2

C major top voice example with "4-5-6" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	4	5	6	4	5	6	4
chord name	Bm7b5 VI	E7#9 VI	Am7 V	Dm7 V	G13 VIII	C6 VIII	F6 VI
	1 b7 b3 b5	1 3 b7 #9	1 b7 b3 5 1	1 5 b7 b3 5	b7 3 6 1	1 5 3 6	1 3 6 1

root	VII	III	VI	II	V	I	IV
top voice	5	6	4	5	6	4	5
chord name	B7#5 VII	E7sus4 VII	A7#5 V	Dm7sus4 V	G9 IV	C7sus4 III	Fadd9 V
	1 b7 3 #5	1 5 b7 4	1 b7 3 #5	1 5 b7 4	1 3 b7 2	1 5 b7 4	1 3 5 2

root	VII	III	VI	II	V	I	IV
top voice	6	4	5	6	4	5	6
chord name	Bm7b5 III	E7b9 VI	Am7 V	Dm7 V	G7 IV	Cms7 III	Fma7 V
	b5 1 b3 b7	1 3 b7 b2	5 1 b3 b7	1 5 b7 b3 5	5 1 3 b7	1 5 7 3 5	1 3 5 7 3

C major top voice example with "5-6-7" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	5	6	7	5	6	7	5
chord name	B7#5 VII	E7sus4 VII	Am9 V	Dm7sus4 V	G9 IV	Cma7 VII	Fadd9 V
root	VII	III	VI	II	V	I	IV
top voice	6	7	5	6	7	5	6
chord name	Bm7b5 III	E7 VI	Am7 V	Dm7 V	G7 V	Cma7 III	Fma7 V
root	VII	III	VI	II	V	I	IV
top voice	7	5	6	7	5	6	7
chord name	Bm7b5 VI	E7#9 VI	Am7 V	Dm6 V	G13 VIII	C6 VIII	Fma9#11 VII

C major top voice example with "6-7-1" key scale tones

root	VII	III	VI	II	V	I	IV
top voice	6	7	1	6	7	1	6
chord name	Bm7b5 III	E7 VI	Am7 V	Dm7 V	G7 V	Cadd9 V	Fma7 V
root	VII	III	VI	II	V	I	IV
top voice	7	1	6	7	1	6	7
chord name	Bm7b5 VI	E7#5#9 VI	Am7 V	Dm6 V	G7sus4 V	C6 VIII	Fma9#11 VII
root	VII	III	VI	II	V	I	IV
top voice	1	6	7	1	6	7	1
chord name	B7b9 VII	E7sus4 VII	Am9 V	Dm7 VI	G9 IV	Cma7 VII	Fma7 VIII

C major top voice example with "7-1-2" key scale tones

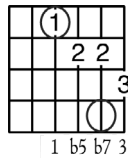
root	VII	III	VI	II	V	I	IV
top voice	7	1	2	7	1	2	7
chord name	Bm7b5 VI	E7#5#9 VI	Am7sus4 VII	Dm6 V	G7sus4 V	Cma9 VIII	Fma9#11 VII
root	VII	III	VI	II	V	I	IV
top voice	1	2	7	1	2	7	1
chord name	B7b9 VII	E7 VII	Am9 V	Dm7 VI	G9 IX	Cma7 VII	Fma7 VIII
root	VII	III	VI	II	V	I	IV
top voice	2	7	1	2	7	1	2
chord name	Bm7b5 IX	E7 VI	Am7 VII	Dm7 X	G7 V	Cadd9 V	F6 VIII

MINOR PENTATONIC TOP VOICE

b3

VII (b5 is IV)

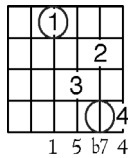
B7b5 IX



1 b5 b7 3

III (b5 is bVII)

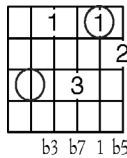
Bb7sus4 VIII



1 5 b7 4

VI (b5 is bIII)

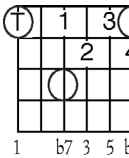
Am7b5 X



b3 b7 1 b5

II (b5 is bVI)

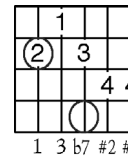
D7b9 X



1 b7 3 5 b2

V (b5 is bII)

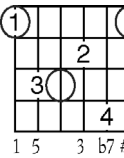
G#5#9 IX



1 3 b7 #2 #5

I (b5 is bV)

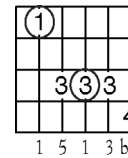
C7#9 VIII



1 5 3 b7 #2

IV (b5 is VII)

F7 VIII

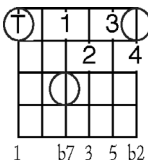


1 5 1 3 b7

1

VII (b5 is IV)

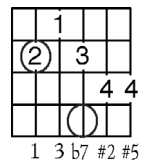
B7b9 VII



1 b7 3 5 b2

III (b5 is bVII)

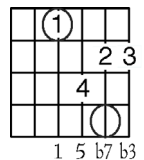
E7#5#9 VI



1 3 b7 #2 #5

VI (b5 is bIII)

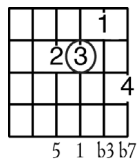
Am7 VII



1 5 b7 b3

II (b5 is bVI)

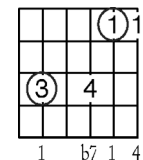
Dm7 VI



5 1 b3 b7

V (b5 is bII)

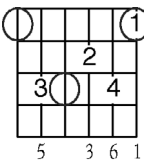
G7sus4 VIII



1 b7 1 4

I (b5 is bV)

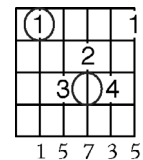
C6 VIII



5 3 6 1

IV (b5 is VII)

Fma7 VIII

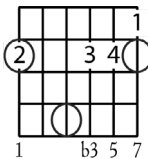


1 5 7 3 5

b7

VII (b5 is IV)

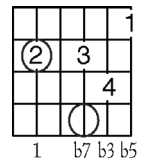
Bm(ma7) VI



1 b3 5 7

III (b5 is bVII)

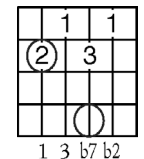
Em7b5 VI



1 b7 b3 b5

VI (b5 is bIII)

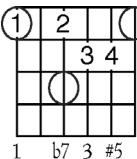
A7b9 XI



1 3 b7 b2

II (b5 is bVI)

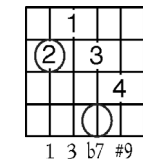
D7#5 X



1 b7 3 #5

V (b5 is bII)

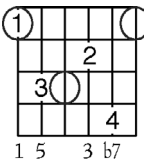
G7#9 IX



1 3 b7 #9

I (b5 is bV)

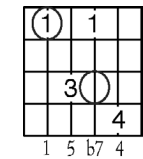
C7 VIII



1 5 3 b7

IV (b5 is VII)

F7sus4 VIII

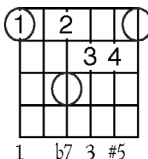


1 5 b7 4

5

VII (b5 is IV)

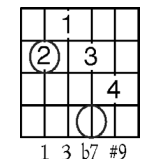
B7#5 VII



1 b7 3 #5

III (b5 is bVII)

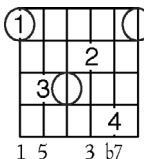
E7#9 VI



1 3 b7 #9

VI (b5 is bIII)

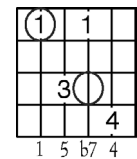
A7 V



1 5 3 b7

II (b5 is bVI)

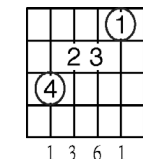
Dm7sus4 V



1 5 b7 4

V (b5 is bII)

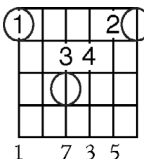
G6 VIII



1 3 6 1

I (b5 is bV)

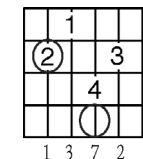
Cma7 VIII



1 7 3 5

IV (b5 is VII)

Fma9 VII

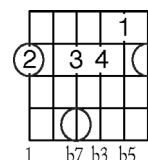


1 3 7 2

4

VII (b5 is IV)

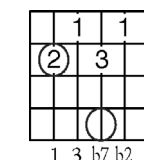
Bm7b5 VI



1 b7 b3 b5

III (b5 is bVII)

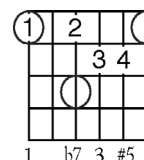
E7b9 VI



1 3 b7 b2

VI (b5 is bIII)

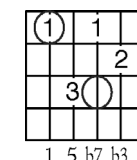
A7#5 V



1 b7 3 #5

II (b5 is bVI)

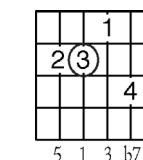
Dm7 V



1 5 b7 b3

V (b5 is bII)

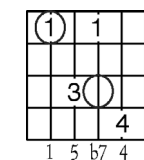
G7 IV



5 1 3 b7

I (b5 is bV)

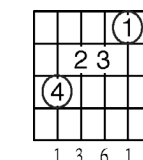
C7sus4 III



1 5 b7 4

IV (b5 is VII)

F6 VI

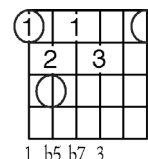


1 3 6 1

b3

VII (b5 is IV)

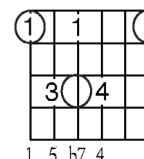
B7b5 VII



1 b5 b7 3

III (b5 is bVII)

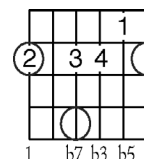
Bb7sus4 VI



1 5 b7 4

VI (b5 is bIII)

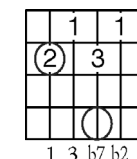
Am7b5 IV



1 b7 b3 b5

II (b5 is bVI)

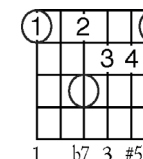
D7b9 IV



1 3 b7 b2

V (b5 is bII)

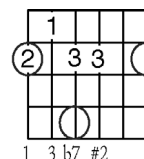
G7#5 III



1 b7 3 #5

I (b5 is bV)

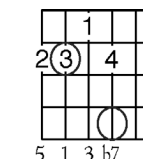
C7#9 VII



1 3 b7 #2

IV (b5 is VII)

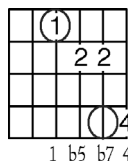
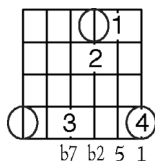
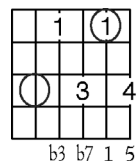
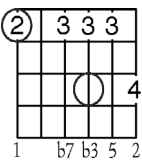
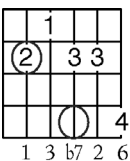
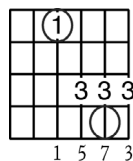
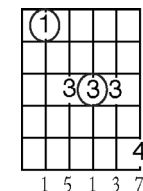
F7 VII



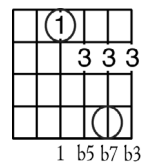
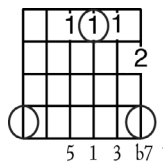
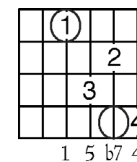
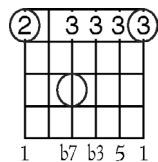
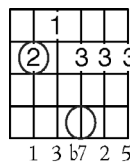
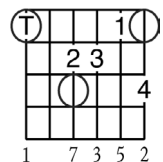
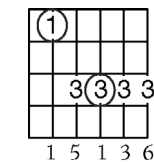
5 1 3 b7

MAJOR PENTATONIC TOP VOICE

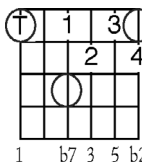
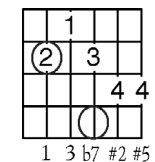
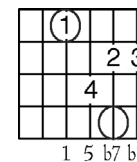
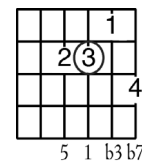
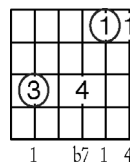
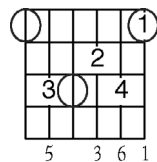
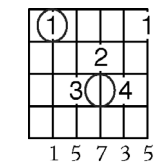
3

VII (b5 is IV)
Bm7b5sus4 IX

III (b5 is bVII)
E7b9 IX

VI (b5 is bIII)
Am7 X

II (b5 is bVI)
Dm9 X

V (b5 is bII)
G13 IX

I (b5 is bV)
Cma7 X

IV (b5 is VII)
Fma7 VIII


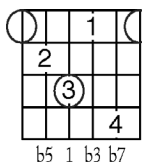
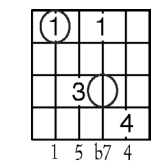
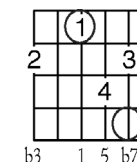
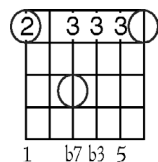
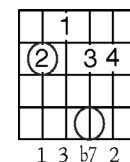
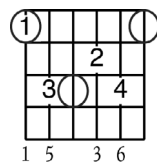
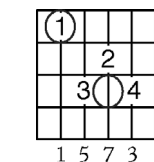
2

VII (b5 is IV)
Bm7b5 IX

III (b5 is bVII)
E7 IX

VI (b5 is bIII)
A7sus4 VII

II (b5 is bVI)
Dm7 X

V (b5 is bII)
G9 IX

I (b5 is bV)
Cma9 VIII

IV (b5 is VII)
F6 VIII


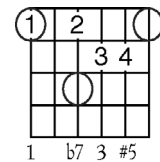
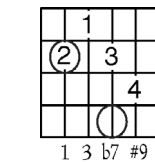
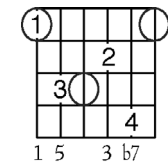
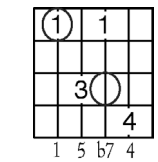
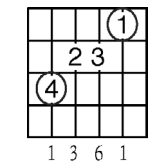
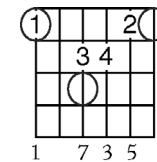
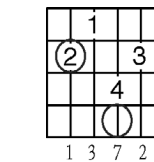
1

VII (b5 is IV)
B7b9 VII

III (b5 is bVII)
E7#5#9 VI

VI (b5 is bIII)
Am7 VII

II (b5 is bVI)
Dm7 VI

V (b5 is bII)
G7sus4 VIII

I (b5 is bV)
C6 VIII

IV (b5 is VII)
Fma7 VIII


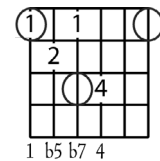
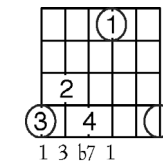
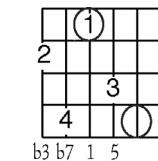
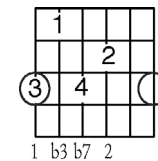
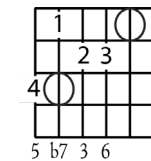
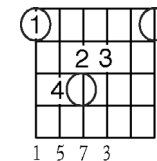
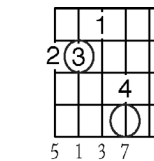
6

VII (b5 is IV)
Bm7b5 VII

III (b5 is bVII)
E7sus4 VII

VI (b5 is bIII)
Am7 VIII

II (b5 is bVI)
Dm7 X

V (b5 is bII)
G9 IX

I (b5 is bV)
C6 VIII

IV (b5 is VII)
Fma7 VIII


5

VII (b5 is IV)
B7#5 VII

III (b5 is bVII)
E7#9 VI

VI (b5 is bIII)
A7 V

II (b5 is bVI)
Dm7sus4 V

V (b5 is bII)
G6 VIII

I (b5 is bV)
Cma7 VIII

IV (b5 is VII)
Fma9 VII


3

VII (b5 is IV)
Bm7b5sus4 VII

III (b5 is bVII)
E7b9 IX

VI (b5 is bIII)
Am7 VII

II (b5 is bVI)
Dm9 VIII

V (b5 is bII)
G13 VIII

I (b5 is bV)
Cma7 VIII

IV (b5 is VII)
Fma7 VII


II-V-I CADENCES IN MAJOR KEY BLUES

The cadence chord names are below the staff. Use each diagram to locate the circled note on the root according to its letter name in the chord name. “D7#5” in “top voice b7-b7-1, the first example below shows its root “D”, which should be placed on the sixth string, tenth fret.

Top-Voicing Leading Cadences in I-IV-V Major Key Blues in C using the Charleston rhythm family with two different notes in each top-voiced cadence

[click this link to play the video](#)

top voice b7-b7-1; cadence rhythm: 3-4-1; comping rhythm: Charleston

Swing Eighth 11/13 = 105

11/13 = 105

D7(#5) G7(#9) C9

6/18 F9 7/19 C7 8/20 A7(b9) 9/21 Ab9

10/22 G7(sus4) 11/23 F9 12/24 C7

Ab9 is a flat five substitute for D7

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below:

A7b9 XI	Ab9 X	G7#9 VIII	C7 VIII	F9 VII
1 3 b7 b2	1 3 b7 2	1 3 b7 #9	5 b7 3 b7	3 b7 2 5

2

top voice b3-b3-1; cadence rhythm and after 2-4-1; comping rhythm: Blues By Five

25/37 $A\flat 9$ $G7(\sharp 9)$ $C7$ p $G7(\sharp 9)$ $C13(\sharp 9)$

26/38 27/39 28/40 29/41

30/42 $F9$ p 31/43 32/44 $C7$ 33/45 $A7(\flat 9)$ $A\flat 9$

34/46 $G7(sus4)$ p 35/47 $F9$ 36/48 $C7$

$A\flat 9$ is a flat five substitute for $D7$

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below:

$A7\flat 5\flat 9$ XI	$A\flat 9$ X	$G7\sharp 5\sharp 9$ IX	$C13\sharp 9$ VIII	$F9$ VII

top voice b7-b7-5; cadence rhythm and after 2, and after 3, 1; comping rhythm: Blues By Five, pickup to four

49/61 f $D7(b9)$ $G7(b9)$ $C7$ 50/62 p 51/63 52/64 53/65 f $G7(b9)$ $C7$

54/66 $F9$ 55/67 56/68 $C7$ 57/69 $A7(b9)$ $Ab9$

58/70 $G13$ 59/71 $F9$ 60/72 $C7$

$Ab9$ is a flat five substitute for $D7$

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summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below:

$A7(b9)$ XI	$Ab9$ X	$Gm7$ VIII	$C7$ VIII	$F9$ VII
1 3 b7 b2	1 3 b7 2	1 b3 b7 b3	5 b7 3 b7	3 b7 2 5

top voice 6-6-5; cadence rhythm and after 2-and after 3-and after 4; comping: rhythm Bomba

73/85 f Dm7 G13 C9 p F9 C9 77/89 f G13 C13 F9

78/90 F9 p 79/91 80/92 C9 81/93 f Am7 D9 G13

82/94 G13 83/95 F9 84/96 C9

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

Am7 IX	D9 IX	G13 VIII	C7 II	F9 VII
b7 b3 5 1	3 b7 2 5	b7 3 6 2	3 b7 3 6	1 3 b7 2

top voice 4-4-5; cadence rhythm 3-and after 3-and after 4; comping rhythm: Brown-Eyed Girl

97/109 Dm^7 G^7 C^7 p F^9 $100/112$ C^7 $101/113$ G^7 $C^7(sus4)$ F^9

102/114 F^9 $103/115$ $104/116$ C^7 $105/117$ f $A^7(\sharp 5)$ A^b13 G^{13}

106/118 G^{13} $107/119$ F^9 $108/120$ C^7

Ab13 is a flat five substitute for D7

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

$A^7\sharp 5$ IX	A^b13 IX	G^{13} VIII	C^7sus4 VIII	F^9 VII
$b7$ 3 $\sharp 5$	$b7$ 3 6	$b7$ 3 6 1	1 5 $b7$ 4	5 3 $b7$ 2

top voice 6-6-1; cadence rhythm 3-4-and after 4; comping rhythm: Black Magic Woman elec. piano

The musical score is written in 4/4 time and features a top voice line and piano accompaniment. The chords and their fingerings are as follows:

- 121/133:** Dm^7 (fingering: 1 1 1 1), G^9 (fingering: 1 2 2), C^{13} (fingering: 1 2 3 1), F^9 (fingering: 1 3 3 3).
- 122/134:** C^{13} (fingering: 1 2 3 1), F^9 (fingering: 1 3 3 3).
- 123/135:** F^9 (fingering: 1 3 3 3), C^{13} (fingering: 1 2 3 1).
- 124/136:** C^{13} (fingering: 1 2 3 1), G^{13} (fingering: 1 2 3 1), C^7 (fingering: 1 2 3 1), F^9 (fingering: 1 3 3 3).
- 125/137:** G^{13} (fingering: 1 2 3 1), C^7 (fingering: 1 2 3 1), F^9 (fingering: 1 3 3 3).
- 126/138:** F^9 (fingering: 1 3 3 3), p (fingering: 1 3 3 3), $127/139$ (fingering: 1 3 3 3), $128/140$ (fingering: 1 3 3 3), $129/141$ (fingering: 1 3 3 3).
- 130/142:** $G^7(sus4)$ (fingering: 1 3 3 3), p (fingering: 1 3 3 3), $131/143$ (fingering: 1 3 3 3), $132/144$ (fingering: 1 3 3 3).

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

The summary progression shows five three-chord cadences with their respective chords and fingerings:

- Am7 IX:** Am^7 (fingering: 1 2 3 4), $b7$ (fingering: 1 2 3 4), $b3$ (fingering: 1 2 3 4).
- D9 IX:** D^9 (fingering: 1 2 3 4), 3 (fingering: 1 2 3 4), $b7$ (fingering: 1 2 3 4).
- G13 VIII:** G^{13} (fingering: 1 2 3 4), $b7$ (fingering: 1 2 3 4), 3 (fingering: 1 2 3 4).
- C7 VIII:** C^7 (fingering: 1 2 3 4), 3 (fingering: 1 2 3 4), $b7$ (fingering: 1 2 3 4).
- F9 VII:** F^9 (fingering: 1 2 3 4), 1 (fingering: 1 2 3 4), 3 (fingering: 1 2 3 4).

top voice 3-3-1; cadence rhythm 3-and after 3-and after 4; comping rhythm: Time of Your Life

145/157

Dm^9 G^{13} C^7 F^9

146/158 C^7 F^9 C^7 F^9

147/159 F^9 C^7 F^9 C^7

148/160 C^7 F^9 C^7 F^9

149/161 $G^7(\sharp 5)$ $C^7(\sharp 9)$ F^9

top voice $b3-b3-1$
to anticipate key $b3$
in the IV9 chord

150/162 F^9 p f Am^7 D^9 $G^7(sus4)$

151/163 F^9 p f Am^7 D^9 $G^7(sus4)$

152/164 C^7 F^9 C^7 F^9

153/165 F^9 C^7 F^9 C^7

154/166 $G^7(sus4)$ p F^9 C^7

155/167 F^9 C^7 F^9 C^7

156/168 C^7 F^9 C^7 F^9

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

Am^7	X	D^9	X	G^{13}	IX	C^7	VIII	F^9	VII
$b3$ $b7$ 1 5		$b7$ 3 5 2		3 $b7$ $\sharp 2$ $\sharp 5$		$b7$ 3 6 $\sharp 2$		3 $b7$ 2 5	

top voice #2-3-1; cadence rhythm and after 2-4-and after 4; comping rhythm: Blue Monk

169/181 $D7(b9)$ G^{13} C^6 p

170/182 C^6 171/183 F^9 172/184 C^6 173/185 F^9

top voice 2-b3-1 to anticipate key b3 in the IV9 chord

174/186 F^9 p 175/187 F^9 176/188 C^6 177/189 F^9

f $Am7(b5)$ D^9 $G7(sus4)$

178/190 $G7(sus4)$ 179/191 F^9 180/192 C^6 193 $D7(b9)$ G^{13} C^6 194 $D7(b9)$ G^{13} C^6

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summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

$Am7b5$ X	D^9 X	G^9 IX	C^7 VIII	F^9 VII
b3 b7 1 b5	b7 3 5 2	3 b7 2 5	b7 3 6 #2	3 b7 2 5

Top-Voicing Leading Cadences in I-IV-V Major Key Blues in G
using the Bossa Nova Family of Rhythms , two different notes in each cadence
[click this link to play the video](#)

top voice b7-b7-1; cadence rhythm: 3-4-1; comping rhythm: Bossa Nova/Samba

[illegible]

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

E7b9 VI A7#5 V Dm7 X Db7 IX C7 VIII

1 3 b7 b2 1 b7 3 #5 1 b7 b3 1 b7 3 5 1 b7 3 5

top voice b3-b3-1; cadence rhythm and after 2-4-1; comping rhythm: Girl From Ipanema

The musical score for 'Girl From Ipanema' is presented in 4/4 time. The top voice part is written in treble clef, and the comping rhythm is indicated by a series of chords and fingerings. The chords and their fingerings are as follows:

- 25/37: A7(b9) (1 3 b7 b2), D7(#9) (1 b7 3 #5), G7 (1 3 b7 1)
- 26/38: G7 (1 3 b7 1)
- 27/39: G7 (1 3 b7 1)
- 28/40: G7 (1 3 b7 1)
- 29/41: D7(#9) (1 b7 3 #5), G13(#9) (1 3 b7 #9)
- 30/42: C7 (1 b7 3 5)
- 31/43: C7 (1 b7 3 5)
- 32/44: G7 (1 3 b7 1)
- 33/45: E7(b5) (1 b7 3 b5), Eb7 (1 b7 3 5)
- 34/46: D9(sus4) (1 b7 2 4), D9(sus4) (1 b7 2 4)
- 35/47: C7 (1 b7 3 5)
- 36/48: G7 (1 3 b7 1)

The score includes a key signature of one sharp (F#) and a time signature of 4/4. The chords are labeled with their respective symbols and fingerings. The top voice part is written in treble clef, and the comping rhythm is indicated by a series of chords and fingerings.

Eb7 is a flat five substitute for A7

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

The summary progression shows five three-chord cadences, each with a specific chord and fingering:

- E7b5 XI (1 b7 3 b5)
- Eb7 XI (1 b7 3 5)
- D7#5 X (1 b7 3 #5)
- G7#9 VIII (1 3 b7 #9)
- C7 VII (3 b7 2 5)

top voice b7-b7-5; cadence rhythm and after 2, and after 3, 1; comping rhythm Triste/Oye Como Va

49/61 f $A7(\#5)$ $b7\ 3\ \#5$

50/62 $D7(\#9)$ $3\ b7\ \#2$ $G7$ $b7\ 3\ 5$

51/63 $G9$ $1\ b7\ b3$

52/64 $53/65$ f $Dm7$ $5\ 3\ b7$ $G7$

54/66 $C9$ $1\ b7\ 2$ p

55/67 $G7$ $3\ b7\ b2$ p

56/68 $G7$ $1\ b7\ 2$ p

57/69 $E7(b9)$ $1\ b7\ 3\ \#5$ f

58/70 $D7$ $3\ b7\ 1$ p

59/71 $C9$ $1\ b7\ b3$ p

60/72 $G7$ $5\ 3\ b7$ p

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

$E7b9$ X	$Eb7$ X	$Dm7$ IX	$G7$ IX	$C9$ VII

top voice 6-6-5; cadence rhythm and after 2-and after 3-and after 4; comping rhythm: Cold Sweat

The musical score for 'Cold Sweat' is written in 4/4 time and G major. It consists of three systems of music, each with a treble clef and a key signature of one sharp (F#).

System 1 (Measures 73-85):

- Measure 73: f Am7 (Fingering: 1 3 4, b7 b7 1 5)
- Measure 74: D13 (Fingering: 1 3 4 4, b7 3 6 2)
- Measure 75: G9 (Fingering: 1 2 2 2, 3 b7 2 5)
- Measure 76: p C9 (Fingering: 1 3 b7 2, 2 3)
- Measure 77: C9 (Fingering: 1 3 b7 2, 2 3)
- Measure 78: f D13 (Fingering: 1 3 4 4, b7 3 6 2)
- Measure 79: G13 (Fingering: 1 2 3 4, b7 3 6 2)
- Measure 80: C9 (Fingering: 1 3 b7 2, 2 3)

System 2 (Measures 81-93):

- Measure 81: C9 (Fingering: 1 1 1 1, b7 b7 5 1)
- Measure 82: p C9 (Fingering: 1 2 2 2, 3 b7 2 5)
- Measure 83: G9 (Fingering: 1 2 3, b7 3 6 1)
- Measure 84: f Em7 (Fingering: 1 2 3, b7 3 6 1)
- Measure 85: A9 (Fingering: 1 2 3, b7 3 6 1)
- Measure 86: D13 (Fingering: 1 2 3, b7 3 6 1)

System 3 (Measures 87-94):

- Measure 87: D13 (Fingering: 1 2 3, b7 3 6 1)
- Measure 88: p C9 (Fingering: 1 2 3, b7 3 6 1)
- Measure 89: C9 (Fingering: 1 2 3, b7 3 6 1)
- Measure 90: G9 (Fingering: 1 2 3, b7 3 6 1)
- Measure 91: G9 (Fingering: 1 2 3, b7 3 6 1)
- Measure 92: G9 (Fingering: 1 2 3, b7 3 6 1)
- Measure 93: G9 (Fingering: 1 2 3, b7 3 6 1)
- Measure 94: G9 (Fingering: 1 2 3, b7 3 6 1)

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

The summary progression shows five three-chord cadences, each with a treble clef and a key signature of one sharp (F#).

Cadence 1: Em7 XII (Fingering: 1 1 1 1, b7 b7 5 1) → A9 XI (Fingering: 1 2 2 2, 3 b7 2 5) → D13 X (Fingering: 1 2 3 4, b7 3 6 2)

Cadence 2: G13 IX (Fingering: 1 2 2 4, 3 b7 2 6) → C9 IX (Fingering: 1 2 3 4, 1 3 b7 2)

top voice 4-4-5; cadence rhythm 3-and after 3-and after 4; comping rhythm: guaguanco bell

The musical score is written in 4/4 time and consists of three staves. The top staff shows measures 97-101, the middle staff shows measures 102-105, and the bottom staff shows measures 106-110. Chord diagrams are provided for each measure, showing the top voice line and the comping rhythm. The chords are: Am7, D7, G9, C9, Dm7, G7(sus4), C9, C9, G7, G9, E7(#5), Eb13, D13, D13, C9, G9, and D13. The score includes dynamic markings (f, p) and articulation (accents, slurs). A note indicates that Eb13 is a flat five substitute for D7.

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

The summary progression shows five three-chord cadences, each with a chord diagram and a Roman numeral:

- Em7#5 XII: Chord diagram shows top voice 1, 2, 2, 4. Roman numeral XII.
- Eb13 XI: Chord diagram shows top voice 1, 2, 3, 4. Roman numeral XI.
- Dm7 X: Chord diagram shows top voice 1, 2, 3, 4. Roman numeral X.
- G7sus4 X: Chord diagram shows top voice 1, 2, 3, 4. Roman numeral X.
- C9 IX: Chord diagram shows top voice 1, 2, 3, 4. Roman numeral IX.

top voice 6-6-1; cadence rhythm 3-4-and after 4; comping rhythm: Are You Gonna Be My Girl

121/133 *f* Am7 D9 G13 *p* 122/134 G13 123/135 C9 124/136 G13 125/137 D9 G13 C9

126/138 C9 *p* 127/139 128/140 G13 *p* 129/141 *f* Em7 A7 D9(sus4)

130/142 D9(sus4) *p* 131/143 C9 132/144 G13 *p* D9(sus4)

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

Em7 IX A9 IX D13 IX G13 VIII C9 VII

b3 b7 1 b7 3 5 3 b7 2 b7 3 6 3 b7 2 5

top voice 3-3-1; cadence rhythm 3-and after 3-and after 4; comping rhythm: Torn

The musical score consists of three staves of music in 4/4 time. Above the staves are various chord diagrams and fingering patterns. The chords and their corresponding diagrams are as follows:

- Staff 1:**
 - 145/157: Am^9 (Diagram: 3 2 1, 4 3 2, 1 4 3)
 - 146/158: D^{13} (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 147/159: G^{13} (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 148/160: C^9 (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 149/161: $D7(\sharp 9)$ (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 150/162: $G^{13}(\sharp 9)$ (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 151/163: C^9 (Diagram: 1 1 1, 2 2 2, 3 3 3)
- Staff 2:**
 - 152/164: Em^7 (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 153/165: A^9 (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 154/166: $D7(sus4)$ (Diagram: 1 1 1, 2 2 2, 3 3 3)
- Staff 3:**
 - 155/167: C^9 (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 156/168: G^7 (Diagram: 1 1 1, 2 2 2, 3 3 3)
 - 157/169: $D7(sus4)$ (Diagram: 1 1 1, 2 2 2, 3 3 3)

Additional notes:
 - $D7(\sharp 9)$ top voice $b3-b3-1$ to anticipate key $b3$ in the IV^9 chord
 - $D7(sus4)$ p
 - $D7(sus4)$ f

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

The summary progression shows five three-chord cadences, each with a diagram and a Roman numeral:

- Em7 IX** (Diagram: 1 1 1, 2 2 2, 3 3 3)
- A9 IX** (Diagram: 1 1 1, 2 2 2, 3 3 3)
- D7#5#9 IX** (Diagram: 1 1 1, 2 2 2, 3 3 3)
- G13 VIII** (Diagram: 1 1 1, 2 2 2, 3 3 3)
- C9 VII** (Diagram: 1 1 1, 2 2 2, 3 3 3)

top voice #2-3-1; cadence rhythm and after 2-4-and after 4; comping rhythm: Walk on the Wild Side

169/181 $A^7(b9)$ D^{13} G^6 p C^9 $171/183$ C^9 $172/184$ G^6 $173/185$ D^9 $G^{13}(\#9)$ C^9

top voice 2-b3-1 to anticipate key b3 in the IV9 chord

174/186 C^9 p $175/187$ G^6 $176/188$ G^6 $177/189$ f $Em^7(b5)$ A^9 $D^7(sus4)$

178/190 $D^7(sus4)$ p $179/191$ C^9 $180/192$ G^6 193 $D^7(sus4)$ $A^7(b9)$ D^{13} G^6 194 $A^7(b9)$ D^{13} G^6

summary progression

There are three, three-chord cadences in each example. To summarize the chords used in the example above, play the first two chords of the third cadence, then all three chords of the second cadence, as shown below.

Em7b5 IX A^9 IX D^9 IX G^{13} VIII C^9 VII

$b3$ $b7$ 1 $b5$ $b7$ 3 5 2 3 $b7$ 2 5 $b7$ 3 6 $\#2$ 3 $b7$ 2 5

II-V-I CADENCES IN MINOR KEY BLUES

minor 12-bar

Equinox

The Thrill Is Gone

with minor Im7-VIm7b5-IIIm7b5-V7 in bars 1-2 or 11-12

Black Magic Woman

with the Andalusian progression (Im-bVII-bVI-V) in bars 7-10

I-VI-II-V CADENCES

Descending Chromatic I-VI-II-V Voice Leading

1-7-b7-6-5

root top voice	I 1	VI (b5 is bIII) 7	II (b5 is bVI) b7	V (b5 is bII) 6	I (b5 is bV) 5
	C VIII	Am9 X	D7#5 X	G9 IX	Cma7 VIII
	1 3 6 1	1 b3 b7 2	1 b7 3 #5	1 3 b7 2	1 7 3 5

1-b7-6-b6-5 (not entirely chromatic_

root top voice	I 1	VI (b5 is bIII) b7	II (b5 is bVI) 6	V (b5 is bII) b6	I (b5 is bV) 5
	C6 VIII	A7b9 XI	Dm7 X	G7b9 IX	Cma7 VIII
	1 3 6 1	1 3 b7 b2	1 b7 b3 5	1 3 b7 b2	1 7 3 5

7-b7-6-b6-5

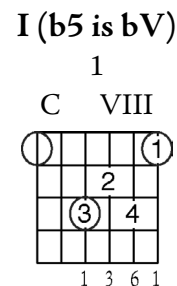
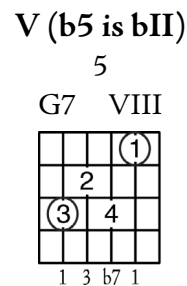
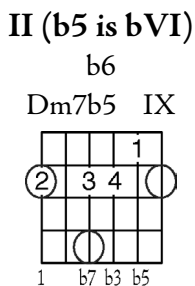
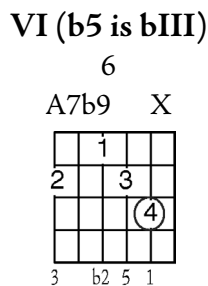
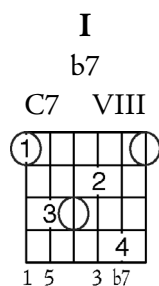
root top voice	I 7	VI (b5 is bIII) b7	II (b5 is bVI) 6	V (b5 is bII) b6	I (b5 is bV) 5
	Cma7 VIII	A7b9 XI	Dm7 X	G7b9 IX	Cma7 VIII
	1 5 3 7	1 3 b7 b2	1 b7 b3 5	1 3 b7 b2	1 7 3 5

b7-6-b6-5-5

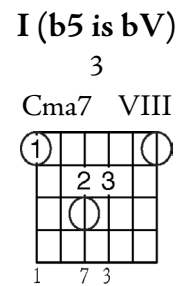
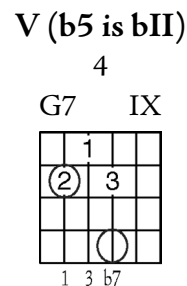
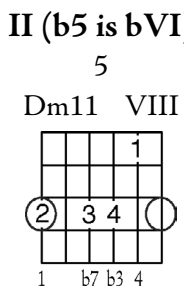
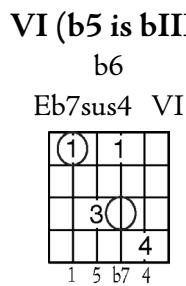
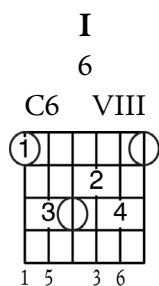
root top voice	I b7	VI (b5 is bIII) 6	II (b5 is bVI) b6	V (b5 is bII) 5	I (b5 is bV) 5
	C7 VIII	A7b9 VIII	Dm7b5 IX	Db7b5 VIII	Cma7 VIII
	1 5 3 b7	3 b2 5 1	1 b7 b3 b5	1 b7 3 b5	1 7 3 5

b7-6-b6-5-1

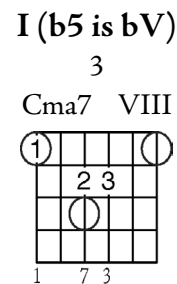
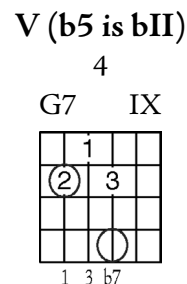
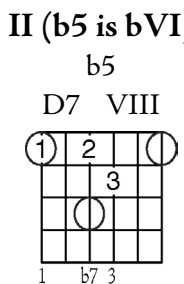
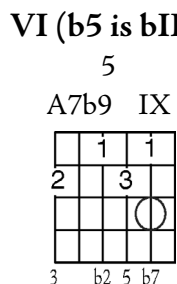
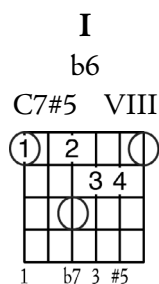
root
top voice

**6-b6-5-4-3**

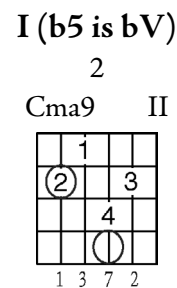
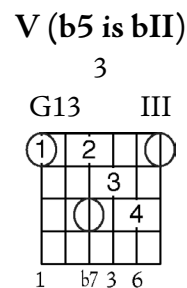
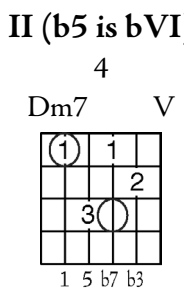
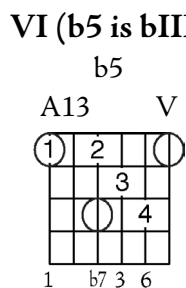
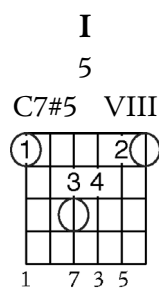
root
top voice

**b6-5-b5-4-3**

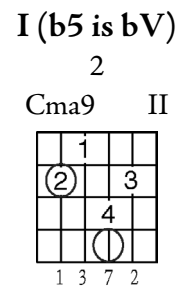
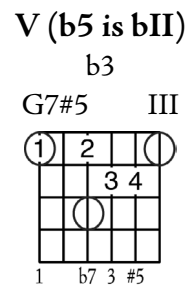
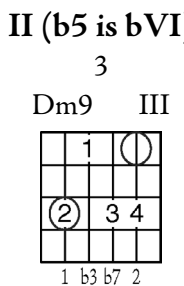
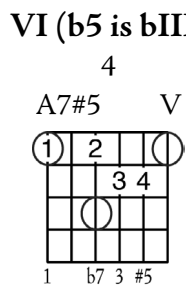
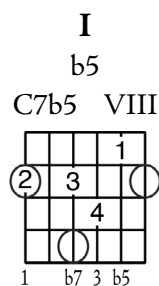
root
top voice

**5-b5-4-3-2**

root
top voice

**b5-4-3-b3-2**

root
top voice



3-b3-2-b2-1

root
top voice

I	VI (b5 is bIII)	II (b5 is bVI)	V (b5 is bII)	I (b5 is bV)
3	b3	2	b2	1
Fma7 VIII	Dm7b5 IX	Gm7 VIII	Gb7 VII	F6 VII
1 5 7 3	1 b7 b3 b5	1 b3 b7 1	1 3 b7 1	1 3 6 1

2-b2-1-7-6

root
top voice

I	VI (b5 is bIII)	II (b5 is bVI)	V (b5 is bII)	I (b5 is bV)
2	b2	1	7	6
Fma7 VIII	D7 X	Gm7 VIII	C7 VIII	F6 VII
1 3 7 2	1 b7 3	1 b3 b7	1 b7 3	1 3 6

Ascending Chromatic I-VI-II-V Voice Leading**1-#1-2-#2-3**

root
top voice

I	VI (b5 is bIII)	II (b5 is bVI)	V (b5 is bII)	I (b5 is bV)
1	#1	2	#2	3
C VIII	A7b9 VIII	Dm7 VIII	G7#5#9 IX	Cma7 X
1 3 6 1	b2 5 b7 3	b7 b3 5 1	1 3 b7 #2 #5	1 5 7 3

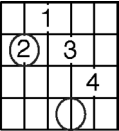
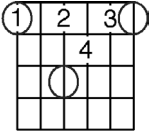
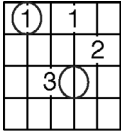
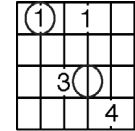
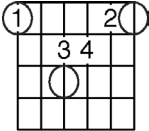
2-#2-3-4-3

root
top voice

I	VI (b5 is bIII)	II (b5 is bVI)	V (b5 is bII)	I (b5 is bV)
2	#2	3	4	3
Cma9 II	A7b5 IV	Dm9 III	Db7 IV	Cma7 III
1 3 7 2	1 b7 3 b5	1 b3 b7 2	1 5 b7 3	1 5 7 3

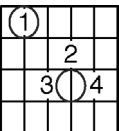
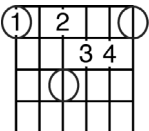
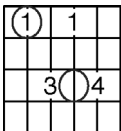
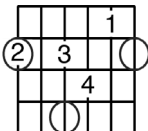
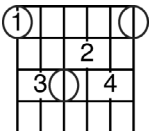
#2-3-4-#4-5

root
top voice

I #2 C7#9 II	VI (b5 is bIII) 3 A7 V	II (b5 is bVI) 4 Dm7 V	V (b5 is bII) #4 Db7sus4 IV	I (b5 is bV) 5 Cma7 VIII
				
1 3 b7 #9	1 b7 3 5	1 5 b7 b3	1 5 b7 4	1 7 3 5

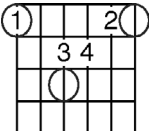
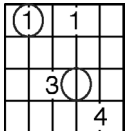
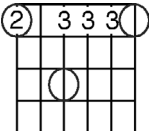
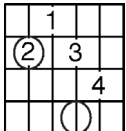
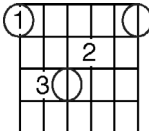
3-4-#4-5-5

root
top voice

I 3 Cma7 III	VI (b5 is bIII) 4 A7#5 V	II (b5 is bVI) #4 D7 V	V (b5 is bII) 5 Db7b5 VIII	I (b5 is bV) 6 C6 VIII
				
1 5 7 3	1 b7 3 #5	1 5 b7 3	1 b7 3 b5	1 5 3 6

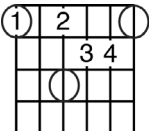
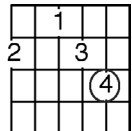
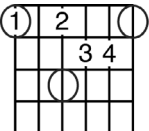
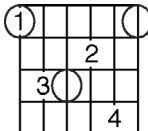
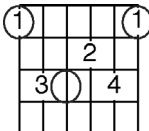
5-#5-6-#6-7

root
top voice

I 5 Cma7 VIII	VI (b5 is bIII) #5 Eb7sus4 VI	II (b5 is bVI) 6 Dm7 X	V (b5 is bII) b7 G7#9 IX	I (b5 is bV) 1 Cma7 VIII
				
1 7 3 5	1 5 b7 4	1 b7 b3 5	1 3 b7 #9	1 5 3 7

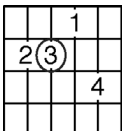
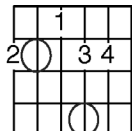
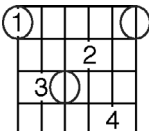
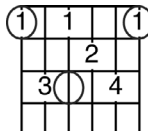
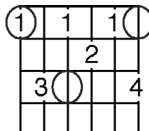
#5-6-#6-7-1

root
top voice

I #5 C7#5 VIII	VI (b5 is bIII) 6 A7b9 X	II (b5 is bVI) #6 D7#5 X	V (b5 is bII) 7 Db7 IX	I (b5 is bV) 1 C6 VIII
				
1 b7 3 #5	3 b2 5 1	1 b7 3 #5	1 5 3 b7	1 5 3 6 1

b7-7-1-#1-2

root
top voice

I b7 C7 IX	VI (b5 is bIII) 7 A7 XI	II (b5 is bVI) 1 D7 X	V (b5 is bII) #1 Db13 IX	I (b5 is bV) 2 C9 VIII
				
5 1 3 b7	5 3 b7 2	1 5 3 b7	1 5 b7 3 6 1	1 5 b7 3 5 2

7-1-#1-2-3

root
top voice

I	VI (b5 is bIII)	II (b5 is bVI)	V (b5 is bII)	I (b5 is bV)
7	1	#1	2	3
C7 IX	A7#9 XI	Ab7sus4 XI	G9 IX	C7 X
5 1 3 7	1 3 b7 #9	1 5 b7 4	1 3 b7 2	1 5 b7 3

II-V-I CADENCES ON I-VI-II-V

II-V-I CADENCES IN JAZZ BLUES

body

II-V-I CADENCES IN MINOR KEY SONGS

I Put a Spell On You, It Don't Mean a Thing, Smooth, Coranado
Espinado, Sugar, Summertime, Sunny, Time in a Bottle

Andalusian: Hit the Road Jack, Fever, Stray Cat Strut, Don't Let Me
Be Misunderstood, I Like It Like That, Song for My Father, Topsy

II-V-I CADENCES IN SONGS WITH MULTIPLE II-V-I

body

II-V-I CADENCES IN SONGS WITH QUASI-DIATONIC PROGRESSION

Jazz Bass Harmonization

- **Archetypal Walking Bass**
- **Harmonized Walking Bass, Roots in Fourths**
- **A Scalar Bassline from Two Main Chords**

Harmonized Bass Scales:

- **Ionian**
- **Dorian**
- **Mixolydian**
- **Aeolian/Harmonic Minor**
- **Phrygian Dominant**
- **Melodic Minor**
- **Lydian Dominant**

ARCHETYPAL WALKING BASS

play video (bass in moving in fourths or fifths)

Archetypal Walking Bass up a Fourth (or down a fifth)

scalar ascent

the last note in each bracket is the root of the next chord and is considered the "target"

♩ = 120

up a fourth, I to IV up a fourth, IV to VIIIm7b5 up a fourth, VIIIm7b5 to III up a fourth, III to VIm

down a fifth, VIm to IIm down a fifth, IIm to V down a fifth, V to I

chord tones where the fourth chord tone is a neighbor of the target, or a fifth of the target

the last note in each bracket is the root of the next chord and is considered the "target"

♩ = 120

up a fourth, I to IV up a fourth, IV to VIIIm7b5 up a fourth, VIIIm7b5 to III up a fourth, III to VIm

down a fifth, VIm to IIm down a fifth, IIm to V down a fifth, IIm to V

chord tones before the target, except the second tone is a neighbor of the third tone

it is preferred that the fourth tone is an interval of a minor third (3 frets) or less from the target tone root that begins the next chord
the fourth tone could also be the fifth of the target

♩ = 120

up a fourth, I to IV up a fourth, IV to VIIIm7b5 up a fourth, VIIIm7b5 to III up a fourth, III to VIm

down a fifth, VIm to IIm down a fifth, IIm to V down a fifth, IIm to V

scalar ascent with passing chromatic or two lower chromatics to the target

the last note in each bracket is the root of the next chord and is considered the "target"

♩ = 120

up a fourth, I to IV up a fourth, IV to VIIIm7b5 up a fourth, VIIIm7b5 to III up a fourth, III to VIIm

down a fifth, VIIm to IIm down a fifth, IIm to V down a fifth, IIm to V

Archetypal Walking Bass up a Fifth (or down a fourth)

scalar ascent

the last note in each bracket is the root of the next chord and is considered the "target"

♩ = 120

up a fifth, VIIm to III7 up a fifth, IIm to VIIm

up a fifth, I major to V up a fifth, IV to I

scalar descent with lower neighbor setup

the last note in each bracket is the root of the next chord and is considered the "target"

♩ = 120

down a fourth, VIIm to III7 down a fourth, IIm to VIIm

down a fourth, I to V down a fourth, IV to I

scalar descent with passing chromatic

the last note in each bracket is the root of the next chord and is considered the "target"

♩ = 120

21 Am E7 Dm Am

down a fourth VIIm to III7 down a fourth IIIm to VIIm

26 C G F C G/B Am

down a fourth I to V down a fourth IV to I

two chord tones, then two lower chromatics preceding the target

the last note in each bracket is the root of the next chord and is considered the "target"

♩ = 120

31 Am E7 Dm Am

down a fourth, VIIm to III7 down a fourth, IIIm to VIIm

36 C G F C G/B Am

down a fourth, I to V down a fourth IV to I

root, two chord tones, then a neighbor to next target

the neighbor can be in a pentatonic scale, preferably an interval of a minor third (3 frets) or less

♩ = 120

41 Am E7 Dm Am

down a fourth VIIm to III7 down a fourth IIIm to VIIm

46 C G F C G/B Am

down a fourth I to V down a fourth IV to I

Archetypal Walking Bass on the 2-5-1-4-7-3-6-6 Chord Progression

Autumn Leaves or Still Got the Blues in G minor

[play 25146366 video](#)

$\text{♩} = 120$ Swing Eighthths [1-3-5-3]

1 = 120 Swing Eighthths [1-3-5-3]

6 Am7(b5) D7 Gm7 Gm Gm(maj7) Gm6

10 Cm7 [1-3-5-1] F7 Bbmaj7 Ebmaj7 3

14 Am7(b5) D7(b9) D7(b9) Gm7 Gm Gm(maj7) Gm7

18 Cm7 [1-5-3-1] F7 Bbmaj7 Ebmaj7

22 Am7(b5) D7 Gm7 Gm Gm(#5) Gm6 Gm(#5)

26 Cm7 [1-5-3-5] F7 Bbmaj7 Ebmaj7

30 Am7(b5) D7 Gm7 Gm Gm(#5) D7(b9) 3

This page contains the bass line for measures 34 through 62 of a jazz piece. The key signature is B-flat major (two flats). The score is written for a single bass line on a grand staff (treble and bass clefs). Chord symbols are placed above the staff, and fingering numbers (1-5) are written below the staff. Measure numbers 34, 38, 42, 46, 50, 54, 58, and 62 are indicated at the start of their respective systems.

Measures 34-37: Chords: Cm7 [1-7-5-3], F7, Bbmaj7, Ebmaj7. Fingering: 6, 5, 8, 5, 5, 6, 10, 8, 8, 10, 7, 8, 7, 8, 8, 5, 6, 7, 7, 8, 5.

Measures 38-41: Chords: Am7(b5), D7, Gm7, Gm11. Fingering: 8, 10, 6, 6, 6, 10, 7, 10, 7, 9, 8, 10, 10, 7, 7, 7, 8, 8, 5, 3, 6, 5, 6.

Measures 42-45: Chords: Cm7 [1-7-5-1], F7, Bbmaj7, Ebmaj7. Fingering: 3, 5, 3, 5, 5, 8, 8, 8, 10, 8, 6, 7, 8, 8, 7, 8, 7, 8, 8.

Measures 46-49: Chords: Am7(b5), D7, Gm7, Gm7. Fingering: 8, 5, 6, 7, 7, 7, 4, 5, 5, 5, 4, 5, 3, 3, 6, 3, 3, 3, 3, 3, 5, 3, 5, 3, 3, 3, 5, 3, 3.

Measures 50-53: Chords: Cm7 [1-2-3-5 (non-chord, second note)], F7, Bbmaj7, Ebmaj7. Fingering: 4, 5, 5, 5, 4, 8, 5, 5, 5, 4, 5, 6, 8, 8, 8, 3.

Measures 54-57: Chords: Am7(b5), D7, Gm7, A°, A°7. Fingering: 5, 3, 3, 4, 8, 7, 8, 7, 5, 3, 4, 8, 6, 3, 4, 3, 6, 3, 5, 6, 6.

Measures 58-61: Chords: Cm7 [1-2-3-1 (non-chord, second note)], F7, Bbmaj7, Ebmaj7. Fingering: 8, 5, 6, 8, 8, 8, 10, 8, 8, 10, 7, 8, 6, 8, 8, 5, 8, 6, 8, 8, 10, 10, 10, 6.

Measures 62-65: Chords: Am7(b5), D7, Gm7, Am7(b5), A°7. Fingering: 10, 8, 10, 10, 7, 7, 7, 10, 8, 5, 6, 8, 10, 5, 5, 5, 10, 8, 5, 3, 4, 5, 6, 3.

66 Cm⁷ [1-4-3-5 (non-chord, second note)] F⁷ B^bma⁷ E^bma⁷

70 Am⁷(b⁵) A^{o7} D⁷(sus4) D⁷(b⁹) Cm Cm Cm⁷ Dm⁷

74 Cm⁷ [1-4-3-1 (non-chord, second note)] F⁷ B^bma⁷ E^bma⁷

78 Am⁷(b⁵) A^{o7} D⁷(sus4) D⁷(b⁹) E^b Gm⁶ E^b

82 Cm⁷ [1-6-5-3 (non-chord, second note)] F⁷ B^bma⁷ E^bma⁷

86 Am⁷(b⁵) A^{o7} D⁷(b⁹) Cm⁷

90 Cm⁷ [1-6-5-1 (non-chord, second note)] F⁷ B^bma⁷ E^bma⁷

94 Am⁷(b⁵) D⁷ E^b7 D⁷(b⁹) Gm⁷ E^b G⁷(#5) E^b7 D⁷

98 Cm7 1-4-5-3 (non-chord, second note) F7 Bbmaj7 Ebmaj7

102 Am7(b5) Eb7 D7 Gm7 3 A#07 Gm6

106 Cm7 1-3-5-b5, chromatic figure F7 Bbmaj7 Ebmaj7

110 Am7(b5) Eb7 Eb7 D7(b9) Ab13 Gm(maj7) Gm(maj7) Db7

114 Cm7 1-2-#2-3, 1-#1-2-b3 or 1-b2-b3-3 F7 Bbmaj7 Ebmaj7

118 Am7(b5) A#07 B07 Eb7 F#07 G#6 A6 G#6 A6

122 Cm7 1-6-5-b5 F7 Bbmaj7 Ebmaj7

126 Am7(b5) Eb7 A#07 Ab13 Gm(maj7) Gm(maj7) Db7

130 Cm⁷ 1-(b)7-5-b5 F⁷ B^bmaj⁷ E^bmaj⁷

Gm⁷ G^b9 F⁹ C^b9 Fm⁷ F^b9 E^bmaj⁹ E^b9 E^b7(b9)

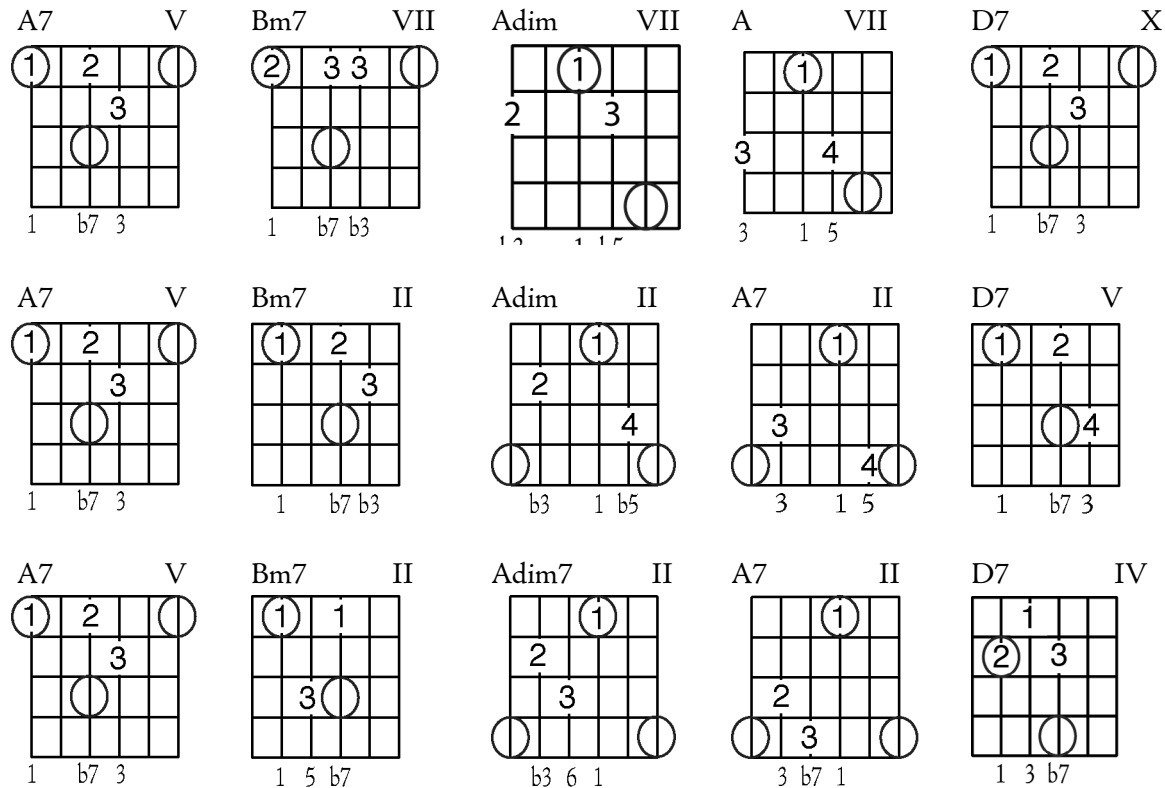
134 Am⁷(b5) D⁷ Gm⁷

F⁷ E^b7 E⁷(b9) A^b7 G⁷

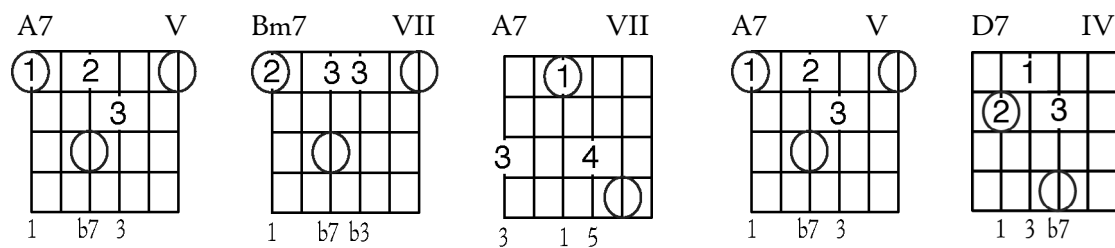
HARMONIZED WALKING BASS, ROOTS IN FOURTHS

I7 to IV7

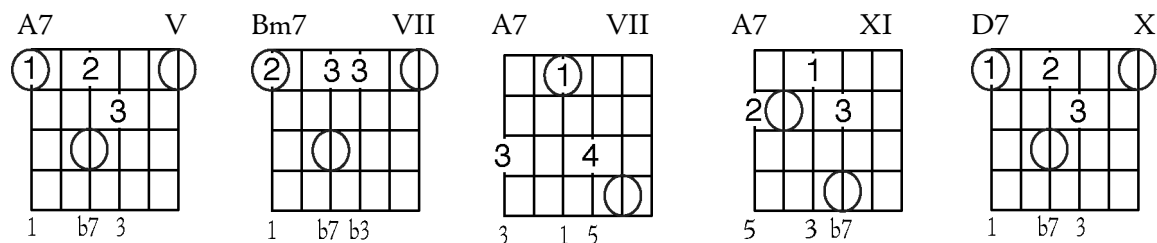
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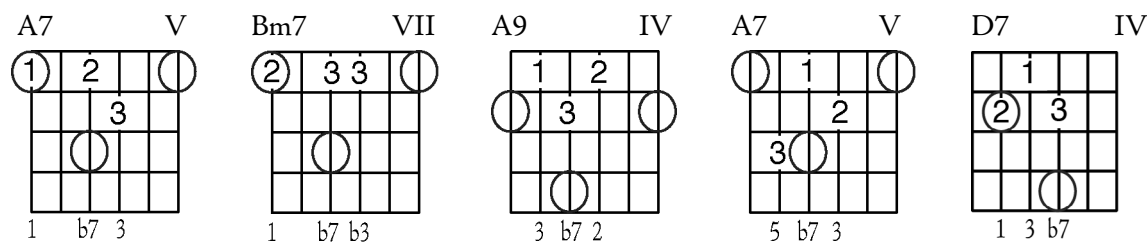
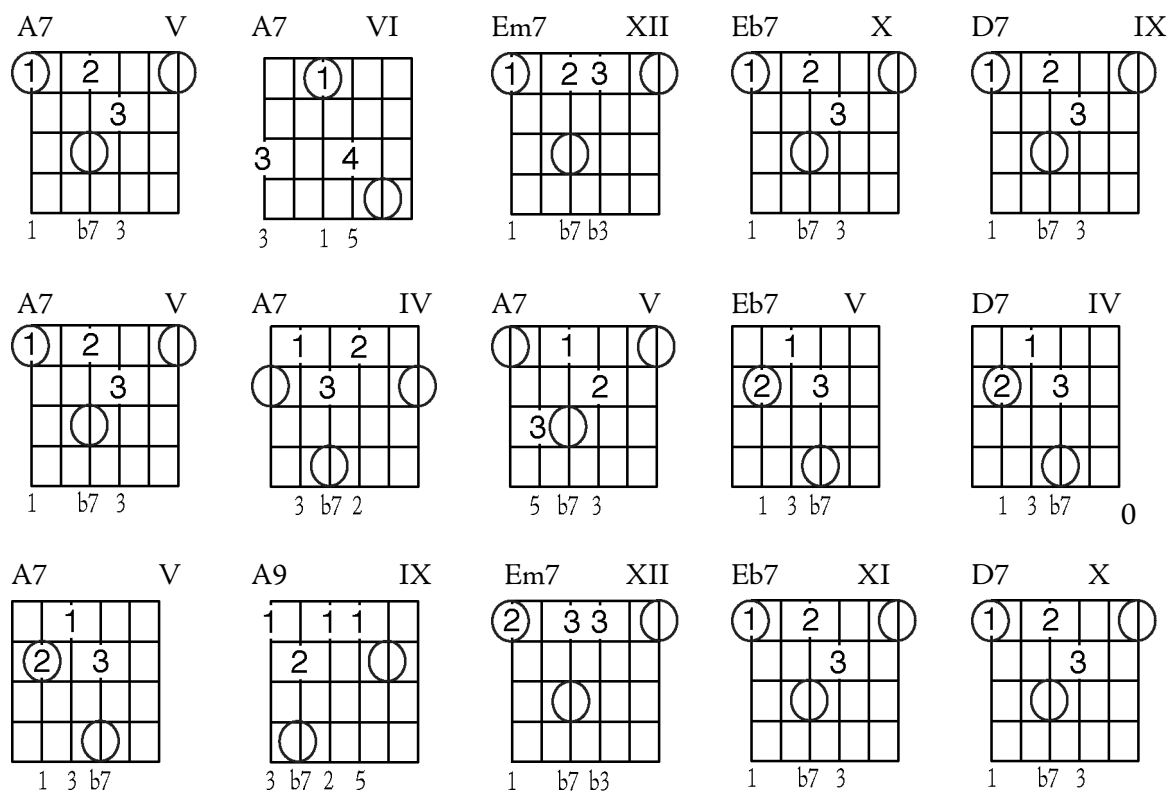
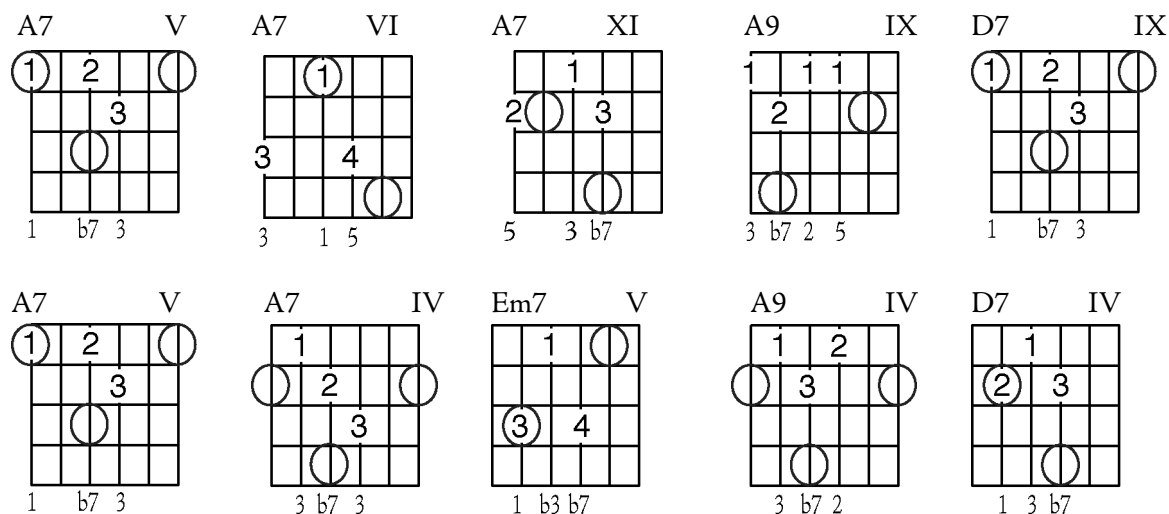


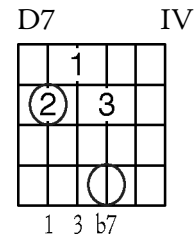
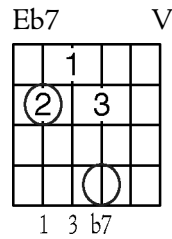
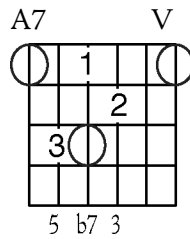
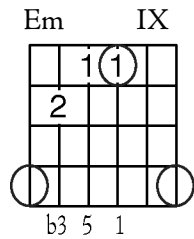
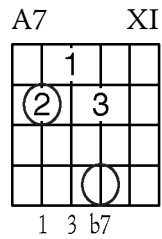
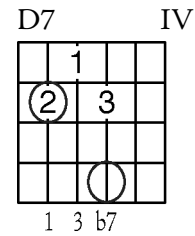
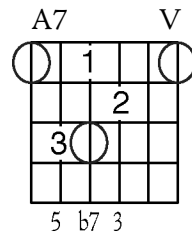
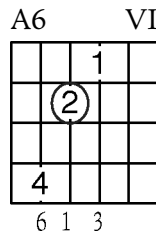
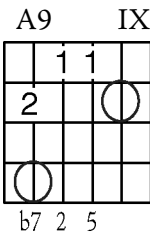
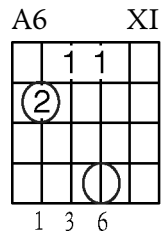
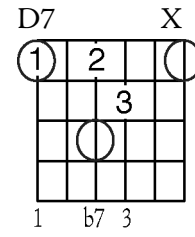
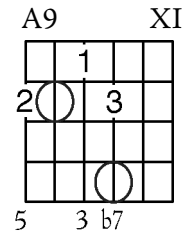
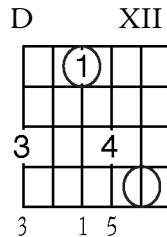
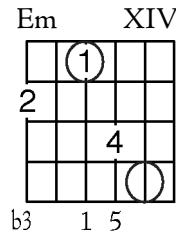
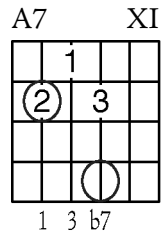
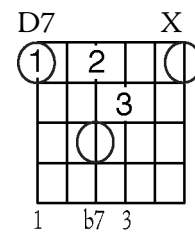
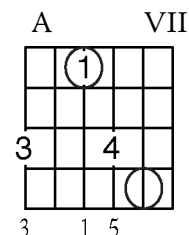
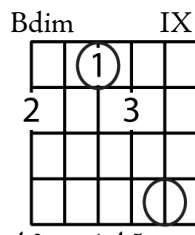
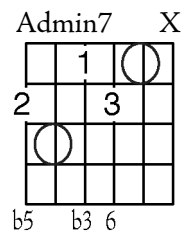
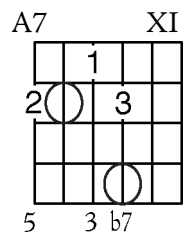
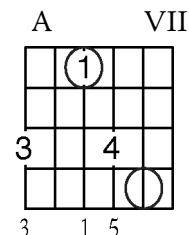
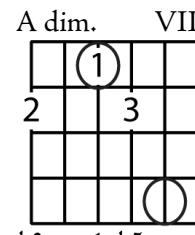
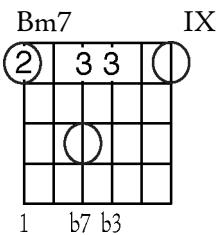
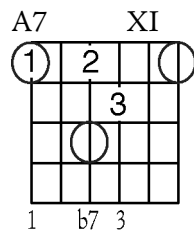
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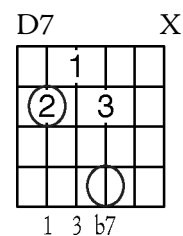
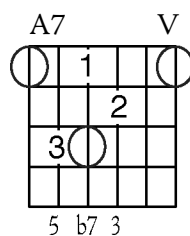
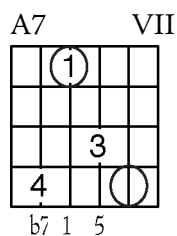
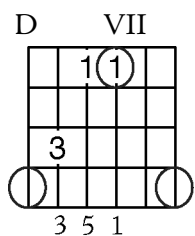
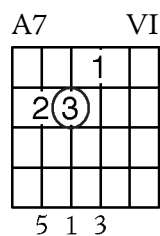
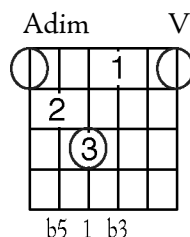
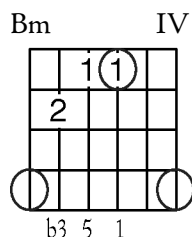
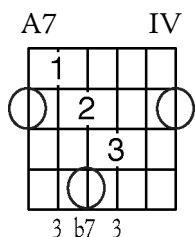
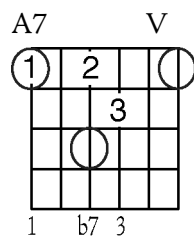
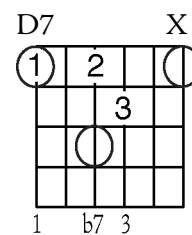
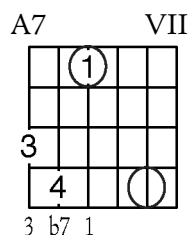
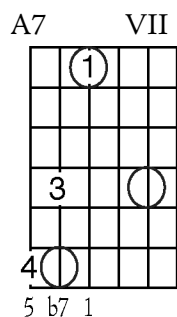
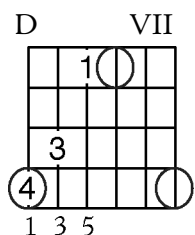
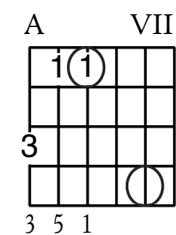
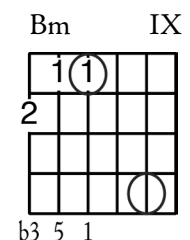
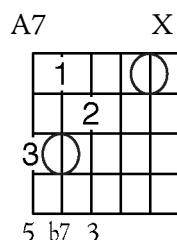
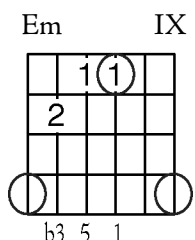
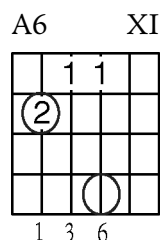
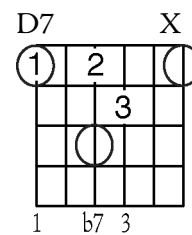
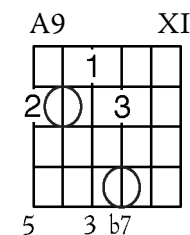
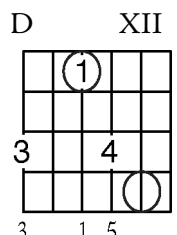
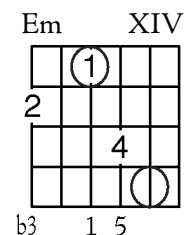
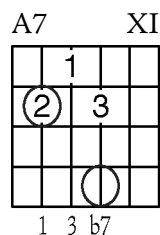
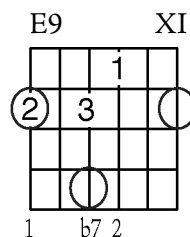
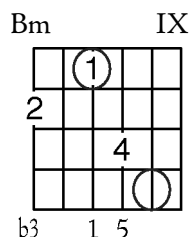
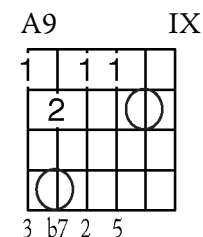
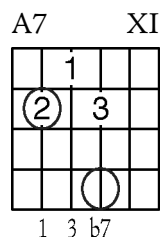


1-2-3-5-4



**1-3-5-b5-4****1-3-5-3-4**

1-b7-5-b5-4**1-b7-6-5-4****I7 to I7 to IV7****1-2-#2-3, 5-b5-4-3, 4**

1-3-4-#4, 5-6-b7-5, 4**1-3-4-5, 1-b7-6-5,4**

I7 to VI7 to IIIm7

1-3-5-b7, 6-#1-2-3, 2

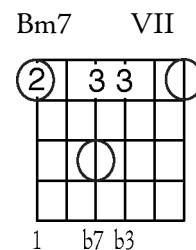
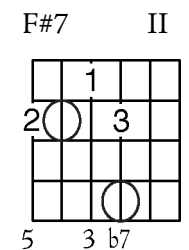
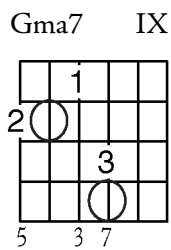
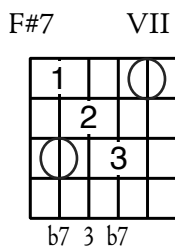
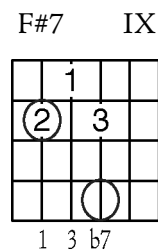
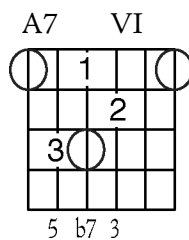
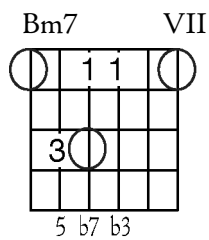
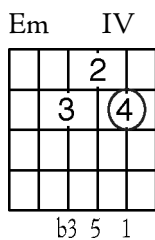
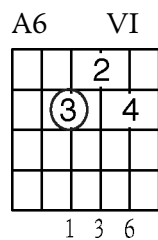
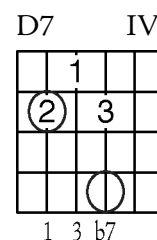
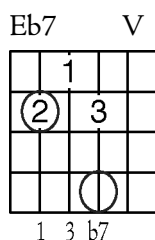
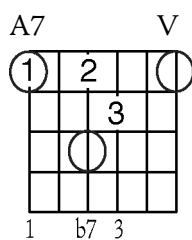
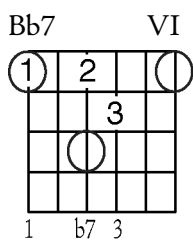
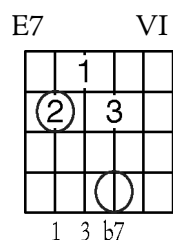
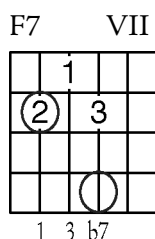
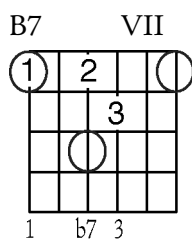
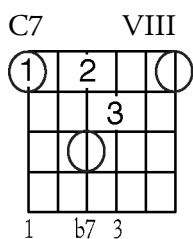
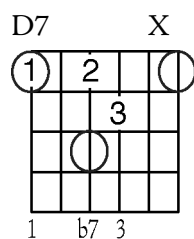
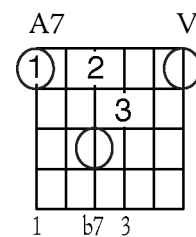
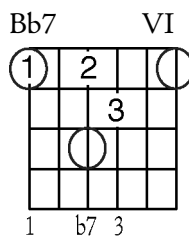
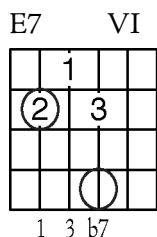
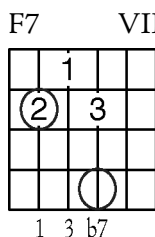
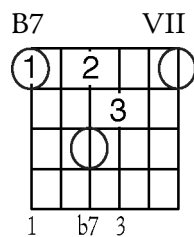
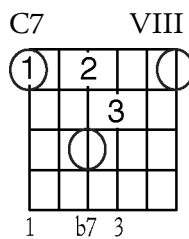
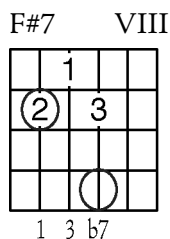
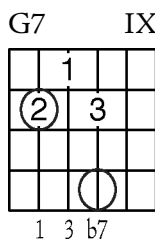
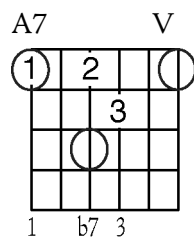
<p>A7 V</p> <p>1 b7 3</p>	<p>A7 IV</p> <p>3 b7 3</p>	<p>A7 V</p> <p>5 b7 3</p>	<p>Gaug VIII</p> <p>1 3 #5</p>
<p>F#7 VIII</p> <p>1 3 b7</p>	<p>F#7 VI</p> <p>3 b7 3 5</p>	<p>Bm7 VII</p> <p>1 b7 b3</p>	<p>F#7 VIII</p> <p>5 3 b7</p>
<p>Bm7 VII</p> <p>1 b7 b3</p>			

1-b7-5-4, 3-2-#1-6, 2

<p>A6 VI</p> <p>1 3 6</p>	<p>Em IV</p> <p>b3 5 1</p>	<p>A7 V</p> <p>5 b7 3</p>	<p>G7 III</p> <p>5 b7 3</p>
<p>F#7 VI</p> <p>5 b7 3</p>	<p>G7 II</p> <p>3 b7 5</p>	<p>F#7 I</p> <p>3 b7 5</p>	<p>F#7 II</p> <p>1 b7 3</p>
<p>Bm II</p> <p>1 5 1</p>			

1-3-5-b7, 6-5-4-3, 2

<p>A7 V</p> <p>1 b7 3</p>	<p>A7 IV</p> <p>3 b7 3</p>	<p>A7 V</p> <p>5 b7 3</p>	<p>A7 V</p> <p>b7 3 5</p>
<p>F#7 II</p> <p>1 3 b7</p>	<p>F#7 IV</p> <p>b7 3 b7</p>	<p>G7 III</p> <p>5 b7 3</p>	<p>F#7 II</p> <p>5 b7 3</p>
<p>Bm7 II</p> <p>1 5 b7 b3</p>			

1-b7-6-5, 6-5-4-3, 2**I7 VI7 II m7 V7 (two beats each)****1-b7-6-b3, 2-b6-5-b2, 1**

mixed root and fifth in the bass: 4-3-b3, 2-b3-2-b1-1

A7 XI 5 3 b7	G7 X 5 3 b7	F#7 IX 5 3 b7	C7 VIII 1 b7 3
B7 VII 1 b7 3	F7 VII 5 3 b7	E7 VI 5 3 b7	Bb7 VI 1 b7 3
A7 V 1 b7 3			

mixed root and third in the bass: 3-2-#1-#1, 2-#4-5-b2, 1

A7 VII 3 1 5	G V 3 1 5	F# IV 3 1 5	F#7b9 V 3 b2 5
B7 VII 1 b7 3	B7/D# VII b7 3 b7	E7 VI 1 3 b7	Bb7 VI 1 b7 3
A7 V 1 b7 3			

1-b7-6-#1, 2-#4-5-b2, 1

A7 V 1 b7 3	G7 III 1 b7 3	F#7 IX 1 b7 3	A#dim7 V 1 6 b3
Bm7 VII 1 b7 b3	B9 IV 3 b7 2	E7 VI 1 3 b7	Bb7 VI 1 b7 3
A7 V 1 b7 3			

IIIm7 to V7 to I7

2-3-4-#4, 5-6-b7-7, 1

<p>Bm VII</p> <p>1 b7 b3</p>	<p>A VII</p> <p>3 1 5</p>	<p>Bm IX</p> <p>b3 1 5</p>	<p>B9 XI</p> <p>3 b7 2 5</p>
<p>E7 XII</p> <p>1 b7 3</p>	<p>D VII</p> <p>3 1 5</p>	<p>Edim7 X</p> <p>b3 6 b5</p>	<p>E7 XI</p> <p>3 b7 5</p>
<p>A7 X</p> <p>1 3 b7 1</p>	<p>Bm7 II</p> <p>1 b3 5 1</p>	<p>A6 II</p> <p>5 1 b3 b7</p>	<p>Bm7 IV</p> <p>b3 b7 1 5</p>
<p>B7 IV</p> <p>3 b7 1 5</p>	<p>E7 V</p> <p>1 3 b7 1</p>	<p>F#m II</p> <p>1 b7 b3 5</p>	<p>G6 II</p> <p>1 6 3 5</p>
<p>E9 IV</p> <p>3 1 5 b7</p>	<p>A7 V</p> <p>1 b7 3 5</p>	<p>F#m IV</p> <p>1 b7 b3 5</p>	<p>E9 IV</p> <p>3 1 5 b7</p>

2-1-7-6, 5-6-b7-7, 1

<p>Bm VII</p> <p>1 b7 b3</p>	<p>F#m IV</p> <p>b3 1 5</p>	<p>E9 IV</p> <p>3 b7 2 5</p>	<p>F#m II</p> <p>1 b7 b3</p>
<p>E7 V</p> <p>1 3 b7</p>	<p>F#m II</p> <p>1 b7 b3</p>	<p>Edim7 II</p> <p>1 3 b7</p>	<p>E7 IV</p> <p>3 1 5</p>
<p>A7 V</p> <p>1 b7 3</p>	<p>F#m IV</p> <p>1 b7 b3</p>	<p>Edim7 II</p> <p>1 3 b7</p>	<p>E7 IV</p> <p>3 1 5</p>

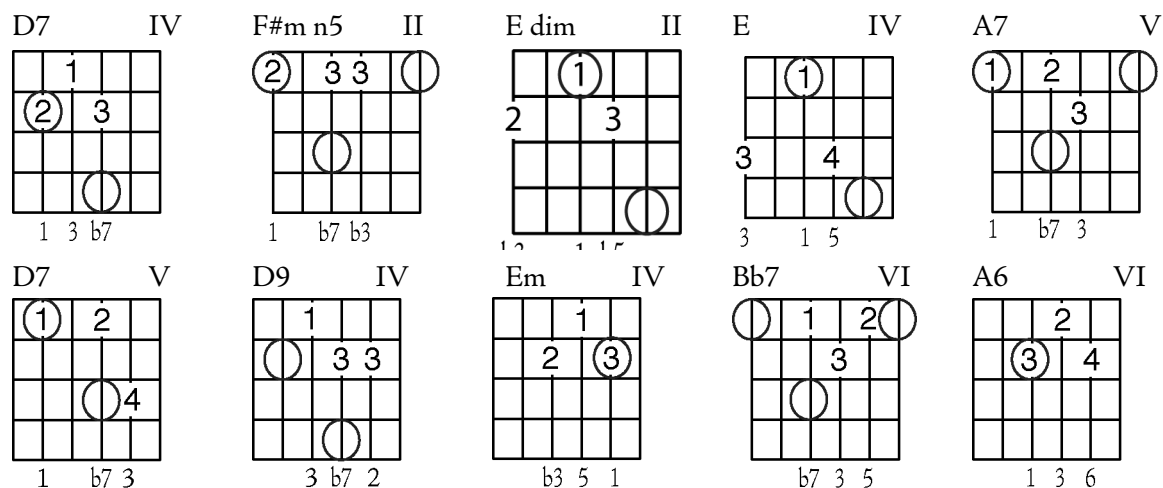
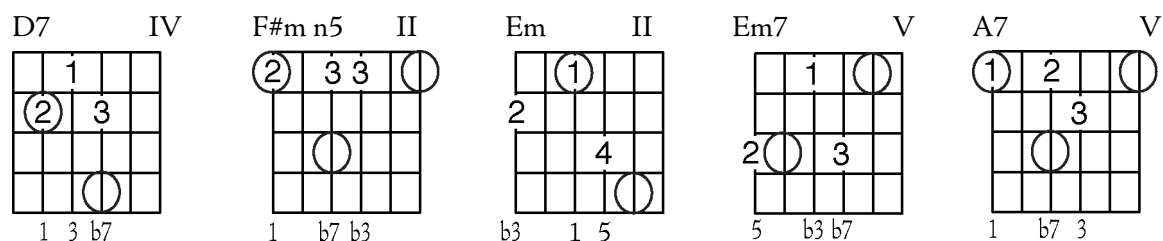
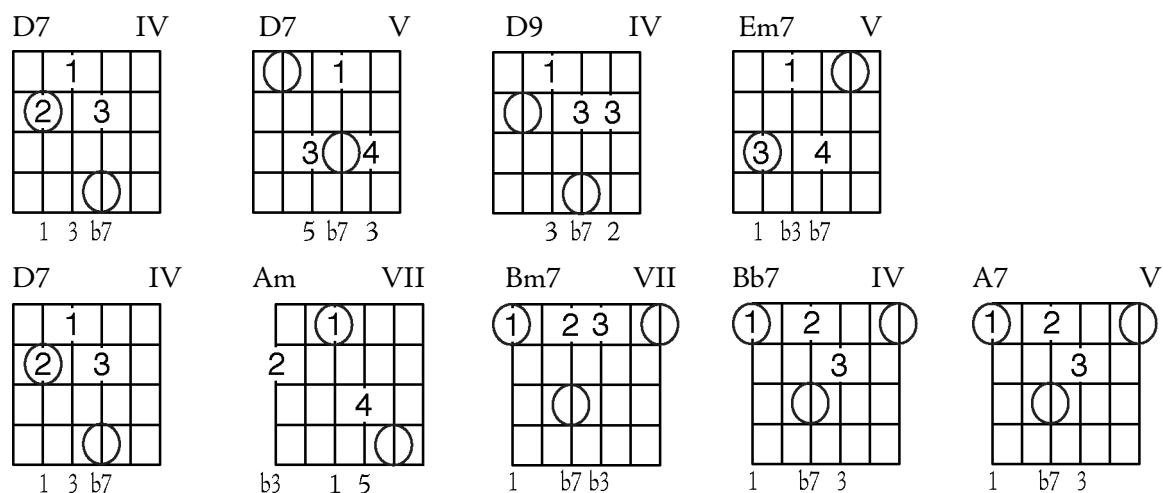
IV7 to I7

4-b3-2-b2, 1

<p>D7 X</p> <p>1 b7 3</p>	<p>Am VII</p> <p>b3 1 5</p>	<p>Bm7 VII</p> <p>1 b7 b3</p>	<p>Bb7 VI</p> <p>1 b7 3</p>	<p>A7 V</p> <p>1 b7 3</p>
<p>D7 V</p> <p>1 b7 3</p>	<p>Am II</p> <p>b3 1 5</p>	<p>Bm7 II</p> <p>1 b7 b3</p>	<p>Bb7 VI</p> <p>1 b7 3</p>	<p>A7 V</p> <p>1 b7 3</p>
<p>D II</p> <p>1 3 5</p>	<p>D7 II</p> <p>b7 3 5</p>	<p>Bm7 VII</p> <p>1 b7 b3</p>	<p>Bb7 VI</p> <p>1 b7 3</p>	<p>A7 V</p> <p>1 b7 3</p>
<p>D7 IV</p> <p>1 3 b7</p>	<p>D VII</p> <p>b7 5 1</p>	<p>Bm7 VII</p> <p>1 b7 b3</p>	<p>Bb7 VI</p> <p>1 b7 3</p>	<p>A7 V</p> <p>1 b7 3</p>

4-5-6-b7, 1

<p>D7 V</p> <p>1 5 b7 3</p>	<p>Em7 VII</p> <p>1 5 b7 b3</p>	<p>D7 VII</p> <p>3 b7 1 5</p>	<p>Em7 IX</p> <p>b3 b7 1 5</p>	<p>A9 XI</p> <p>1 3 b7 2</p>
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4-6-b7-7, 1**4-6-b7-2, 1****IV7 to IV7 to I7****4-1-6-5, 4-b3-2-b2, 1**

4-b3-2-1, 4-5-6-b7, 1

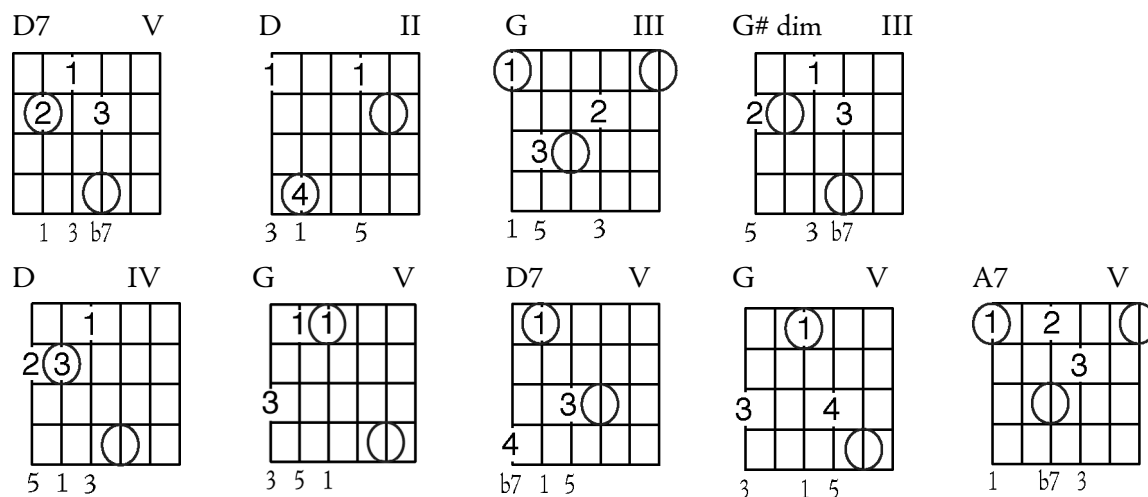
<p>D7 X</p> <p>1 b7 3</p>	<p>Am VII</p> <p>b3 1 5</p>	<p>Bm7 VII</p> <p>1 b7 b3</p>	<p>D7 IV</p> <p>5 3 b7</p>
<p>D7 V</p> <p>1 5 b7 3</p>	<p>Em7 VII</p> <p>1 5 b7 b3</p>	<p>D7 VII</p> <p>3 b7 1 5</p>	<p>Em7 IX</p> <p>b3 b7 1 5</p>
	<p>A9 XI</p> <p>1 3 b7 2</p>		

4-b3-2-1, 4-6-b7-7, 1

<p>D7 X</p> <p>1 b7 3</p>	<p>Am VII</p> <p>b3 1 5</p>	<p>Bm7 VII</p> <p>1 b7 b3</p>	<p>D7 IV</p> <p>5 3 b7</p>
<p>D7 IV</p> <p>1 3 b7</p>	<p>F#m n5 II</p> <p>1 b7 b3</p>	<p>Em II</p> <p>b3 1 5</p>	<p>G#7 IV</p> <p>1 b7 3</p>
	<p>A7 V</p> <p>1 b7 3</p>		

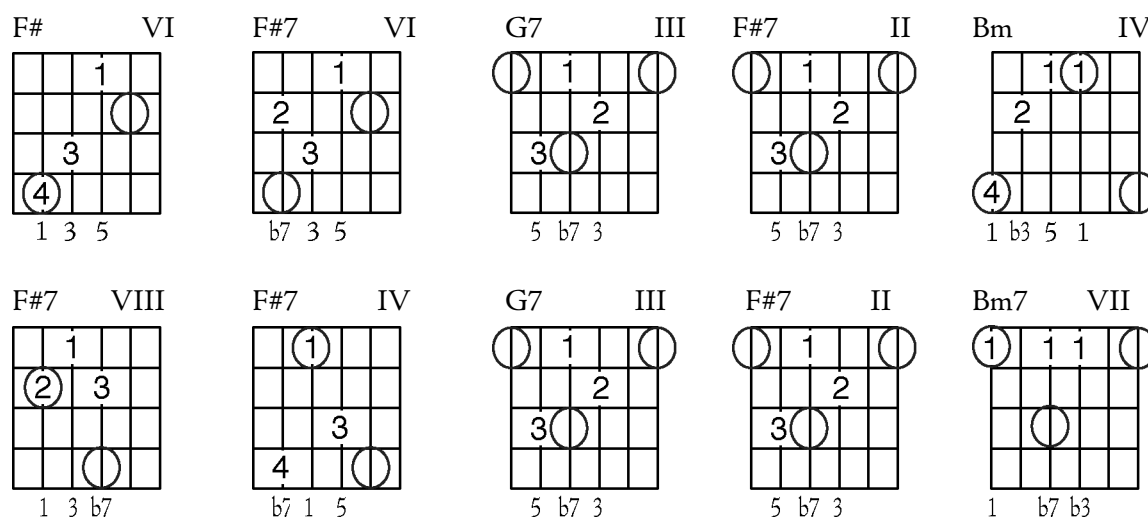
4-6-b7-1, 4-b3-2-b2, 1

<p>D7 V</p> <p>1 3 b7</p>	<p>D II</p> <p>3 1 5</p>	<p>G III</p> <p>1 5 3</p>	<p>D7 IV</p> <p>5 3 b7</p>
<p>D7 V</p> <p>1 3 b7</p>	<p>Am VII</p> <p>b3 1 5</p>	<p>Bm7 VI</p> <p>1 b7 b3</p>	<p>Bb7 VI</p> <p>1 b7 3</p>
	<p>A7 V</p> <p>1 b7 3</p>		



VI7 to IIIm7

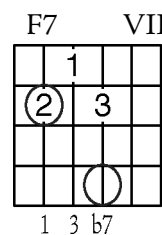
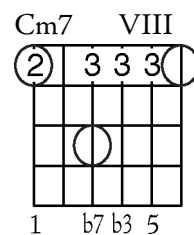
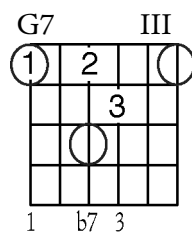
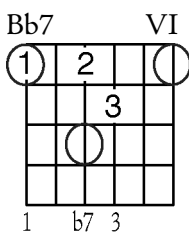
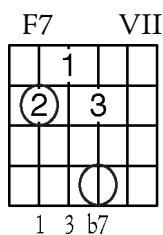
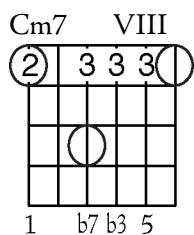
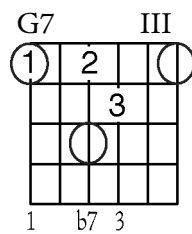
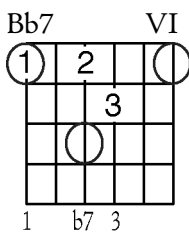
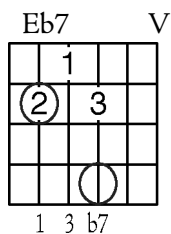
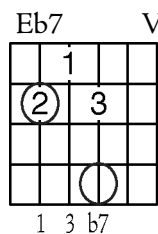
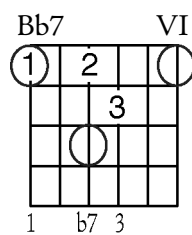
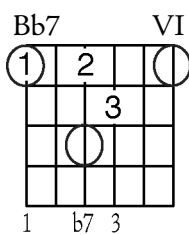
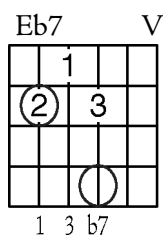
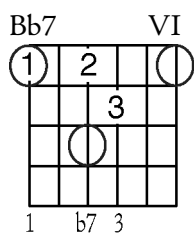
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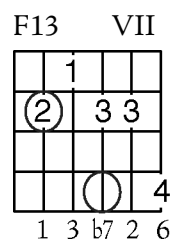
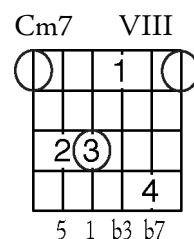
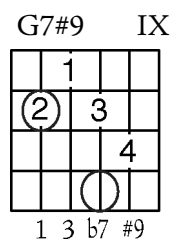
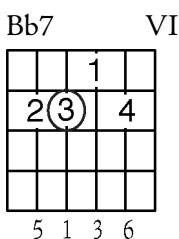
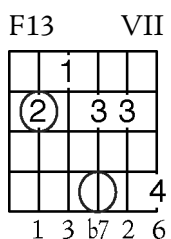
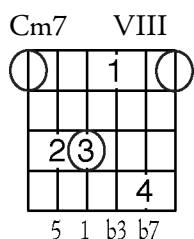
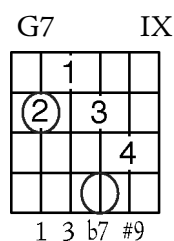
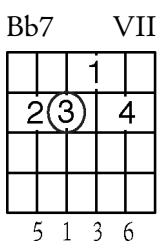
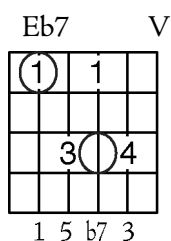
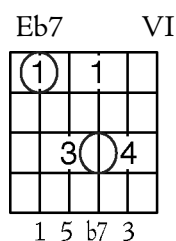
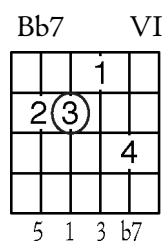
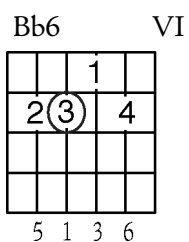
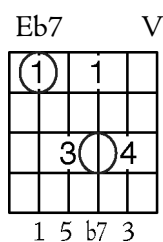
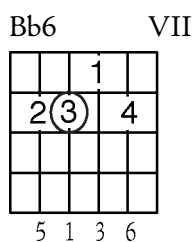
Jazz Blues or Swing Blues

I7	IV7	I7	I7	
IV7	IV7	I7	VI7	
IIIm7	V7	I7 VI7	IIIm7 V7	: I7

Everyday I Have the Blues in Bb, version 1

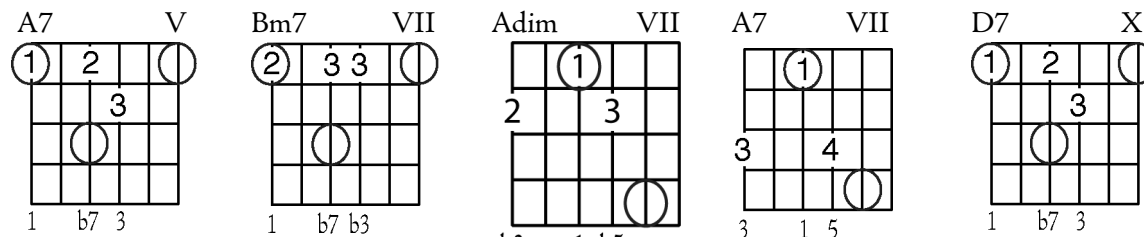


Everyday I Have the Blues in Bb, version 2

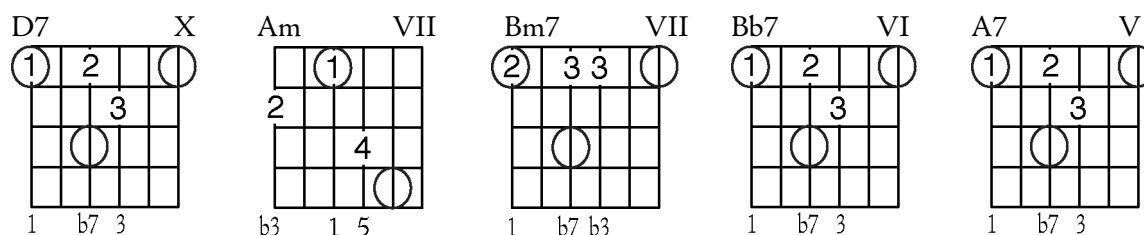


Swing Blues Example 1

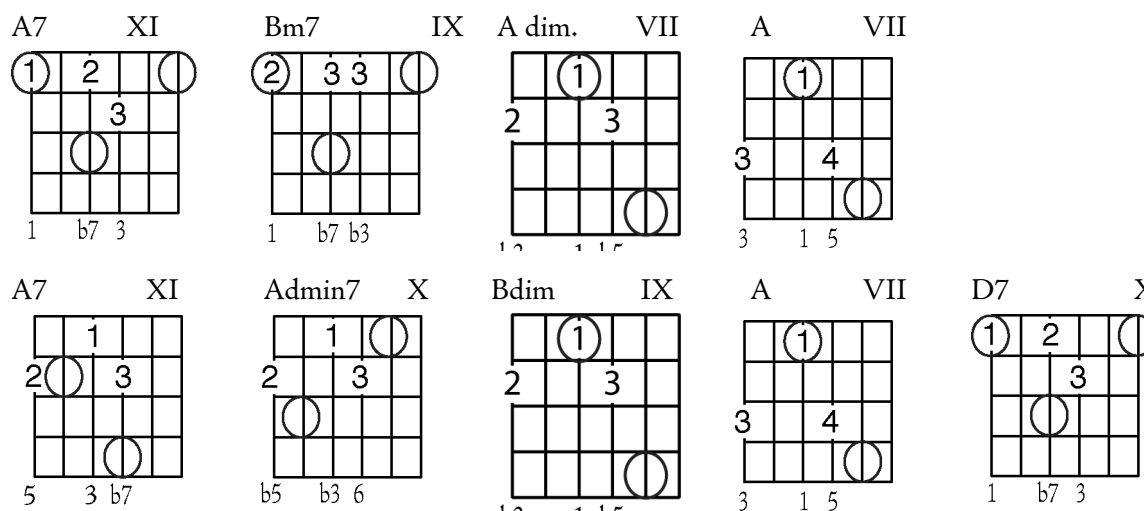
I7 to IV 7: 1-2-#2-3, 4



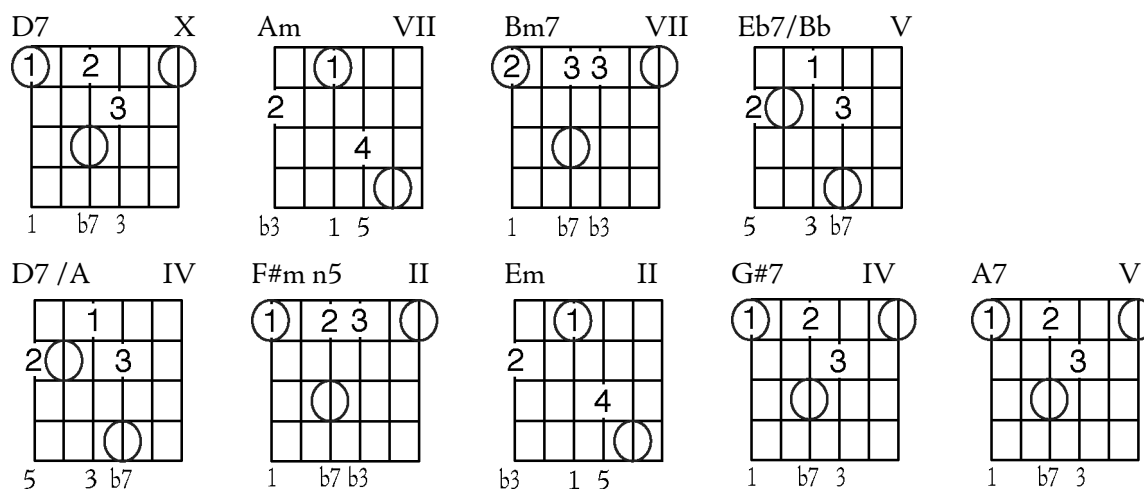
IV7 to I7: 4-b3-2-b2, 1



I7 to I7 to IV7 : 1-2-#2-3, 5-b5-4-3, 4



IV7 to IV7 to I7: 4-b3-2-b2, 1-6-b7-7, 1



I7 to V7 to IIIm7: 1-b7-5-4, 3-2-#1-6, 2

<p>A6 VI</p> <p>1 3 6</p>	<p>Em IV</p> <p>b3 5 1</p>	<p>A7 V</p> <p>5 b7 3</p>	<p>G7 III</p> <p>5 b7 3</p>
<p>F#7 II</p> <p>5 b7 3</p>	<p>G7 VII</p> <p>3 b7 5</p>	<p>F#7 VI</p> <p>3 b7 5</p>	<p>F#7 II</p> <p>1 b7 3</p>
<p>Bm7 II</p> <p>1 b7 b3</p>			

IIIm7 to V7 to I7: 2-1-7-6, 5-6-b7-7, 1

<p>Bm VII</p> <p>1 b7 b3</p>	<p>F#m IV</p> <p>b3 1 5</p>	<p>E9 IV</p> <p>3 b7 2 5</p>	<p>F#m II</p> <p>1 b7 b3</p>
<p>E7 VI</p> <p>1 3 b7</p>	<p>F#m II</p> <p>1 b7 b3</p>	<p>Edim7 II</p> <p>1 3 b7</p>	<p>E9 IV</p> <p>3 b7 2 5</p>
<p>A7 V</p> <p>1 b7 3</p>			

I7 VI7 IIIm7 V7 (two beats each): 1-b7-6-b3, 2-b6-5-b2, 1

<p>A7 V</p> <p>1 b7 3</p>	<p>G6 IX</p> <p>1 3 6</p>	<p>F#7 VIII</p> <p>1 3 b7</p>	<p>C7 VIII</p> <p>1 b7 3</p>
<p>B7 VII</p> <p>1 b7 3</p>	<p>F6 VII</p> <p>1 3 6</p>	<p>E7 VI</p> <p>1 3 b7</p>	<p>Bb7 VI</p> <p>1 b7 3</p>
<p>A7 V</p> <p>1 b7 3</p>			

A SCALAR BASSLINE FROM TWO MAIN CHORDS

Harmonized Octatonic Scales

The following sections of harmonized bass scales show the harmonic application of octatonic scales. The octatonic scales can also be used melodically, as shown in [“Bebop and Other Octatonic Scales”](#).

Create a Scalar Bassline with Inversions of Two Seventh Chords

Two scale-tone seventh chords on consecutive scale tones of a parent scale (Ima7 and IIm7, for example) are each made of four scale tones. Three of the tones in each seventh chord are unique and a fourth tone of each is common to both chords. With Ima7 and IIm7, Ima7 has parent scale tones 1-3-5-7 and IIm7 has parent scale tones 2-4-6-1. They share parent scale tone “1”. Using inversions of them, each of the seven steps of the parent major scale can be voiced a bass note with an inversion of one chord or another and scale tone except the bass note for scale tone “1” could be either chord.

Using Octatonic Scales To Keep Chord Tones on the Beat

The tonic chord is the chord named after the key. Fma7, F6 or Fma9 are tonic chords for F major. Gm7 or Gm9 are tonic chords for G Dorian. They are each a chord built on step one of the scale and have the same letter name as the scale.

Ascending from the first chord in the progressions below, every other chord has a chord tone of the tonic chord on the beat. The first, third, fifth, seventh and ninth chords have bass notes that are in the tonic chord. The bass notes of the tonic chord ascend in the order root, third fifth, seventh (or sixth), root.

Chromatic tones are added to make the tonic chord tones occur as bass notes of every other chord. Major has an added sharp five. Dorian has an added natural seven or an added sharp five. See the chapter [Bebop and Other Octatonic Scales](#).

Also, see [“Building Cadences with Chromaticized Bass”](#).

Play Each Row in the Following Exercises Forward and Reverse

Playing each row reading left to right ascends the bassline through the scale. Be sure to also practice each row reading right to left, so you practice descending the bassline through the scale.

IONIAN (MAJOR) HARMONIZED BASS SCALE

play each row in the following exercises forward and reverse

Major Add Sharp Five

parent	1	2	3	4	5	#5	6	7	1
& mode	Ima7	IIIm7	Ima7/3	IIIm7/b3	Ima7/5	#Vdim7	I6/6 (VIIm7)	VII°7 (#V°7)	Ima7
parent tones	1-3-5-7	2-4-6-1	1-3-5-7	2-4-6-1	1-3-5-7	#5-7-2-4	1-3-5-6	#5-7-2-4	1-3-5-7
G major roots on 6	Gma7 III	Am7 V	Gma7/B V	Am7/C VII	Gma7/D VIII	D#dim7 X	G6/E XII	F#dim7 I	Gma7 III
G major roots on 5	Gma7 X	Am7 VII	Gma7/B XII	Am7/C II	Gma7/D IV	D#dim7 V	G6/E VII	F#dim7 VIII	Gma7 X
G major roots on 4	Gma7 V	Am7 VII	Gma7/B VIII	Am7/C X	Gma7/D XII	D#dim7 I	G6/E II	F#dim7 IV	Gma7 XV

Major Add Sharp Five, all keyscale I6 and IIdim7 (on 2, 4, b6 or 7)

parent major	1	2	3	4	5	#5	6	7	1
	VIIm7/b3	II°7	VIIIm7/5	IV°7	VIIm7/b7	#Vdim7	IIIm7	VII°7	VIIm7/b3
roots on 6	6-1-3-5	2-4-b6-7	6-1-3-5	2-4-b6-7	2-4-6-1	2-4-b6-7	2-4-6-1	2-4-b6-7	6-1-3-5
	G6 II	A°7 IV	G6/B V	A°7 VII	G6/D VIII	A°7 X	G6/E XII	A°7 I	G6 II
roots on 5	G6 IX	A°7 XI	G6/B XII	A°7 II	G6/D IV	A°7 V	G6/E XII	A°7 VIII	G6 II
roots on 4	G6 V	A°7 VII	G6/B VIII	A°7 X	G6/D XII	A°7 XIII	G6/E II	A°7 IV	G6 V

DORIAN HARMONIZED BASS SCALE

play each row in the following exercises forward and reverse

Dorian Add Seven

parent	2	3	4	5	6	7	1	#1	2
major	IIIm7	IIIm7	IIIm7/b3	IIIm7/b3	IIIm7/5	IIIm7/5	IIIm7/b7	#Idim7	IIIm7
	2-4-6-1	3-5-7-2	2-4-6-1	3-5-7-2	2-4-6-1	3-5-7-2	2-4-6-1	#1-3-5-b7	2-4-6-1
Dorian	1	2	b3	4	5	6	b7	7	1
=	1-b3-5-b7	2-4-6-1	1-b3-5-b7	2-4-6-1	1-b3-5-b7	2-4-6-1	1-b3-5-b7	2-4-b6-7	1-b3-5-b7
G Dorian roots on 6	Gm7 III	Am7 V	Gm7/Bb V	Am7/C VII	Gm7/D VIII	Am7 X/E	Gm7/F XI	F#°7 XIII	Gm7 XV
G Dorian roots on 5	Gm7 X	Am7 XII	Gm7/Bb XII	Am7/C XIV	Gm7/D III	Am7/E V	Gm7/F VII	F#°7 VIII	Gm7 X
G Dorian roots on 4	Gm7 V	Am7 VII	Gm7/Bb VIII	Am7/C X	Gm7/D XI	Am7 XIII	Gm7/F III	F#°7 IV	Gm7 V

Dorian Add Sharp Five

parent	2	3	4	5	6	#6	7	1	2
major	IIIm7	IIIm7	IIIm7/b3	IIIm7/b3	IIIm7/5	#I°7	IIIm6/6	#Idim7	IIIm7
	2-4-6-1	3-5-7-2	2-4-6-1	3-5-7-2	2-4-6-1	2-4-6-1	3-5-7-2	#1-3-5-b7	2-4-6-1
mode	1	2	b3	4	5	#5	6	7	1
	1-b3-5-b7	2-4-6-1	1-b3-5-b7	2-4-6-1	1-b3-5-b7	7-2-4-b6	1-b3b5-6	7-2-4-b6	1-b3-5-b7
G Dorian roots on 6	Gm7 III	Am7 V	Gm7/Bb V	Am7/C VII	Gm7/D VIII	Eb°7 X	Gm6/E XI	F#°7 XIII	Gm7 XV
G Dorian roots on 5	Gm7 X	Am7 XII	Gm7/Bb XII	Am7/C XIV	Gm7/D III	Eb°7 V	Gm6/E VII	F#°7 VIII	Gm7 X
G Dorian roots on 4	Gm7 V	Am7 VII	Gm7/Bb VIII	Am7/C X	Gm7/D XI	Eb°7 XIII	Gm6/E XI	F#°7 IV	Gm7 V

MIXOLYDIAN HARMONIZED BASS SCALE

play each row in the following exercises forward and reverse

Mixolydian Add Seven

parent	5	6	7	1	2	3	4	#4	5
major	V7	VIm7	V7/3	VIm7/b3	V7/5	VIm7/5	V7/b7	#IVdim7	V7
	5-7-2-4	6-1-3-5	5-7-2-4	6-1-3-5	5-7-2-4	6-1-3-5	5-7-2-4	#1-3-5-b7	5-7-2-4
Mixo.	1	2	3	4	5	6	b7	7	1
	1-3-5-b7	2-4-6-1	1-3-5-b7	2-4-6-1	1-3-5-b7	2-4-6-1	1-3-5-b7	7-2-4-b6	1-b3-5-b7
G Mixo. roots on 6	G7 III	Am7 V	G7/B V	Am7/C VII	G7/D VIII	Am7 X/E	G7/F X	F#°7 XIII	G7 XV
G Mixo. roots on 5	G7 X	Am7 XII	G7/B XII	Am7/C XIV	G7/D III	Am7/E V	G7/F VII	F#°7 VIII	G7 X
G Mixo. roots on 4	G7 V	Am7 VII	G7/B VIII	Am7/C X	G7/D XII	Am7 XIII	G7/F III	F#°7 IV	G7 V

Mixolydian Add Sharp Five

parent	5	6	7	1	2	#2	7	#4	5
major	V7	VIm7	V7/3	VIm7/b3	V7/5	#II°7	V6/6	#IVdim7	V7
	5-7-2-4	6-1-3-5	5-7-2-4	6-1-3-5	5-7-2-4	2-4-6-1	5-7-2-3	#1-3-5-b7	5-7-2-4
mode	1	2	3	4	5	#5	6	7	1
	1-3-5-b7	2-4-6-1	1-3-5-b7	2-4-6-1	1-3-5-b7	2-4-b6-7	1-3-5-6	7-2-4-b6-7	1-3-5-b7
G Mixo. roots on 6	G7 III	Am7 V	G7/B V	Am7/C VII	G7/D VIII	D#°7 X	G6/E XII	F#°7 XIII	G7 XV
G Mixo. roots on 5	G7 X	Am7 XII	G7/B XII	Am7/C XIV	G7/D III	D#°7 V	G6/E VII	F#°7 VIII	G7 X
G Mixo. roots on 4	G7 V	Am7 VII	G7/B VIII	Am7/C X	G7/D XII	D#°7 XIII	G6/E II	F#°7 IV	G7 V

AEOLIAN/HARMONIC MINOR HARMONIZED BASS SCALE

play each row in the following exercises forward and reverse

Aeolian Add Seven

parent	6	7	1	2	3	4	5	#5	6
major	VIm7	VIIIm7b5	VIm7/b3	VIIIm7b5/b3	VIIIm7/5	VIIIm7b5/b5	VIm7/b7	#VIdim7	IIIm7
	6-1-3-5	7-2-4-6	6-1-3-5	7-2-4-6	6-1-3-5	7-2-4-6	2-4-6-1	#1-3-5-b7	2-4-6-1
Aeolian	1	2	b3	4	5	b6	b7	7	1
	1-b3-5-b7	2-4-6-1	1-b3-5-b7	4-b6-7-2	1-b3-5-b7	2-4-6-1	1-b3-5-b7	7-2-4-b6	1-b3-5-b7
G Aeolian roots on 6	Gm7 III	Am7b5 IV	Gm7/Bb V	Am7b5 VII	Gm7/D VIII	Am7b5/Eb X	Gm7/F XI	F#°7 XIII	Gm7 XV
G Aeolian roots on 5	Gm7 X	Am7b5 XII	Gm7/Bb XII	Am7b5 XIV or II	Gm7/D III	Am7b5/Eb V	Gm7/F VII	F#°7 VIII	Gm7 X
G Aeolian roots on 4	Gm7 V	Am7b5 VII	Gm7/Bb VIII	Am7b5 X	Gm7/D XI	Am7b5/Eb XIII	Gm7/F III	F#°7 IV	Gm7 V

Aeolian Add Seven, all keyscale Im7 and IIdim7

parent	6	7	1	2	3	4	5	#5	6
major	VIm7	VII°7	VIm7/b3	VII°7	VIIIm7/5	VII°7	VIm7/b7	VII°7	IIIm7
	6-1-3-5	7-2-4-b6	6-1-3-5	7-2-4-b6	6-1-3-5	7-2-4-b6	2-4-6-1	7-2-4-b6	2-4-6-1
Aeolian	1	2	b3	4	5	b6	b7	7	1
	1-b3-5-b7	2-4-b6-7	1-b3-5-b7	2-4-b6-7	1-b3-5-b7	2-4-b6-7	1-b3-5-b7	2-4-b6-7	1-b3-5-b7
G Aeolian roots on 6	Gm7 III	A°7 IV	Gm7/Bb V	A°7 VII	Gm7/D VIII	A°7 X	Gm7/F XI	A°7 I	Gm7 III
G Aeolian roots on 5	Gm7 X	A°7 XI	Gm7/Bb XII	A°7 II	Gm7/D III	A°7 V	Gm7/F VII	A°7 VIII	Gm7 X
G Aeolian roots on 4	Gm7 V	A°7 VII	Gm7/Bb VIII	A°7 X	Gm7/D XI	A°7 XIII	Gm7/F III	A°7 IV	Gm7 V

PHRYGIAN DOMINANT HARMONIZED BASS SCALE

play each row in the following exercises forward and reverse

Phrygian Dominant Add Seven

parent III7 and IVma7 inversions. Use IV7/b7 for key scale 7 bass.

parent	3	4	#5	6	7	1	2	#2	3
major#5	III7	IVma7	III7/3	IVma7/3	III/5	VIIm7/5	III7/b7	bII7/b7	III7
	3-#5-7-2	4-6-1-3	3-#5-7-2	4-6-1-3	3-#5-7-2	4-6-1-3	3-#5-7-2	4-6-1-b3	3-#5-7-2
Phrygian dominant	1	b2	3	4	5	6	b7	7	1
	1-3-5-b7	b2-4-b6-1	1-3-5-b7	b2-4-b6-1	1-3-5-b7	b2-4-b6-1	1-3-5-b7	2-4-b6-7	1-b3-5-b7
	I7	bII7	I7/3	bII7/3	I7/5	bII7/5	I7/b7	bII7/b7	I7
G Mixo. roots on 6	G7 III	Abma7 IV	G7/B V	Abma7/C VI	G7/D VIII	Abma7/Eb IX	G7/F X	Ab7/Gb I	G7 III
G Mixo. roots on 5	G7 X	Abma7 XI	G7/B XII	Abma7/C I	G7/D III	Abma7/Eb V	G7/F VII	Ab7/Gb VIII	G7 X
G Mixo. roots on 4	G7 V	Abma7 VI	G7/B VIII	Abma7/C IX	G7/D XII	Abma7/Eb I	G7/F III	Ab7/Gb IV	G7 V

MELODIC MINOR HARMONIZED BASS SCALE

play each row in the following exercises forward and reverse

Melodic Minor Add Flat Seven (Dorian add seven)

parent	1	2	b3	4	5	6	b7	7	1
mel.	Im6	IIIm6	Im6/b3	IIIm6/b3	Im6/5	IIIm6/5	Im7/b7	IIIm6/6	Im6
min.	1-b3-5-6	2-4-6-7	1-b3-5-6	6-1-b3-5	1-b3-5-6	2-4-6-7	1-b3-5-b7	2-4-6-7	2-4-6-1
G mel min. roots on 6	Gm6 II	Am6 IV	Gm6/Bb V	Am6/C VII	Gm6/D VIII	Am6/E X	Gm7/F XI	Am6/F# XIII	Gm6 XIV
	1 6 b3 5	1 6 b3 5	b3 1 5 6	b3 1 5 6	5 b3 6 1	5 b3 6 1	b7 5 1 b3	6 5 1 b3	1 6 b3 5
G mel min. roots on 5	Gm6 IX	Am6 XI	Gm6/Bb XII	Am6/C XIII	Gm6/D IIII	Am6/E V	Gm7/F VII	Am6/F# IX	Gm6 IX
	1 5 6 b3	1 5 6 b3	b3 6 1 5	b3 6 1 5	5 1 b3 6	5 1 b3 6	b7 b3 5 1	6 b3 5 1	1 5 6 b3
G mel min.	Gm6 V	Am6 VII	Gm6/Bb VIII	Am6/C X	Gm6/D XI	Am6/E XIII	Gm7/F III	Am6/F# IV	Gm6 V
	1 5 6 b3	1 5 6 b3	b3 6 1 5	b3 6 1 5	5 1 b3 6	5 1 b3 6	b7 b3 5 1	6 b3 5 1	1 5 6 b3

Melodic Minor Add Sharp Five-all keyscale Im6 and IIdim7

parent	1	2	b3	4	5	#5	6	7	1
mel.	Im6	IIdim7	Im6/b3	IIdim7	Im6/5	IIdim7	Im6/6	IIdim7	Im6
min.	1-b3-5-6	2-4-b6-7	1-b3-5-6	2-4-b6-7	1-b3-5-6	2-4-b6-7	1-b3-5-6	2-4-b6-7	2-4-6-1
G mel min. roots on 6	Gm6 II	A°7 IV	Gm6/Bb V	A°7 VII	Gm6/D VIII	A°7 X	Gm6/E XI	A°7 XIII	Gm6 XIV
	1 6 b3 5	1 6 b3 b5	b3 1 5 6	b3 1 b5 6	5 b3 6 1	b5 b3 6 1	6 5 1 b3	6 b5 1 b3	1 6 b3 5
G mel min. roots on 5	Gm6 IX	A°7 XI	Gm6/Bb XII	A°7 XIV	Gm6/D IIII	A°7 V	Gm6/E VII	A°7 VIII	Gm6 IX
	1 5 6 b3	1 b5 6 b3	b3 6 1 5	b3 6 1 b5	5 1 b3 6	b5 1 b3 6	6 b3 5 1	6 b3 b5 1	1 5 6 b3
G mel min.	Gm6 V	A°7 VII	Gm6/Bb VIII	A°7 X	Gm6/D XI	A°7 XIII	Gm6/E II	A°7 IV	Gm6 V
	1 5 6 b3	1 b5 6 b3	b3 6 1 5	b3 6 1 b5	5 1 b3 6	b5 1 b3 6	6 b3 5 1	6 b3 b5 1	1 5 6 b3

LYDIAN DOMINANT HARMONIZED BASS SCALE

play each row in the following exercises forward and reverse

Lydian Dominant Add Seven

parent	4	5	6	7	1	2	b3	4	5
melodic	IV7	V7	IV7/3	V7/3	IV7/5	V7/5	IV7/b7	IIIdim7	IV7
minor	4-6-1-b3	6-1-3-5	4-6-1-b3	6-1-b3-5	5-7-2-4	6-1-b3-5	5-7-2-4	3-5-b7-#1	2-4-6-1
Lydian	1	2	b3	4	5	6	b7	7	1
dominant	I7	II7	I7/3	II7/3	I7/5	II7/5	I7/b7	VIIIdim7	I7
	1-3-5-b7	2-#4-6-1	1-3-5-b7	2-#4-6-1	1-3-5-b7	2-#4-6-1	1-3-5-b7	7-2-4-b6	1-3-5-b7
G Lyd.dom. roots on 6	G7 III	A7 V	G7/B V	A7/C# VII	G7/D VIII	A7/E X	G7/F X	F#°7 XIII	G7 XV
G Lyd.dom. roots on 5	G7 X	A7 XII	G7/B XII	A7/C# XIV	G7/D III	A7/E VI	G7/F VII	F#°7 VIII	G7 X
G Lyd.dom. roots on 4									

Building Cadences with Chromaticized Bass

- **Using Cadences**
- **Chromaticized Bass Cadence Summary**
- **Major Seventh Chromaticized Bass**
- **Dominant Seventh Chromaticized Bass**
- **Dorian Minor Seventh Chromaticized Bass**
- **Aeolian Minor Seventh Chromaticized Bass**
- **Locrian Minor Seventh Flat Five Chromaticized Bass**
- **Melodic Minor Chromaticized Bass**

USING CADENCES

What Is A Cadence?

A cadence is a short musical succession of events that predicts the beginning of the next phrase or section. A *harmonic cadence* is a short chord progression that predicts a target chord that is a temporary or permanent tonic chord. It is usually a familiar chord progression that has established the key in a similar way in music we have heard in the past.

A *rhythmic cadence* brings attention to the beginning of a section or phrase. It usually has dynamic elements, such as an accent on the target chord and often uses staccato and syncopation to give the cadence “punch”. The target is usually on beat one or pushes beat one (being on the last beat division before beat one, such as on the “and after four” in 4/4 time). Rhythmic cadences are largely synonymous with pickups. See [Rhythmic Words and Comping](#) / [Hearing Pickups and Pushes](#).

Harmonic phrases use a short chord progression, most commonly three chords (two setup chords and a target chord), such as II V I (called II, V of V and I in classical theory).

See also [Globalizing/Changing Chord Progression and Cadences](#), [Melodically Superimposed Cadences](#), [Improv Level 4: Superimposed Cadence Solo Examples](#).

Building Rhythmic Cadences

Think the rhythmic cadence first to build the harmonic cadence. Modern improvisation is usually more dependent on rhythm than pitch. Think a great rhythm, then use an adequate (or better) series of notes or chords.

Memorize one of the cadence rhythms below and one of the harmonic cadences, by playing three chords in a row from one of the Linear Bass Cadence sections in this chapter ([major seventh](#), [dominant seventh](#), [Dorian](#) or [Aeolian minor seventh](#)) *ending with a chord shown in a box*.

Of all the two-bar cadences shown on Common Three-Note Pickups For Rhythmic Cadences In 4/4 Time below each one enclosed in a box is archetypal (a main idea). The examples following it, up to the next box (not inclusive) are variations of it. The variations involve rests versus sustains.

eighth note pushes and pickups for rhythmic cadences in 4/4 time

links to video: [straight eighths](#) [swing eighths](#)

♩ = 120

1

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

5

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

9

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

13

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

17

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

21

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

25

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

sixteenth note pushes and pickups for rhythmic cadences in 4/4 time

links to video: [straight sixteenths](#), [swing sixteenths](#)

$\text{♩} = 85$
1

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

5

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

9

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

13

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

17

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

21

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

25

1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a 1 e + a 2 e + a 3 e + a 4 e + a

Building Harmonic Cadences

building three-chord cadences

The chords in boxes are target chords. Commonly, you would target a chord that begins on beat one by playing chords at the end of the bar before it. Beat one can be “pushed” (see [Rhythmic Words And Comping / Hearing Pickups And Pushes](#)) where it’s played “early” on the last part of the fourth beat, such as the “and after 4”. This is the “and” spoken after four when counting half beats with the syllables “one, and, two, and, three, and, four, and”.

Practice building a cadence to each of the four target chords in each ascending or descending family (such as Major Seventh Linear Harmonized Bass/ascend and Major Seventh Linear Harmonized Bass/descend). Use the same rhythmic cadence for each of the four, so you memorize it.

In the example below, the cadences for A dominant seventh on one string set (5432) are practiced in sequence.

[three chord cadence on seventh type-link to video](#)

	4	5	6	7	8	9	9	10	12	11	12	13
T												
A	4	4	5	7	8	9	9	10	12	11	12	13
B	3	5	5	8	9	10	10	11	13	10	11	12

In the example below, the cadence for F69 is from major seventh type on string set 5432, Dm7 from the Aeolian minor seventh type on string set 5432 and C9 from the Mixolydian type on string set 6432.

[three-chord cadences - link to video](#)

	6	7	8	10	8	6	6	8	6	7	8
T											
A	5	6	7	10	8	6	6	8	6	7	8
B	6	7	8	10	8	6	6	8	6	7	8

encircling cadences

Here's an interesting way to cadence, borrowed from a melodic device. Encircle the target chord (boxed) by ascending with one or two chords before the target, the chord in the sequence *after* the target, then finally play the target chord. Or, encircle the target chord descending with the one chord in the sequence *after* the target chord followed by the one or two chords before it in the sequence, ending on the target chord. These are not familiar to listeners, so they need to be played clearly with long durations and sparse arrangements. The examples below are based on Dorian Minor Seventh Linear Harmonized Bass.

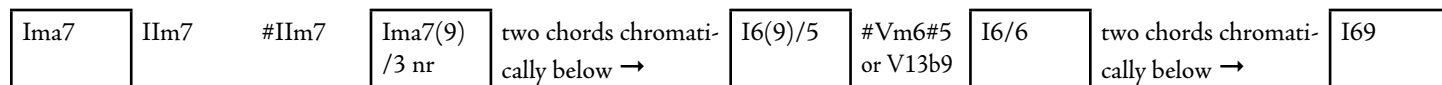
[encircling cadences - link to video](#)

The image shows a musical score for a 4/4 time signature. The top staff is a treble clef, and the bottom staff is a bass clef. The key signature has one flat (B-flat). The score is divided into two measures. The first measure contains four chords: Fm7, F#m7, Fm7, and Gm7. The second measure contains three chords: F#m7, Gm7, and Fm7. The Fm7 chord in the second measure is boxed. Below the staff, there are three rows of numbers: T, A, and B. The numbers are: T: 4, 5, 6, 6; A: 3, 7, 6, 5; B: 4, 5, 8, 6. The second measure has: T: 5, 2, 3, 4; A: 7, 2, 3, 3; B: 5, 2, 3, 4.

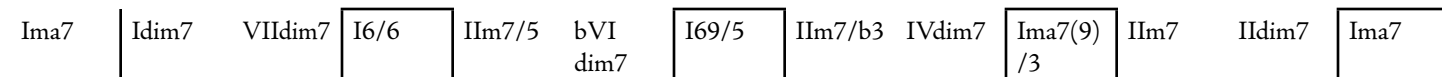
CHROMATICIZED BASS CADENCE SUMMARY

Major Seventh Chromaticized, Harmonized Bass

ascend - all string sets (cadence to target the I chords), in the reverse order of descending

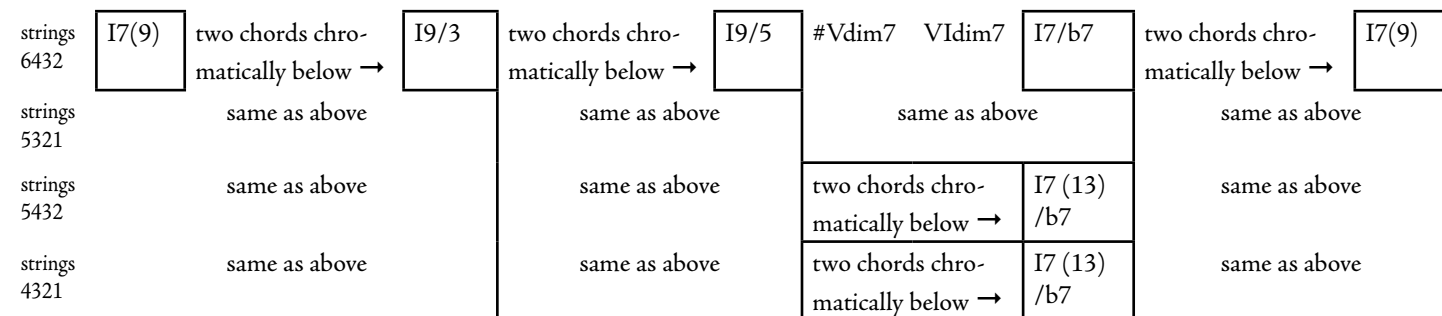


descend - all string sets (cadence to target the I chords), in the reverse order of ascending

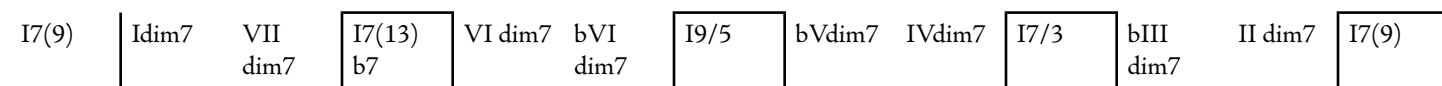


Dominant Seventh Chromaticized, Harmonized Bass - chromatic

ascend (cadence to target the I chords). Note the special use of the 13th chord on the third and fourth rows.

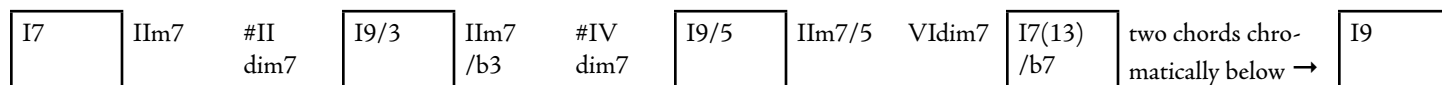


descend - all string sets (cadence to target the I chords)

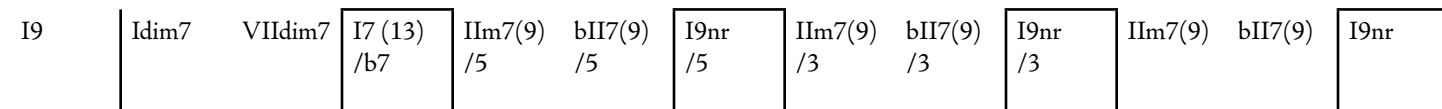


Dominant Seventh Chromaticized, Harmonized Bass - with II_m7

ascend - all string sets (cadence to target the I chords)



descend - all string sets (cadence to target the I chords)

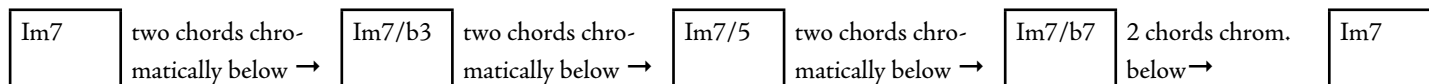


Phrygian Dominant Seventh - minor key V type

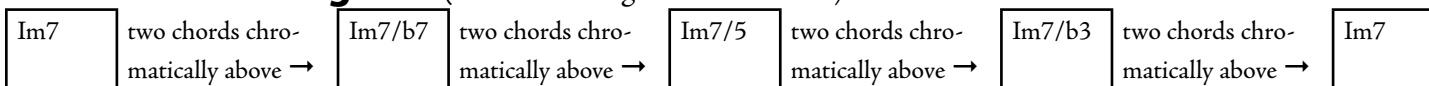
Ascend with Dominant Seventh Linear Harmonized Bass - chromatic. Descend with bVI Melodiic Minor Chord, Descending Roots To Target I7.

Dorian Minor Seventh Chromaticized, Harmonized Bass

ascend- all string sets (cadence to target the Im chords)

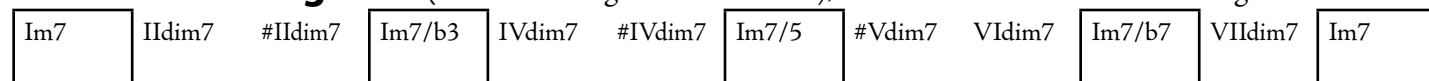


descend- all string sets (cadence to target the Im chords)

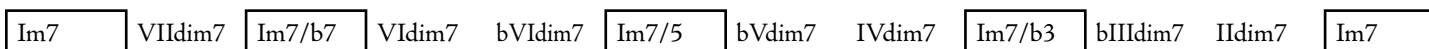


Aeolian Minor Seventh Chromaticized, Harmonized Bass

ascend- all string sets (cadence to target the Im chords), in the reverse order of descending



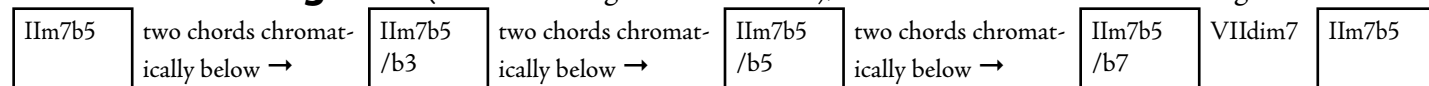
descend- all string sets (cadence to target the Im chords), in the reverse order of ascending



II Minor Seventh Flat Five Chromaticized, Harmonized Bass

The "target" is IIIm7b5. Use in IIIm7b5 V7 Im progression.

ascend- all string sets (cadence to target the Im chords), in the reverse order of descending



descend- all string sets (cadence to target the Im chords), in the reverse order of ascending



bVI Melodic Minor Chords, Descending Roots to Target I7

bVI mel. min. VIIIm7b5	bVI mel. min- VIm7b5	target chord	bVI mel. min VI- Im7b5	chromatic passing chord	bVI mel. min- VIm7b5	target chord
Em7b5 VII	Dm7b5 V	A9 IV	Em7b5 VII	Ebm7b5 VI	Dm7b5 V	A9 IV
bVI mel. min. V9 C7 VIII	bVI mel. mi. IV7 Bb7 VI	target chord A7 V	bVI mel. min V9 C7 VIII	chromatic passing B7 VII	bVI mel. m' IV7 Bb7 VI	target chord A7 V

MAJOR SEVENTH CHROMATICIZED BASS

These cadences can also be used for [Dominant Seventh Chromaticized Bass](#), by replacing major seventh with dominant seventh and replacing major ninth with dominant ninth.

ascend (major 7), string set 6432

Fma7 I 1 7 3 5	Gm7 III 1 b7 b3 5	G#m7 IV 1 b7 b3 5	Fma7/A III 3 1 5 7	Eb69/Bb V 5 3 6 2	E69/B VI 5 3 6 2
F69/C VII 5 3 6 2	C13b9/Db VIII b2 b7 3 6	F6/D X 6 5 1 3	Eb69 X 1 6 2 5	E69 XI 1 6 2 5	F69 XII 1 6 2 5

descend (major 7), string set 6432

Fma7 XIII 1 7 3 5	Fdim7 XII 1 6 b3 b5	Edim7 XI 1 6 b3 b5	F6/D X 6 5 1 3	Gm7/D VIII 5 b3 b7 1	Dbdim7 VIII 1 6 b3 b5	F69/C VII 5 3 6 2
Gm7/Bb V b3 1 5 b7	Bbdim7 V 1 6 b3 b5	Fma7/A III 3 1 5 7	Gm7 III 1 b7 b3 5	Gdim7 II 1 6 b3 b5	Fma7 I 1 7 3 5	

ascend (major 7), string set 5432

Bbma7 I 1 5 7 3	Cm7 III 1 5 b7 b3	C#m7 IV 1 5 b7 b3	Bbma9nr/D V 3 7 2 5	Ab6/Eb V 5 1 3 6	A6/E VI 5 1 3 6
Bb6/F VII 5 1 3 6	F#dim7 VIII 1 b5 6 b3	Bb6/G X 6 3 5 1	Ab69 X 1 3 6 2	A69 XI 1 3 6 2	Bb69 XII 1 3 6 2

descend (major 7), string set 5432

Bbma7 XIII 1 5 7 3	Bbdim7 XII 1 b5 6 b3	Adim7 XI 1 b5 6 b3	Bb6/G X 6 3 5 1	Cm7/G VIII 5 1 b3 b7	Gbdim7 VIII 1 b5 6 b3	Bb6/F VII 5 1 3 6
Cm7/Eb V b3 b7 1 5	Ebdim7 V 1 b5 6 b3	Bbma9/D V 3 7 2 5	Cm7 III 1 5 b7 b3	Cdim7 II 1 b5 6 b3	Bbma7 I 1 5 7 3	

ascend (major 7), string set 5321

<p>Bbma7 I</p>	<p>Cm7 III</p>	<p>C#m7 IV</p>	<p>Bbma9n3 /D V</p>	<p>Ab69/Eb V</p>	<p>A69/E VI</p>
<p>Bb69/F VII</p>	<p>F#dim7 VIII</p>	<p>Bb6/G X</p>	<p>Ab69 X</p>	<p>A69 XI</p>	<p>Bb69 XII</p>

descend (major 7), string set 5321

<p>Bb69 XIII</p>	<p>Bbdim7 XII</p>	<p>Adim7 XI</p>	<p>Bb6/G X</p>	<p>Cm7/G VIII</p>	<p>Gbdim7 VIII</p>	<p>Bb69/F VII</p>
<p>Cm7/Eb V</p>	<p>Ebdim7 V</p>	<p>Bbma9n3/D V</p>	<p>Cm7 III</p>	<p>Cdim7 II</p>	<p>Bbma7 I</p>	

ascend (major 7), string set 4321

Ebma7 I 1 5 7 3	Fm7 III 1 5 b7 b3	F#m7 IV 1 5 b7 b3	Ebma9nr/G V 3 7 2 5	Db6/Ab VI 5 1 3 6	D6/A VII 5 1 3 6
Eb6/Bb VIII 5 1 3 6	Bdim7 IX 1 b5 6 b3	Eb6/C X 6 3 5 1	Db69 X 1 3 6 2	D69 XI 1 3 6 2	Eb69 XII 1 3 6 2

descend (major 7), string set 4321

Eb69 XII 1 3 6 2	Ebdim7 XIII 1 b5 6 b3	Ddim7 XII 1 b5 6 b3	Eb6/C X 6 3 5 1	Fm7/C IX 5 1 b3 b7	Bdim7 VII 1 b5 6 b3	Eb6/Bb VIII 5 1 3 6
Fm7/Ab VI b3 b7 1 5	Abdim7 VI 1 b5 6 b3	Ebma9/G V 3 7 2 5	Fm7 III 1 5 b7 b3	Fdim7 III 1 b5 6 b3	Ebma7 I 1 5 7 3	

DOMINANT SEVENTH CHROMATICIZED BASS

Major Seventh Chromaticized Bass can substitute for harmonization of the same basslines shown here, in part or in their entirety by using dominant seventh in place of major seventh and dominant ninth in place of major ninth.

Dominant Seventh Chromaticized Bass

ascend (dominant 7 with parallel chromatic chords), string set 6432

F7 I 1 b7 3 5	Eb9nr/G II 3 2 5 b7	E9nr/G# III 3 2 5 b7	F9/A III 3 2 5 b7	Eb9nr/Bb V 5 3 b7 2	E9nr/B VI 5 3 b7 2	
F9/C VII 5 3 b7 2	C#dim7 VIII 1 6 b3 b5	Ddim7 IX 1 6 b3 b5	F7/Eb XI b7 5 1 3	Eb9 X 1 b7 2 5	E9 XI 1 b7 2 5	F9 XII 1 b7 2 5

descend (dominant 7 with parallel chromatic chords), string set 6432

F7 XIII 1 b7 3 5	Fdim7 XII 1 6 b3 b5	Edim7 XI 1 6 b3 b5	F7/Eb X b7 5 1 3	Ddim7 IX 1 6 b3 b5	Dbdim7 VIII 1 6 b3 b5	F9/C VI 5 3 b7 1
Bdim7 VI 1 6 b3 b5	Bbdim7 V 1 6 b3 b5	F7/A III 3 1 5 b7	Abdim7 III 1 6 b3 b5	Gdim7 II 1 6 b3 b5	F7 I 1 b7 3 5	

ascend (dominant 7 with parallel chromatic chords), string set 5432

Bb7 I 1 5 b7 3	Ab9/C III 3 b7 2 5	A9/C# IV 3 b7 2 5	Bb9/D V 3 b7 2 5	Ab9/Eb VI 5 2 b7	A9/E VII 5 2 b7	
Bb9/F VIII 5 2 b7	Ab13/Gb IX b7 3 6 1	A13/G X b7 3 6 1	Bb13/Ab XI b7 3 6 1	Ab9 X 1 3 b7 2	A9 XI 1 3 b7 2	Bb9 XII 1 3 b7 2

descend (dominant 7 with parallel chromatic chords), string set 5432

Bb7 XIII 1 5 b7 3	Bbdim7 XII 1 b5 6 b3	Adim7 XI 1 b5 6 b3	Bb13/Ab XI b7 3 6 1	Abdim7 X 1 b5 6 b3	Gdim7 IX 1 b5 6 b3	Bb9/F VIII 5 2 b7
Fdim7 VII 1 b5 6 b3	Edim7 VI 1 b5 6 b3	Bb/D V 3 b7 2 5	Dbdim7 III 1 b5 6 b3	Cdim7 II 1 b5 6 b3	Bb7 I 1 5 b7 3	

ascend (dominant 7 with parallel chromatic chords), string set 5321

Bb7 I 1 b7 3 5	Ab9nr/C II 3 2 5 b7	A9nr/C# III 3 2 5 b7	Bb9/D IV 3 2 5 b7	Ab9/Eb V 5 3 b7 2	A9/E VI 5 3 b7 2	
Bb9/F VII 5 3 b7 2	F#dim7 VIII 1 6 b3 b5	Gdim7 IX 1 6 b3 b5	Bb7/Ab X b7 5 1 3	Ab9 XI 1 b7 2 5	A9 XII 1 b7 2 5	F9 XIII 1 b7 2 5

descend (dominant 7 with parallel chromatic chords), string set 5321

Bb7 XIII 1 b7 3 5	Bbdim7 XII 1 6 b3 b5	Adim7 XI 1 6 b3 b5	Bb7/Ab X b7 5 1 3	Abdim7 X 1 6 b3 b5	Gdim7 IX 1 6 b3 b5	Bb7/F VI 5 3 b7 1
Fdim7 VII 1 6 b3 b5	Edim7 VI 1 6 b3 b5	Bb9/D V 3 2 5 b7	Dbdim7 III 1 6 b3 b5	Cdim II 1 6 b3 b5	Bb7 I 1 b7 3 5	

ascend (dominant 7 with parallel chromatic chords), string set 4321

Eb7 I 1 5 b7 3	Db9n3/F III 3 b7 2 5	D9n3/F# IV 3 b7 2 5	Eb9/G V 3 b7 2 5	Db9nr/Ab VI 5 2 3 b7	D9nr/A VII 5 2 3 b7	
Eb9nr Bb VIII 5 2 3 b7	Db13/Cb IX b7 3 6 1	D13/C X b7 3 6 1	Eb13/Db XI b7 3 6 1	Db9n3 XI 1 5 b7 2	D9n3 XII 1 5 b7 2	Eb9n3 XIII 1 5 b7 2

descend (dominant 7 with parallel chromatic chords), string set 4321

Eb9n3 XIII 1 5 b7 2	Ebdim7 XIII 1 b5 6 b3	Ddim7 XII 1 b5 6 b3	Eb13/Db XI b7 3 6 1	Dbdim7 XI 1 b5 6 b3	Cdim7 X 1 b5 6 b3	Eb9nr/Bb VIII 5 2 3 b7
Bbdim7 VII 1 b5 6 b3	Adim7 VI 1 b5 6 b3	Eb9/G V 3 b7 2 5	Gbdim7 IV 1 b5 6 b3	Fdim7 III 1 b5 6 b3	Eb7 I 1 5 b7 3	

Dominant Seventh Chromaticized Bass - with IIIm7

ascend (dominant 7 with IIIm7), string set 6432

F7 I 1 b7 3 5	Gm7 III 1 b7 b3 5	G#dim7 III 1 6 b3 b5	F7/A IV 3 1 5 b7	Gm7/Bb V b3 1 5 b7	Bdim7 VI 1 6 b3 b5	
F9/C VII 5 3 b7 2	Gm7/D VIII 5 b3 b7 1	Ddim7 IX 1 6 b3 b5	F7/Eb XI b7 5 1 3	Eb9 X 1 b7 2 5	E9 XI 1 b7 2 5	F9 XII 1 b7 2 5

descend (dominant 7 with IIIm7), string set 6432

F9 XII 1 6 b3 b5	Fdim7 XII 1 6 b3 b5	Edim7 XI 1 6 b3 b5	F7/Eb XI b7 5 1 3	Gm9/D VIII 5 b3 b7 2	Gb9/Db VIII 5 3 b7 2	F9/C VII 5 3 b7 2
Gm7Bb VI b3 1 5 b7	Gb7/Bb V 3 1 5 b7	F7/A IV 3 1 5 b7	Gm7 III 1 b7 b3 5	Gb7 II 1 b7 3 5	F7 I 1 b7 3 5	

ascend (dominant 7 with IIIm7), string set 5432

<p>Bb7 I</p> <p>1 5 b7 3</p>	<p>Cm7 III</p> <p>1 5 b7 b3</p>	<p>C#dim7 III</p> <p>1 b5 6 b3</p>	<p>Bb9/D V</p> <p>3 b7 2 5</p>	<p>Cm7/Eb V</p> <p>b3 b7 1 5</p>	<p>Edim7 VI</p> <p>1 b5 6 b3</p>
<p>Bb7/F VIII</p> <p>5 1 3 b7</p>	<p>Cm7/G VIII</p> <p>5 1 b3 b7</p>	<p>Gdim7 IX</p> <p>1 b5 6 b3</p>	<p>Bb13/Ab XI</p> <p>b7 3 6 1</p>	<p>Ab9 X</p> <p>1 3 b7 2</p>	<p>A9 XI</p> <p>1 3 b7 2</p>
<p>Bb9 XII</p> <p>1 3 b7 2</p>					

descend (dominant 7 with IIIm7), string set 5432

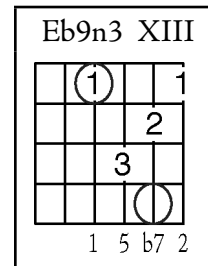
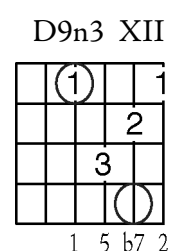
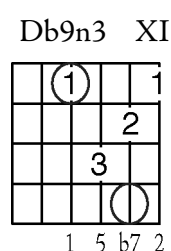
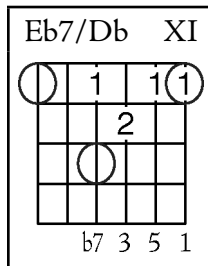
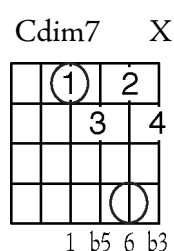
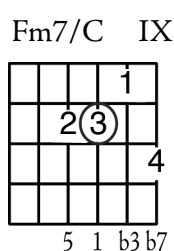
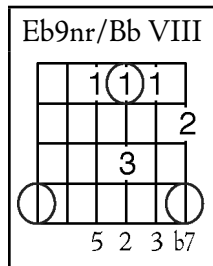
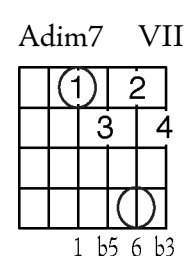
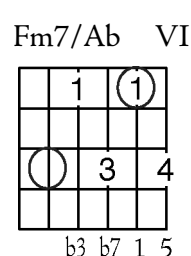
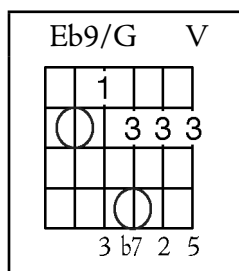
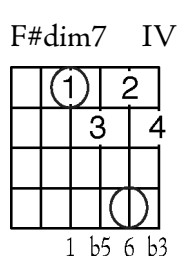
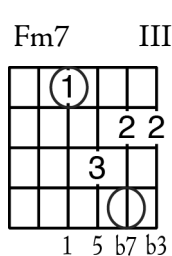
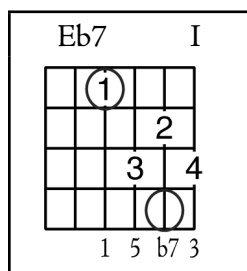
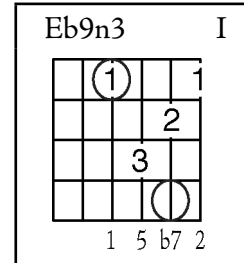
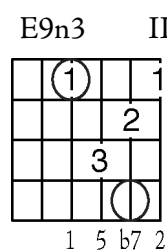
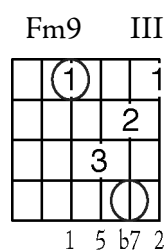
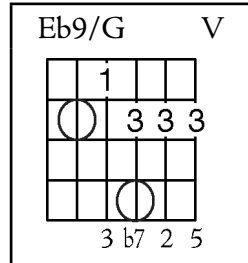
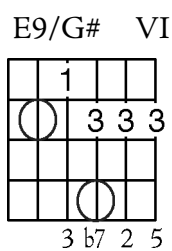
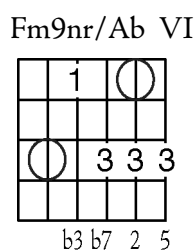
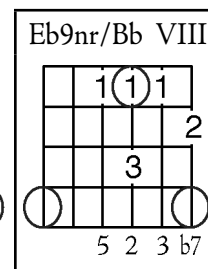
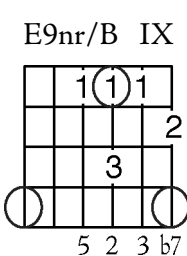
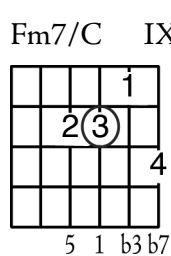
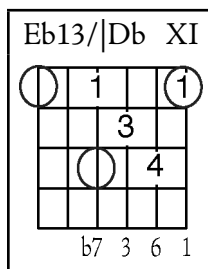
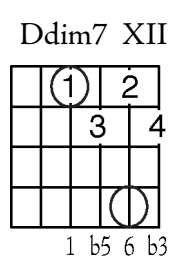
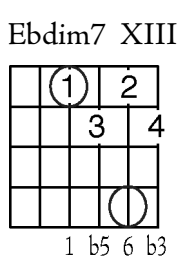
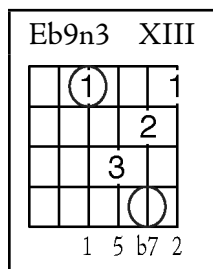
<p>Bb9n3 XII</p> <p>1 5 b7 2</p>	<p>Bbdim7 XII</p> <p>1 b5 6 b3</p>	<p>Adim7 XII</p> <p>1 b5 6 b3</p>	<p>Bb13 XI</p> <p>b7 3 6 1</p>	<p>Cm9/G X</p> <p>5 2 b7</p>	<p>B9/F# IX</p> <p>5 2 b7</p>
<p>Bb9/F VIII</p> <p>5 2 b7</p>					
<p>Cm9nr/Eb VI</p> <p>b3 b7 2 5</p>	<p>B9/D VI</p> <p>3 b7 2 5</p>	<p>Bb9/D V</p> <p>3 b7 2 5</p>	<p>Cm9 III</p> <p>1 5 b7 2</p>	<p>B9n3 II</p> <p>1 5 b7 2</p>	<p>Bb9n3 I</p> <p>1 5 b7 2</p>

ascend (dominant 7 with IIIm7), string set 5321

Bb7 I 1 b7 3 5	C m7 III 1 b7 b3 5	C#dim7 III 1 6 b3 b5	Bb9/D IV 3 2 5 b7	Cm7/Eb V b3 1 b7	Edim7 VI 1 6 b3 b5	
Bb9/F VII 5 3 b7 2	Cm7/G VIII 5 b3 b7 1	Gdim7 IX 1 6 b3 b5	Bb7/Ab X b7 5 1 3	Ab9n3 XI 1 b7 2 5	A9n3 XII 1 b7 2 5	Bb9n3 XIII 1 b7 2 5

descend (dominant 7 with IIIm7), string set 5321

Bb9n3 XIII 1 b7 2 5	Bbdim7 XII 1 6 b3 b5	Adim7 XI 1 6 b3 b5	Bb7/Ab X b7 5 1 3	Cm9/G VIII 5 b3 b7 2	B9/F# VIII 5 3 b7 2	Bb9/F VII 5 3 b7 2
Cm9/Eb VI b3 b7 2 5 b7	B9/D V 3 2 5 b7	Bb/D IV 3 2 5 b7	Cm9 III 1 b7 2 5	B9 II 1 b7 2 5	Bb9 I 1 b7 2 5	

ascend (dominant 7 with IIIm7), string set 4321**descend (dominant 7 with IIIm7), string set 4321**

All Blues Mixolydian chromaticized bass comping - [click to play video](#)

Swing Eighthths
♩ = 120

1/G C G⁷ C G C G⁷ C G C G⁷ C G C G⁷ C

5 G C G⁷ C G C G⁷ C G C G⁷ C G C G⁷ C

library of voicings, not to be played with all instances in performance

9 C⁹/G C Gm⁷ C C⁹/G C Gm⁷ C G C G⁷ C G C G⁷ C

library of voicings, not to be played with all instances in performance

13 D7(♯9) Eb7(♯9) D7(♯9) G⁹ Cmaj7 G⁹ C

17 G¹³ G⁹ G¹³ G7(♯9) Am⁷ Ab¹³ G¹³ G⁹ G¹³ G7(♯9)

solos 1

21 Gm⁹ Gm¹¹ Dm⁷ G7(sus4) Gm¹¹ Gm⁹ Ab¹³ G¹³ Ab¹³ G¹³ C7(♯9) Db7(♯9)

25 D7(#9) Eb7(#9) D7(#9) G9 Cmaj7 G9 C9 Bb07 A07

29 G13 Ab13 G13 Bb07 A07 G13 Ab13 G13 Gm7(b5) F#m7(b6) Fm7(b5)

33 C9 Gm7(b5) Fm7(b5) C9 F13 F#13 G13 Ab13 G13 Db7(#9)

37 D7(#9) E7(#9) D7(#9) D7(#9) Ab13 G13 C6 G13 C6

DORIAN MINOR SEVENTH CHROMATICIZED BASS

ascend (Dorian m7), string set 6432

Fm7 I 1 b7 b3 5	Ebm7/Gb I b3 1 5 b7	Em7/G II b3 1 5 b7	Fm7/Ab III b3 1 5 b7	Ebm7/Bb IV 5 b3 b7 1	Em7/Bb V 5 b3 b7 1	
Fm7/C VI 5 b3 b7 1	Ebm7/Db VII b7 5 1 b3	Em7/D VIII b7 5 1 b3	Fm7/Eb IX b7 5 1 b3	Ebm7 XI 1 b7 b3 5	Em7 XII 1 b7 b3 5	Fm7 XIII 1 b7 b3 5

descend (Dorian m7), string set 6432

Fm7 XIII 1 b7 b3 5	Gm7/F XI b7 5 1 b3	Gbm7/Fb X b7 5 1 b3	Fm7/Eb IX b7 5 1 b3	Gm7/D VIII 5 b3 b7 1	Gbm7/Db VII 5 b3 b7 1	Fm7/C VI 5 b3 b7 1
Gm7/Bb V b3 1 5 b7	Gbm7/A IV b3 1 5 b7	Fm7/Ab III b3 1 5 b7	Gm7 III 1 b7 b3 5	Gbm7 II 1 b7 b3 5	Fm7 I 1 b7 b3 5	

ascend (Dorian m7), string set 5432

Bbm7 I 1 5 b7 b3	Abm7/Cb I b3 b7 1 5	Am7/C II b3 b7 1 5	Bbm7/Db III b3 b7 1 5	Abm7/Eb IV 5 1 b3 b7	Am7/E V 5 1 b3 b7	
Bbm7 /F VI 5 1 b3 b7	Abm7/Gb VIII b7 b3 5 1	Am7/G IX b7 b3 5 1	Bbm7/F X b7 b3 5 1	Abm7 XI 1 5 b7 b3	Am7 XII 1 5 b7 b3	Bbm7 XIII 1 5 b7 b3

descend (Dorian m7), string set 5432

Bbm7 VI 5 1 b3 b7	Cm7 XII b7 b3 5 1	Bm7 XI b7 b3 5 1	Bbm7 X b7 b3 5 1	Cm7/G VIII 5 1 b3 b7	Bm7/F# VII 5 1 b3 b7	Bbm7/F VI 5 1 b3 b7
Cm7/Eb V b3 b7 1 5	Bm7D IV b3 b7 1 5	Bbm7/Db III b3 b7 1 5	Cm7 III 1 5 b7 b3	Bm7 II 1 5 b7 b3	Bbm7 I 1 5 b7 b3	

ascend (Dorian m7), string set 5321

Bbm7 I 1 b7 b3 5	Abm7/C I b3 1 b7	Am7/C II b3 1 b7	Bbm7 /Db III b3 1 b7	Abm7/Eb IV 5 b3 b7 1	Am7/E V 5 b3 b7 1
Bbm7/F VI 5 b3 b7 1	Abm7/Gb VII b7 5 1 b3	Am7/G VIII b7 5 1 b3	Bbm7/Ab IX b7 5 1 b3	Abm7 XI 1 b7 b3 5	Am7 XII 1 b7 b3 5
Bbm7 XIII 1 b7 b3 5					

descend (Dorian m7), string set 5321

Bbm7 I 1 b7 b3 5	Cm7/Bb XII b7 5 1 b3	Bm7/A X b7 5 1 b3	Bbm7/Ab IX b7 5 1 b3	Cm7/G VIII 5 b3 b7 1	Bm7/F# VII 5 b3 b7 1	Bbm7/Ab VI 5 b3 b7 1
Cm7/G V 5 b3 b7 1	Bm7/F# IV 5 b3 b7 1	Bbm7/F III 5 b3 b7 1	Cm7 III 1 b7 b3 5	Bm7 II 1 b7 b3 5	Bbm7 I 1 b7 b3 5	

ascend (Dorian m7), string set 4321

Ebm7 I 1 5 b7 b3	Dbm7/Fb II b3 b7 1 5	Dm7/F III b3 b7 1 5	Ebm7/Gb IV b3 b7 1 5	Dbm7/Ab V 5 1 b3 b7	Dm7/A VI 5 1 b3 b7
Ebm7/Bb VII 5 1 b3 b7	Dbm7/Cb IX b7 b3 5 1	Dm7/C X b7 b3 5 1	Ebm7/Db XI b7 b3 5 1	Dbm7 XII 1 5 b7 b3	Ebm7 XIII 1 5 b7 b3

descend (Dorian m7), string set 4321

Ebm7 XIII 1 5 b7 b3	Fm7/Ab XIII b7 b3 5 1	Em7/G XII b7 b3 5 1	Ebm7/Gb XI b7 b3 5 1	Fm7/C IX 5 1 b3 b7	Em7/B VIII 5 1 b3 b7	Ebm7/Bb VII 5 1 b3 b7
Fm7/Ab VI b3 b7 1 5	Em7/G V b3 b7 1 5	Ebm7/Gb IV b3 b7 1 5	Fm7 III 1 5 b7 b3	Em7 II 1 5 b7 b3	Ebm7 I 1 5 b7 b3	

AEOLIAN MINOR SEVENTH CHROMATICIZED BASS

ascend (Aeolian m7), string set 6432

<p>Fm7 I</p>	<p>G dim7 II</p>	<p>G#dim7 III</p>	<p>Fm7/Ab III</p>	<p>Bb dim7 V</p>	<p>Bdim7 VI</p>
<p>Fm7/C VI</p>	<p>C# dim7 VIII</p>	<p>Ddim7 IX</p>	<p>Fm7/Eb IX</p>	<p>E dim7 XI</p>	<p>Fm7 XIII</p>

descend (Aeolian m7), string set 6432

<p>Fm7 XIII</p>	<p>E dim7 XI</p>	<p>Fm7/Eb IX</p>	<p>Ddim7 IX</p>	<p>Dbdim7 VIII</p>	<p>Fm7/C VI</p>
<p>Bdim7 VI</p>	<p>Bb dim7 V</p>	<p>Fm7/Ab III</p>	<p>Abdim7 III</p>	<p>G dim7 II</p>	<p>Fm7 I</p>

ascend (Aeolian m7), string set 5432

Bbm7 I 1 5 b7 b3	Cdim7 II 1 b5 6 b3	Dbdim7 III 1 b5 6 b3	Bbm7/Db III b3 b7 1 5	Ebdim7 V 1 b5 6 b3	Edim7 VI 1 b5 6 b3
Bbm7/F VI 5 1 b3 b7	F#dim7 VIII 1 b5 6 b3	Gdim7 X 1 b5 6 b3	Bbm7/Ab X b7 b3 5 1	Adim7 XI 1 b5 6 b3	Bbm7 XIII 1 5 b7 b3

descend (Aeolian m7), string set 5432

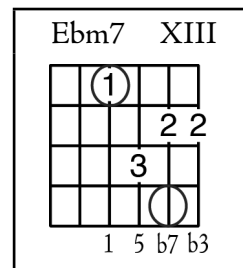
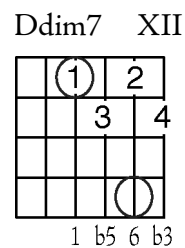
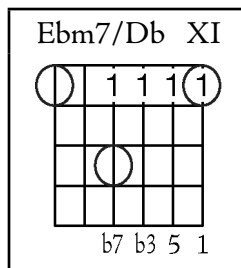
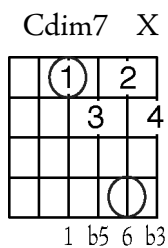
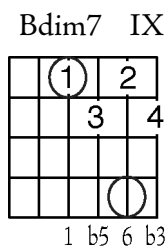
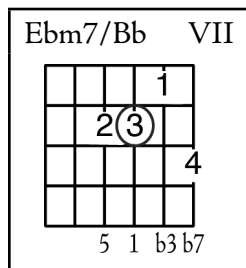
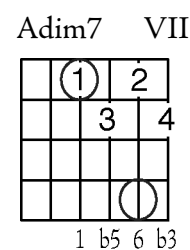
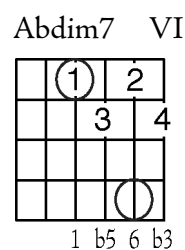
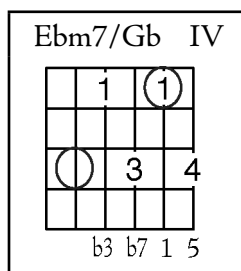
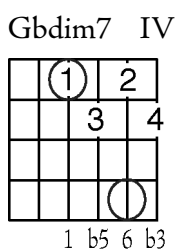
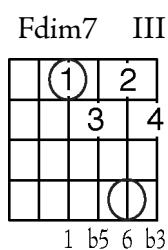
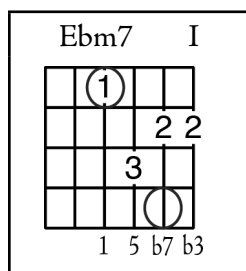
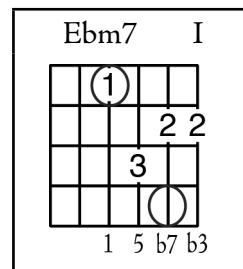
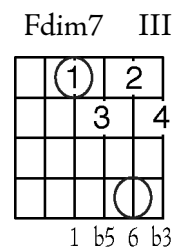
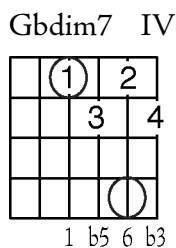
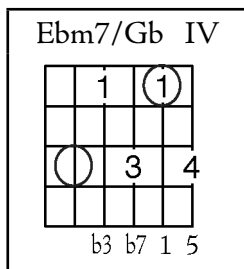
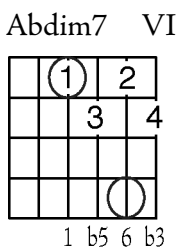
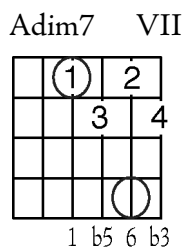
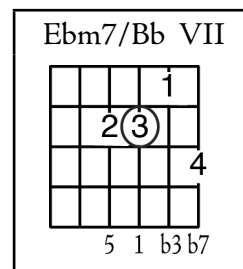
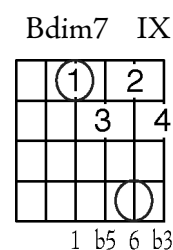
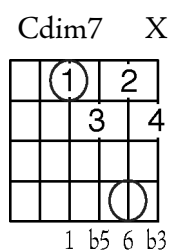
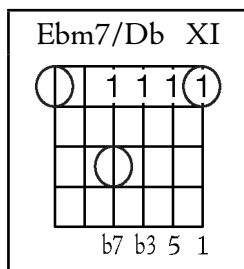
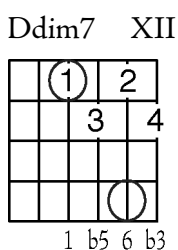
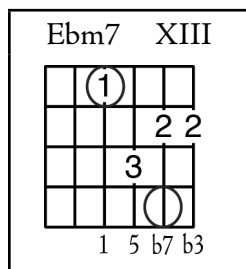
Bbm7 XIII 1 5 b7 b3	Adim7 XI 1 b5 6 b3	Bbm7/Ab X b7 b3 5 1	Gdim7 X 1 b5 6 b3	F#dim7 VIII 1 b5 6 b3	Bbm7/F VI 5 1 b3 b7
Edim7 VI 1 b5 6 b3	Ebdim7 V 1 b5 6 b3	Bbm7/Db III b3 b7 1 5	Dbdim7 III 1 b5 6 b3	Cdim7 II 1 b5 6 b3	Bbm7 I 1 5 b7 b3

ascend (Aeolian m7), string set 5321

Bbm7 I 1 b7 b3 5	Cdim7 II 1 6 b3 b5	Dbdim7 III 1 6 b3 b5	Bbm7/Db III b3 1 b7	Ebdim7 V 1 6 b3 b5	Edim7 VI 1 6 b3 b5
Bbm7/F VI 5 1 b3 b7	F#dim7 VIII 1 6 b3 b5	Gdim7 IX 1 6 b3 b5	Bbm7/Ab IX b7 5 1 b3	Adim7 XI 1 6 b3 b5	Bbm7 XIII 1 b7 b3 5

descend (Aeolian m7), string set 5321

Bbm7 XIII 1 b7 b3 5	Adim7 XI 1 6 b3 b5	Bbm7/Ab IX b7 5 1 b3	Gdim7 IX 1 6 b3 b5	Gbdim7 VIII 1 6 b3 b5	Bbm7/F VI 5 b3 b7 1
Edim7 VI 1 6 b3 b5	Ebdim7 V 1 6 b3 b5	Bbm7/Db III b3 1 b7	Dbdim7 III 1 6 b3 b5	Cdim7 II 1 6 b3 b5	Bbm7 I 1 b7 b3 5

ascend (Aeolian m7), string set 4321**descend (Aeolian m7), string set 4321**

LOCRIAN m7b5 CHROMATICIZED BASS

Locrian m7b5 Linear Harmonized Bass

ascend (Locrian m7b5), string set 6432 (use up to Gm7b5 C7 Fm7)

Gm7b5 II 1 b7 b3 b5	Fm7b5/Ab III b3 1 b5 b7	F#m7b5/A IV b3 1 b5 b7	Gm7b5/Bb V b3 1 b5 b7	Fm7b5/Cb VI b5 b3 b7 1	F#m7b5/C VII b5 b3 b7 1
Gm7b5/Db VIII b5 b3 b7 1	Fm7b5/Eb IX b7 b5 1 b3	F#m7b5/E X b7 b5 1 b3	Gm7b5/F XI b7 b5 1 b3	F#m7b5 XIII 1 b7 b3 b5	Gm7b5 XIV 1 b7 b3 b5

descend (Locrian m7b5), string set 6432 (use up to Gm7b5 C7 Fm7)

Gm7b5 XIV 1 b7 b3 b5	Gb dim7 XIII 1 6 b3 b5	Gm7b5 XI b7 b5 1 b3	Fm7/Eb IX b7 5 1 b3	D dim7 IX 1 6 b3 b5	Gm7b5/Db VIII b5 b3 b7 1
Fm7/C VI 5 b3 b7 1	B dim7 VI 1 6 b3 b5	Gm7b5/Bb V b3 1 b5 b7	Fm7/Ab III b3 1 5 b7	Ab dim7 III 1 6 b3 b5	Gm7b5 II 1 b7 b3 b5

ascend (Locrian m7b5), string set 5432 (use up to Bm7b5 E7 Am7)

<p>Bm7b5 II</p> <p>1 b5 b7 b3</p>	<p>Cdim7 II</p> <p>1 b5 6 b3</p>	<p>C#dim7 III</p> <p>1 b5 6 b3</p>	<p>Bm7b5/D IV</p> <p>b3 b7 1 b5</p>	<p>Ebdim7 V</p> <p>1 b5 6 b3</p>	<p>Edim7 VI</p> <p>1 b5 6 b3</p>
<p>Bm7b5/F VII</p> <p>b5 1 b3 b7</p>	<p>F#dim7 VIII</p> <p>1 b5 6 b3</p>	<p>Gdim7 X</p> <p>1 b5 6 b3</p>	<p>Bm7b5/A X</p> <p>b7 b3 b5 1</p>	<p>Adim7 XI</p> <p>1 b5 6 b3</p>	<p>Bm7b5 XIV</p> <p>1 b5 b7 b3</p>

descend (Locrian m7b5), string set 5432 (use up to Bm7b5 E7 Am7)

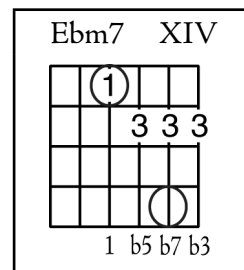
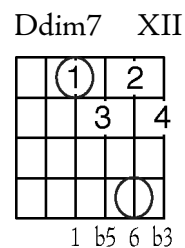
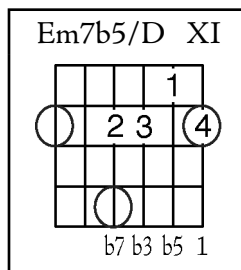
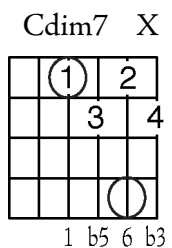
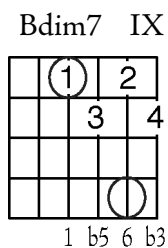
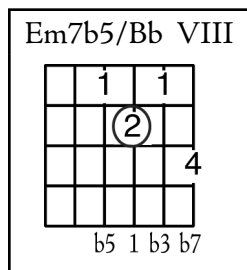
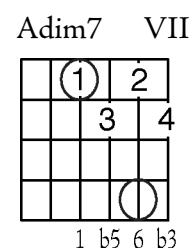
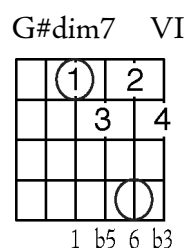
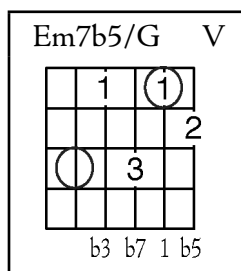
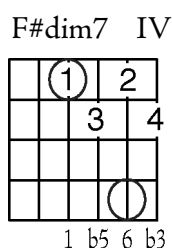
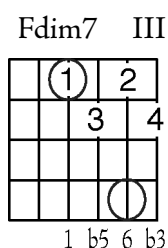
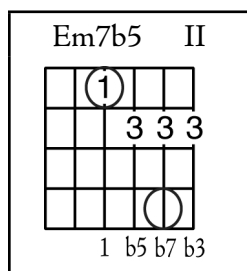
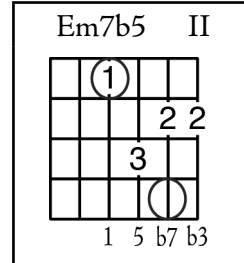
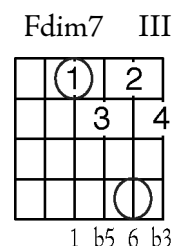
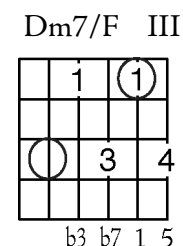
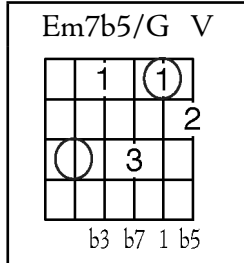
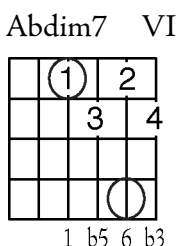
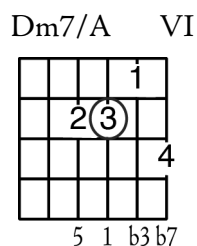
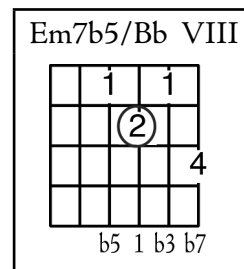
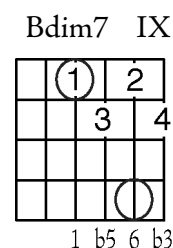
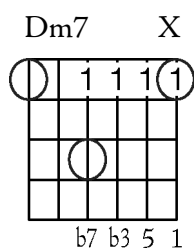
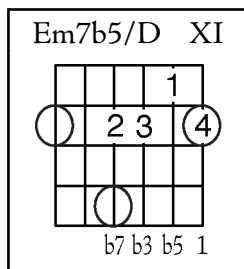
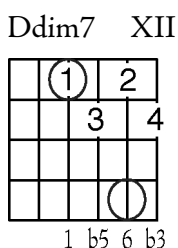
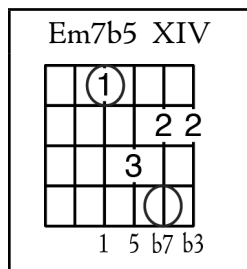
<p>Bm7b5 XIV</p> <p>1 b5 b7 b3</p>	<p>Adim7 XI</p> <p>1 b5 6 b3</p>	<p>Bm7b5/A X</p> <p>b7 b3 b5 1</p>	<p>Am7 IX</p> <p>b7 b3 5 1</p>	<p>F#dim7 VIII</p> <p>1 b5 6 b3</p>	<p>Bm7b5 VI</p> <p>b5 1 b3 b7</p>
<p>Am7/E V</p> <p>5 1 b3 b7</p>	<p>Ebdim7 V</p> <p>1 b5 6 b3</p>	<p>Bm7b5/D IV</p> <p>b3 b7 1 b5</p>	<p>Am7/C II</p> <p>b3 b7 1 5</p>	<p>Cdim7 II</p> <p>1 b5 6 b3</p>	<p>Bm7b5 II</p> <p>1 b5 b7 b3</p>

ascend (Locrian m7b5), string set 5321 (use up to Bm7b5 E7 Am7)

Bm7b5 I 1 b7 b3 b5	Cdim7 II 1 6 b3 b5	C#dim7 III 1 6 b3 b5	Bm7b5/D IV b3 1 b5 b7	Ebdim7 V 1 6 b3 b5	Edim7 VI 1 6 b3 b5
Bm7b5/F VII b5 b3 b7 1	F#dim7 VIII 1 6 b3 b5	Gdim7 X 1 6 b3 b5	Bm7b5/A X b7 b5 1 b3	Adim7 XI 1 6 b3 b5	Bm7b5 XIV 1 b7 b3 b5

descend (Locrian m7b5), string set 5321 (use up to Bm7b5 E7 Am7)

Bm7b5 XIV 1 b7 b3 b5	Adim7 XI 1 6 b3 b5	Bm7b5/A X b7 b5 1 b3	Am7/G VIII b7 5 1 b3	F#dim7 VIII 1 6 b3 b5	Bm7b5/F VI b5 b3 b7 1
Am7 /E V 5 b3 b7 1	Ebdim7 V 1 6 b3 b5	Bm7b5/D IV b3 1 b5 b7	Am7/C II b3 1 b7	Cdim7 II 1 6 b3 b5	Bm7b5 I 1 b7 b3 b5

ascend (Locrian m7b5), string set 4321 (use up to Em7b5 A7 Dm7)**descend (Locrian m7b5), string set 4321 (use up to Em7b5 A7 Dm7)**

MELODIC MINOR CHROMATICIZED BASS

These use chords built on steps VII, VI, V and IV of bVI melodic minor in relation to the target chord. The primary setup chord is the IV chord of melodic minor, which is the $bII7$ of the target chord. They are most useful in descending order, as shown here. See [Modes/Modes Of Four Hepatonic Scales/Melodic Minor Modes](#).

Target Chord A7, Using F Melodic Minor Chords, Descending Roots

F mel. min. $VIIIm7b5$ $Em7b5$ VII	F mel. min. $VIm7b5$ $Dm7b5$ V	target chord $A9$ IV	F mel. min. $VIIIm7b5$ $Em7b5$ VII	chromatic passing chord $Ebm7b5$ VI	F mel. min. $VIm7b5$ $Dm7b5$ V	target chord $A9$ IV
F mel. min. V9 $C7$ VIII	F mel. min. IV7 $Bb7$ VI	target chord $A7$ V	F mel. min. V9 $C7$ VIII	chromatic passing chord $B7$ VII	F mel. min. IV7 $Bb7$ VI	target chord $A7$ V

Target Chord D7, Using Bb Melodic Minor Chords, Descending Roots

Bb mel. min. $VIIIm7b5$ $Am7b5$ VII	Bb mel. min. $VIm7b5$ $Gm7b5$ V	target chord $D9$ IV	Bb mel. min. $VIIIm7b5$ $Am7b5$ VII	chromatic passing chord $Abm7b5$ VI	Bb mel. min. $VIm7b5$ $Gm7b5$ V	target chord $D9$ IV
Bb mel. min. V9 $F7$ VIII	Bb mel. min. IV7 $Eb7$ VI	target chord $D7$ V	Bb mel. min. V9 $F7$ VIII	chromatic passing chord $E7$ VII	Bb mel. min. IV7 $Eb7$ VI	target chord $D7$ V

Contrary Motion

- **Contrary Motion Definition and Examples**
- **Harmonizing a Bassline with Contrary Motion**
- **Harmonizing a Top Voice with Contrary Motion**
- **Strict Contrary Motion**

CONTRARY MOTION DEFINITION AND EXAMPLES

HARMONIZING A BASS LINE WITH CONTRARY MOTION

HARMONIZING A TOP VOICE WITH CONTRARY MOTION

STRICT CONTRARY MOTION

Diminished Seventh Tension

- **Diminished Seventh Arpeggio & Diminished Scale Fingerings**
- **Creating Tension with Diminished Seventh Chords**
- **Sharp Four Diminished Seventh**
- **Sharp One Diminished Seventh**
- **Resolving to Roots Up a Half Step or Down a Whole Step**

DIMINISHED SEVENTH ARPEGGIO & DIMINISHED SCALE FINGERINGS

CREATING TENSION WITH DIMINISHED SEVENTH CHORDS

SHARP FOUR DIMINISHED SEVENTH

SHARP ONE DIMINISHED SEVENTH

RESOLVING TO ROOTS UP A HALF STEP OR DOWN A WHOLE STEP

Augmented Tension

- **Augmented Arpeggio and Scale Fingerings**
- **Common Use of Augmented Chords**
- **Target Tones on “Six”**

AUGMENTED ARPEGGIO AND SCALE FINGERINGS

COMMON USE OF AUGMENTED CHORDS

TARGET TONES ON “SIX”

PART 10 CONTENTS

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[Improv by Comping Rhythm Family](#)
[Quizzes](#)

Building Fretboard Exercises

- **The Purpose**
- **Fingering Resources**
- **Minimize Altering Fingerings at First**
- **“Cycle Practice” versus Freeform Practice**
- **Design Resources**

THE PURPOSE

The purpose of practicing scale, arpeggio and melodic design exercises is to develop the facility to use parts of the exercises in creating melody. Usually, many design elements are necessary for the final melody. In the unaltered exercises, you should have to use a creative imagination to evolve to the full, expressive melody.

Listen to a finished melody that you admire. Imagine a work flow that follows a path back to the scale and arpeggio design, rhythmic words, phrasing and emotive curve that resulted in the melody.

Prefer Chord Tones on the Beat

One of the most important means of establishing chord tones in melody is to place the chord tones on the beat. Or, in the case of “pushes”, place the chord tone immediately before a beat and sustain onto the beat or leave a silence on the beat. See the chapter “[Rhythmic Words and Comping](#)”/Hearing Pickups and Pushes.

sixteenth notes in groups of four or eight, with a chord tone on the beat

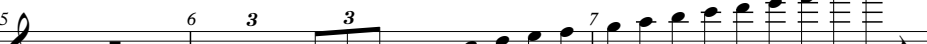
When playing a seven-tone scale like the major scale linearly and or down, four notes per beat (sixteenth notes), the succession of notes on the beginning of each beat is fifths. The series of fifths would not always be chord tones of the current seventh chord. A good compromise in exercises in linear scales in sixteenth notes is to start every beat or two with a tone of the current seventh chord. See “placing the chord tones on the beat”, below.

eighth note triplets in groups of six, with a chord tone on the beat

When playing a seven-tone scale like the major scale linearly and or down, three notes per beat (eighth note triplets), the succession of notes on the beginning of each beat is fourths. The series of fourth would not always be chord tones of the current seventh chord. A good compromise in exercises in linear scales in eighth note triplets is to start every two beats with a tone of the current seventh chord. This would create a fragment pattern (1-2-3-4-5-6) of six notes. See “placing the chord tones on the beat”, below.

placing chord tones on the beat


[illegible]

5 

scale tones 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 1 2 3 4 5 6 7 3 6 2 5 1 4

fingers: 1 1 2 4 1 1 2 4 1 1 3 4 1 3 1 2 4 1 2 4 4

fourths

TAB 

10 *C*maj7 tones 1-3-5-7-1 on the beat

11 12 13

scale tones: 1 2 3 4 5 6 7 1 3 4 5 6 7 1 2 3 5 6 7 1 2 3 4 5 7 1 2 3 4 5 6 7 1

fingers: 2 4 1 2 4 1 3 4 1 2 4 1 3 4 1 3 4 1 3 4 1 3 4 2 3 4 1 3 4 2 4 1 2

T
A
B

8 10 7 8 10 7 9 10 7 8 10 7 9 10 7 9 10 7 9 10 8 9 10 7 9 10 8 10 7 8

Exercise 6

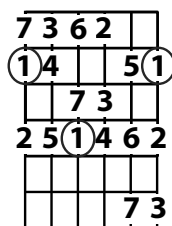
Cmaj7 tones 1-3-5-7 on the beat

scale tones: 1 2 3 4 5 6 3 4 5 6 7 1 5 6 7 1 2 3 7 1 2 3 4 5
fingers: 2 4 1 2 4 1 1 2 4 1 3 4 4 1 3 4 1 3 3 4 1 3 4 2

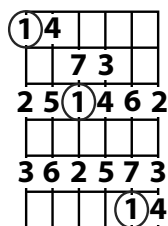
TAB

8 10 7 8 10 7 7 8 10 7 9 10 10 7 9 10 9 10 7 9 10 8

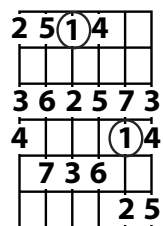
fingering 7/1



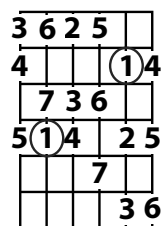
fingering 1/2



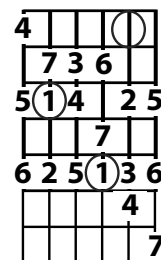
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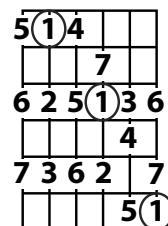
fingering 3/4



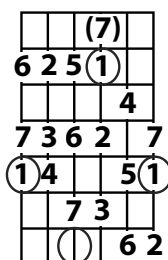
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fingering 5/6



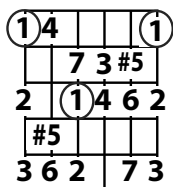
fingering 6/7



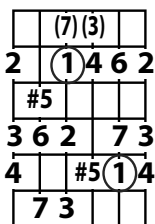
Major Sharp Five & Harmonic Minor Scale Fingerings

in-position major sharp five scale fingerings, numbered by scale tones

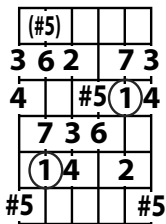
fingering 1



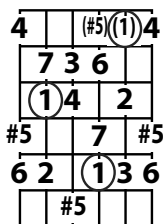
fingering 2



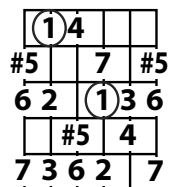
fingering 3



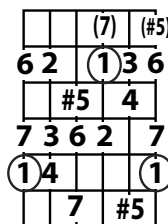
fingering 4



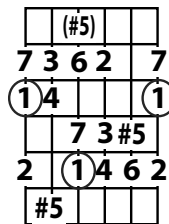
fingering #5



fingering 6

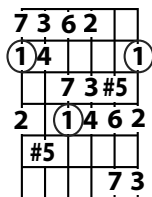


fingering 7

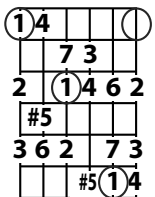


three-note-per-string major sharp five scale fingerings, numbered by scale tones

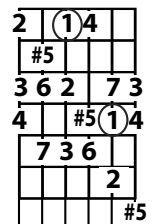
fingering 7/1



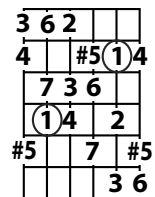
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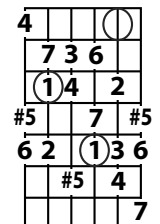
fingering 2/3



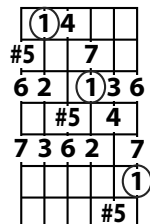
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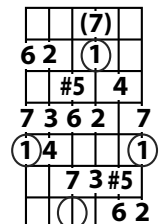
fingering 4/#5



fingering #5/6

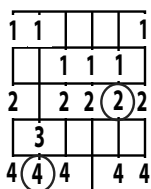


fingering 6/7

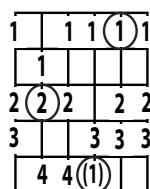


in-position harmonic minor scale fingerings, numbered by fingers

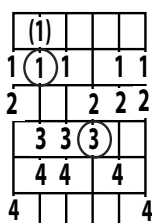
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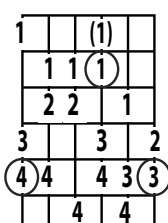
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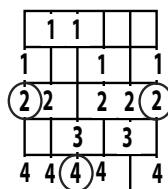
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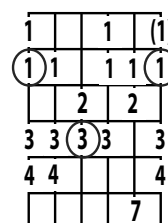
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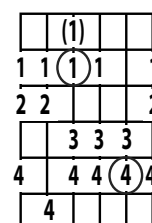
fingering 5



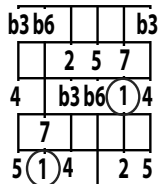
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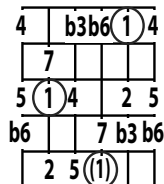
fingering 7

**in-position harmonic minor scale fingerings, numbered by scale tones**

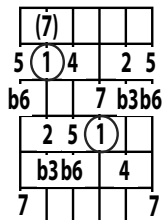
fingering 1



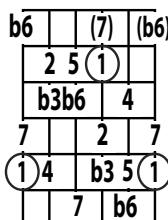
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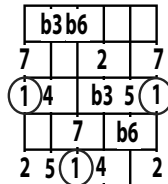
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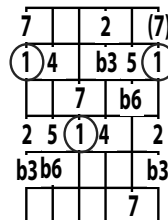
fingering 4



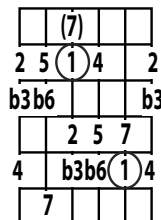
fingering 5



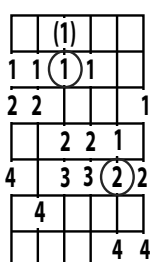
fingering 6



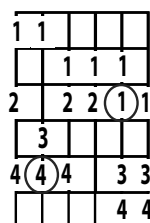
fingering 7

**three-note-per-string harmonic minor scale fingerings, numbered by fingers**

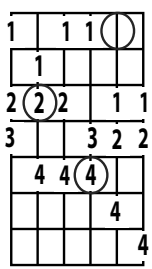
fingering 7/1



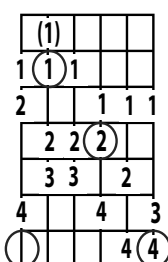
fingering 1/2



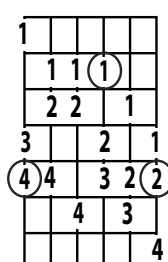
fingering 2/3



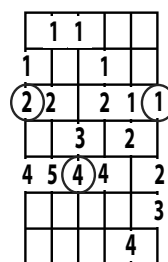
fingering 3/4



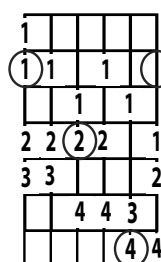
fingering 4/5



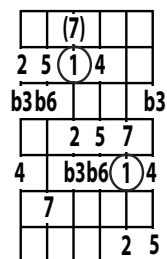
fingering 5/6



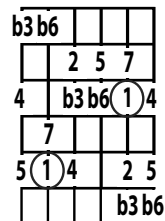
fingering 6/7

**three-note-per-string harmonic minor scale fingerings, numbered by scale tones**

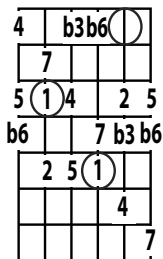
fingering 7/1



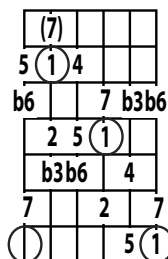
fingering 1/2



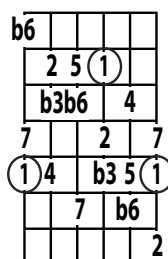
fingering 2/3



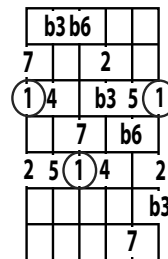
fingering 3/4



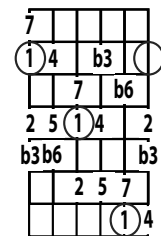
fingering 4/5



fingering 5/6



fingering 6/7



Melodic Minor Scale Fingerings

in-position melodic minor scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

in-position melodic minor scale fingerings by formula

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

three-note-per-string melodic minor scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string melodic minor scale fingerings by formula

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

Harmonic Major Scale Fingerings

in-position harmonic major (major flat six) scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

in-position harmonic major (major flat six) scale fingerings by formula

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

three-note-per-string harmonic major (major flat six) scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string harmonic major (major flat six) scale fingerings by formula

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

Seven Pentatonic Scale Types by Fingering Number

The black-backed tones below are triad tones. 1-b3-5 is a major triad and 1-3-5 is a major triad. The remaining gray tones are pentatonic scale tones not in the triad. The 7/11 (dominant 7/11) pentatonic scale has an optional "b3". The flat three precedes the natural "3", whether ascending or descending. "b3" is often slurred (by a bend, hammer-on or slide) to "3".

styles where used	minor 7/11	7/11	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
	blues, all styles	raga rock, progressive rock, blues	dark blues and jazz	rockabilly	jazz and blues, not in common use	pop, country, bluegrass, jazz blues, swing	pop, country, bluegrass, jazz blues, swing
fingering 1	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
fingering 2	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
fingering 3	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
fingering 4	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9
fingering 5	minor 7/11	7/11 type	minor 7/11b5	minor 6/11	minor 6/11b5	major 6/9	minor 6/9

Seven Pentatonic Scale Types by Octave Shape and Formula

The black-backed tones below are triad tones. 1-b3-5 is a major triad and 1-3-5 is a major triad. The remaining gray tones are pentatonic scale tones not in the triad. The 7/11 (dominant 7/11) pentatonic scale has an optional “b3”. The flat three precedes the natural “3”, whether ascending or descending. “b3” is often slurred (by a bend, hammer-on or slide) to “3”.

E shape

7/11 type			6/11 type		6/9 type	
m7/11, fing. 1	7/11, fing. 1	m7/11b5, fing. 1	m6/11, fing. 1	m6/11b5, fing. 1	major 6/9, fing. 2	minor 6/9, fing. 2

D shape

7/11 type			6/11 type		6/9 type	
m7/11, fing. 2	7/11, fing. 2	m7/11b5, fing. 2	m6/11, fing. 2	m6/11b5, fing. 2	major 6/9, fing. 3	minor 6/9, fing. 3

C shape

7/11 type			6/11 type		6/9 type	
m7/11, fing. 3	7/11, fing. 3	m7/11b5, fing. 3	m6/11, fing. 3	m6/11b5, fing. 3	major 6/9, fing. 4	minor 6/9, fing. 4

A shape

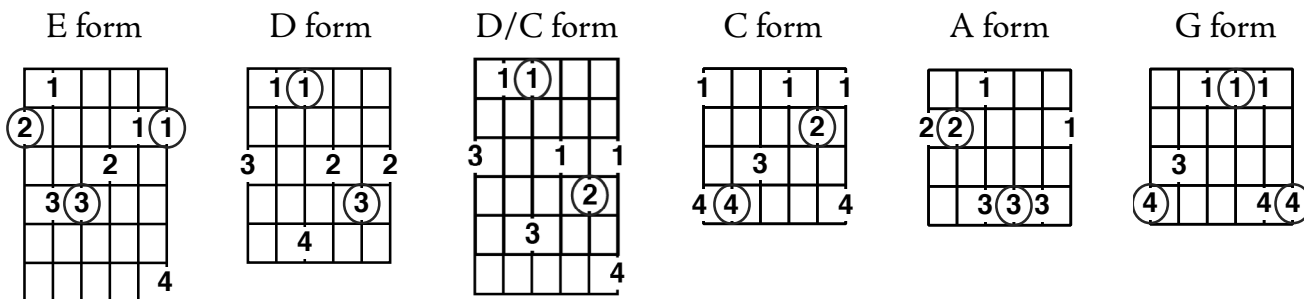
7/11 type			6/11 type		6/9 type	
m7/11, fing. 4	7/11, fing. 4	m7/11b5, fing. 4	m6/11, fing. 4	m6/11b5, fing. 4	major 6/9, fing. 5	minor 6/9, fing. 5

G shape

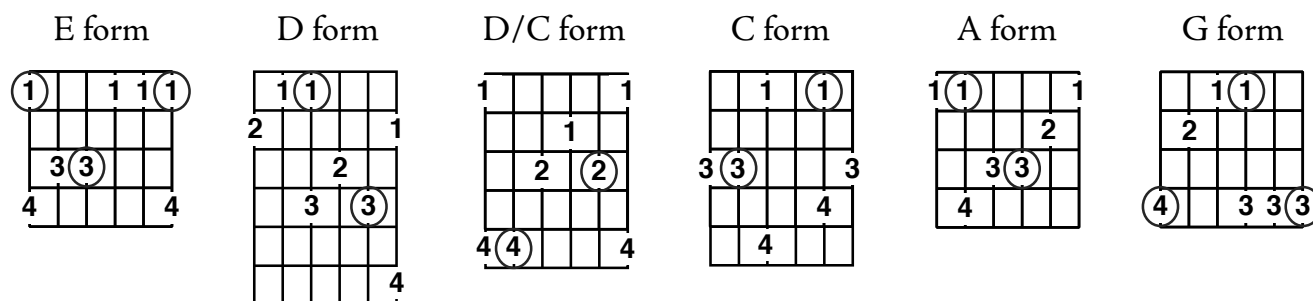
7/11 type			6/11 type		6/9 type	
m7/11, fing. 5	7/11, fing. 5	m7/11b5, fing. 5	m6/11, fing. 5	m6/11b5, fing. 5	major 6/9, fing. 1	minor 6/9, fing. 1

Triad Arpeggios

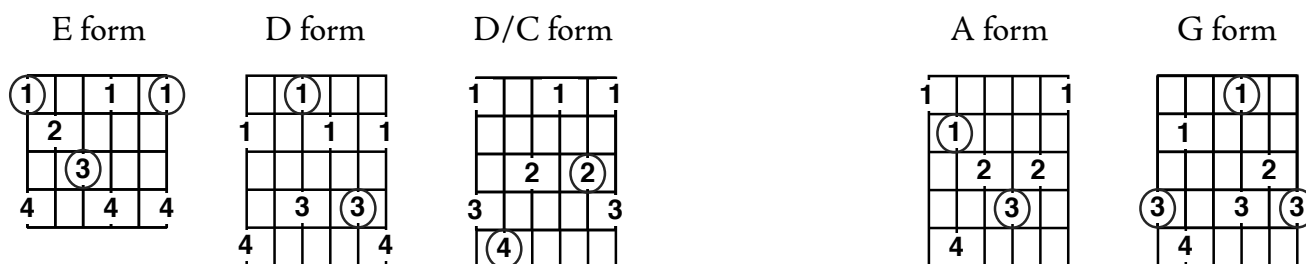
major arpeggios



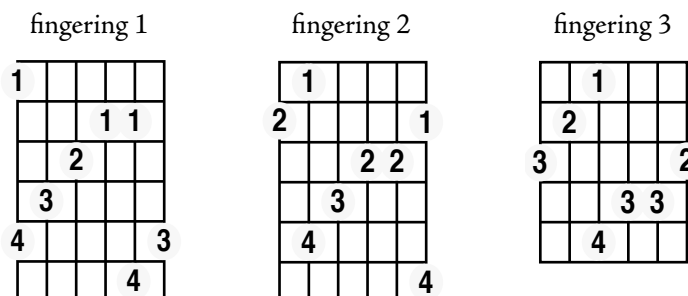
minor arpeggios



diminished (triad) arpeggios



augmented arpeggios



Quadrad Arpeggios (Includes Sevenths)

These fingerings show the lowest complete octave of each arpeggio in black. The remaining notes shown in grey may be above, below or both above and below. Practicing the fingerings in rows or columns allows you to more quickly memorize the fingerings. As you move to the right in each row on this page, a sequence of flatted tones will occur: flat the seventh, flat the third, flat the fifth, double flat the seventh ("bb7" is the same tone as "6"). Any note of diminished seventh can be the root. This same sequence is shown with chord fingerings in the chapter "[Chord Archetypes](#)" / Fingering Families of Seven Seventh Chord Types.'

	major 7	7	m7	7m7b5	dim7 uses only three in-position fingerings
formula	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-5-b7	1-b3-5-6 (bb7)
E form					fingering 1 E, G, A or D form
D form					fingering 2 D, C, A or E form
C form					fingering 2 C, A, E or D form
A form					fingering 3 A, G, C or E form
G form					fingering 3 G, E, C or A form

	6	m6	add9	m add9	m(ma7)	dim(ma7)	m7#5
formula	1-3-5-6	1-b3-5-6	1-2-b3-5	1-2-b3-5	1-b3-5-7	1-b3-b5-7	1-b3-#5-b7
E form							
D form							
C form							
A form							
G form							

	7#5	7b5	ma7#5	ma7b5	7sus4	7sus2	ma7sus4	ma7sus2
formula	1-3-#5-b7	1-3-b5-b7	1-2-3#-5-7	1-3-b5-7	1-4-5-b7	1-2-5-b7	1-4-5-7	1-2-5-7
E form								
D form								
C form								
A form								
G form								

Ninth Arpeggios

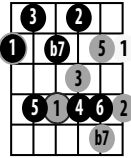
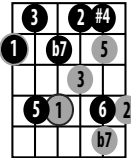
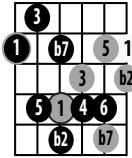
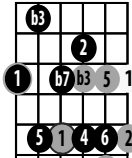
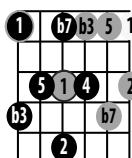
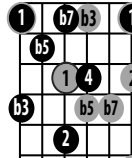
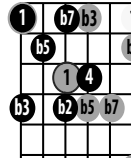
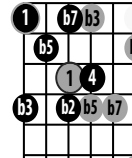
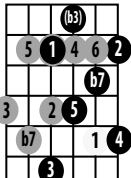
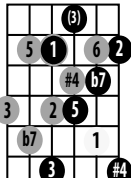
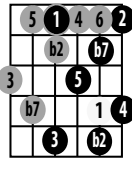
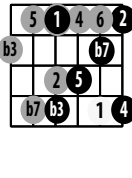
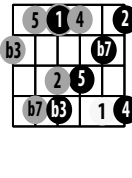

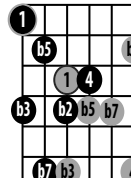
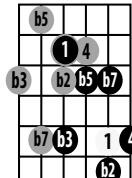
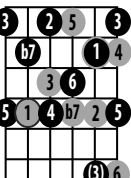

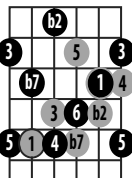
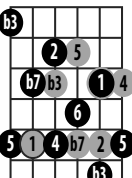
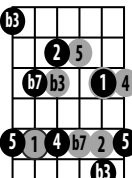
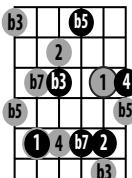
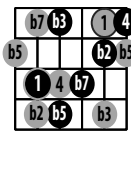
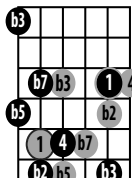
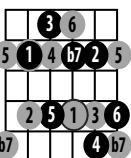
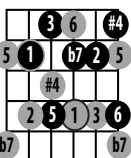
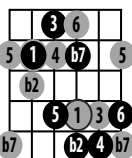
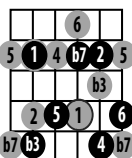
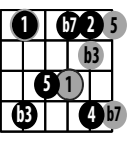
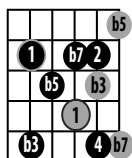
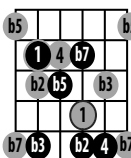
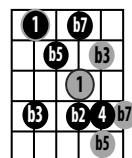
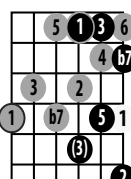
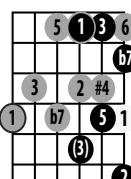
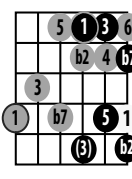
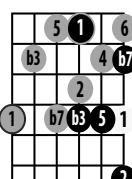
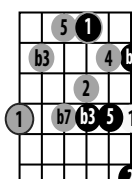
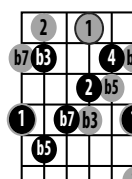
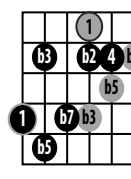
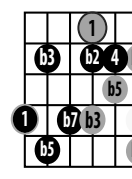
These fingerings show the lower or middle octave with black-backed numbers and the remaining notes with grey-backed numbers. Ascend each octave in the order 1-3-5-7-2, honoring any indicated flats. Due to range limitations, the beginning of the 1-3-5-7-2 series may not be fully available in the bass (on the larger strings). Likewise, the end of the 1-3-5-7-2 series may not all be available in the treble (on the smaller strings).

Some m9(ma7) arpeggios may seem impractical, but they are necessary subsets of melodic minor scale fingerings (see [Prime Scales, Chords and Arpeggios/Melodic Minor Scale Fingerings](#)). Although it is an eleventh chord, 11b5b9 is included since it is useful as a II type in minor II-V-I cadences. See [Prime Scales, Chords and Arpeggios/Arpeggios and Their Scales](#).

	major 9	9	7b9	minor 9	minor 9b5	m9ma7
G/E form						
E form						
E/D form						

	major 9	9	7b9	minor 9	minor 9b5	m9ma7
D form						
D/C form	major 9	9	7b9	minor 9	minor 9b5	m9ma7
C form						
A form						
G form						

Eleventh and Thirteenth Arpeggios

	13	13#11	13b9	m13	m11	m11b5	m11b9	m11b5b9
modes→	Mixolydian	Lydian dom.	Mixolydian b6	Dorian	Aeolian or Dorian	Aeolian b5 or Dorian b5	Phrygian	Locrian
E form								
D form								
C form								
A form								
G form								

MINIMIZE ALTERING FINGERINGS AT FIRST

Keep it simple at first and begin with unaltered fingerings. If you need to modify a scale tone, prefer doing it by reaching (one fret with the index fingering toward the head of the guitar or one fret with the little finger toward the body of the guitar), rather than changing position.

CYCLE PRACTICE VERSUS FREEFORM PRACTICE

Start with “cycle practice” of scales, but move toward less repetitive, organic use of scales, like Eric Johnson (see [Cliffs of Dover live](#)) with pentatonic scales and like Matteo Mancuso (see [Samba Party](#)) or Pat Metheny (see [Have You Heard live](#)) with seven tone scales. Cycle-practice seven tone scale fingerings to an interval of a ninth or two octaves and a third. Cycle-practice pentatonic scale fingerings an octave plus three notes.

Major Scale Mode Cycle a Ninth Interval

Major Scale Mode Cycle Two Octaves and a Third

Pentatonic Scales for an Octave and Three Notes

DESIGN RESOURCES

See the chapters “Triad Arpeggio Exercises”, “Melodic Cells”, “Fragment Patterns”, “Thirds and Sixths”, “Double Stops”, “Triads with Neighbor”, “Quadrads with Neighbor”, “Chromaticized Arpeggios”, “Chromaticized Scales on Arpeggios”, “Half-Whole-Half Cells and Diminished Scale”.

SCALE EXERCISES

Scale Exercises For I7, IV7 and V7

key of Bb - [click to play the video on youtube](#) - [click here for pdf's](#)

Swing Sixteenths

♩ = 96

B♭7 I Mixolydian

2 4 1 2 4 1 2 4 1 2 4 1 3 4 1 2 4 1 3 4 2 2 4 1 3 4 2 4 4

6 8 5 6 8 5 6 8 5 6 8 5 7 8 5 6 8 5 7 8 6 8 9

1 4 3 1 3 2 1 3 4 3 1 3 2 1 4 2 2 4 3 1 4 2 1 4 3 1 4 2 1 4 2 1

6 9 8 6 8 7 5 8 9 8 6 8 7 5 8 6 8 7 5 8 6 5 8 6 5 8 6 5 8 6 5

4 2 1 4 2 1 4 2 2 1 4 2 1 4 2 1 2

8 6 5 8 6 5 8 6 5 8 6 5 8 6 5 8 6 4 6

B♭7 I Mixolydian

2 4 1 2 4 1 1 2 4 1 2 4 4 1 2 4 1 3 2 4 1 3 4 2 4 1 2 3 1 3 2 3 1 3 4 1

6 8 5 6 8 5 5 6 8 5 6 8 8 5 6 8 5 7 6 8 5 7 8 6 8 5 7 8 6 8 7 8 6 8 9 6

4 3 1 3 2 1 2 4 2 1 4 2 3 1 4 2 1 4 4 2 1 4 2 1 2

9 8 6 8 7 5 6 8 7 5 8 6 7 5 8 6 5 8 6 5 8 6 5 8 6 5 8 6 5 8 6

$\text{♩} = 96$ Bb^7 I Dorian (to darken)

Measures 15-28 are shown, including fret numbers and mode information.

♩ = 96

F7 V Mixolydian (I major)

29 30 31

1 2 4 1 2 4 1 3 4 1 2 4 1 3 4 1 2 4 1 3 4 1 3 4 1 3 4 2

5 6 8 5 6 8 5 7 8 5 6 8 5 7 8 5 6 8 5 7 8 5 6 8 5 7 8 6

32 33

3 4 1 3 4 2 4 1 1 3 4 2 4 1 2 4 2 1 4 2 4 3 1 1 4 2 4 3 1 4 3

7 8 5 7 8 6 8 5 7 8 6 8 5 6 8 6 5 8 6 8 7 5 8 6 8 7 5 8 7

34 35 36

2 4 3 1 4 3 1 4 4 3 1 4 3 1 4 2 1 4 3 1 4 2 1 4 3 1 4 2 1 4 2 1 1

6 8 7 5 8 7 5 8 7 5 8 7 5 8 6 5 8 7 5 8 6 5 7 5 8 6 5 8 6 5 8 6 3 5

37 38 39 40

1 2 4 1 2 4 4 1 2 4 1 3 2 4 1 3 4 1 4 1 3 4 1 3 3 4 1 3 4 2 1 3 4 2 4 1

5 6 8 5 6 8 8 5 6 8 5 7 6 8 5 7 8 8 5 7 8 5 7 7 8 5 7 8 6 5 7 8 6 8 5

41 42 43

2 4 3 1 4 3 4 3 1 4 3 1 1 4 3 1 4 2 3 1 4 2 1 4 1

6 8 7 5 8 7 8 7 5 8 7 5 5 8 7 5 8 6 7 5 8 6 5 8 5

♩ = 96

$E\flat^7$ IV Mixolydian (I Dorian)

44 45 46

2 4 1 2 4 1 2 4 1 2 4 1 2 2 4 1 2 4 1 2 4 1 2 4 2 4

47 48

4 1 1 3 1 3 4 1 4 3 1 4 3 1 3 1 1 4 3 1 3 1 1 4 4 2 4 2 1 4 2 1

49 50 51

4 2 1 4 2 1 4 2 2 1 4 2 1 4 2 1 4 2 1 4 2 1 4 2 1 1 4 2 1 2

52 53 54 55

2 4 1 2 4 1 1 2 4 1 2 4 2 4 1 2 4 1 1 2 4 1 2 4 4 1 1 3 1 3 1 3 1 3 4 1

56 57 58

4 3 1 4 3 1 1 4 3 1 3 1 3 1 3 1 1 4 4 2 1 4 2 1 2

♩ = 96

Bb7 I7/11 pentatonic

59 60 61 62

2 1 1 3 1 3 2 3 1 4 1 4 1 4 1 3 2 3 1 3 1 1 2 1 2

6 5 6 8 6 8 7 8 6 9 6 10 6 9 6 8 7 8 6 8 6 5 6 4 6

63 64 65

2 1 2 4 2 4 1 1 3 1 3 2 3 1 3 2 3 1 1 3 2 3 1 4

6 5 6 8 6 8 5 6 8 6 8 7 8 6 8 7 8 6 6 8 7 8 6 9

66 67 68 69

1 4 1 3 2 3 4 1 3 2 3 1 1 3 2 3 1 3 2 3 1 3 1 1 4 2 4 2 1 2 2 4 2 1 2 1 2

6 9 6 8 7 9 6 8 7 8 6 6 8 7 8 6 8 6 5 8 6 8 6 5 6 8 6 5 6 4 6

70 71 72 73

3 1 3 3 1 3 1 3 1 4 1 4 1 4 1 3 1 3 1 3 1 1 3 1 3

6 4 6 8 6 8 6 9 6 9 6 9 6 8 6 8 6 8 6 4 6 4 6

74 75 76 77

1 4 1 3 1 3 4 1 3 1 3 1 3 1 3 1 3 1 1 1 3 1 3 1 4 1 4 1 3 1 3 4 1 3 1 3 1

6 9 6 8 9 6 8 6 8 6 6 8 6 8 6 8 6 8 6 9 6 9 6 8 6 9 6 8 6 8 6 6

78 79 80

1 3 1 3 1 3 1 3 1 3 1 4 3 1 3 1 4 1 1 3 1 1 3 1 3

6 8 6 8 6 8 6 8 6 9 8 6 8 6 9 6 8 6 4 6 4 6

81 82 83 84

1 2 4 2 4 3 4 1 4 2 1 2 4 2 1 2 4 1 4 3 4 2 4 2 1

5 6 8 6 8 7 8 5 8 6 5 6 8 6 5 6 8 5 8 7 8 6 8 6 5

85 86 87 88

1 2 4 2 4 3 4 2 4 3 4 1 2 4 3 4 1 4 4 3 4 1 4 2 3 4 1 4 2 1 4 2 1 2 4 1

5 6 8 7 6 8 7 8 5 6 8 7 8 5 8 6 7 8 5 8 6 5 8 6 8 5

89 90 91 92

93 94 *F⁶ V major pentatonic* 95 96

97 98 *F⁶* 99 100

101 102 103 104

105 106 *E^b7 IV7/11 pentatonic* 107 108

109 110 *E^b7* 111 112

113 114 115 116

Major Scale Summary

- **Fingerings**
- **Major Scale-Tone Chords**
- **Harmony**
- **Modes**
- **Subsets**
- **Counterpoint**
- **Cadences**

FINGERINGS

In-Position And Three-Note-Per-String Fingerings

Major scale fingerings are numbered in this course according to the number of lowest note fingered with the index finger on the sixth string. Other fingerings called “three-note-per-string” major scale fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

in-position fingerings

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall.

When numbered by fingers, “1” is the index finger, “2” is the middle finger, “3” is the ring finger and “4” is the little finger.

three-note-per-string fingerings

Three-note-per-string major scale fingerings shown below combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on.

in-position major scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
3 index reaches	2 pinky reaches	no reaches	2 index reaches	4 index reaches	1 pinky reach	no reaches

in-position major scale fingerings by formula

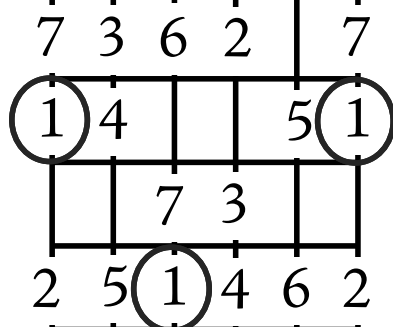
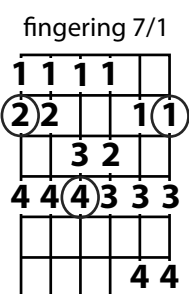
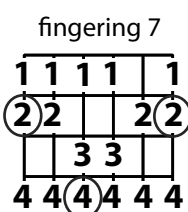
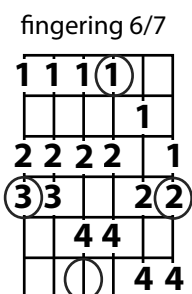
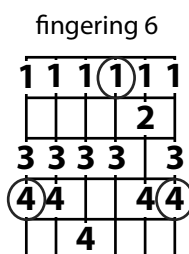
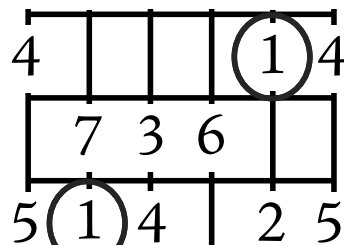
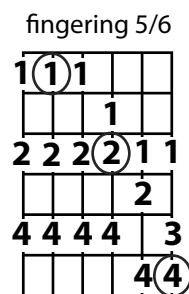
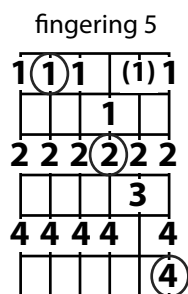
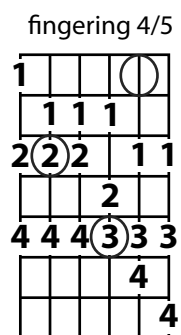
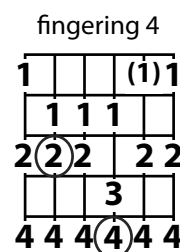
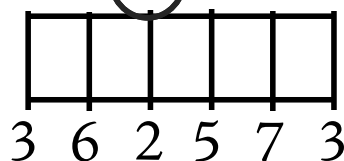
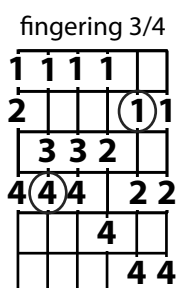
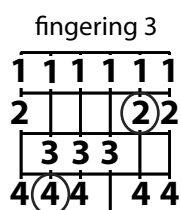
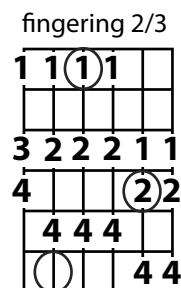
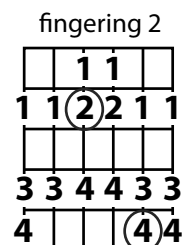
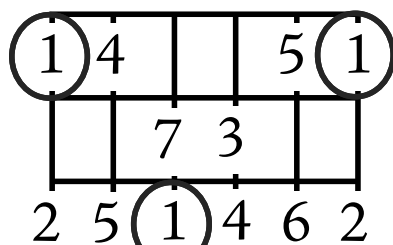
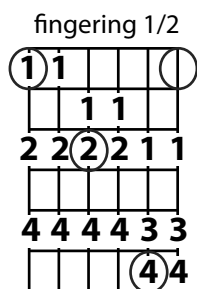
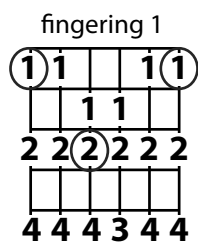
fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7
3 index reaches	2 pinky reaches	no reaches	2 index reaches	4 index reaches	1 pinky reach	no reaches

three-note-per-string major scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string major scale fingerings by formula

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

full-fretboard major scale with fingerings by finger number

full-fretboard major scale with fingerings by formula number

fingering 1

fingering 1/2

fingering 2

fingering 2/3

fingering 3

fingering 3/4

fingering 4

fingering 4/5

fingering 5

fingering 5/6

fingering 6

fingering 6/7

fingering 7

fingering 7/1

Three-Octave Major Scale Fingerings

See the chapter “[Full-Fretboard Major Scale Visualization](#)”.

The top row is numbered by scale tone and the bottom row is numbered by fretting fingers.

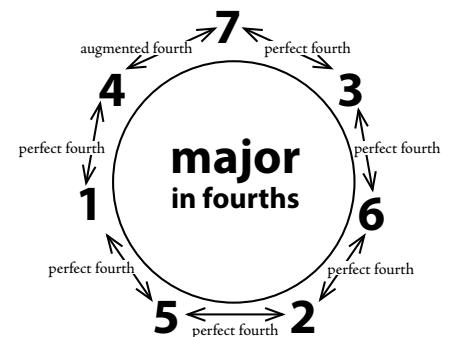
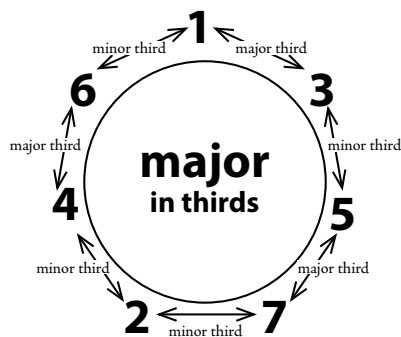
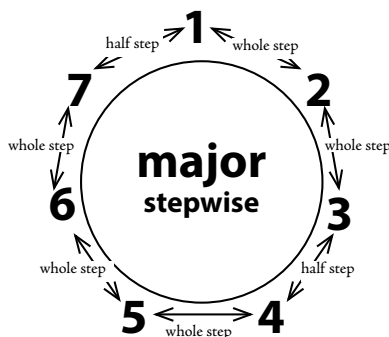
fingering 1 based on two- string fingering 1	fingering 2 based on two- string fingering 2	fingering 3 based on two- string fingering 3	fingering 4 based on two- string fingering 4	fingering 5 based on two- string fingering 5	fingering 6 based on two- string fingering 6	fingering 7 based on two- string fingering 7

MAJOR SCALE-TONE CHORDS

The types are shown in the far left column.

scale-tone:	I	II	III	IV	V	VI	VII
M.S.T. mode.....	Ionian.....	Dorian.....	Phrygian.....	Lydian.....	Mixolydian.....	Aeolian.....	Locrian.....
Lydian.....	V.....	VI.....	VII.....	I.....	II.....	III.....	#IV.....
Mixolydian.....	IV.....	V.....	VI.....	bVII.....	I.....	II.....	III.....
Dorian.....	bVII.....	I.....	II.....	bIII.....	IV.....	V.....	VI.....
Aeolian.....	bIII.....	IV.....	V.....	bVI.....	bVII.....	I.....	II.....
Phrygian.....	bVI.....	bVII.....	I.....	bII.....	bIII.....	IV.....	V.....
Locrian.....	bII.....	bIII.....	IV.....	bV.....	bVI.....	bVII.....	I.....
thirds.....	major.....	minor.....	minor.....	major.....	major.....	minor.....	minor.....
sixths.....	minor.....	major.....	major.....	minor.....	minor.....	major.....	major.....
triad.....	major.....	minor.....	minor.....	major.....	major.....	minor.....	diminished.....
seventh.....	ma7.....	m7.....	m7.....	ma7.....	7.....	m7.....	m7b5.....
ninth.....	ma9.....	m9.....		ma9.....	9.....	m9.....	
eleventh.....		m11.....		ma9#11.....		m11.....	
thirteenth.....		m13.....		ma13#11.....			
11no3(9sus4).....		11no3.....			11no3.....	11no3.....	
13no11.....	ma13no11.....	m13no11.....		ma13no11.....	13no11.....		
7/6.....	ma7/6.....	m7/6.....		wma7/6.....	7/6.....		
sixth.....	6.....	m6.....		6.....	6.....		
add 9.....	add9.....	m add9.....		add 9.....	add 9.....	m add 9.....	
6/9.....	6/9.....	m6/9.....		6/9.....	6/9.....		
7/11.....		m7/11.....	m7/11.....			m7/11.....	(m7/11b5)
sus.4.....	sus.4.....	sus.4.....	sus.4.....		sus.4.....	sus.4.....	
sus.2.....	sus.2.....	sus.2.....		sus.2.....	sus.2.....	sus.2.....	
7 sus.4.....	(ma7sus.4).....	7sus.4.....	7sus.4.....		7sus.4.....	7sus.4.....	
7 sus.2.....	ma7sus.2.....	7sus.2.....		ma7sus.2.....	7sus.2.....	7sus.2.....	
9 no 3.....	ma9no3.....	9no3.....		ma9no3.....	9no3.....	9no3.....	
9 sus.4.....	(ma7sus.4).....	9sus.4.....			9sus.4.....	9sus.4.....	
13 sus.4 (13no3).....		13sus.4.....			13sus.4.....		
7/6 sus.4.....		7/6sus.4.....			7/6sus.4.....		
7/6 sus.2.....		7/6sus.2.....			7/6sus.2.....		

Interval Cycles of the Major Scale



Numbered Major Scale Tones In Triads, Seventh and Ninth Chords

scale-tone:	I	II	III	IV	V	VI	VII
triad.....	I major	II minor	III minor	IV major	V major	VI minor	VII dimin.
parent scale tones	1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
chord scale tones	1-3-5	1-b3-5	1-b3-5	1-3-5	1-3-5	1-b3-5	1-b3-b5
seventh chord	I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V ⁷	VI ^m 7	VII ^m 7 ^b 5
parent scale tones.....	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-6
chord scale tones	1-3-5-7	1-b3-5-b7	1-b3-5-b7	1-3-5-7	1-3-5-b7	1-b3-5-b7	1-b3-b5-b7
ninth chord	I ^{ma} 9	II ^m 9	no chord	IV ^{ma} 9	V ⁹	VI ^m 9	no chord
parent scale tones.....	1-3-5-7-2	2-4-6-1-3		4-6-1-3-5	5-7-2-4-6	6-1-3-5-7	
chord scale tones	1-3-5-7-2	1-b3-5-b7-2		1-3-5-7-2	1-3-5-b7-2	1-b3-5-b7-2	

Major Scale Tone Chord Fingerings

C major scale-tone triads, stepwise, sixth-string roots

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad.

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim} .
1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
C VIII	D ^m X	E ^m XII	F I or XIII	G III	A ^m V	B ^{dim} VI
1 5 1 3 5 1	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 3 5 1	1 5 1 b3 5 1	1 1 b3 b5

C major scale-tone triads, stepwise, fifth-string roots

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad.

I	II ^m	III ^m	IV	V	VI ^m	VII ^{dim} .
1-3-5	2-4-6	3-5-7	4-6-1	5-7-2	6-1-3	7-2-4
C III	D ^m V	E ^m VII	F VIII	G X	A ^m XII	B ^{dim} II or XIV
1 5 1 3	1 5 1 b3 5	1 5 1 b3 5	1 5 1 3	1 5 1 3	1 5 1 b3 5	1 b5 1 b3

C major scale-tone triads, roots ascending in perfect fourths, barré chords

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad.

I chord root on the fifth string

minor				major		
diminished						
VlIdim. 7-2-4	IIIIm 3-5-7	VIIm 6-1-3	IIIm 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
Bdim VI	Em VII	Am V	Dm V	G III	C III	F I
1 1 b3 b5	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 3 5 1	1 5 1 3	1 5 1 3 5 1

I chord root on the sixth string

minor				major		
diminished						
VlIdim. 7-2-4	IIIIm 3-5-7	VIIm 6-1-3	IIIm 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
Bdim XIV	Em XII	Am XII	Dm X	G X	C VIII	F VIII
1 b5 1 b3	1 5 1 b3 5 1	1 5 1 b3 5	1 5 1 b3 5 1	1 5 1 3	1 5 1 3 5 1	1 5 1 3

I chord root on the third string

minor				major		
diminished						
VlIdim. 7-2-4	IIIIm 3-5-7	VIIm 6-1-3	IIIm 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
Bdim IX	Em VII	Am VII	Dm V	G V	C III	F III
1 b5 b3	5 1 b3 5	1 5 1 b3	5 1 b3 5	1 5 1 3	5 1 3 5	1 5 1 3

C major scale-tone triads, close-voiced, stepwise roots

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, all three notes ascend to the next chord.

close-voiced, root position, root in the bass

I 1-3-5 root-third-fifth C VIII	IIIm 2-4-6 root-third-fifth Dm X	IIIIm 3-5-7 root-third-fifth Em XII	IV 4-6-1 root-third-fifth F I	V 5-7-2 root-third-fifth G III	VIIm 6-1-3 root-third-fifth Am V	VIIIdim. 7-2-4 root-third-fifth Bdim VI

close-voiced, first inversion, third in the bass

I 1-3-5 third-fifth-root C XII	IIIm 2-4-6 third-fifth-root Dm XIV or II	IIIIm 3-5-7 third-fifth-root Em IV	IV 4-6-1 third-fifth-root F V	V 5-7-2 third-fifth-root G VII	VIIm 6-1-3 third-fifth-root Am IX	VIIIdim. 7-2-4 third-fifth-root Bdim X

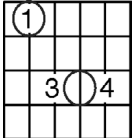
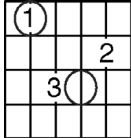
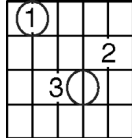
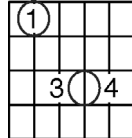
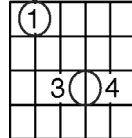
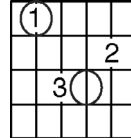
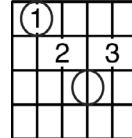
close-voiced, second inversion, fifth in the bass

I 1-3-5 fifth-root-third C V	IIIm 2-4-6 fifth-root-third Dm VI	IIIIm 3-5-7 fifth-root-third Em VIII	IV 4-6-1 fifth-root-third F X	V 5-7-2 fifth-root-third G XII	VIIm 6-1-3 fifth-root-third Am XIII or I	VIIIdim. 7-2-4 fifth-root-third Bdim III

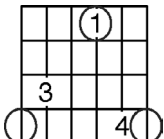
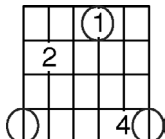
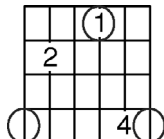
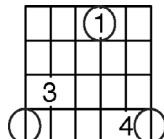
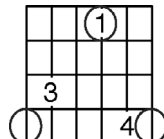
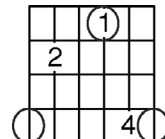
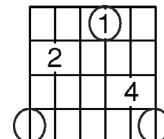
C major scale-tone triads, open-voiced, stepwise roots

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, all three notes ascend a scale tone to form the next chord.

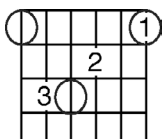
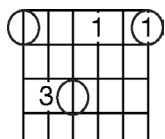
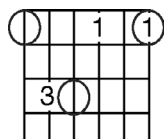
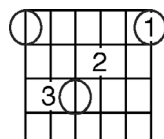
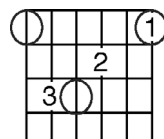
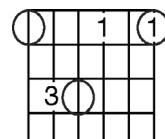
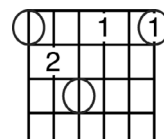
open-voiced, root position, root in the bass

I 1-3-5	IIIm 2-4-6	IIIIm 3-5-7	IV 4-6-1	V 5-7-2	VIIm 6-1-3	VIIIdim. 7-2-4
root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third
C III	Dm V	Em VII	F VIII	G X	Am XII	Bdim II or XIV
						
1 5 3	1 5 b3	1 5 b3	1 5 3	1 5 3	1 5 b3	1 b5 b3

open-voiced, first inversion, third in the bass

I 1-3-5	IIIm 2-4-6	IIIIm 3-5-7	IV 4-6-1	V 5-7-2	VIIm 6-1-3	VIIIdim. 7-2-4
third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth
C V	Dm VII	Em IX	F X	G XII	Am XIV or II	Bdim IV
						
3 1 5	b3 1 5	b3 1 5	3 1 5	3 1 5	b3 1 5	b3 1 b5

open-voiced, second inversion, fifth in the bass

I 1-3-5	IIIm 2-4-6	IIIIm 3-5-7	IV 4-6-1	V 5-7-2	VIIm 6-1-3	VIIIdim. 7-2-4
fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root
C VIII	Dm X	Em XII	F XIII or I	G III	Am V	Bdim VII
						
5 3 1	5 b3 1	5 b3 1	5 3 1	5 3 1	5 b3 1	b5 b3 1

C major scale-tone triads, close-voiced, roots ascending in fourths (7-3-6-2-5-1-4)

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, the third and fifth of each chord ascend a scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row.

close-voiced, I chord's root in the bass

VII^{dim} 7-2-4	III^m 3-5-7	VI^m 6-1-3	II^m 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	third-fifth-root	root-third-fifth
B^{dim} X	E^m XII	A^m XII	D^m XIII or I	G III	C III	F V
b5 1 b3	b3 5 1	1 b3 5	5 1 b3	3 5 1	1 3 5	5 1 3

close-voiced, I chord's fifth in the bass

VII^{dim} 7-2-4	III^m 3-5-7	VI^m 6-1-3	II^m 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root
B^{dim} VI	E^m VII	A^m VIII	D^m X	G X	C XII	F XIII or I
b3 b5 1	1 b3 5	5 1 b3	b3 5 1	1 3 5	5 1 3	3 5 1

close-voiced, I chord's third in the bass

VII^{dim} 7-2-4	III^m 3-5-7	VI^m 6-1-3	II^m 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth
B^{dim} I	E^m III	A^m V	D^m V	G VII	C VIII	F VIII
1 b3 b5	5 1 b3	b3 5 1	1 b3 5	5 1 3	3 5 1	1 3 5

C major scale-tone triads, open-voiced, roots ascending in fourths (7-3-6-2-5-1-4)

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, the third and fifth of each chord ascend a scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row.

open-voiced, I chord's third in the bass

VII^{dim.} 7-2-4	III^m 3-5-7	VI^m 6-1-3	II^m 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third
B^{dim} IX	E^m IX	A^m X	D^m X	G XII	C XIII or I	F III
1 b5 b3	5 b3 1	b3 1 5	1 5 b3	5 3 1	3 1 5	1 5 3

open-voiced, I chord's root in the bass

VII^{dim.} 7-2-4	III^m 3-5-7	VI^m 6-1-3	II^m 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root
B^{dim} VII	E^m VII	A^m VII	D^m X	G VIII	C X	F X
b5 b3 1	b3 1 5	1 5 b3	5 b3 1	3 1 5	1 5 3	5 3 1

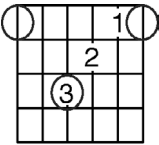
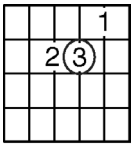
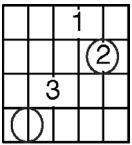
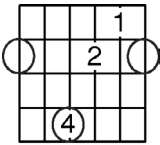
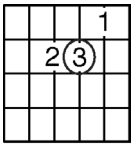
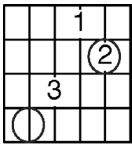
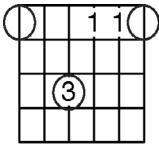
open-voiced, I chord's fifth in the bass

VII^{dim.} 7-2-4	III^m 3-5-7	VI^m 6-1-3	II^m 2-4-6	V 5-7-2	I 1-3-5	IV 4-6-1
third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth
B^{dim} XII	E^m XII	A^m XIV or II	D^m III	G V	C VIII	F VII
b3 1 b5	1 5 b3	5 b3 1	b3 1 5	1 5 3	5 3 1	3 1 5

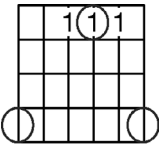
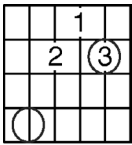
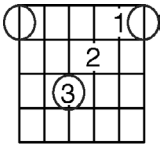
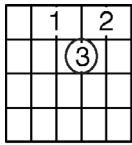
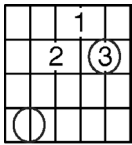
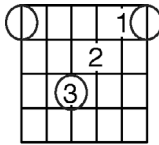
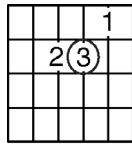
C major scale-tone triads, close-voiced, roots ascending in thirds

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, the root of each chord descends one scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row.

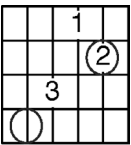
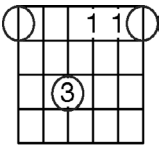
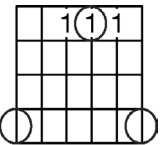
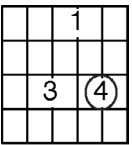
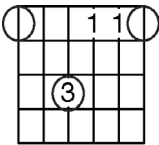
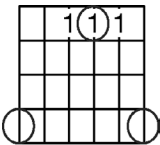
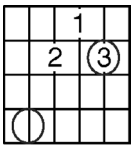
close-voiced, I chord's root in the bass

I 1-3-5	III^{lm} 3-5-7	V 5-7-2	VII^{dim.} 7-2-4	II^m 2-4-6	IV 4-6-1	VI^m 6-1-3
root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth
C VIII	Em VIII	G VII	B^{dim} VI	D^m VI	F V	A^m V
						
1 3 5	5 1 b3	3 5 1	1 b3 b5	5 1 b3	3 5 1	1 b3 5

close-voiced, I chord's fifth in the bass

I 1-3-5	III^{lm} 3-5-7	V 5-7-2	VII^{dim.} 7-2-4	II^m 2-4-6	IV 4-6-1	VI^m 6-1-3
fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third
C V	Em IV	G III	B^{dim} III	D^m II	F I or XIII	A^m I or XIII
						
5 1 3	b3 5 1	1 3 5	b5 1 b3	b3 5 1	1 3 5	5 1 b3

close-voiced, I chord's third in the bass

I 1-3-5	III^{lm} 3-5-7	V 5-7-2	VII^{dim.} 7-2-4	II^m 2-4-6	IV 4-6-1	VI^m 6-1-3
third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root
C XII	Em XII	G XII	B^{dim} X	D^m X	F X	A^m IX
						
3 5 1	1 b3 5	5 1 3	b3 b5 1	1 b3 5	5 1 3	b3 5 1

C major scale-tone triads, open-voiced, roots ascending in thirds

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, the root of each chord descends one scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row (but starts over up an octave).

open-voiced, I chord's root in the bass

I 1-3-5 root-fifth-third	III ^{dim} 3-5-7	V 5-7-2	VII ^{dim} 7-2-4	II ^m 2-4-6	IV 4-6-1	VI ^m 6-1-3
C X	Em IX	G IX	B ^{dim} IX	D ^m VII	F VII	A ^m VII

open-voiced, I chord's fifth in the bass

I 1-3-5 fifth-third-root	III ^{dim} 3-5-7	V 5-7-2	VII ^{dim} 7-2-4	II ^m 2-4-6	IV 4-6-1	VI ^m 6-1-3
C V	Em V	G V	B ^{dim} VII	D ^m VII	F VIII	A ^m VII

open-voiced, I chord's third in the bass

I 1-3-5 third-root-fifth	III ^{dim} 3-5-7	V 5-7-2	VII ^{dim} 7-2-4	II ^m 2-4-6	IV 4-6-1	VI ^m 6-1-3
C VII	Em VII	G VIII	B ^{dim} IX	D ^m X	F VI	A ^m V

C major scale-tone seventh chords, built in thirds, fourth string roots

The second row of numbers below (such as 1-3-5-7 and 2-4-6-1) are the major scale tone numbers used to construct the seventh chord.

I^{ma}7 1-3-5-7	II^{lm}7 2-4-6-1	III^{lm}7 3-5-7-2	IV^{ma}7 4-6-1-3	V7 5-7-2-4	VI^{lm}7 6-1-3-5	VII^{lm}7b5 7-2-4-6
C^{ma}7 VII	D^m7 VIII	E^m7 X	F^{ma}7 XII	G7 I	A^m7 III	B^m7b5 V
1 3 5 7	1 b3 5 b7	1 b3 5 b7	1 3 5 7	1 3 5 b7	1 b3 5 b7	1 b3 b5 b7

C major scale-tone seventh chords, built in thirds, fifth string roots

The second row of numbers below (such as 1-3-5-7 and 2-4-6-1) are the major scale tone numbers used to construct the seventh chord.

I^{ma}7 1-3-5-7	II^{lm}7 2-4-6-1	III^{lm}7 3-5-7-2	IV^{ma}7 4-6-1-3	V7 5-7-2-4	VI^{lm}7 6-1-3-5	VII^{lm}7b5 7-2-4-6
C^{ma}7 I	D^m7 I	E^m7 III	F^{ma}7 V	G7 VI	A^m7 VIII	B^m7b5 X
1 3 5 7	1 b3 5 b7	1 b3 5 b7	1 3 5 7	1 3 5 b7	1 b3 5 b7	1 b3 b5 b7

C major scale-tone seventh chords, stepwise sixth-string roots

Each of these has the same notes as its counterpart above built in thirds, but the notes are in a different order.

I^{ma}7	II^{lm}7	III^{lm}7	IV^{ma}7	V7	VI^{lm}7	VII^{lm}7b5
C^{ma}7 VIII	D^m7 X	E^m7 XII	F^{ma}7 I	G7 III	A^m7 V	B^m7b5 VI
1 7 3 5	1 b7 b3 5	1 b7 b3 5	1 7 3 5	1 b7 3 5	1 b7 b3 5	1 b7 b3 b5

C major scale-tone seventh chords, stepwise fifth-string roots

Each of these has the same notes as its counterpart above built in thirds, but the notes are in a different order.

I ^{ma} 7	II ^m 7	III ^m 7	IV ^{ma} 7	V7	VI ^m 7	VII ^m 7b5
C ^{ma} 7 III	D ^m 7 V	E ^m 7 VII	F ^{ma} 7 VII I	G7 X	A ^m 7 XII	B ^m 7b5 XIV or II
1 5 7 3	1 5 b7 b3 5	1 5 b7 b3 5	1 5 7 3	1 5 b7 3	1 5 b7 b3 5	1 b5 b7 b3

C major scale-tone seventh chords, roots ascending in perfect fourths

minor				major		
diminished						
VII ^m 7b5	III ^m 7	VI ^m 7	II ^m 7	V7	I ^{ma} 7	IV ^{ma} 7
B ^m 7b5 VI	E ^m 7 VII	A ^m 7 V	D ^m 7 V	G7 III	C ^{ma} 7 III	F ^{ma} 7 I
1 b7 b3 b5	1 5 b7 b3 5	1 b7 b3 5	1 5 b7 b3 5	1 b7 3 5	1 5 7 3	1 7 3 5

minor				major		
diminished						
VII ^m 7b5	III ^m 7	VI ^m 7	II ^m 7	V7	I ^{ma} 7	IV ^{ma} 7
B ^m 7b5 XIV	E ^m 7 XII	A ^m 7 XII	D ^m 7 X	G7 X	C ^{ma} 7 VIII	F ^{ma} 7 VIII
1 b5 b7 b3	1 b7 b3 5	1 5 b7 b3 5	1 b7 b3 5	1 5 b7 3	1 7 3 5	1 5 7 3

HARMONY

Major Scale-Tone Thirds and Sixths

scale-tone:	I	II	III	IV	V	VI	VII
thirds	major	minor	minor	major	major	minor	minor
sixths	minor	major	major	minor	minor	major	major

major (ionian) with its tonic major triads

Thirds on strings
three and two

sixths on strings
three and one

sixths on strings
four and two

The circled note (○) represents the major (Ionian) tone center. The three-note chords are the tonic chord, which is the major chord named after the key. If the key (○) is “A”, the three-note chords are A major.

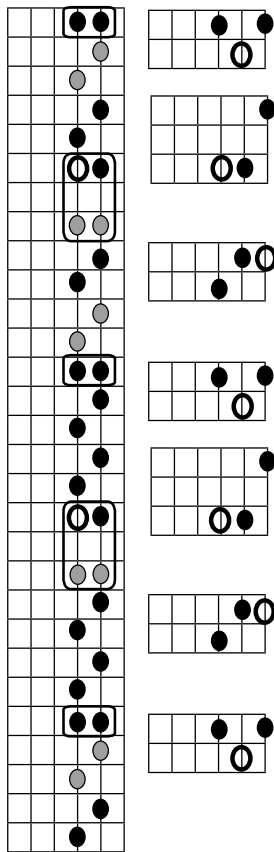
An interval of a third is not part of this major chord: . In that case, this fourth can be used in place of a third for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

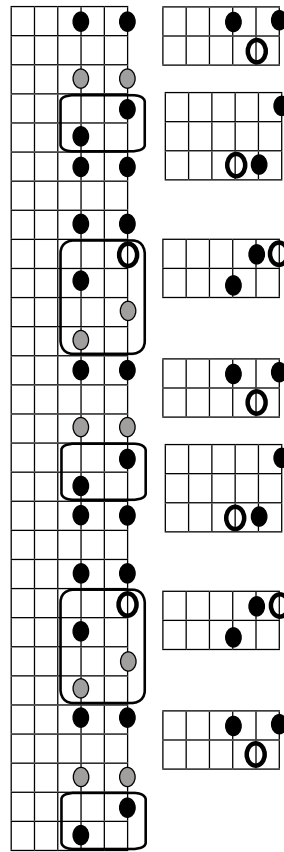
An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

Lydian (four of parent major) with its tonic major triads

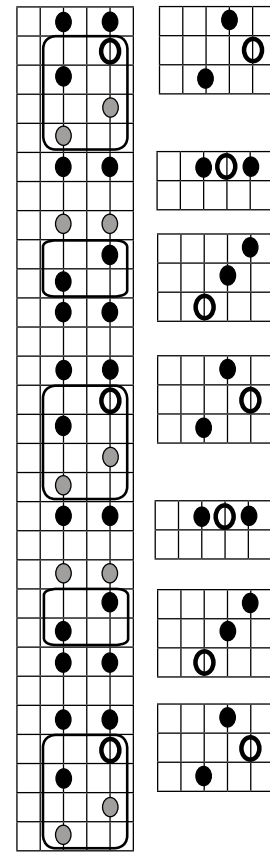
thirds on strings
three and two





sixths on strings
three and one







sixths on strings
four and two



The circled note (○) represents the Lydian tone center. The three-note chords are the tonic chord, which is the major chord named after the key. If the key (○) is "A", the three-note chords are A major.

An interval of a third is not part of this major chord: . In that case, this fourth  can be used in place of a third for tonic major chord tones.

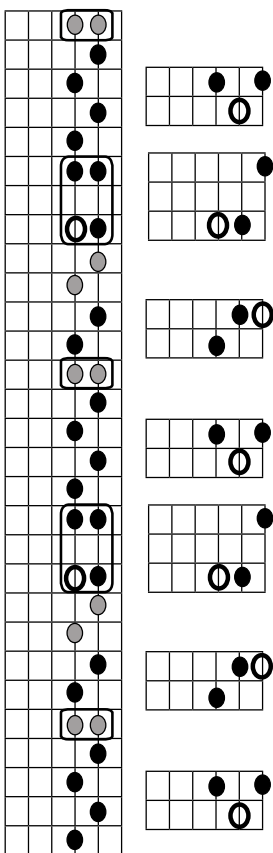
An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

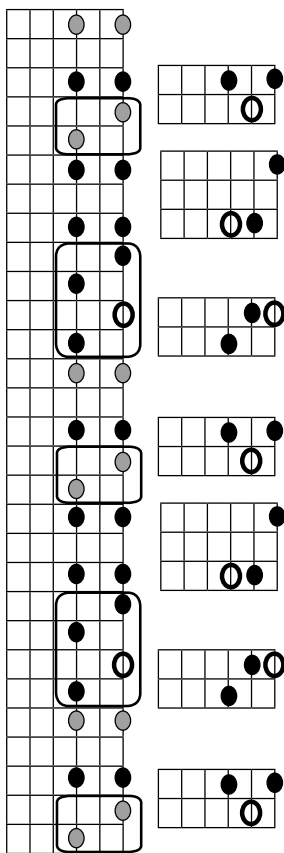
An interval of a third or sixth made with the circled tone center are part of various Lydian tonic chords (major sixth, major seventh and major ninth). The gray-backed notes are the remaining notes *not* in any usable type of tonic Lydian major chord (except suspended chords).

Mixolydian (five of parent major) with its tonic major triads

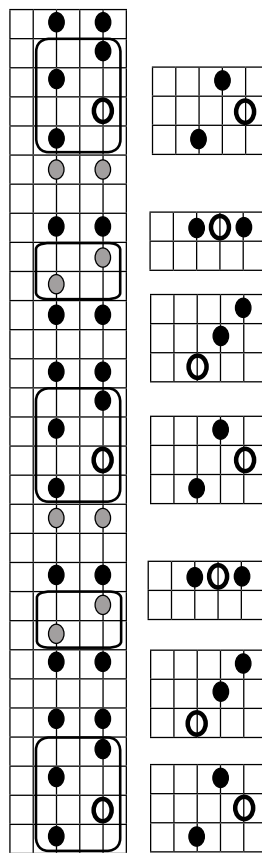
thirds on strings
three and two



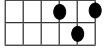
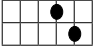
sixths on strings
three and one

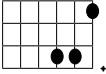
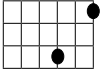


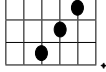
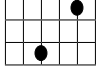
sixths on strings
four and two



The circled note (O) represents the Mixolydian tone center. The three-note chords are the tonic chord, which is the major chord named after the key. If the key (O) is "A", the three-note chords are A major.

An interval of a third is not part of this major chord: . In that case, this fourth  can be used in place of a third for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

An interval of a third or sixth made with the circled tone center are part of various Mixolydian tonic chords (major, sixth, seventh and ninth). The gray-backed notes are the remaining notes *not* in any usable type of tonic Mixolydian major chord (except suspended chords).

Dorian (two of parent major) with its tonic minor triads

thirds on strings three and two	sixths on strings three and one	sixths on strings four and two

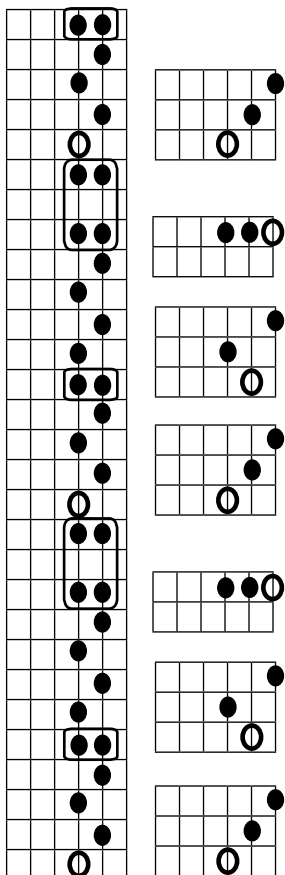
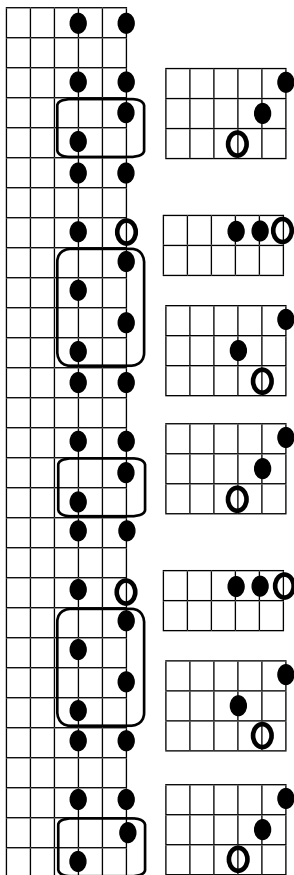
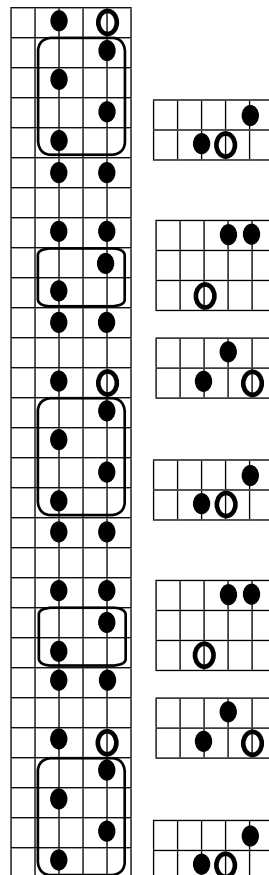
The circled note (O) represents the Dorian tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (O) is "A", the three-note chords are A minor.

An interval of a third is not part of this major chord: . In that case, this fourth can be used in place of a third for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

An interval of a third or sixth made with the circled tone center are part of various Dorian tonic chords (minor, minor sixth, minor seventh and minor ninth). The gray-backed notes are the remaining notes *not* in any usable type of tonic Dorian major chord (except suspended and minor eleventh chords).

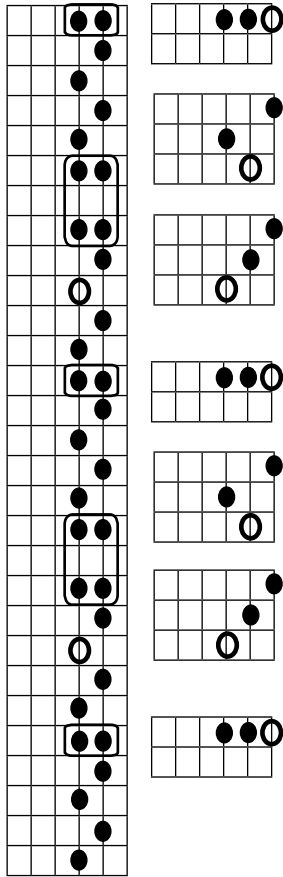
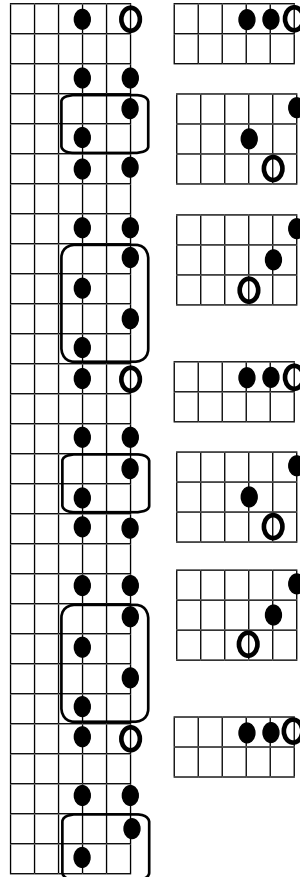
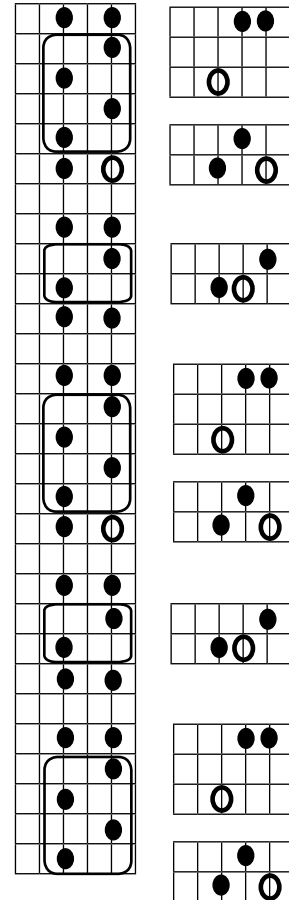
Phrygian (three of parent major) with its tonic minor triadsthirds on strings
three and twosixths on strings
three and onesixths on strings
four and two

The circled note (O) represents the Phrygian tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (O) is "A", the three-note chords are Am.



An interval of a third is not part of this major chord: . In that case, this fourth can be used in place of a third for tonic major chord tones.



An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.



An interval of a sixth is not part of this major chord: . In that case, this fifth can be used in place of a sixth for tonic major chord tones.

Aeolian (six of parent major) with its tonic minor triadsthirds on strings
three and twosixths on strings
three and onesixths on strings
four and two

The circled note (O) represents the Aeolian tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (O) is “A”, the three-note chords are Am.

An interval of a third is not part of this major chord: . In that case, this fourth  can be used in place of a third for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

An interval of a sixth is not part of this major chord: . In that case, this fifth  can be used in place of a sixth for tonic major chord tones.

Major Scale-Tone Quartal and Quintal Harmony

major scale-tone quartal and quintal triads

The I major pentatonic and the VI minor pentatonic share the same notes, 1-2-3-5-6 of a major scale. Add a tone a fourth above and below each tone of the I major/VI minor pentatonic and produce quartal triads. Or, or add a tone a fifth above and below each tone of the I major/VI minor pentatonic and produce quintal triads. For C major, this creates the chords below. Each triad has the *same* notes whether it is a I major/VI minor pentatonic tone with a fourth above and a fourth below or if it is a I major/VI minor pentatonic tone with a fifth above and a fifth below.

nr = no root, n3 = no third, n5 = no fifth

scale tone number	1	2	3	5	6
letter in C major	C	D	E	G	A
quartal/quintal triad numbered tones of parent C major	5-1-4	6-2-5	7-3-6	2-5-1	3-6-2
quartal/quintal triad lettered tones of parent C major	G-C-F	A-D-G	B-E-A	D-G-C	E-A-D
I major chord names	I sus.4	I6/9 nr,n3	I ma7/6 nrn5	I sus2	I6/9 nrn6=5
II Dorian chord names	II m7/11 nrn5	II sus.4	II6/9 nrn3	II m7/11 n3n5	II sus2
III Phrygian chord names	no III chord	III m7/11 nrn5	III sus4	no III chord	III7sus4n3n5
IV Lydian chord names	IV sus2	IV6/9 nrn5	IV ma7#11 nrn5	IV6/9 nrn3	IV ma7/6 nrn5
V Mixolydian chord names	V7sus4 nrn5	V sus2	V6/9 nrn5	V sus4	V6/9 nrn3
VI Aeolian chord names	no VI chord	VI m7/11 n3n5	VI sus2	VI m7/11 nrn5	VI sus4
VII Locrian chord names	VII m7/11 b5 nrn3	VII m7/11 b5 nrn5	VII m7/11 n3n5	no VII chord	VII m7/11 nrn5

For an exotic effect, chords can be approached from a half step above or flatted. The effect is bluesy or eastern/exotic, depending on the mode. In major, for example, chords a half steps above 3 and 6 are bluesy; and half steps above 1, 2 and 5 are eastern/exotic.

fourths in the major scale

Major scale fourths can be memorized with the fourths diagrams below. The “stacks” or sequences of fourths are connected with lines. Note that each pair of notes in the series of fourths “7-3-6-2-5-1-4” are on the same fret, except from the third to second string, the note on the second string is one fret closer to the guitar body. Also note that the interval from “4” to “7” is an augmented fourth, making “7” one fret higher on the next smaller string. When “4” is on the third string, both of these exceptions come into play and “7” is *two* frets toward the body of the guitar from “4”.

fifths in the major scale

Major scale fifths can be memorized with the fifths diagrams below. The “stacks” or sequences of fifths are connected with “back slash” diagonal lines. Note that each pair of notes in the series of fifths “4-1-5-2-6-3-7” form a diagonal line that spans two frets, except from the third to second string, where the diagonal line spans *three* frets. Also note that the exceptional interval from “7” to “4” is an diminished fifth, where the diagonal line spans *one* fret. When “7” is on the third string, both of these exceptions come into play and “4” is *two* frets toward the body of the guitar from “7”

Three-Part Harmony

Four-Part Harmony

MODES

SUBSETS

COUNTERPOINT

Parallel Motion

Similar Motion

Oblique Motion

Contrary Motion (contrapuntal)

CADENCES

Harmonic Minor Scale Summary

- **Fingerings**
- **Harmonic Minor Scale-Tone Chords**
- **Harmony**
- **Modes**
- **Subsets**
- **Counterpoint**
- **Cadences**

FINGERINGS

In-Position And Three-Note-Per-String Fingerings

Harmonic minor scale fingerings are numbered in reference to major sharp five scale fingerings in this course. Harmonic minor is as mode on the sixth step of major sharp five scale.

major sharp five and harmonic minor modes

see [All Scale-Tone Chords/Harmonic Minor Scale-Tone Chords](#)

Harmonic minor is a mode on step six of major sharp five scale. If you know the modes of the major scale, thinking in major sharp five is a matter of altering one note in each mode. Note the descending number series of altered tones: major #5, Dorian #4, Phrygian natural 3 (raised from b3), Lydian #2, Mixolydian #1, Aeolian natural 7 (raised from b7 to produce harmonic minor) and Locrian natural 6.

mode names →	major #5	Dorian #4	Phrygian dominant (nat. 3)	Lydian #2	Mixolydian #1	Aeolian nat.7	Locrian nat.6
major #5 scale tones →	I	II	III	IV	#V	VI	VII
I major #5 chords	Ima9#5	IIm13#11 or IIDim7	III7b9(/11)b13	IVma7/6(#11) or bVIDim7	#Vdim7	VIIm9(ma7)	VIIIm7b5(/11) or VIIIdim7
C ma#5 chords	Cma9/6#5	Dm13#11 or Ddim7	E7b9(/11)b13	Fma7/6(#11) or Fdim7	G#dim7	Am9(ma7)	Bm7b5(/11) or VIIIdim7
harmonic minor tones →	bIII	IV	V	bVI	VII	I	II
VI har. min. chords	bIIIma9#5	IVm13#11 or IVdim7	V7b9(/11)b13	bVIIma7/6(#11) or bVIDim7	VIIIdim7	Im9(ma7)	IIm7b5(/11) or IIDim7
A harmonic minor chords	Cma9/6#5	Dm13#11 or Ddim7	E7b9(/11)b13	Fma7/6(#11) or Fdim7	G#dim7	Am9(ma7)	Bm7b5(/11) or VIIIdim7

in-position fingerings

The fingerings are numbered according to the scale number of lowest major sharp five scale tone of the parent major scale fingered with the index finger on the sixth string. The parent major scale for C major sharp five is C major. The parent major scale for A harmonic minor is also C major, since C major sharp five and A harmonic minor have the same notes. The harmonic minor tone center is scale tone six of major sharp five scale, so when the lowest pitch on the sixth string is the harmonic minor tone center ("A" for A harmonic minor), it is fingering 6, since that note is the sixth step of C major sharp five.

three-note-per-string fingerings

Other fingerings called “three-note-per-string” fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

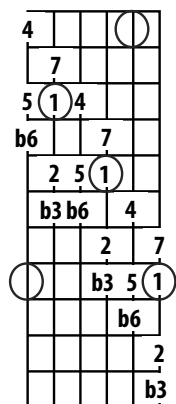
The in-position fingerings shown below lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall.

Three-note-per-string major scale fingerings shown below combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on. in-position fingerings, numbered by fingers.

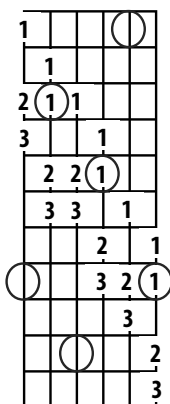
wide-range fingerings

low 4 to high b3

by formula

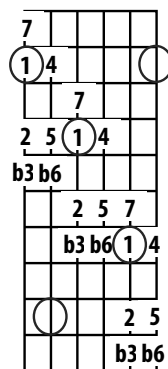


by finger

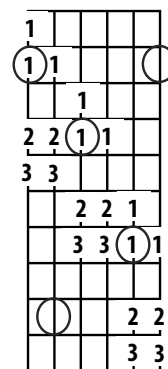


low 7 to high b6

by formula



by finger



in-position major sharp five scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

in-position major sharp five scale fingerings by formula

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

three-note-per-string major sharp five scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string major sharp five scale fingerings by formula

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

full-fretboard major sharp five scale with fingerings by finger number

fingering 1

fingering 1/2

fingering 2

fingering 2/3

fingering 3

fingering 3/4

fingering 4

fingering 4/5

fingering 5

fingering 5/6

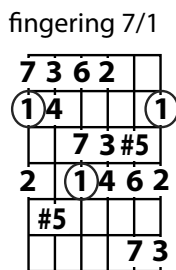
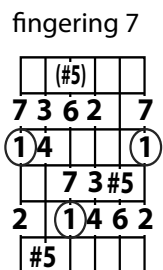
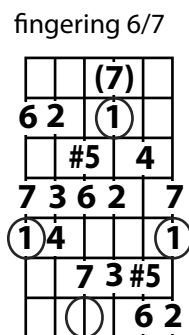
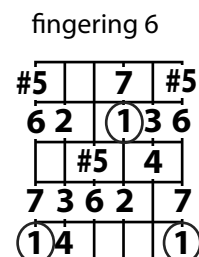
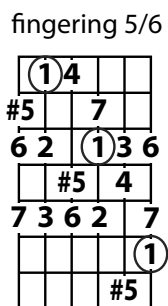
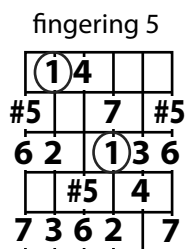
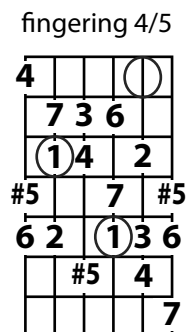
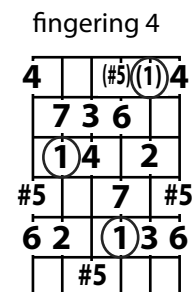
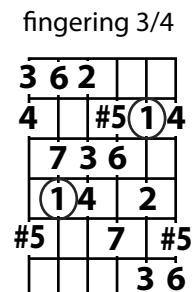
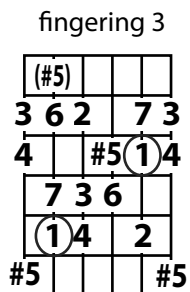
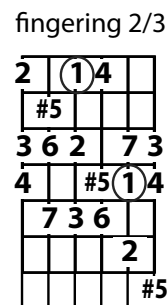
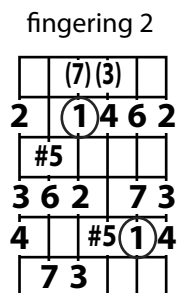
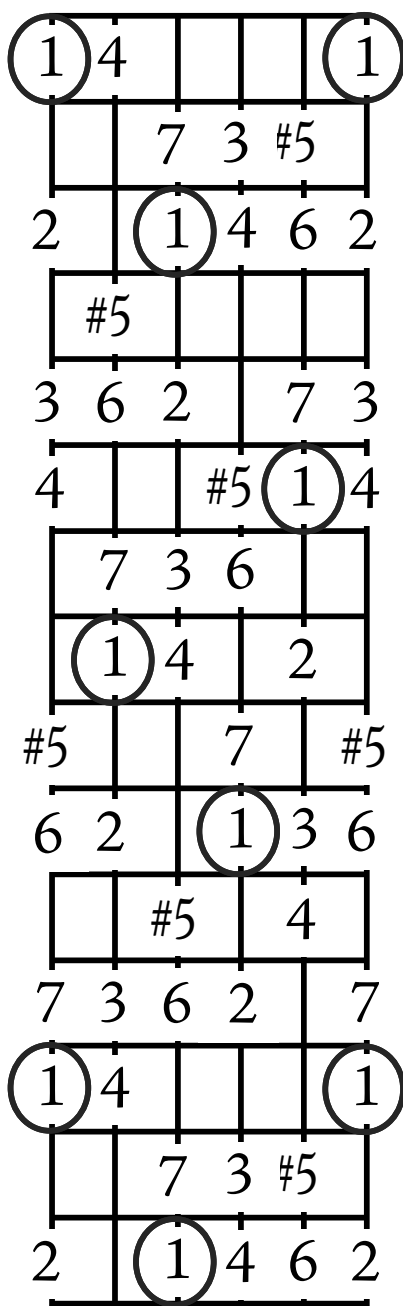
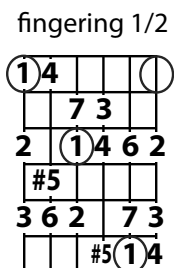
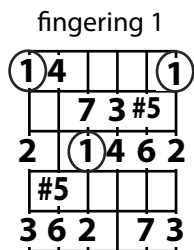
fingering 6

fingering 6/7

fingering 7

fingering 7/1

full-fretboard major sharp five scale with fingerings by formula number



full-fretboard harmonic minor scale with fingerings by finger number

Diagram illustrating the full-fretboard harmonic minor scale with fingerings by finger number. The scale is shown across 12 frets, with notes and fingerings for each string (1-6) and fret (1-12).

String 1 (High E): Notes: 1 (1), 4, b3, 5, 1 (1). Fingerings: 1, 4, b3, 5, 1.

String 2 (A): Notes: 7, b6. Fingerings: 7, b6.

String 3 (D): Notes: 2, 5, 1 (1), 4, 2. Fingerings: 2, 5, 1, 4, 2.

String 4 (G): Notes: b3, b6. Fingerings: b3, b6.

String 5 (B): Notes: 2, 5, 7. Fingerings: 2, 5, 7.

String 6 (Low E): Notes: 4, b3, b6, 1 (1), 4. Fingerings: 4, b3, b6, 1, 4.

Fingerings by Finger Number:

- Fingering 1:** 1 1 1 1 1 1, 2 2 2 (2) 2, 3, 4 (4) 4 4 4 4.
- Fingering 1/2:** 1 1 1 1 1 1, 2 2 2 (1) 1, 3, 4 (4) 4 3 3, 4 4.
- Fingering 2:** 1 1 1 (1) 1, 2 (2) 2 2 2 2, 3, 4 4 (1) 4.
- Fingering 2/3:** 1 1 1 1 1 1, 2 2 2 (1) 1, 3, 4 (4) 4 3 3, 4 4.
- Fingering 3:** (1) 1 1 1 1 1, 2 2 2 2 2 2, 3 3 (3) 4 4 4 4.
- Fingering 3/4:** (1) 1 1 1 1 1 1, 2 2 1 1 1 1, 2 2 (2) 3 3 2, 4 4 4 3, (1) 4 (4).
- Fingering 4:** 1 1 1 (1) 1, 2 2 1, 3 3 3 2, (4) 4 4 3 (3) 4 4.
- Fingering 4/5:** 1 1 1 (1) 1, 2 2 1, 3 3 2 1, (4) 4 3 2 (2) 4 3 4.
- Fingering 5:** 1 1 1 1 1 1, (2) 2 2 2 2 (2), 3 3 4 4 (4) 4 4.
- Fingering 5/6:** 1 1 1 1 1 1, (2) 2 2 1 1 (1), 3 3 2, 4 5 (4) 4 2, 3 4.
- Fingering 6:** 1 1 1 (1) 1, 2 2 2, 3 3 (3) 3 3, 4 4 4 4 7.
- Fingering 6/7:** (1) 4 1 1 (1), 2 (2) 2 1 1, 3 3 4 4 4 3 3, 4 (4) 4.
- Fingering 7:** (1) 1 1 1 1 1 1, 2 2 2 2 2 2, 3 3 3 4 4 (4) 4 4.
- Fingering 7/1:** (1) 1 1 1 1 1 1, 2 2 2 1 1 1, 2 2 1, 4 3 3 (2) 2, 4 4 4 4 4.

full-fretboard harmonic minor scale with fingerings by formula number

Diagram illustrating various guitar chord voicings and fingerings for the F#m7b9 chord. The diagrams are organized into columns, each showing a specific fingering pattern across the fretboard.

Fingering 1: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 1/2: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 3: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 3/4: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 5: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 5/6: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 7: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 7/1: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 7: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 7/1: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 2: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 2/3: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 4: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 4/5: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

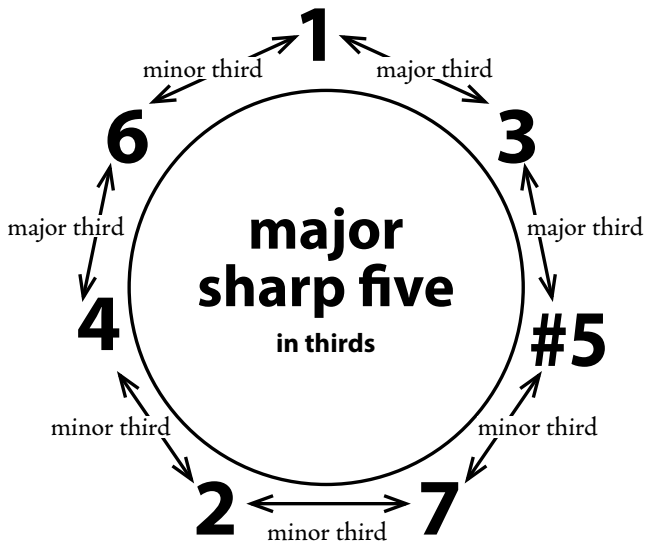
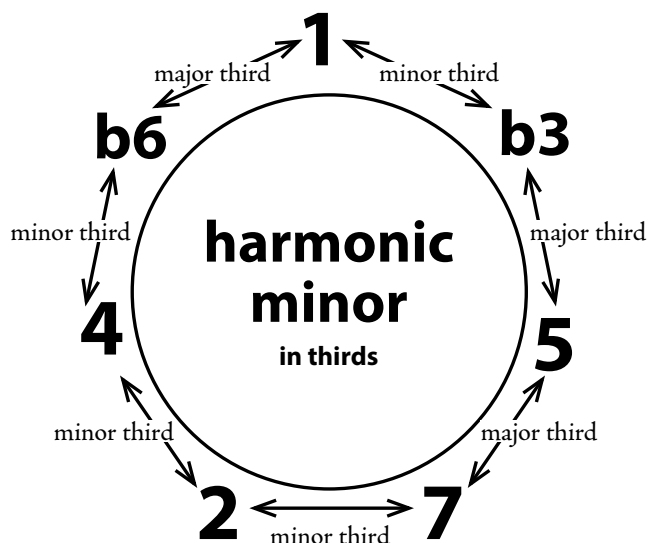
Fingering 6: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

Fingering 6/7: Shows a voicing with fingers 1, 4, b3, 5, 1 across the strings. The diagram includes a grid showing the fretboard layout and the corresponding fingerings for each string.

HARMONIC MINOR SCALE-TONE CHORDS

The types are shown in the far left column.

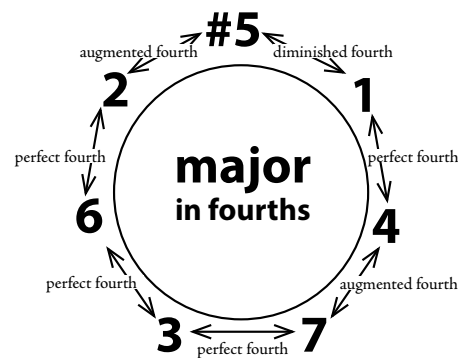
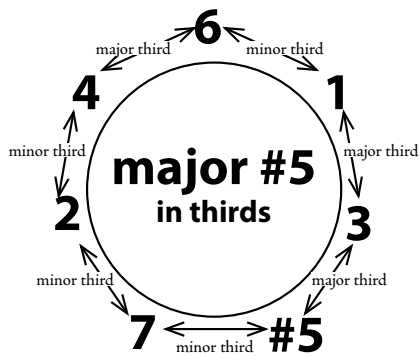
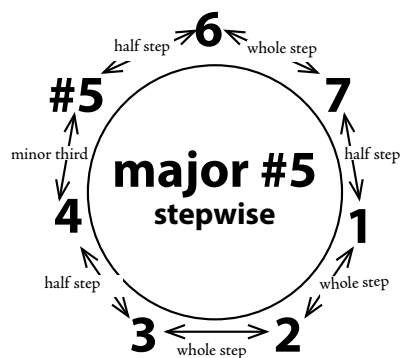
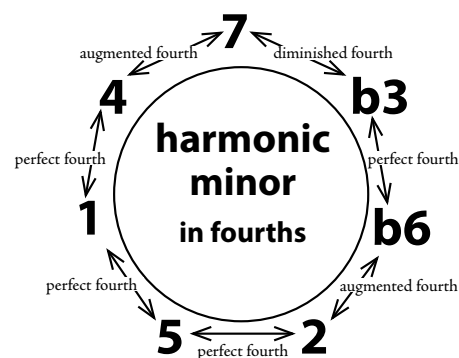
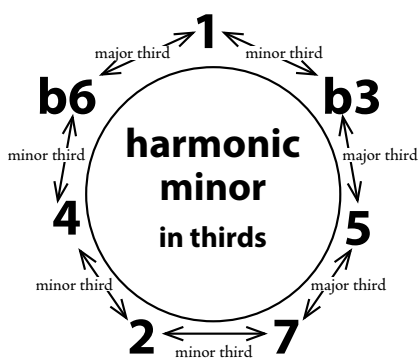
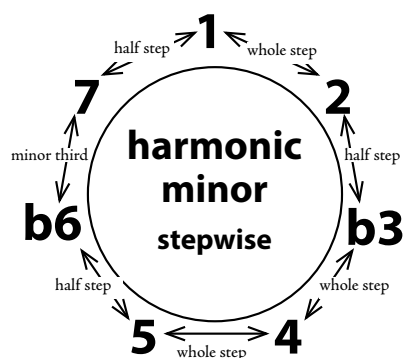
scale tone:	I	II	bIII	IV	V	bVI	VII
mode	Aeolian \flat 7 harmonic minor	Locrian \flat 6	major #5	Dorian #4	Phrygian \flat 3 Phry. dominant	Lydian #2	Mixo. #1
formula	b3-b6	b2-b3-b5-b7	#5	b3-#4-b7	b2-b6-b7	#2-#4	b2-b3-b4-b5-b6-bb7
Locrian nat. 6	..... bVII	I	bII	bIII	IV	bV	VI
major #5	..... VI	VII	I	II	III	IV	#V
Dorian #4	..... V	VI	bVII	I	II	bIII	#IV
Phrygian nat. 3	..... IV	V	bVII	bVII	I	bII	III
Lydian b2	..... III	#IV	V	VI	VII	I	bII
Mixolydian #1	..... bII	bIII	bIV	bV	bVI	bbVII (=6) ...	I
thirds	..... minor	minor	major	minor	major	major	minor
sixths	..... major	major	minor	major	minor	minor	major
triad	..... minor	diminished	augmented	minor	maj. or aug.	maj. or dim ...	dim. or aug.
seventh	..... min(ma7)	m7b5 or dim7 ..	ma7#5	m7 or dim7	7 or 7#5	maj7 or dim7. dim7	
ninth	..... min9(ma7) .....	..... ma9#5	m9 or dim7/9	9, 9#5	m9b5		
sixth	.....	.....	.....	m6	6		
add 9	..... m add9 .....	.....	.....	m add 9			
6/9	.....	.....	.....	m6/9			
7/11	.....	m7/11b5 .....	.....	7/11	ma7#11		
sus.4	..... sus.4 .....	.....	.....	sus.4			
sus.2	..... sus.2 .....	.....	.....	sus.2			
7 sus.4	..... ma7sus4 .....	.....	.....	7sus4			
7 sus.2	..... ma7sus.2 .....	.....	.....	7sus2	7sus4		
9 no 3	..... ma9no3 .....	.....	.....	9no3			



Numbered Harmonic Minor Scale Tones In Triads, Seventh and Ninth Chords

scale-tone:	I	II	bIII	IV	V	bVI	VII
triad	I minor.....	II diminished...	bIII augmented...	IV minor	V major	bVI major	VII dimin.
parent major #5 tones..	6-1-3	7-2-4.....	1-3-#5.....	2-4-6	3-#5-7	4-6-1	#5-7-2
chord scale tones	1-b3-5	1-b3-b5	1-3-#5.....	1-b3-5	1-3-5.....	1-3-5	1-b3-b5
seventh chord	Im(ma7)	IIIm7.....	IIIm7	IVma7.....	V7.....	bVIIma7	VIIIdim.7
parent major #5 tones..	6-1-3-5.....	7-2-4-6.....	1-3-#5-7	2-4-6-1.....	3-#5-7-2.....	4-6-1-3	#5-7-2-4
chord scale tones	1-b3-5-7	1-b3-b5-b7	1-3-#5-7	1-3-5-7.....	1-3-5-b7.....	1-b3-5-b7.....	1-b3-b5-b7
ninth chord	Im9(ma7)	no chord.....	bIIIIma9#5.....	IVm9.....	V7b9	no chord	no chord
parent major #5 tones..	6-1-3-#5-7 .....	.....	1-3-#5-7-2	2-4-6-1-3.....	3-#5-7-2.....	.....	.....
chord scale tones	1-b3-5-7-2.....	.....	1-3-#5-7-2	1-b3-5-7-2.....	1-3-5-b7-b2.....	.....	.....

Interval Cycles of Harmonic Minor and its Parent: Major Sharp Five



Harmonic Minor Scale Tone Chord Fingerings

A harmonic minor scale-tone triads, stepwise root order, sixth-string roots

The second row of numbers below (such as 6-1-3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad. Each of these has the same notes as its counterpart below built in thirds, but the chord tones are in a different order.

Im 6-1-3 Am V	II dim. 7-2-4 Bdim VI	bIII aug. 1-3-#5 Caug. VIII	IVm 2-4-6 Dm X	V 3-#5-7 E XII	bVI 4-6-1 F I	VII dim. #5-7-2 G#dim. III
1 5 1 b3 5 1	1 1 b3 b5	1 1 3 #5	1 5 1 b3 5 1	1 5 1 3 5 1	1 5 1 3 5 1	1 1 b3 b5

A harmonic minor scale-tone triads, stepwise root order, fifth-string roots

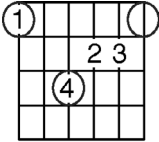
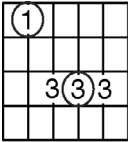
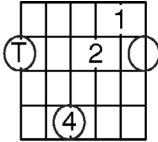
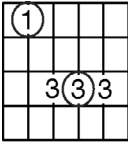
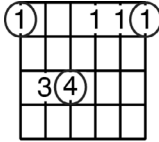
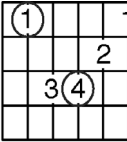
The second row of numbers below (such as 6-1-3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad. Each of these has the same notes as its counterpart below built in thirds, but the chord tones are in a different order.

Im 6-1-3 Am XII	II dim. 7-2-4 Bdim XIV or II	bIII aug. 1-3-#5 Caug. III	IVm 2-4-6 Dm V	V 3-#5-7 E VII	bVI 4-6-1 F VIII	VII dim. #5-7-2 G#dim. XI
1 5 1 b3	1 b5 1 b3	1 3 #5 1	1 5 1 b3	1 5 1 3	1 5 1 3	1 b5 1 b3

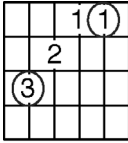
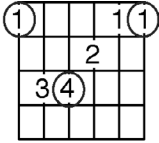
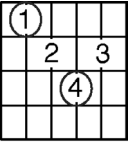
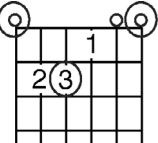
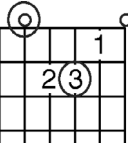
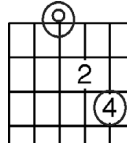
A harmonic minor scale-tone triads, roots ascending in fourths

The second row of numbers below (such as 6-1-3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad.

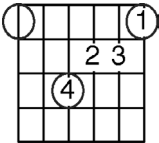
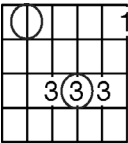
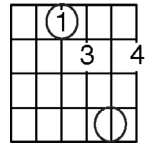
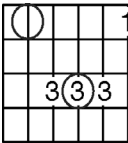
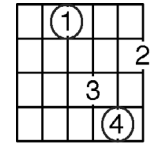
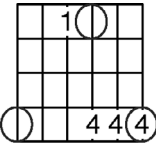
Im chord root on the sixth string

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. VIII	F VIII	Bdim VI	E VII	Am V	Dm V
					
1 1 3 #5	1 5 1 3	1 1 b3 b5	1 5 1 3	1 5 1 b3 5 1	1 5 1 b3 5

Im chord root on the fifth string

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. I	F I	Bdim II	E I	Am I	Dm I
					
1 3 #5 1	1 5 1 3 5 1	1 b5 1 b3	1 5 1 3 5 1	1 5 1 b3 5	1 5 1 b3

Im chord root on the fourth string

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. VIII	F VIII	Bdim IX	E VII	Am VII	Dm VII
					
1 3 #5 1	5 1 3 5	1 b5 b3	5 1 3 5	1 5 1 b3	5 b3 5 1

A harmonic minor scale-tone triads, close-voiced, stepwise roots

The second row of numbers below (such as 6-1-3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad.

close-voiced, root position, root in the bass

Im 6-1-3 root-third-fifth	II dim. 7-2-4 root-third-fifth	bIII aug. 1-3-#5 root-third-fifth	IVm 2-4-6 root-third-fifth	V 3-#5-7 root-third-fifth	bVI 4-6-1 root-third-fifth	VII dim. #5-7-2 root-third-fifth
Am V	Bdim VI	Caug. IX	Dm X	E XII	F I	G#dim. III
1 b3 5	1 b3 b5	1 3 #5	1 b3 5	1 3 5	1 3 5	1 b3 b5

close-voiced, first inversion, third in the bass

Im 6-1-3 third-fifth-root	II dim. 7-2-4 third-fifth-root	bIII aug. 1-3-#5 third-fifth-root	IVm 2-4-6 third-fifth-root	V 3-#5-7 third-fifth-root	bVI 4-6-1 third-fifth-root	VII dim. #5-7-2 third-fifth-root
Am IX	Bdim X	Caug. XIII or I	Dm II	E IV	F V	G#dim. VII
b3 5 1	b3 b5 1	3 #5 1	b3 5 1	3 5 1	3 5 1	b3 b5 1

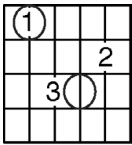
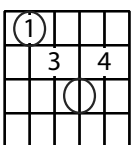
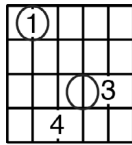
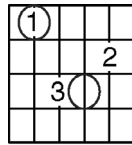
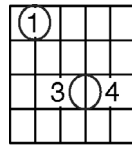
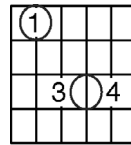
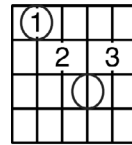
close-voiced, second inversion, fifth in the bass

Im 6-1-3 fifth-root-third	II dim. 7-2-4 fifth-root-third	bIII aug. 1-3-#5 fifth-root-third	IVm 2-4-6 fifth-root-third	V 3-#5-7 fifth-root-third	bVI 4-6-1 fifth-root-third	VII dim. #5-7-2 fifth-root-third
Am I or XIII	Bdim III	Caug. V	Dm VI	E IX	F X	G#dim. XII
5 1 b3	b5 1 b3	#5 1 3	5 1 b3	5 1 3	5 1 3	b5 1 b3

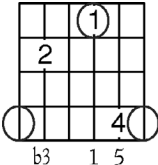
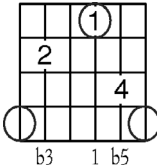
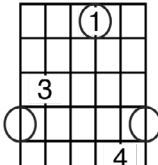
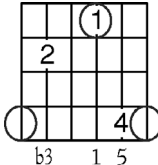
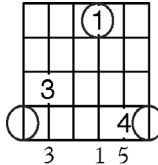
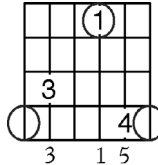
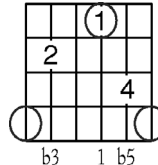
A harmonic minor scale-tone triads, open-voiced, stepwise roots

The second row of numbers below (such as 6-1-3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad.

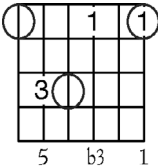
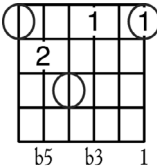
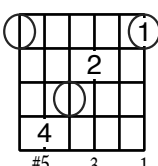
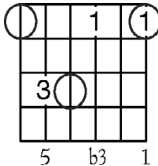
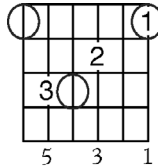
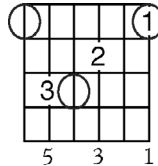
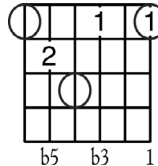
open-voiced, root position, root in the bass

Im 6-1-3	II dim. 7-2-4	bIII aug. 1-3-#5	IVm 2-4-6	V 3-#5-7	bVI 4-6-1	VII dim. #5-7-2
root-third-fifth	root-third-fifth	root-third-fifth	root-third-fifth	root-third-fifth	root-third-fifth	root-third-fifth
Am XII	Bdim XIV or II	Caug. III	Dm V	E VII	F VIII	G#dim. XI
						
1 5 b3	1 b5 3	1 #5 3	1 5 b3	1 5 3	1 5 3	1 b5 b3

open-voiced, first inversion, third in the bass

Im 6-1-3	II dim. 7-2-4	bIII aug. 1-3-#5	IVm 2-4-6	V 3-#5-7	bVI 4-6-1	VII dim. #5-7-2
third-fifth-root	third-fifth-root	third-fifth-root	third-fifth-root	third-fifth-root	third-fifth-root	third-fifth-root
Am II	Bdim IV	Caug. V	Dm VII	E IX	F X	G#dim. XIII or I
						
b3 1 5	b3 1 b5	3 1 #5	b3 1 5	3 1 5	3 1 5	b3 1 b5

open-voiced, second inversion, fifth in the bass

Im 6-1-3	II dim. 7-2-4	bIII aug. 1-3-#5	IVm 2-4-6	V 3-#5-7	bVI 4-6-1	VII dim. #5-7-2
fifth-root-third	fifth-root-third	fifth-root-third	fifth-root-third	fifth-root-third	fifth-root-third	fifth-root-third
Am V	Bdim VII	Caug. VIII	Dm X	E XII	F XIII or I	G#dim. IV
						
5 b3 1	b5 b3 1	#5 3 1	5 b3 1	5 3 1	5 3 1	b5 b3 1

A harmonic minor scale-tone triads, close-voiced, roots ascending in fourths (b3-b6-2-5-1-4)

The second row of numbers below (such as 6-1-3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad. In voice leading, the third and fifth of each chord ascend a scale tone.

close-voiced, Im chord's root in the bass

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. VIII	F VIII	Bdim X	E XII	Am XII	Dm XIII

close-voiced, Im chord's third in the bass

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. XII	F XIII or I	Bdim I	E IV	Am V	Dm V

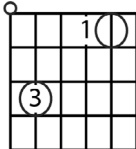
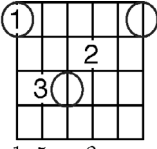
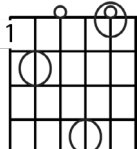
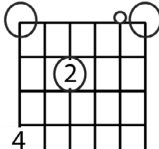
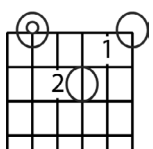
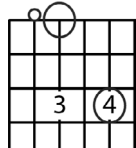
close-voiced, Im chord's fifth in the bass

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. IV	F V	Bdim VI	E VII	Am VIII	Dm X

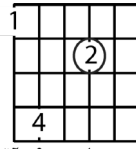
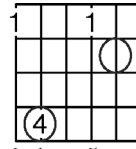
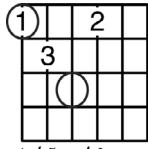
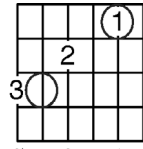
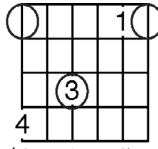
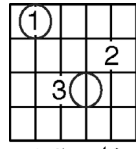
A harmonic minor scale-tone triads, open-voiced, roots ascending in fourths (b3-b6-2-5-1-4)

The second row of numbers below (such as 6-1-3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad. In voice leading, the third and fifth of each chord ascend a scale tone.

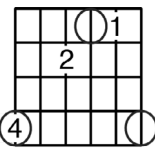
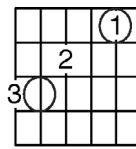
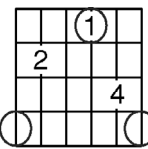
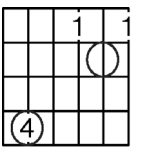
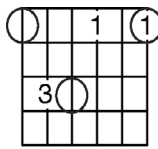
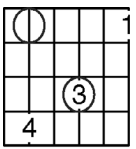
open-voiced, Im chord's root in the bass

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. I	F I	Bdim I	E I	Am I	Dm I
					
3 1 #5	1 5 3	5 b3 1	3 1 5	1 5 b3	5 b3 1

open-voiced, Im chord's third in the bass

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. IV	F V	Bdim VII	E V	Am V	Dm V
					
#5 3 1	3 1 5	1 b5 b3	5 3 1	b3 1 5	1 5 b3

open-voiced, Im chord's fifth in the bass

bIII aug. 1-3-#5	bVI 4-6-1	II dim. 7-2-4	V 3-#5-7	Im 6-1-3	IVm 2-4-6
Caug. V	F VI	Bdim IV	E IV	Am V	Dm V
					
1 #5 3	5 3 1	b3 1 b5	1 5 3	5 b3 1	b3 1 5

A harmonic minor scale-tone triads, close-voiced, roots ascending in thirds

The second row of numbers below (such as 6-1-b3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad. In voice leading, the root of each chord descends one scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row (but starts over up an octave)

close-voiced, Im chord's fifth in the bass

Im 1-b3-5	bIIIIaug. b3-5-7	V 5-7-2	VIIIdim. 7-2-4	IIdim. 2-4-b6	IVm 4-b6-1	bVI b6-1-3
fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third
Am XIII	Caug. XIII	E XII	G#dim XII	Bdim X	Dm X	F X

close-voiced, Im chord's third in the bass

Im 1-b3-5	bIIIIaug. b3-5-7	V 5-7-2	VIIIdim. 7-2-4	IIdim. 2-4-b6	IVm 4-b6-1	bVI b6-1-3
third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root
Am IX	Caug. IX	E IX	G#dim VII	Bdim VI	Dm VI	F V

close-voiced, I chord's root in the bass

Im 1-b3-5	bIIIIaug. b3-5-7	V 5-7-2	VIIIdim. 7-2-4	IIdim. 2-4-b6	IVm 4-b6-1	bVI b6-1-3
root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth
Am V	Caug. V	E IV	G#dim III	Bdim III	Dm II	F I

A harmonic minor scale-tone triad, open-voiced, roots ascending in thirds

The second row of numbers below (such as 6-1-b3 and 7-2-4) are the parent major sharp five scale tone numbers used to construct the triad. In voice leading, the root of each chord descends one scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row (but starts over up an octave).

open-voiced, Im chord's third in the bass

Im 1-b3-5	bIIlaug. b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIldim. 2-4-b6	IVm 4-b6-1	bVI b6-1-3
third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-fifth-root
Am XII	Caug. XII	E XII	G#dim XIII	Bdim XIV	Dm XII	F XII
b3 1 5	1 #5 3	5 3 1	b3 1 b5	1 b5 3	5 b3 1	3 1 5

open-voiced, Im chord's root in the bass

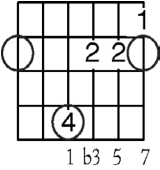
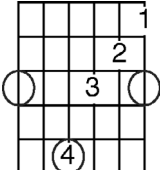
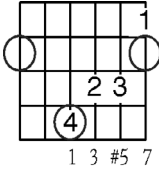
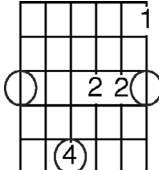
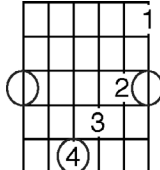
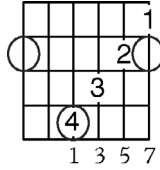
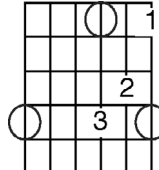
Im 1-b3-5	bIIlaug. b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIldim. 2-4-b6	IVm 4-b6-1	bVI b6-1-3
root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third
Am XII	Caug. XI	E XI	G#dim XI	Bdim XII	Dm XII	F X
1 5 b3	#5 3 1	3 1 5	1 b5 b3	b5 b3 1	b3 1 5	1 5 3

open-voiced, Im chord's fifth in the bass

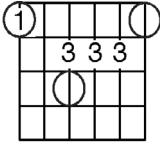
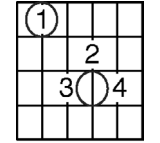
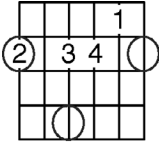
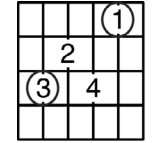
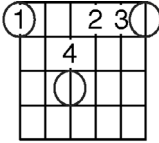
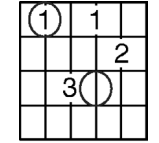
Im 1-b3-5	bIIlaug. b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIldim. 2-4-b6	IVm 4-b6-1	bVI b6-1-3
fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root
Am X	Caug. IX	E IX	G#dim IX	Bdim IX	Dm VII	F VII
5 b3 1	3 1 #5	1 5 3	b5 b3 1	1 5 b3	1 5 b3	5 3 1

A harmonic minor scale-tone seventh chords, stepwise, built in thirds

The second row of numbers below (such as 6-1-3-#5 and 2-4-6-1) are the major scale tone numbers used to construct the seventh chord.

I^m(ma7) 6-1-3-#5	II^m7^b5 7-2-4-6	bIII^mma7[#]5 1-3-#5-7	IV^m7 2-4-6-1	V7 3-#5-7-1	bVI^m7 4-6-1-2	VII dim. #5-7-2-4
A^m(m7) IV	B^m7^b5 V	C^{ma}7[#]5 VII	D^m7 VIII	E7 X	F^{ma}7 XII	G[#]dim7 I
						
1 b3 5 7	1 b3 b5 b7	1 3 #5 7	1 b3 5 b7	1 3 5 b7	1 3 5 7	1 b3 b5 6

A harmonic minor scale scale-tone seventh chords, roots moving in perfect fourths

bIII^mma7[#]5 1-3-#5-7	bVI^mma7 4-6-1-3	II dim. 7-2-4	V 3-#5-7	I^m 6-1-3	IV^m 2-4-6
C^{ma}7[#]5. VIII	F^{ma}7 VIII	B^m7^b5 VI	E7 V	A^m(m7) V	D^m7 V
					
1 7 3 #5	1 5 7 3	1 b7 b3 b5	1 3 b7 1	1 7 b3 5	1 5 b7 b3

HARMONY

Thirds and Sixths

Quartal and Quintal Harmony

Three-Part Harmony

Four-Part Harmony

MODES

SUBSETS

COUNTERPOINT

Parallel Motion

Similar Motion

Oblique Motion

Contrary Motion (contrapuntal)

CADENCES

Melodic Minor Scale Summary

- **Fingerings**
- **Melodic Minor Scale-Tone Chords**
- **Harmony**
- **Modes**
- **Subsets**
- **Counterpoint**
- **Cadences**

FINGERINGS

In-Position And Three-Note-Per-String Fingerings

Melodic minor is used in jazz as a major scale with a flatted third. In classical music, it ascends as a major scale with a flatted third, but descends as Aeolian, like a major scale with flat three, flat six and flat seven. Melodic minor scale fingerings are numbered in this course according to the number of the lowest note of the parent major scale fingered with the index finger on the sixth string. The parent major scale for C melodic minor is C major. Other fingerings called “three-note-per-string” major scale fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

in-position fingerings

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall.

three-note-per-string fingerings

Three-note-per-string major scale fingerings shown below combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/b3 combines in-position fingerings 2 and b3; and so on.

in-position melodic minor scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

in-position melodic minor scale fingerings by formula

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

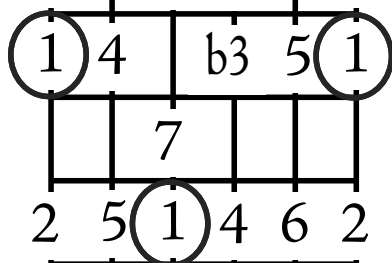
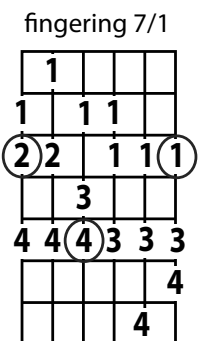
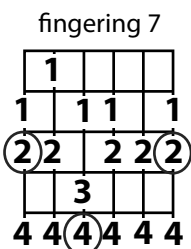
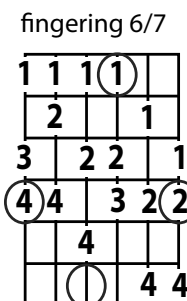
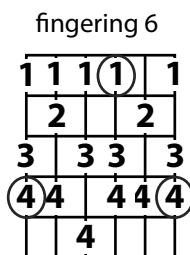
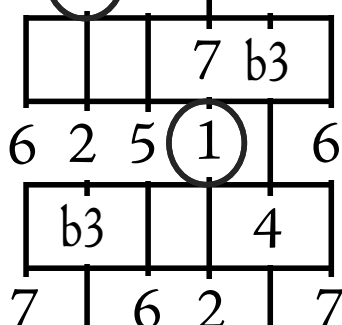
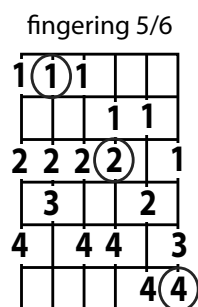
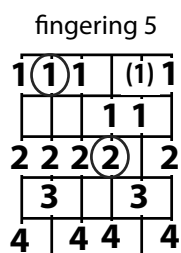
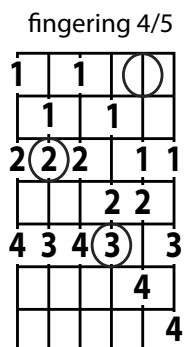
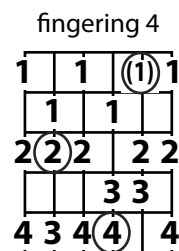
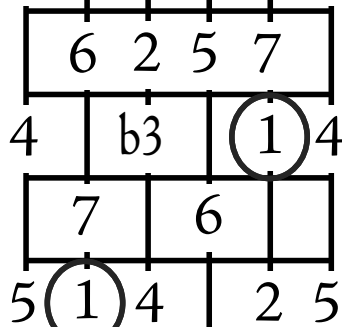
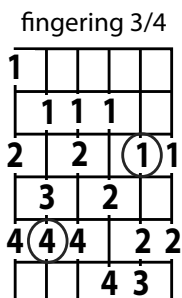
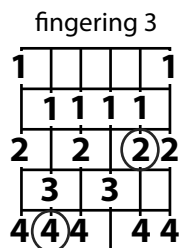
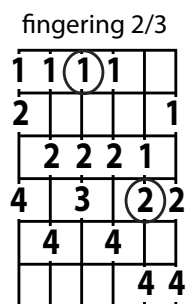
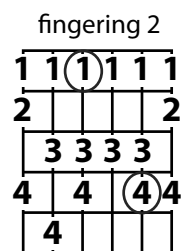
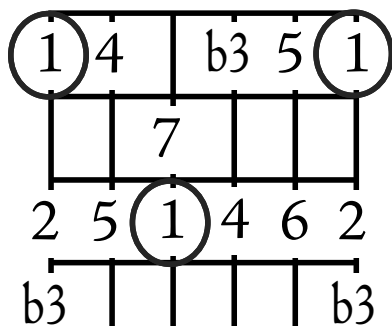
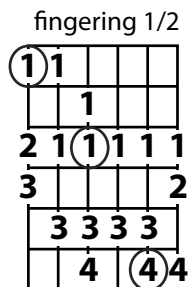
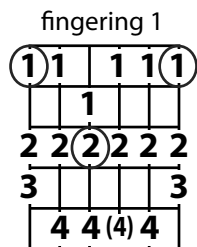
three-note-per-string melodic minor scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string melodic minor scale fingerings by formula

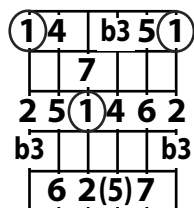
fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

full-fretboard melodic minor scale with fingerings by finger number

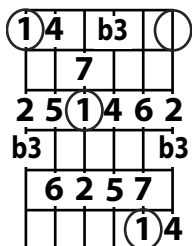


full-fretboard melodic minor scale with fingerings by finger number

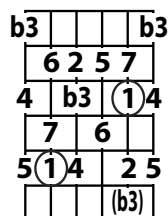
fingering 1



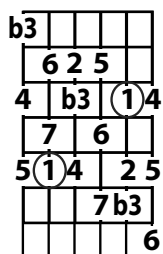
fingering 1/2



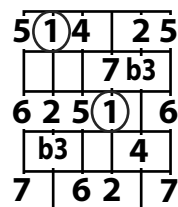
fingering 3



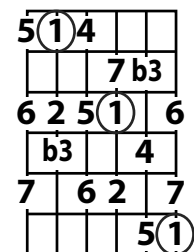
fingering 3/4



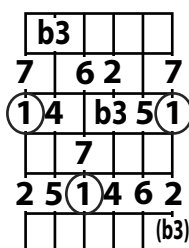
fingering 5



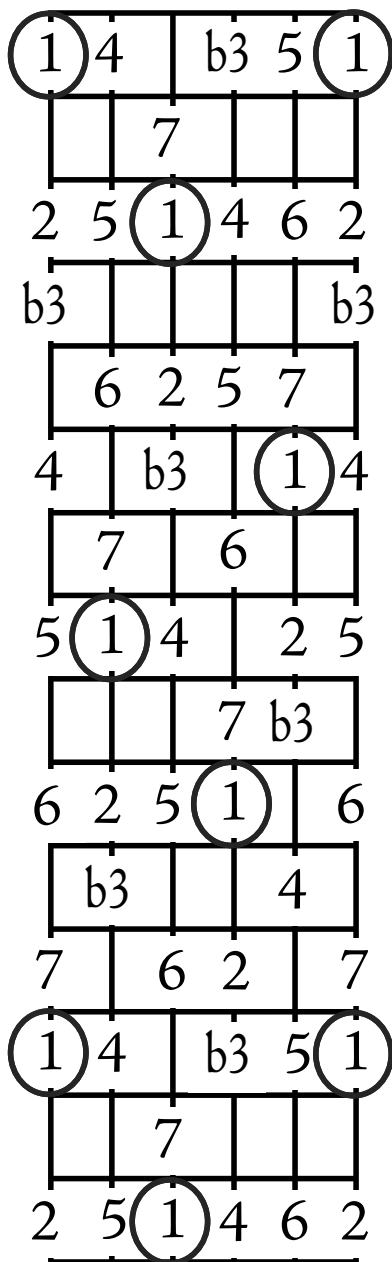
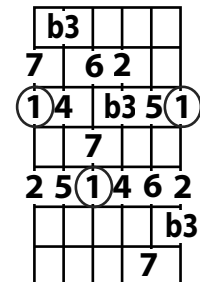
fingering 5/6



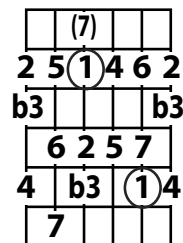
fingering 7



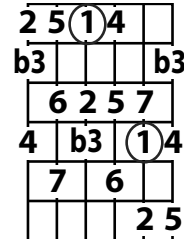
fingering 7/1



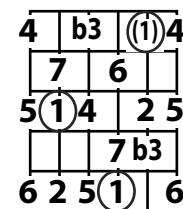
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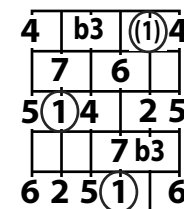
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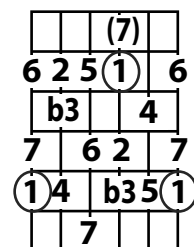
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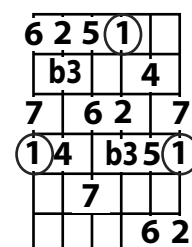
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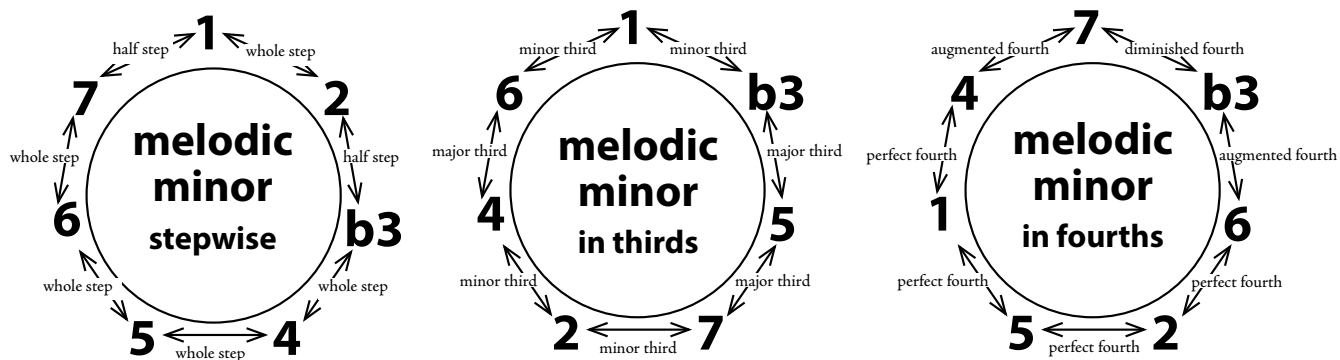
fingering 6/7



MELODIC MINOR SCALE-TONE CHORDS

scale tone:	I	II	bIII	IV	V	VI	VII
mode	major b3	Dorian b2	Phrygian b1 Lydian augmented	Lydian b7 Lydian dominant	Mixolydian b6	Aeolian b5.....	Locrian b4 super Locrian
formula	b3	b2-b3-b7	#4-#5	#4-b7	b6-b7	b3-b5-b6-b7.....	b2-b3-b4-b5-b6-b7
Dorian b2.....	bVII	I	bII	bIII	IV	V	VI
Phrygian b1.....	bVI	bII	I	bII	IbII	IV	V
Lydian dominant.....	V	VI	bVII	I	II	III	#IV
Mixolydian b6..... (Aeolian dominant)	IV	V	bVI	bVII	I	II	III
Aeolian b5.....	bIII	IV	bV	bVI	bVII	I	II
Locrian b4.....	bII	bIII	bIV	bV	bVI	bVII	I
thirds.....	minor	minor	major	major	major	minor	minor
sixths.....	major	major	minor	minor	minor	major	major
triad.....	minor	minor	augmented	major	maj., aug.	diminished	maj., min., dim., aug.
seventh.....	min(ma7)	m7	ma7#5	7	7, 7#5	m7b5	7b5, 7#5, m7b5
ninth.....	min9(ma7)		ma9#5	9	9, 9#5	m9b5	7#5#9, 7#5b9, 7b5#9, 7b5b9
eleventh.....	m11(ma7)			9#11			
thirteenth.....				13#11			
11no3(9sus4).....					11no3		
13no11.....				ma13no11			
7/6.....	m(ma7)/6	m7/6		7/6	7/6		
sixth.....	m6	m6		6			
add 9.....	madd9			add 9	add 9		
6/9.....	m6/9			6/9			
7/11.....		m7/11				m7/11b5	
sus.4.....	sus.4	sus.4			sus.4		
sus.2.....	sus.2			sus.2	sus.2		
7 sus.4.....	ma7sus.4	7sus.4			7sus.4		
7 sus.2.....	ma7sus.2			7sus.2	7sus.2		
9 no 3.....	ma9no3			9no3	9no3		
9 sus.4.....	ma7sus.4				9sus.4		
7/6 sus.4.....		7/6sus.4					
7/6 sus.2.....							

Interval Cycles of the Melodic Minor Scale



Numbered Melodic Minor Scale Tones In Triads, Seventh and Ninth Chords

scale-tone:	I	II	bIII	IV	V	VI	VII
triad	minor	minor	augmented	major	maj., aug.	diminished	maj., min., dim., aug.
parent scale tones	1-b3-5	2-4-6	b3-5-7	4-6-1	5-7-2	6-1-b3	7-2-4
chord scale tones	1-3-5	1-b3-5	1-3-#5	1-3-5	1-3-5 (or #5)	1-b3-b5	1-b3-b5 opt. 3, b5, #5
seventh	min(ma7)	m7	ma7#5	7	7, 7#5	m7b5	m7b5 7b5, 7#5
parent scale tones	1-3-5-7	2-4-6-1	3-5-7-2	4-6-1-3	5-7-2-4	6-1-3-5	7-2-4-b6
chord scale tones	1-3-5-7	1-b3-5-b7	1-3-5-b7	1-3-5-b7	1-3-5-b7	1-b3-b5-b7	1-b3-b5-b7 opt. 3, b5, #5
ninth	min9(ma7)	ma9#5	9	9, 9#5	m9b5	7#5#9, 7#5b9, 7b5#9, 7b5b9	
parent scale tones	1-3-5-7-2	b3-5-7-2-4	4-6-1-b3-5	5-7-2-4-6	6-1-b3-5-7	7-b3-4-6	
chord scale tones	1-3-5-7-2	1-3-5-b7-2	1-3-5-b7-2	1-3-5-b7-2	1-3-5-b7-2	1-b3-b5-b7	1-3-b5-b7 opt. #5, b2, #2

Melodic Minor Scale Tone Chord Fingerings

C melodic minor scale-tone triads, stepwise, sixth-string roots

The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to construct the triad.

I_m 1-b3-5	II_m 2-4-6	bIII_{aug.} b3-5-7	IV 4-6-1	V 5-7-2	V_{ldim.} 6-1-b3	VII_{ldim.} 7-2-4
C_m VIII	D_m X	E_baug. XI	F I	G III	A_{dim.} IV	B_{dim.} VI
1 5 1 b3 5 1	1 5 1 b3 5 1	1 1 3 #5	1 5 1 3 5 1	1 5 1 3 5 1	1 1 b3 b5	1 1 b3 b5

C melodic minor scale-tone triads, stepwise, fifth-string roots

The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to construct the triad.

I_m 1-b3-5	II_m 2-4-6	bIII_{aug.} b3-5-7	IV 4-6-1	V 5-7-2	V_{ldim.} 6-1-b3	VII_{ldim.} 7-2-4
C_m III	D_m V	E_baug. VI	F VIII	G X	A_{dim.} XII	B_{dim.} XIV or II
1 5 1 b3	1 5 1 b3	1 3 #5 1	1 5 1 3	1 5 1 3	1 b5 1 b3	1 b5 1 b3

C melodic minor scale-tone triads, stepwise, fourth-string roots

The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to construct the triad.

I_m 1-b3-5	II_m 2-4-6	bIII_{aug.} b3-5-7	IV 4-6-1	V 5-7-2	V_{ldim.} 6-1-b3	VII_{ldim.} 7-2-4
C_m X	D_m XII	E_baug. XIII or I	F III	G V	A_{dim.} VII	B_{dim.} IX
1 5 1 b3	1 5 1 b3	1 #5 3	1 5 1 3	1 5 1 3	1 b5 b3	1 b5 b3

C melodic minor scale-tone triads, roots ascending in perfect fourths, large chords

The root order is shown for the usable part of the series of fourths in melodic minor, b3-6-2-5-1-4. The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to construct the triad.

Im chord root on the sixth string

bIIIIaug. b3-5-7	Vldim 6-1-b3	IIIm 2-4-6	V 5-7-2	Im 1-b3-5	IV 4-6-1
Ebaug. XI	Adim. XII	Dm X	G X	Cm VIII	F VIII

Im chord root on the fifth string

bIIIIaug. b3-5-7	Vldim 6-1-b3	IIIm 2-4-6	V 5-7-2	Im 1-b3-5	IV 4-6-1
Ebaug. IV	Adim. IV	Dm V	G III	Cm III	F I

Im chord root on the fourth string

bIIIIaug. b3-5-7	Vldim 6-1-b3	IIIm 2-4-6	V 5-7-2	Im 1-b3-5	IV 4-6-1
Ebaug. XI	Adim. XII	Dm X	G X	Cm X	F X

C melodic minor scale-tone triads, close-voiced, stepwise roots

The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to construct the triad. In voice leading, all three notes ascend to the next chord.

close-voiced, root position, root in the bass

Im 1-b3-5 root-third-fifth Cm VIII	IIm 2-4-6 root-third-fifth Dm X	bIIlaug. b3-5-7 root-third-fifth Ebaug. XII	IV 4-6-1 root-third-fifth F XIII or I	V 5-7-2 root-third-fifth G III	VIdim 6-1-b3 root-third-fifth Adim. IV	VIIIdim. 7-2-4 root-third-fifth Bdim VI

close-voiced, first inversion, third in the bass

Im 1-b3-5 third-fifth-root Cm XII	IIm 2-4-6 third-fifth-root Dm XIV or II	bIIlaug. b3-5-7 third-fifth-root Ebaug. IV	IV 4-6-1 third-fifth-root F V	V 5-7-2 third-fifth-root G VII	VIdim 6-1-b3 third-fifth-root Adim. VIII	VIIIdim. 7-2-4 third-fifth-root Bdim X

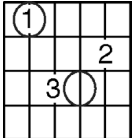
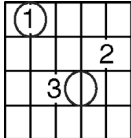
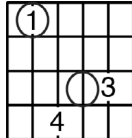
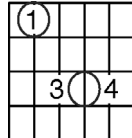
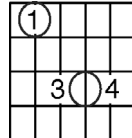
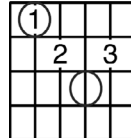
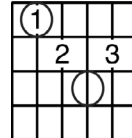
close-voiced, second inversion, fifth in the bass

Im 1-b3-5 fifth-root-third Cm IV	IIm 2-4-6 fifth-root-third Dm VI	bIIlaug. b3-5-7 fifth-root-third Ebaug. VIII	IV 4-6-1 fifth-root-third F X	V 5-7-2 fifth-root-third G XII	VIdim 6-1-b3 fifth-root-third Adim. XIII or I	VIIIdim. 7-2-4 fifth-root-third Bdim III

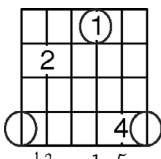
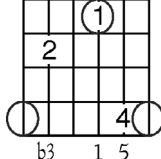
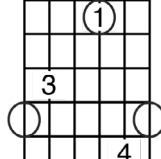
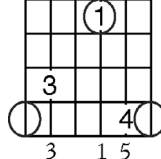
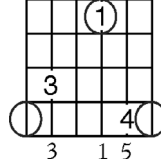
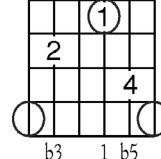
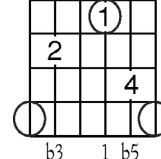
C melodic minor scale-tone triads, open-voiced, stepwise roots

The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to the triad. In voice leading, all three notes ascend a scale tone to form the next chord.

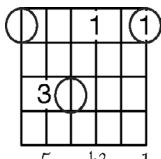
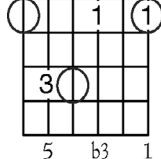
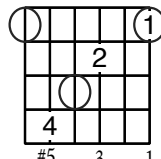
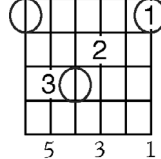
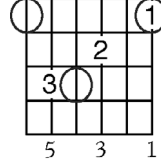
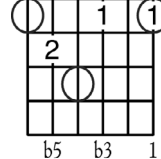
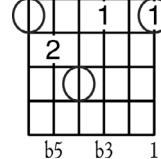
open-voiced, root position, root in the bass

I_m 1-b3-5	II_m 2-4-6	bIII_{aug.} b3-5-7	IV 4-6-1	V 5-7-2	V_{ldim.} 6-1-b3	VII_{ldim.} 7-2-4
root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third
C_m III	D_m V	E_baug. VI	F VIII	G X	A_{dim.} XII	B_{dim.} XIV
						
1 5 b3	1 5 b3	1 #5 3	1 5 3	1 5 3	1 b5 b3	1 b5 b3

open-voiced, first inversion, third in the bass

I_m 1-b3-5	II_m 2-4-6	bIII_{aug.} b3-5-7	IV 4-6-1	V 5-7-2	V_{ldim.} 6-1-b3	VII_{ldim.} 7-2-4
third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth
C_m V	D_m VII	E_baug. VIII	F X	G XII	A_{dim.} II	B_{dim.} IV
						
b3 1 5	b3 1 5	3 1 #5	3 1 5	3 1 5	b3 1 b5	b3 1 b5

open-voiced, second inversion, fifth in the bass

I_m 1-b3-5	II_m 2-4-6	bIII_{aug.} b3-5-7	IV 4-6-1	V 5-7-2	V_{ldim.} 6-1-b3	VII_{ldim.} 7-2-4
fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root
C_m VIII	D_m X	E_baug. XI	F XIII or I	G III	A_{dim.} V	B_{dim.} VII
						
5 b3 1	5 b3 1	#5 3 1	5 3 1	5 3 1	b5 b3 1	b5 b3 1

C melodic minor scale-tone triads, close-voiced, roots ascending in fourths (b3-6-2-5-1-4)

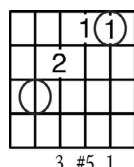
The root order is shown for the usable part of the series of fourths in melodic minor, 6-2-5-1-4. The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to construct the triad.

close-voiced, Im chord's root in the bass

bIII aug.

b-3-5-7

Ebaug. IV

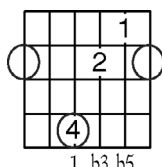


3 #5 1

Vldim.

6-1-b3

Adim. IV

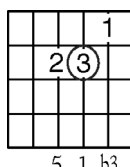


1 b3 b5

IIIm

2-4-6

Dm VI

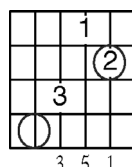


5 1 b3

V

5-7-2

G VII

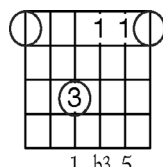


3 5 1

Im

1-b3-5

Cm VIII

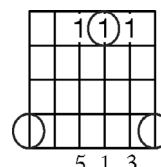


1 b3 5

IV

4-6-1

F X



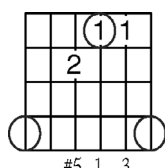
5 1 3

close-voiced, Im chord's third in the bass

bIII aug.

b-3-5-7

Ebaug. VIII

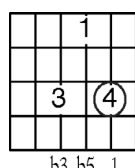


#5 1 3

Vldim.

6-1-b3

Adim. VIII

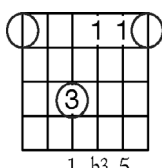


b3 b5 1

IIIm

2-4-6

Dm X

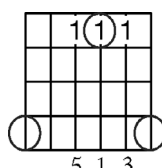


1 b3 5

V

5-7-2

G XII

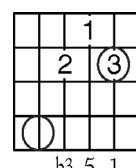


5 1 3

Im

1-b3-5

Cm XII

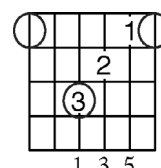


b3 5 1

IV

4-6-1

F XIII



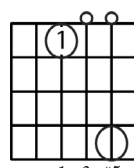
1 3 5

close-voiced, Im chord's fifth in the bass

bIII aug.

b-3-5-7

Ebaug. I

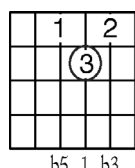


1 3 #5

Vldim.

6-1-b3

Adim. I

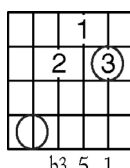


b5 1 b3

IIIm

2-4-6

Dm II

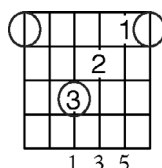


b3 5 1

V

5-7-2

G III

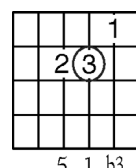


1 3 5

Im

1-b3-5

Cm IV

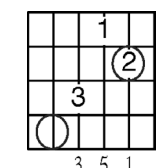


5 1 b3

IV

4-6-1

F V

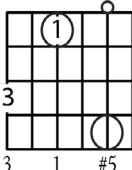
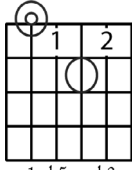
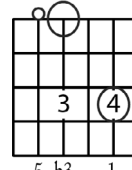
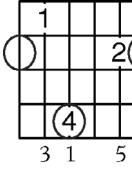
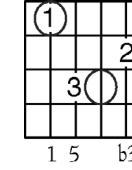
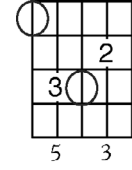


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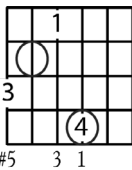
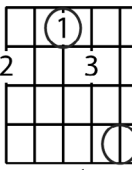
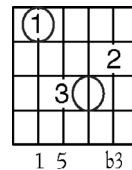
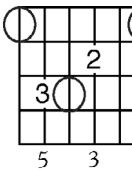
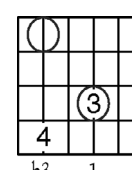
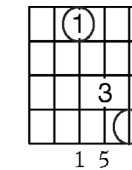
C melodic minor scale-tone triads, open-voiced, roots ascending in fourths (b3-6-2-5-1-4)

The root order is shown for the usable part of the series of fourths in melodic minor, 6-2-5-1-4. The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to construct the triad.

close-voiced, Im chord's root in the bass

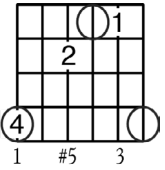
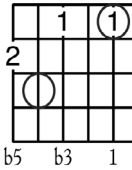
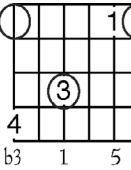
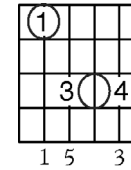
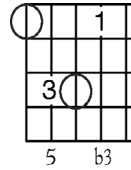
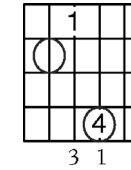
bIII aug. b-3-5-7	Vldim. 6-1-b3	IIIm 2-4-6	V 5-7-2	Im 1-b3-5	IV 4-6-1
Ebaug. I	Adim. I	Dm I	G II	Cm III	F I
					

close-voiced, Im chord's third in the bass

bIII aug. b-3-5-7	Vldim. 6-1-b3	IIIm 2-4-6	V 5-7-2	Im 1-b3-5	IV 4-6-1
Ebaug. V	Adim. VII	Dm V	G III	Cm III	F III
					

z

close-voiced, Im chord's fifth in the bass

bIII aug. b-3-5-7	Vldim. 6-1-b3	IIIm 2-4-6	V 5-7-2	Im 1-b3-5	IV 4-6-1
Ebaug. VIII	Adim. X	Dm X	G X	Cm VIII	F VII
					

C melodic minor scale-tone triads, close-voiced, roots ascending in thirds

The second row of numbers below (such as 1-b3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, the root of each chord descends one scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row *but starts up an octave).

close-voiced, I chord's third in the bass

Im 1-b3-5	bIIlaug b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIIm 2-4-6	IV 4-6-1	VIdim. 6-1-b3
third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root
Cm XII	Ebaug. XII	G XII	Bdim X	Dm X	F X	Adim. VIII
b3 5 1	1 3 #5	5 1 3	b3 b5 1	1 b3 5	5 1 3	b3 b5 1

close-voiced, I chord's root in the bass

Im 1-b3-5	bIIlaug b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIIm 2-4-6	IV 4-6-1	VIdim. 6-1-b3
root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth
Cm VIII	Ebaug. VIII	G VII	Bdim VI	Dm VI	F V	Adim. IV
1 b3 5	#5 1 3	3 5 1	1 b3 b5	5 1 b3	3 5 1	1 b3 b5

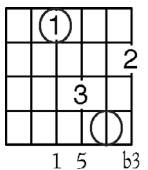
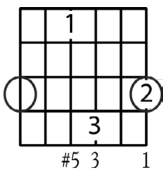
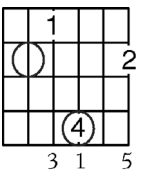
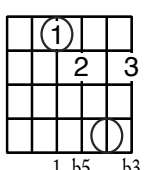
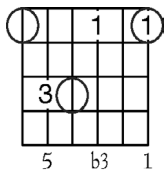
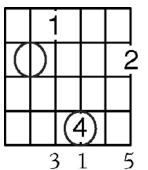
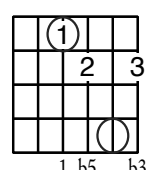
close-voiced, I chord's fifth in the bass

Im 1-b3-5	bIIlaug b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIIm 2-4-6	IV 4-6-1	VIdim. 6-1-b3
fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third
Cm IV	Ebaug. IV	G III	Bdim III	Dm II	F I	Adim. I
5 1 b3	3 #5 1	1 3 5	b5 1 b3	b3 5 1	1 3 5	b5 1 b3

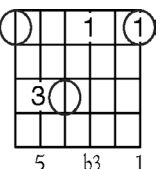
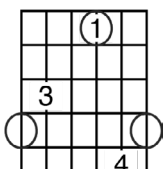
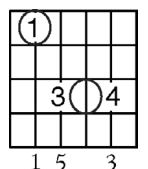
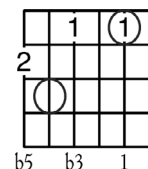
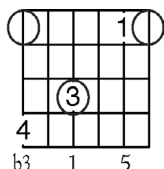
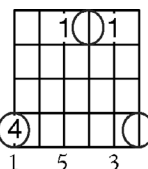
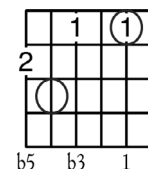
C melodic minor scale-tone triads, open-voiced, roots ascending in thirds

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, the root of each chord descends one scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row (but starts over up an octave).

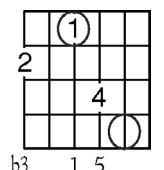
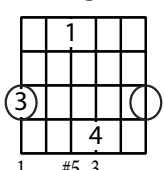
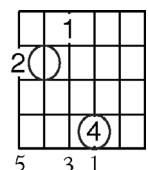
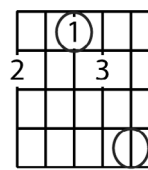
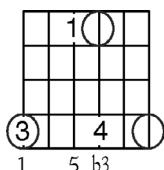
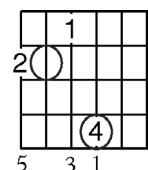
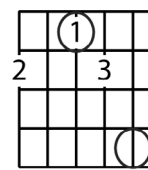
open-voiced, I chord's root in the bass

Im 1-b3-5	bIIlaug b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIIm 2-4-6	IV 4-6-1	Vldim. 6-1-b3
root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third
Cm X	Ebaug. IX	G IX	Bdim IX	Dm X	F VII	Adim.
						

open-voiced, I chord's fifth in the bass

Im 1-b3-5	bIIlaug b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIIm 2-4-6	IV 4-6-1	Vldim. 6-1-b3
fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root
Cm VIII	Ebaug. VIII	G X	Bdim. XII	Dm X	F X	Adim. X
						

open-voiced, I chord's third in the bass

Im 1-b3-5	bIIlaug b3-5-7	V 5-7-2	VIIldim. 7-2-4	IIIm 2-4-6	IV 4-6-1	Vldim. 6-1-b3
third-root-fifth	root-fifth-third	fifth-third-root	third-root-fifth	root-fifth-third	fifth-third-root	third-fifth-root
Cm X	Ebaug. IX	G IX	Bdim. IX	Dm VII	F VII	Adim. VII
						

C melodic minor scale-tone seventh chords, built in thirds, fourth string roots

The second row of numbers below (such as 1-b3-5-7 and 2-4-6-1) are the major scale tone numbers used to construct the seventh chord.

I^m(ma7)	II^m7	bIII^mma7#5	IV7	V7	VI^m7b5	VII^m7b5
1-3-5-7	2-4-6-1	b3-5-7-2	4-6-1-b3	5-7-2-4	6-1-b3-5	7-2-4-6
C^m(ma7)	D^m7	E^bma7#5	F7	G7	A^m7b5	B^m7b5

C melodic minor scale-tone seventh chords, built in thirds, fifth string roots

The second row of numbers below (such as 1-3-5-7 and 2-4-6-1) are the major scale tone numbers used to construct the seventh chord.

I^m(ma7)	II^m7	bIII^mma7#5	IV7	V7	VI^m7b5	VII^m7b5
1-3-5-7	2-4-6-1	b3-5-7-2	4-6-1-b3	5-7-2-4	6-1-b3-5	7-2-4-6
C^m(ma7)	D^m7	E^bma7#5	F7	G7	A^m7b5	B^m7b5

C melodic minor scale-tone seventh chords, stepwise sixth-string roots

Each of these has the same notes as its counterpart above built in thirds, but the notes are in a different order.

I^m(ma7)	II^m7	bIII^mma7#5	IV7	V7	VI^m7b5	VII^m7b5
1-3-5-7	2-4-6-1	b3-5-7-2	4-6-1-b3	5-7-2-4	6-1-b3-5	7-2-4-6
C^m(ma7)	D^m7	E^bma7#5	F7	G7	A^m7b5	B^m7b5

C melodic minor scale-tone seventh chords, stepwise fifth-string roots

Each of these has the same notes as its counterpart above built in thirds, but the notes are in a different order.

I^m(ma7)	II^m7	bIII^mma7#5	IV7	V7	VI^m7b5	VII^m7b5
1-3-5-7	2-4-6-1	b3-5-7-2	4-6-1-b3	5-7-2-4	6-1-b3-5	7-2-4-6
C^m(ma7)	D^m7	E^bma7#5	F7	G7	A^m7b5	B^m7b5

C melodic minor scale-tone seventh chords, stepwise fourth-string roots

Each of these has the same notes as its counterpart above built in thirds, but the notes are in a different order.

I^m(ma7)	II^m7	bIII^mma7#5	IV7	V7	VI^m7b5	VII^m7b5
1-3-5-7	2-4-6-1	b3-5-7-2	4-6-1-b3	5-7-2-4	6-1-b3-5	7-2-4-6
C^m(ma7)	D^m7	E^bma7#5	F7	G7	A^m7b5	B^m7b5

C melodic minor scale-tone seventh chords, roots ascending in perfect fourths

The root order is shown for the usable part of the series of fourths in melodic minor, 6-2-5-1-4. The second row of numbers below (such as 1-b3-5 and 2-4-6) are the melodic minor scale tone numbers used to construct the triad.

Im(ma7) chord root on the sixth string

Im chord root on the fifth string

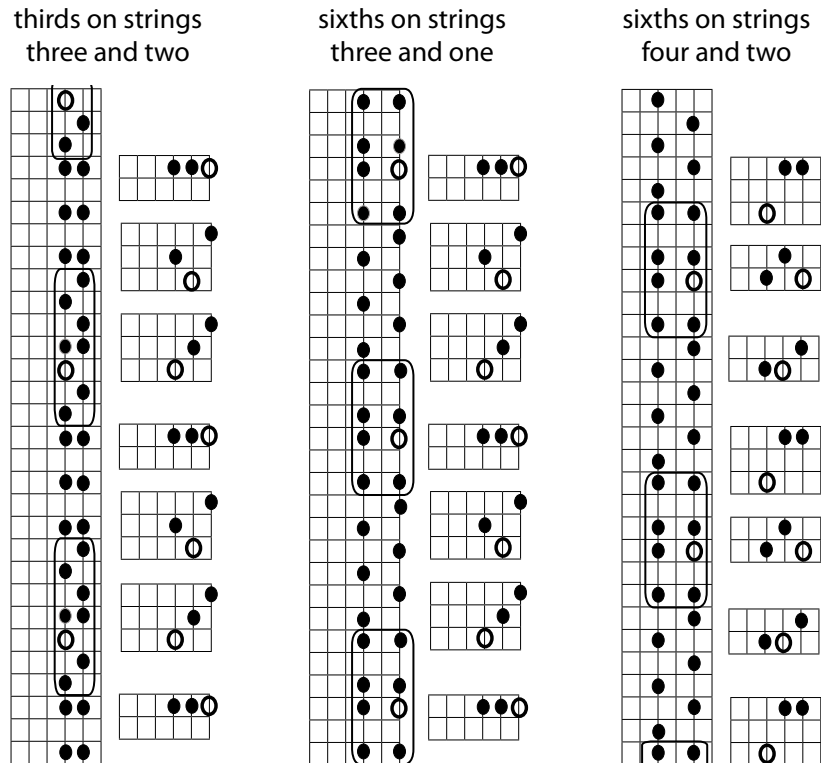
Im chord root on the fourth string

HARMONY



Melodic Minor Scale-Tone Thirds and Sixths



scale tone:	I	II	bIII	IV	V	VI	VII
thirds	minor	minor	major	major	major	minor	minor
sixths	major	major	minor	minor	minor	major	major



melodic minor (major flat three) with its tonic minor triads



The circled note (O) represents the melodic minor tone center. The three-note chords are the tonic chord, which is the minor chord named after the key. If the key (O) is "A", the three-note chords are Am.

A third is not part of this minor chord: . In that case, this fourth  can be used in place of a third for tonic minor chord tones.

A sixth is not part of this minor chord: . In that case, this fifth  can be used in place of a sixth for tonic minor chord tones.

A sixth is not part of this minor chord: . In that case, this fifth  can be used in place of a sixth for tonic minor chord tones.

Notice the segregation of four three major thirds (not in a rectangle) and four minor thirds (in the rectangles). Also notice the segregation of four major sixths (in the rectangles) and three minor sixths (not in the rectangles).

Quartal and Quintal Harmony in Melodic Minor

melodic minor quartal and quintal triads

The I minor 6/9 pentatonic and the VI minor 7/11b5 pentatonic share the same notes, 1-2-b3-5-6 of a parent melodic minor scale. Add a tone a fourth above and below each tone of the I minor 6/9 or VI m7/11b5 pentatonic and produce quartal triads. Or, or add a tone a fifth above and below each tone of the I minor 6/9 or VI m7/11b5 pentatonic and and produce quintal triads. For C melodic minor, this creates the chords below. Each triad has the *same* notes whether it is a I minor 6/9 or VI m7/11b5 pentatonic tone with a fourth above and a fourth below or if it is a I minor 6/9 or VI m7/11b5 pentatonic tone with a fifth above and a fifth below.

nr = no root, n3 = no third, n5 = no fifth, n7 = no 7

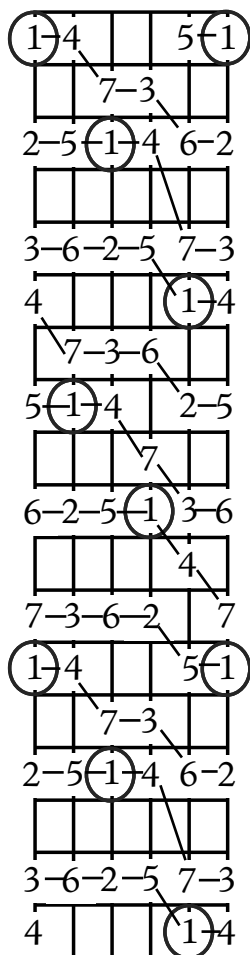
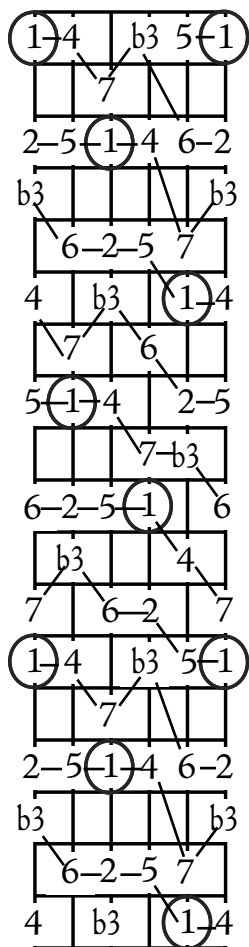
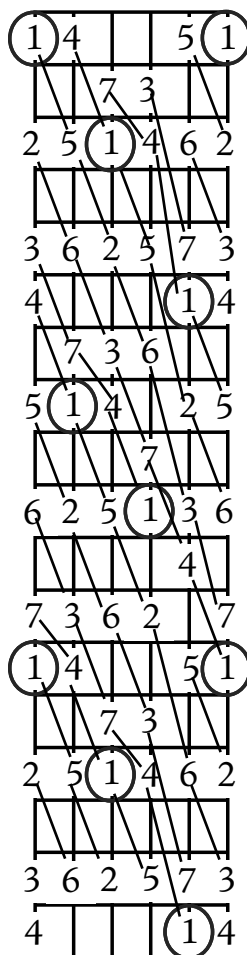
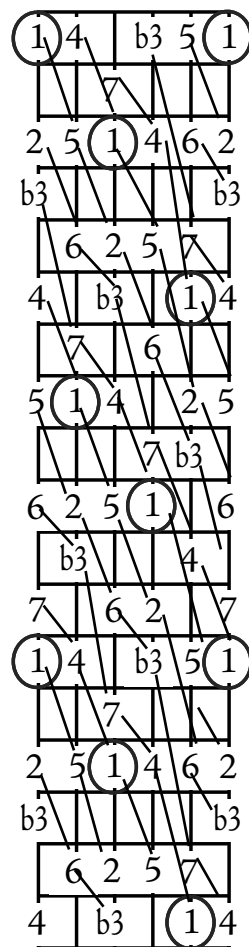
scale tone number	1	2	b3	5	6
letter in C melodic minor	C	D	Eb	G	A
quartal/quintal triad numbered tones of parent C mel. minor	5-1-4	6-2-5	7-b3-6	2-5-1	b3-6-2
quartal/quintal triad lettered tones of parent C mel. minor	G-C-F	A-D-G	B-Eb-A	D-G-C	Eb-A-D
I mel. minorchord names	I sus.4	I6/9 nr,n3	Im(ma7)/6 nrn5	Isus2	Im6/9nrn6=5
II Dorian b2 chord names	IIIm7/11nrn5	IIsus.4	no II chord	IIIm7/11n3n5	no II chord
bIII Phrygian b1 chord names	no III chord	IIIm7/11nrn5	IIIsus4	no III chord	III7sus4n3n5
IV Lydian dom. chord names	IVsus2	IV6/9nrn5	IV7#11nrn5	IV6/9nrn3	IVma7/6nrn5
V Mixolydian b6 chord names	V7sus4nrn5	Vsus2	V9/b13nrn5	Vsus4	V6/9nrn3
VI Aeolian b5 chord names	no VI chord	VIIm7/11n3n5	VIIm9b5n3n7	VIIm7/11nrn5	VIIsus4
VII super Locrian chord names	VIIIm7/11b5nrn3	VIIIm7/11b5nrn5	VII7n5	no VII chord	VII#9nrn5

fourths in melodic minor

Fingerings for fourths in melodic minor are a modification of [fourths in the major scale](#)). Note that it is *diminished fourth* from “7” up a scale tone fourth to “b3”, making a major third. Also note that “b3” to “6” is an augmented fourth, as is “4” to “7”. Note the diagonal shapes on most of the fourths with “b3”.

fifths in melodic minor (ascending version)

Fingerings for fifths in melodic minor are a modification of [fifths in the major scale](#). Melodic minor is a major scale with a flatted third. Flattening the third modifies two of the fifth intervals: “6” to “b3” is a diminished fifth and “b3” to “7” is an augmented fifth. As with the major scale, “7” to “4” is a diminished fifth.

**fourths in
major**

**fourths in
melodic minor**

**fifths in
major**

**fifths in
melodic minor**


Three-Part Harmony

Four-Part Harmony

MODES

SUBSETS

COUNTERPOINT

Parallel Motion

Similar Motion

Oblique Motion

Contrary Motion (contrapuntal)

CADENCES

Harmonic Major Scale Summary

- **Fingerings**
- **Harmonic Major (major flat six) Scale-Tone Chords**
- **Harmony**
- **Modes**
- **Subsets**
- **Counterpoint**
- **Cadences**

FINGERINGS

In-Position And Three-Note-Per-String Fingerings

Major flat six is the most rare of the four usable heptatonic scales. Major flat six scale fingerings are numbered in this course according to the number of lowest note of the parent major scale fingered with the index finger on the sixth string. The parent major scale for C harmonic major is C major.

Other fingerings called “three-note-per-string” major scale fingerings use slightly different rules regarding playing in position. The seven in-position fingerings are shown below. Scale tones are numbered. The scale-tone numbers shown in parenthesis are options, where the same note can be fingered on the second string.

in-position fingerings

The in-position fingerings lend themselves to playing chord and arpeggio structures within the scale. Melody is largely an ornamentation of chord tones, so these fingerings work well to improvise. Three-note-per-string fingerings are better suited to playing scale runs, since picking can be the same for every string and the finger patterns are more repetitious and easier to recall.

three-note-per-string fingerings

Three-note-per-string major scale fingerings shown below combine in-position fingerings, and are numbered accordingly. Fingering 1/2 combines in-position fingerings 1 and 2; fingering 2/3 combines in-position fingerings 2 and 3; and so on.

in-position major flat six scale fingerings by fingers

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

in-position major flat six scale fingerings by formula

fingering 1	fingering 2	fingering 3	fingering 4	fingering 5	fingering 6	fingering 7

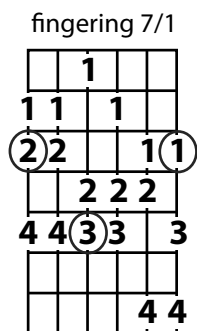
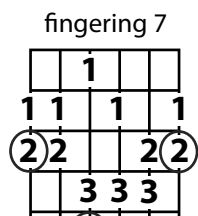
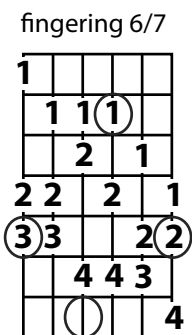
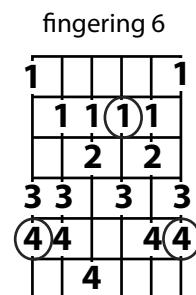
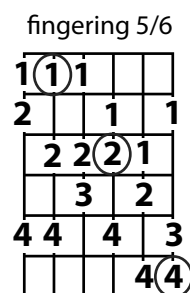
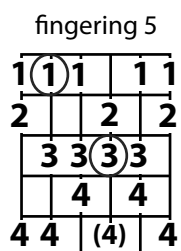
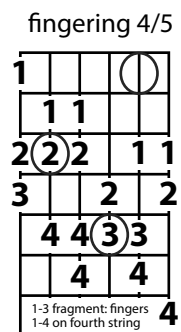
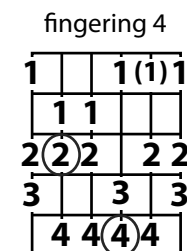
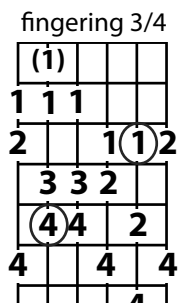
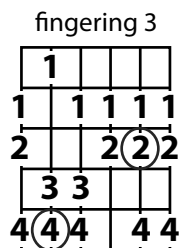
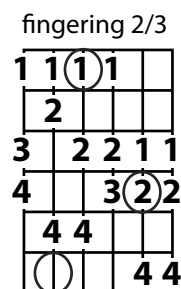
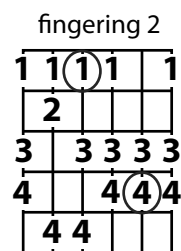
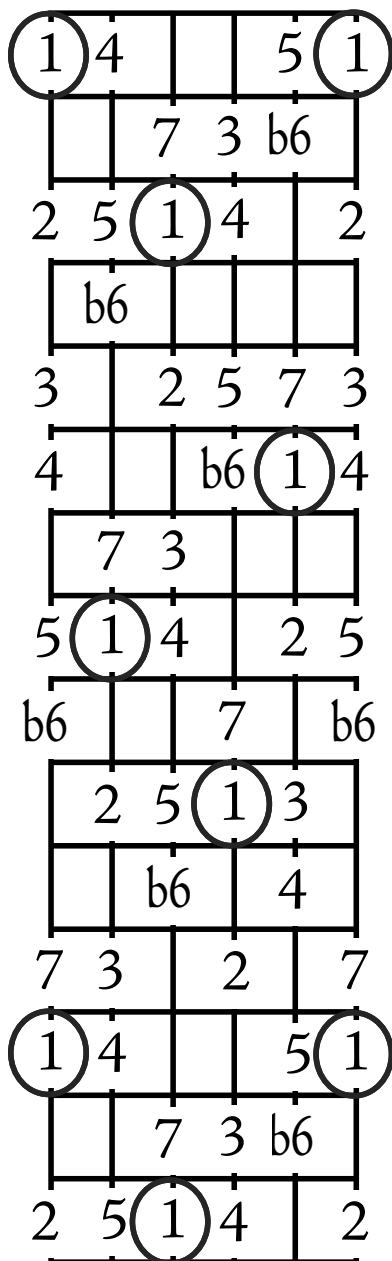
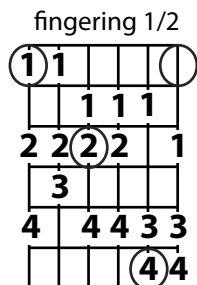
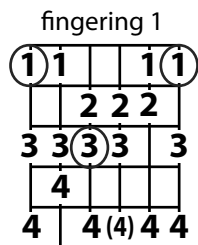
three-note-per-string major flat six scale fingerings by fingers

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

three-note-per-string major flat six scale fingerings by formula

fingering 7/1	fingering 1/2	fingering 2/3	fingering 3/4	fingering 4/5	fingering 5/6	fingering 6/7

full-fretboard major flat six scale with fingerings by finger number



full-fretboard major flat six scale with fingerings by formula number

Diagram illustrating the full-fretboard major flat six scale with fingerings by formula number. The scale is shown across 12 frets, with fingerings 1 through 7/1 and 2 through 6/7 indicated for each fret position.

Fingering 1: 1 4 5 1, 7 3 b6, 2 5 1 4 2, b6, 3 2(5) 7 3

Fingering 1/2: 1 4 7 3 b6, 2 5 1 4 2, b6, 3 2 5 7 3, 1 4

Fingering 3: b6, 3 2 5 7 3, 4 b6 1 4, 7 3, 5 1 4 2 5

Fingering 3/4: b6, 3 2 5, 4 b6 1 4, 7 3, 5 1 4 2 5, 7 b6, 3

Fingering 5: 5 1 4 2 5, b6 7 b6, 2 5 1 3, b6 4, 7 3 (2) 7

Fingering 5/6: 5 1 4, b6 7 b6, 2 5 1 3, b6 4, 7 3 2 7, 5 1

Fingering 7: b6, 7 3 2 7, 1 4 5 1, 7 3 b6, 2 5 1 4 2

Fingering 7/1: b6, 7 3 2, 1 4 5 1, 7 3 b6, 2 5 1 4 2, 7 3

Fingering 2: (7) (3), 2 5 1 4 2, b6, 3 2 5 7 3, 4 b6 1 4, 7 3

Fingering 2/3: 2 5 1 4, b6, 3 2 5 7 3, 4 b6 1 4, 7 3, 1 2 5

Fingering 4: 4 b6 1 4, 7 3, 5 1 4 2 5, b6 7 b6, 2 5 1 3

Fingering 4/5: 4, 7 3, 5 1 4 2 5, b6 7 b6, 2 5 1 3, b6 4, 7

Fingering 6: b6 b6, 2 5 1 3, b6 4, 7 3 2 7, 1 4 5 1, 7

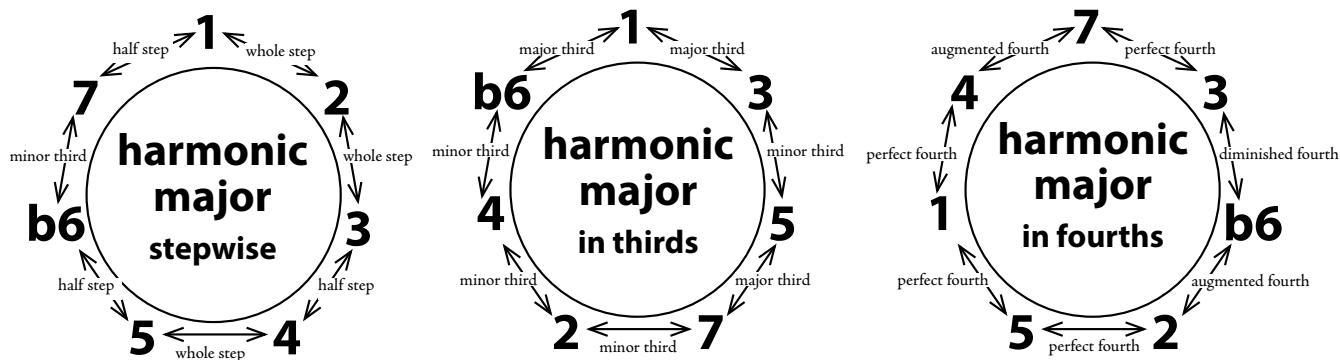
Fingering 6/7: b6, 2 5 1, b6 4, 7 3 2 7, 1 4 5 1, 7 3 b6, 1 2

Scale Diagram: 1 4 5 1, 7 3 b6, 2 5 1 4 2, b6, 3 2 5 7 3, b6, 3 2 5 7 3, 4 b6 1 4, 7 3, 5 1 4 2 5, b6, 7 b6, 2 5 1 3, b6 4, 7 3 2 7, 1 4 5 1, 7 3 b6, 2 5 1 4 2

HARMONIC MAJOR (major flat six) SCALE-TONE CHORDS

scale tone:	I	II	III	IV	V	bVI	VII
mode	harmonic major	Dorian b5	Phrygian b4 super Phrygian	Lydian b3 Lydian diminished	Mixolydian b2	Aeolian b1	Locrian bb7
formula	b6	b3-b5-b7	b2-b3-b4-b6-b7	b3-#4	b2-b7	#2, #4, #5	b2-b3-b4-b5-b6-bb7
Dorian b5.....	bVII	I	II	bIII	IV	bV	VI
Phrygian b6.....	bVI	bII	I	bII	bII	IV	V
Lydian diminished..	V	VI	VII	I	II	bIII	#IV
Mixolydian b2.....	IV	V	VI	bVII	I	bII	III
Aeolian b1.....	III	#IV	#V	VI	VII	I	#II
Locrian bb7.....	bII	bIII	bIV	bV	bVI	bbVII	I
thirds.....	major	minor	minor	minor	major	major	minor
sixths.....	minor	major	minor	major	minor	minor	major
triad.....	major, aug.	diminished	minor, major	minor	major	augmented	diminished
seventh.....	ma7	m7b5	min7	min(ma7)	7	ma7#5	dim. 7
ninth.....	ma9	m9b5	7#9, 7b9	m9(ma7)	7b9		
7/6.....					7/6		
13no11 (9/6).....		m9/6			13b9no11		
13.....		m13b5					
sixth.....				m6	6		
add 9.....	add9			m add 9			
6/9.....				m6/9			
7/11.....		m7/11b5			7/11		
sus.4.....	sus.4				sus.4		
sus.2.....	sus.2			sus.2			
7 sus.4.....	ma7sus.)				7sus.4		
7 sus.2.....	ma7sus.2						
9 no 3.....	ma9no3			m(ma9)no3			
9 sus.4.....	ma7sus.4						
13 sus.4 (13no3).....							
7/6 sus.4.....					7/6sus4		

Interval Cycles of Harmonic Major



Numbered Harmonic Major Scale Tones In Triads, Seventh and Ninth Chords

scale-tone:.....	I	II	III	IV	V	bVI	VII
triad	major	diminished	minor	minor	major	augmented	diminished
parent scale tones	1-3-5	2-4-b6	3-5-7	4-b6-1	5-7-2	b6-1-3	7-2-4
chord scale tones	1-3-5	1-b3-b5	1-b3-5	1-b3-5	1-3-5	1-3-#5	1-b3-b5
seventh	ma7	m7b5	m7	m(ma7)	7	ma7#5	diminished 7
parent scale tones	1-3-5-7	2-4-b6-1	3-5-7-2	4-b6-1-3	5-7-2-4	b6-1-3-5	7-2-4-b6
chord scale tones	1-3-5-7	1-b3-b5-b7	1-b3-5-b7	1-b3-5-7	1-3-5-b7	1-3-#5-7	1-b3-b5-bb7(6)
ninth	ma9	m9b5	m9	m9(ma7)	7b9	ma9#5	
parent scale tones	1-3-5-7-2	2-4-b6-1-3		4-b6-1-3-5	5-7-2-4-b6	b6-1-3-5-7	
chord scale tones	1-3-5-7-2	1-b3-b5-b7-2		1-b3-5-7-2	1-3-5-b7-b2	1-3-#5-7-2	

Harmonic Major Scale Tone Chord Fingerings

C harmonic major scale-tone triads, stepwise, sixth-string roots

The second row of numbers below (such as 1-3-5 and 2-4-b6) are the major scale tone numbers used to construct the triad.

I	IIIm	IIIIm	IVm	V	bVIaug.	VIIIdim.
1-3-5	2-4-b6	3-5-7	4-b6-1	5-7-2	b6-1-3	7-2-4
C VIII	Ddim IX	Em XII	Fm I or XIII	G III	Aaug. IV	Bdim VI
1 5 1 3 5 1	1 1 b3 b5	1 5 1 b3 5 1	1 5 1 b3 5 1	1 5 1 3 5 1	1 1 3 #5	1 1 b3 b5

C major scale-tone triads, stepwise, fifth-string roots

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad.

I	IIIm	IIIIm	IVm	V	bVIaug.	VIIIdim.
1-3-5	2-4-b6	3-5-7	4-b6-1	5-7-2	b6-1-3	7-2-4
C III	Ddim V	Em VII	Fm VIII	G X	Aaug. XI	Bdim II or XIV
1 5 1 3	1 b5 1 b3	1 5 1 b3	1 5 1 b3	1 5 1 3	1 #5 3	1 b5 1 b3

C harmonic major scale-tone triads, roots ascending in perfect fourths, large chords

The usable sequence of chord roots in fourths in harmonic major is $b6-2-5-1-4$. The second row of numbers below (such as 1-3-5 and 2-4- $b6$) are the major scale tone numbers used to construct the triad.

I chord root on the sixth string

bVlaug. b6-1-3	Ildim. 2-4-b6	V 5-7-2	I 1-3-5	IVm 4-b6-1
Abaug. IX	Ddim. IX	G X	C VIII	Fm VIII

I chord root on the fifth string

bVlaug. b6-1-3	Ildim. 2-4-b6	V 5-7-2	I 1-3-5	IVm 4-b6-1
Abaug. IV⁺	Ddim. V	G III	C III	Fm I

I chord root on the fourth string

bVlaug. b6-1-3	Ildim. 2-4-b6	V 5-7-2	I 1-3-5	IVm 4-b6-1
Abaug. XII	Ddim. XII	G X	C X	Fm X

C harmonic major scale-tone triads, close-voiced, stepwise roots

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, all three notes ascend to the next chord.

close-voiced, root position, root in the bass

I 1-3-5	Ildim. 2-4-b6	IIIIm 3-5-7	IVm 4-b6-1	V 5-7-2	bVIaug. b6-1-3	VIIldim. 7-2-4
root-third-fifth	root-third-fifth	root-third-fifth	root-third-fifth	root-third-fifth	root-third-fifth	root-third-fifth
C VIII	Ddim. IX	Em XII	Fm XIII or I	G III	Aaug. V	Bdim. VI

close-voiced, first inversion, third in the bass

I 1-3-5	Ildim. 2-4-b6	IIIIm 3-5-7	IVm 4-b6-1	V 5-7-2	bVIaug. b6-1-3	VIIldim. 7-2-4
third-fifth-root	third-fifth-root	third-fifth-root	third-fifth-root	third-fifth-root	third-fifth-root	third-fifth-root
C I	Ddim. I	Em IV	Fm V	G VII	Aaug. IX	Bdim. X

close-voiced, second inversion, fifth in the bass

I 1-3-5	Ildim. 2-4-b6	IIIIm 3-5-7	IVm 4-b6-1	V 5-7-2	bVIaug. b6-1-3	VIIldim. 7-2-4
fifth-root-third	fifth-root-third	fifth-root-third	fifth-root-third	fifth-root-third	fifth-root-third	fifth-root-third
C V	Ddim. VI	Em VIII	Fm IX	G XII	Aaug XIII or I	Bdim. XV or III

C harmonic major scale-tone triads, open-voiced, stepwise roots

The second row of numbers below (such as 1-3-5 and 2-4-b6) are the major scale tone numbers used to construct the triad. In voice leading, all three notes ascend a scale tone to form the next chord.

open-voiced, root position, root in the bass

I 1-3-5	Ildim. 2-4-b6	IIIIm 3-5-7	IVm 4-b6-1	V 5-7-2	bVIaug b6-1-3	VIIldim. 7-2-4
root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third	root-fifth-third
C III	Ddim. V	Em VII	Fm VIII	G X	Aaug. XI	Bdim. XIV or II

open-voiced, first inversion, third in the bass

I 1-3-5	Ildim 2-4-b6	IIIIm 3-5-7	IVm 4-b6-1	V 5-7-2	bVIaug b6-1-3	VIIldim. 7-2-4
third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth	third-root-fifth
C V	Ddim. VII	Em IX	Fm X	G XII	Aaug. XIII or I	Bdim. XVI or IV

open-voiced, second inversion, fifth in the bass

I 1-3-5	Ildim. 2-4-b6	IIIIm 3-5-7	IVm 4-b6-1	V 5-7-2	bVIaug b6-1-3	VIIldim. 7-2-4
fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root	fifth-third-root
C VIII	Ddim. X	Em XII	Fm XIII or I	G III	Aaug. V	Bdim VII

C harmonic major scale-tone triads, close-voiced, roots ascending in fourths (b6-2-5-1-4)

The second row of numbers below (such as 1-3-5 and 2-4-b6) are the major scale tone numbers used to construct the triad. In voice leading, the third and fifth of each chord ascend a scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row.

close-voiced, Im chord's root in the bass

bVlaug b6-1-3 root-third-fifth	IIIm 2-4-b6 fifth-root-third	V 5-7-2 third-fifth-root	I 1-3-5 third-fifth-root	IV 4-b6-1 fifth-root-third
Aaug. V	Ddim. VI	G VII	C VIII	Fm IX
1 3 #5	b5 1 b3	3 5 1	1 3 5	5 1 b3

close-voiced, Im chord's third in the bass

bVlaug b6-1-3 fifth-root-third	IIIm 2-4-b6 third-fifth-root	V 5-7-2 root-third-fifth	I 1-3-5 fifth-root-third	IV 4-b6-1 third-fifth-root
Aaug. IX	Ddim. IX	G XII	C XII	Fm XIII
3 #5 1	1 b3 b5	5 1 3	3 5 1	1 b3 5

close-voiced, Im chord's fifth in the bass

bVlaug b6-1-3 third-fifth-root	IIIm 2-4-b6 root-third-fifth	V 5-7-2 fifth-root-third	I 1-3-5 third-fifth-root	IV 4-b6-1 root-third-fifth
Aaug I	Ddim. I	G III	C V	Fm V
#5 1 3	b3 b5 1	1 3 5	5 1 3	b3 5 1

C harmonic major scale-tone triads, open-voiced, roots ascending in fourths (b6-2-5-1-4)

The second row of numbers below (such as 1-3-5 and 2-4-b6) are the major scale tone numbers used to construct the triad. In voice leading, the third and fifth of each chord ascend a scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row.

open-voiced, Im chord's root in the bass

bVIaug. b6-1-3 third-root-fifth	II dim. 2-4-b6 root-fifth-third	V 5-7-2 fifth-third-root	I 1-3-5 third-root-fifth	IVm 4-b6-1 root-fifth-third
Aaug. II	Ddim. III	G II	C III	Fm III
1 #5 3	b5 b3 1	3 1 5	1 5 3	5 b3 1

open-voiced, Im chord's third in the bass

bVIaug. b6-1-3 root-fifth-third	II dim. 2-4-b6 fifth-third-root	V 5-7-2 third-root-fifth	I 1-3-5 root-fifth-third	IVm 4-b6-1 fifth-third-root
Aaug. III	Ddim. V	G III	C V	Fm V
3 1 #5	1 b5 b3	5 3 1	3 1 5	1 5 b3

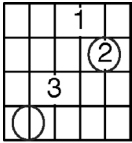
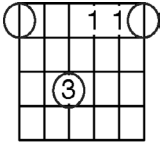
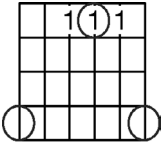
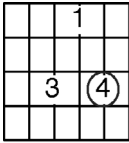
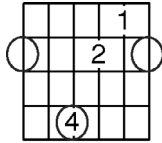
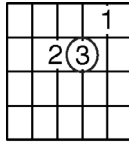
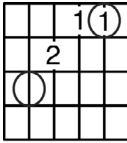
open-voiced, Im chord's fifth in the bass

bVIaug. 6-1-3 fifth-third-root	II dim. 2-4-6 third-root-fifth	V 5-7-2 root-fifth-third	I 1-3-5 fifth-third-root	IVm 4-b6-1 third-root-fifth
Aaug. X	Ddim. XII	G X	C VIII	Fm VIII
#5 3 1	1 2 4	1 5 3	5 3 1	b3 1 5

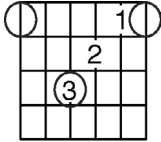
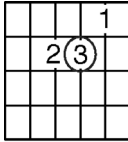
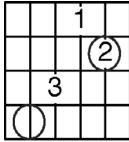
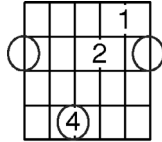
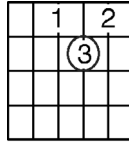
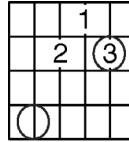
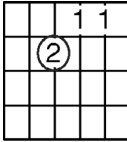
C major scale-tone triads, close-voiced, roots ascending in thirds

The second row of numbers below (such as 1-3-5 and 2-4-b6) are the major scale tone numbers used to construct the triad. In voice leading, the root of each chord descends one scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row.

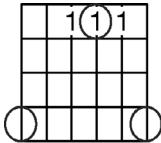
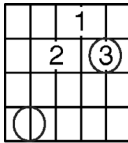
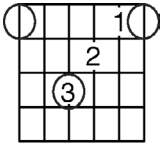
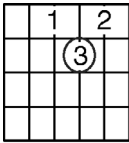
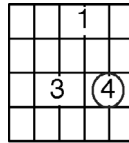
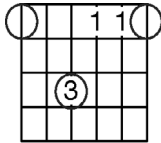
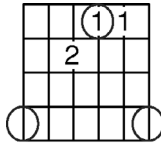
close-voiced, Im chord's third in the bass

I 1-3-5	IIIIm 3-5-7	V 5-7-2	VIIIdim. 7-2-4	IIdim. 2-4-b6	IVm 4-b6-1	bVIaug. b6-1-3
third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root
C XII	Em XII	G XII	Bdim X	Ddim. IX	Fm IX	Aaug. IX
						
3 5 1	1 b3 5	5 1 3	b3 b5 1	1 b3 b5	5 1 b3	3 #5 1

close-voiced, Im chord's root in the bass

I 1-3-5	IIIIm 3-5-7	V 5-7-2	VIIIdim. 7-2-4	IIdim. 2-4-b6	IVm 4-b6-1	bVIaug. b6-1-3
root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth
C VIII	Em VIII	G VII	Bdim VI	Ddim. VI	Fm V	Aaug. V
						
1 3 5	5 1 b3	3 5 1	1 b3 b5	b5 1 b3	b3 5 1	1 3 #5

close-voiced, Im chord's fifth in the bass

I 1-3-5	IIIIm 3-5-7	V 5-7-2	VIIIdim. 7-2-4	IIdim. 2-4-b6	IVm 4-b6-1	bVIaug. b6-1-3
fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third	third-fifth-root	root-third-fifth	fifth-root-third
C V	Em IV	G III	Bdim III	Ddim. I	Fm I	Aaug. XIII or I
						
5 1 3	b3 5 1	1 3 5	b5 1 b3	b3 b5 1	1 b3 5	#5 1 3

C harmonic major scale-tone triads, open-voiced, roots ascending in thirds

The second row of numbers below (such as 1-3-5 and 2-4-6) are the major scale tone numbers used to construct the triad. In voice leading, the root of each chord descends one scale tone. Each row continues voice-leading on the next row and cycles back to the first row at the end of the third row (but starts over up an octave).

open-voiced, I chord's root in the bass

I 1-3-5 root-fifth-third	III ^{lm} 3-5-7 fifth-third-root	V 5-7-2 third-root-fifth	VII ^{ldim.} 7-2-4 root-fifth-third	II ^{ldim.} 2-4-b6 fifth-third-root	IV ^m 4-b6-1 third-root-fifth	bVI ^{aug.} b6-1-3 root-fifth-third
C X	Em IX	G IX	B ^{dim} IX	D ^{dim.} X	F ^m VIII	A ^{aug.} VIII

open-voiced, I chord's fifth in the bass

I 1-3-5 fifth-third-root	III ^{lm} 3-5-7 third-root-fifth	V 5-7-2 root-fifth-third	VII ^{ldim.} 7-2-4 fifth-third-root	II ^{ldim.} 2-4-b6 third-root-fifth	IV ^m 4-b6-1 root-fifth-third	bVI ^{aug.} b6-1-3 fifth-third-root
C VIII	Em VII	G VII	B ^{dim} VII	D ^{dim.} VII	F ^m VIII	A ^{aug.} VII

open-voiced, I chord's third in the bass

I 1-3-5 third-root-fifth	III ^{lm} 3-5-7 root-fifth-third	V 5-7-2 fifth-third-root	VII ^{ldim.} 7-2-4 third-root-fifth	II ^{ldim.} 2-4-b6 root-fifth-third	IV ^m 4-b6-1 fifth-third-root	bVI ^{aug.} b6-1-3 third-fifth-root
C VII	Em VII	G VIII	B ^{dim} IX	D ^{dim.} X	F ^m VIII	A ^{aug.} VIII

C harmonic major scale-tone seventh chords, stepwise sixth-string roots

Each of these has the same notes as its counterpart above built in thirds, but the notes are in a different order.

C harmonic major scale-tone seventh chords, stepwise fifth-string roots

Each of these has the same notes as its counterpart above built in thirds, but the notes are in a different order.

C harmonic major scale-tone seventh chords, stepwise fourth-string roots

Each of these has the same notes as its counterpart above built in thirds, but the notes are in a different order.

C harmonic major scale-tone seventh chords, roots ascending in perfect fourths

bVIIma7#5

Abma7#5

IIIm7b5

Dm7b5

V7

G7

III

1

2

3

4

1

b7

3

5

IIma7

Cma7

III

1

2

3

4

1

5

7

3

IVm(ma7)

Fm(ma7)

bVIIma7#5

Abma7#5

IIIm7b5

Dm7b5

V7

G7

X

1

1

3

4

1

5

b7

3

IIma7

Cma7

VIII

1

2

3

4

1

7

3

5

IVm(ma7)

Fm(ma7)

COUNTERPOINT

~~Parallel Motion~~
~~Third and Sixth~~

~~Quartal and Quintal Harmony~~
~~Similar Motion~~

~~Oblique Motion~~
~~Contrary Motion~~

~~Four Part Harmony~~
~~Contrary Motion (contrapuntal)~~

CADENCES

MODES

See [Prime Scales, Chords and Arpeggios/Playing over Progeressions with Harmonic Major](#).

SUBSETS

Summary of Chord Progression Types with Improv

- Voice Leading and Cadences
- Parent Scales for Cadences

CHORD PROGRESSION USING A SINGLE SCALE

- Summary Chord Progression
- 7-3-6-2-5-1-4: Ascending Roots in Fourths
- Rhythm Changes (I-VI-II-V)
- 4-1-5-2-6-3-7: Ascending Roots in Fifths
- Stepwise Root Movement
- Root Movement in Thirds
- Non-Linear Diatonic Chord Progression
- Relative Minor and Relative Major

MULTIPLE MODES and MULTIPLE KEYS

- Multi-Key II-V or II-V-I
- Blues
- Parallel Major Chords with bVII, bIII or bVI
- B Sections and Bridges
- Slash Chord Progression
- * Modal Interchange (Change of Mode)
- Substitution and Ambiguity
 - Secondary Roots, Darkening, Secondary Dominants, Interchangeable II and V, Flat-Five Substitute, Hidden Roots, Negative Harmony, Ambiguity
- Remote Modulation and Quasi-Diatonic Chord Progression
- Simultaneous Multiple Keys

CHROMATIC CHORD PROGRESSION

- Chromatic Root Movement
- Extended Chromatic Voice Leading
- Chromatic Diminished Chord Progression

OTHER PROGRESSION AND TREATMENTS

- Diminished-Sounding Dominant Cadences
- Chord Progression with Quartal and Quintal Harmony
- Abbreviation and Core Chord Progression
- Elaboration
- The Vamp
- Pedal Point Chord Progression
- Harmonized Bassline
- Harmonized Top Voice

VOICE LEADING AND CADENCES

Voices as Part of an Ensemble

“voices”

Individual musical parts in an arrangement are called *voices*, analogous to singers”.

conceiving voices with four-note chords

Chord progression can be conceived as the combination of multiple voices, as in a choir or other ensemble. Consider playing a chord progression with strictly four-note chords. Each chord would literally have only four notes. Two of the notes could be the same note in different octaves.

abbreviating chords with more than four different notes

Some of the four-note chords may be abbreviations of larger chords. Ninth chords have five different notes, but certain notes can be omitted. A simple rule to abbreviate chords with more than four notes down to four-note chords is to include the third, the seventh (if involved) and any note mentioned in the chord name. See [Chord Naming Conventions/Preferred Chord Tones](#).

extracting voices from the four-note chords

Conceive a series of notes made up with the highest note of each chord. This is the *soprano* voice. Consider another series of notes make up with the next-to-highest note of each chord. This is the *alto* voice. The series of notes made from the next-to-lowest tones in each chord is the *baritone* voice, and the series made from the lowest tones of each chord is the *bass* voice.

the roles of the voices as melody and harmony

The soprano, alto, tenor and bass “voices” can each be thought of as the basis of a melody or harmony. Usually one of the voices is the focal point and is considered the melody and the remaining voices are harmonies. Sometimes, two of the voices move in parallel thirds (each lower note of a voice accompanied by a note in an upper voice two scale tones higher, such as “A” below and “C” above) In this case of parallel thirds, both voices could be considered melody or one of them could be more strongly emphasized to assign it as the melody.

vocal duets, trios, quartets, quintets, etc.

Vocal ensembles may have from two to ten or more singers. The respective names for groups of two through ten singers are duet, trio, quartet, quintet, sextet, septet, octet, nonet and dectet. The soprano, alto, tenor bass voicings are usually used for the other ensembles, choosing two or three of the voices

for a duet or trio or doubling voices with ensembles of five or more (sometimes doubling in a different octave).

melody commonly in the treble or bass

The important voice (melody) is most commonly in the soprano (lead vocal, lead guitar etc.), but often in the bass (Jaco Pastorius, Ron Carter, Jack Cassidy, Geddy Lee, Paul McCartney). In traditional jazz ensembles the trumpet player is typically the melody player and the band leader (Louis Armstrong, Miles Davis, Dizzy Gillespie, Wynton Marsalis). Improvising trombone players often provide a strong secondary melody, especially in New Orleans. Check out this [Freddie Lonzo video](#).

voice leading

Any particular voice may move up or down or stay on the same note if available) as the ensemble moves on to the next chord. The design of this succession of notes in a particular voice is *voice leading* and it results in a melodic line.

counterpoint

The combined design of the movement of all the voices is called *counterpoint*. In counterpoint, chord tones predominate, but passing and neighboring tones are used in addition to chord tones. There are historically five species of counterpoint. The first species was described above, with the one note in each voice on each chord, making a four-note harmony. Though there may be use of non-chordal tones in counterpoint, it's best to first conceive the simplest core melody with one note per chord. Second species counterpoint involves two notes in one or more voices during one note in the remaining voices. Third species counterpoint pits four notes against one, fourth species has the notes offset in time and fifth species mixes the other species in a free-form manner.

complexity on the important voices, simplicity on other voices

The less important voices (the harmony voices) should move by smaller intervals with regular rhythm and other predictable characteristics. Since the more important voices are the main focus for the listener, the more important voices can take more liberties with larger intervals, more complex rhythm and other elements that require more attention by the listener.

range of pitch between the voices

Larger intervals should be used in the bass (in the low range of pitch) and smaller intervals in the treble (high range of pitch).

Target and Setup Chords

See the chapter [Melodically Superimposed Cadences/Target Chords](#) and [Setup Chords](#).

target chords

Target chords establish a sense of key, a tonal focal point and the feeling that ending on a target chord would sound final and complete. A target chord may be the tonic chord of the key (Am in the key of Am) or a chord establishing a temporary key using any significant chord with a duration of a bar or more.

setup chords

A setup chord is the last chord in a cadence before the target or tonic chord (or temporary tonic chord). See the chapter [Melodically Superimposed Cadences/Superimposed Cadence Voice Leading](#).

Cadences

Cadences are chord progressions, usually of two, three or four chords, are used to establish a key or temporary key. In each genre, listeners are familiar with certain cadences. “II-V-I”, for example is the basis of jazz chord progression and is common in other popular styles. In C major “II-V-I” is Dm7-G7-Cma7. In C minor, it is Dm7b5-G7-Cm7.

Categories of Cadences by Root Movement

In improvising or composing melody, immediately before a target chord, you can represent a setup chord with an arpeggio, a decorated arpeggio (with scale-tone or chromatic neighbors) or with a pentatonic scale named after the setup chord.

common intervals from setup chord root to target chord root

The common intervals from setup chord root to target chord root are stepwise, fourths, fifths and chromatic

fourths or fifths: authentic cadence (V-I), plagal cadence (IV-I)

The setup chord may have its root up or down a fourth from the target (Em to Am or Dm to Am in a chord progression based on the C major scale). When the setup chord root is a perfect fourth below the root of the target chord, the setup chord's root is on the fifth of the key of the target chord root and can be called the “secondary dominant” of the target chord (a “primary dominant” if the target chord is the tonic chord of the key). The chord progression can be dramatized by treating the setup chord as a secondary dominant by changing a minor chord to major or seventh or by changing a major chord to a seventh or altered seventh (#5, b5, #9, b9).

See [Secondary Dominant and Plagal Cadence in Open Position](#) in this chapter. Also see the chapter [Secondary Dominant](#)/Secondary Dominant Exercise and the chapter [Substitution](#)/Flat Five Substitute.

stepwise: upper or lower neighbor

Examples: VII dim to I or IIm to I; Ima to IIm or IIIIm to IIm. The setup chord may have its root a scale tone above or below the target (G major or B diminished in the C major scale setting).

chromatic

You may use a sequence of chords that harmonizes a bass line involving chromatics, including these:

desc dim	I7 Idim7 IImb7b5 I (IIm7b5=IVm6)
1#125	I #Idim7 IIm V
1b325I	I bIIIIdim7 IIm V
1#12#23	I #Idim7 IIm #IIIdim7 IIIIm or I #Idim7 IIm #IIIdim7 I/3
12#23	I IIm #IIIdim7 IIIIm
134#45	I-I/3-IV-#IVdim7-V or I-I/3-IV-#IVdim7-I/5
3b325	IIIIm bIIIIdim IIm V
4#41	IV #IVdim7 I

Types Of Cadences

authentic cadence (British: perfect cadence)

The *authentic* cadence is V-I. In a cadence to the chord C7 with Dm7-G7-C7, “C7” is the tonic chord. In the key of C, establishing “F7” as a temporary tonic, Gm7-C7-F7 could be used as a II-V-I cadence to the temporary key of F using a C7 as a secondary dominant (see below).

An authentic cadence is a V setup chord to a I target chord (like the secondary dominant below), but is always with the target as “I”. “I” could be called the “primary dominant.”

secondary dominant

A secondary dominant-type setup chord is the V of the target (G is the V of a C target). Any chord with a duration of a few beats and with a temporary tonality can be a target chord. Preceding the target chord with a V of it is a secondary dominant. See the chapter [Secondary Dominant](#).

flat five substitute (tritone substitute)

A flat five substitute for the authentic cadence is bII-I. Using flat five substitutes makes chord root progression chromatic. VI-II-V-I becomes bIII-II-bII-I. See [“Substitution”/Flat Five Substitute](#) and see [“Melodically Superimposed Cadences”/Superimposed Cadence Voice Leading, Chromatic Chord Progression](#) and [flat five substitute chord progression](#).

plagal cadence (“amen” cadence)

The plagal or “amen” cadence is IV-I. It uses cadences down in perfect fourths, instead of up in fourths. Perfect fourths are two and one half steps and are equivalent to the interval from the first to the fourth step of a major scale, or any pair in the series 4-1-5-2-6-3-7-#4-#1, etc.

minor plagal cadence

The plagal cadence is also used with IVm, making a IVm-I cadence with a touch of sadness.

multiple plagal cadences

For a double plagal cadence, figure out the plagal cadence (IV of the target), then figure out the IV of the plagal chord. Use the IV of the plagal chord, then the plagal chord, then the target. For an “E” target, this would be D-A-E.

A double plagal cadence is bVII-IV-I. Examples are Addicted to Love, All Right Now, Angel from Montgomery chorus, Back in Black, Dear Mr. Fantasy, Desire, Gimme All Your Lovin’, Good Times Bad Times, Hard Sun, Hey Jude ending chorus, If I Were a Carpenter, Magic Bus, Satisfaction, Sharp-Dressed Man, She Said She Said, Sweet Home Alabama, Sugar Magnolia, Take Me to the River, With a Little Help from My Friends chorus, Won’t Get Fooled Again.

A triple plagal cadence is bIII-bVII-IV-I. Examples are Comfortably Numb, Fly Away, Jumpin’ Jack Flash, Old Man, Maybe I’m Amazed, Summer Breeze.

A quadruple plagal is bVI-bIII-bVII-IV-I (C-G-D-A-E), such as Crazy (Seal), Day In The Life (or the “aah” middle section), Here Comes the Sun, Hey Joe, Hush (Joe South, popularized by Deep Purple). See the section later in this chapter [“Parallel Major Chords with bVII, bIII or bVI/Double Plagal Cadence, Triple Plagal Cadence, Quadruple Plagal Cadence](#).

Multiple plagal cadences in the key of E (the links below go to Spotify playlists in various keys):

- [double plagal](#): D-A-E
- [triple plagal](#): G-D-A-E
- [quadrupal plagal](#): C-G-D-A-E

stepwise cadence

Although this is not recognized in traditional harmony, it is commonly used in pop music. As stated earlier, the setup chord may have its root a scale tone above or below the target (G major or B diminished in the C major scale setting).

half cadence (British: imperfect cadence)

This is conceptually a secondary cadence. I, II, IV or VI progresses to V, sounding incomplete. It ends with the target chord on V. It is usually following by another cadence that does resolve to the tonic I chord, like an authentic cadence.

deceptive cadence

Although the listener expects a song to end on the tonic chord, it doesn't have to. A song can end with a deceptive cadence, where the final chord is not the tonic chord. See [deceptive cadence](#) in [Modes](#).

Escherian cadence

An Escherian cadence is a special kind of deceptive cadence. Maurits Cornelis Escher's drawings displayed relationships in perspective that defy logic. Each element seems to make sense in its own right, but shouldn't co-exist with related elements. Look at his art at www.mcescher.com, especially "Waterfall", "Ascending and Descending" and "Belevedere".

Like Escher's art, music can suggest one thing and do another, leading you along a path of audio logic that may take an unexpected turn. A chord progression can suggest movement to a particular chord and go to another that uses a different mode or that contains the expected chord, but with a different root.

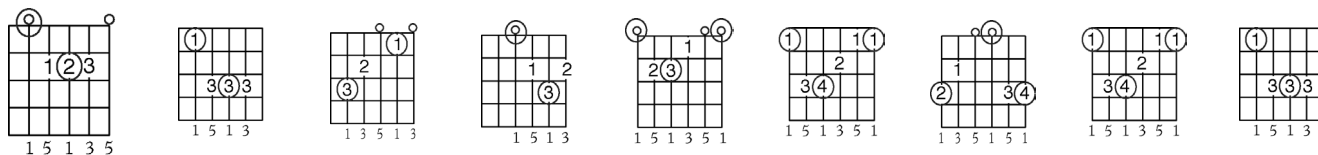
Expert magicians, like expert improvising musicians and composers are clever at distracting the audience while introducing something unexpected. A magician may distract you with one hand while sneaking something with the other. An improvising musician may use a familiar melodic phrase and by changing the right note, use the notes that will introduce an unexpected chord or key.

An Escherian cadence is a resolving chord progression that suggests a resolution to a particular mode then resolves to another. It may do this by resolving to a different mode of the same key, or to a chord that includes the implied chord, but has a different root, such as suggesting Am and resolving to Fma7, which contains Am.

Secondary Dominant and Plagal Cadence in Open Position

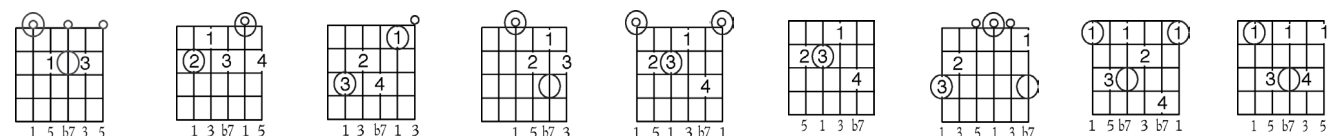
secondary dominant with major (V of target minor or major below)

A I B I C I D I E I F I G I F# II C# IV



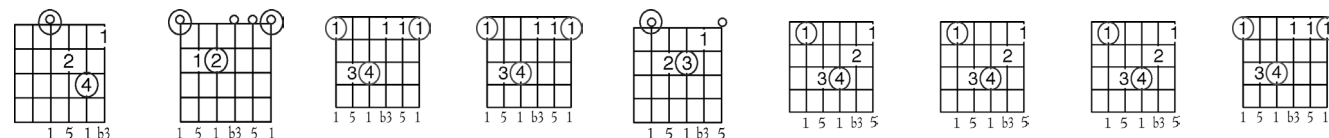
secondary dominant - (V of target) with seventh chord (more dramatic)

A7 I B7 I C7 I D7 I E7 I F7 II G7 I F#7 II C#7 IV



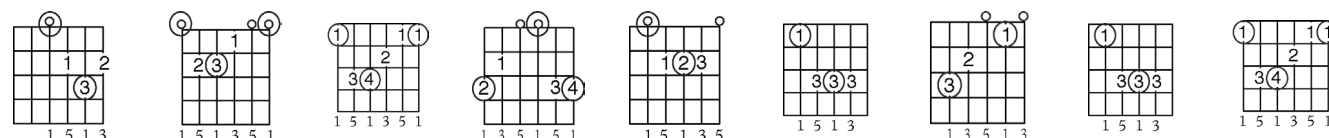
target minor

Dm I Em I Fm I Gm III Am I Bbm I Cm III Bm II F#m II



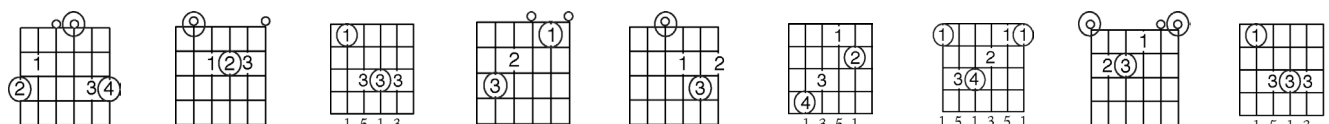
target major

D I E I F I G I A I Bb I C I B II F# II



plagal cadence (IV of target I in the row above)

G I A I Bb I C I D I Eb III F I E I B II



PARENT SCALES FOR CADENCES

Major Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
-------	-------	----------	------------	-----------

stepwise root movement

	1	2	3	4	5	6	7
mode	Ionian	Dorian	Phrygian	Lydian	Mixolydian	Aeolian	Locrian
triad tones	major 1-3-5	minor 2-4-6	minor 3-5-7	major 4-6-1	major 5-7-2	minor 6-1-3	dimin. 7-2-4
seventh tones	ma7 1-3-5-7	m7 2-4-6-1	m7 3-5-7-2	ma7 4-6-1-3	7 5-7-2-4	m7 6-1-3-5	m7b5 7-2-4-6
ninth tones	ma9 1-3-5-7-2	m9 2-4-6-1-3	not acceptable	ma9 4-6-1-3-5	9 5-7-2-4-6	m9 6-1-3-5-7	not acceptable
secondary dominant	7 or 9	7 9 or 7#9	7 or 7b9	7 or 9	7, 7#5 or 7#5	7 9 or 7#9	7 or 7b9
key of C#	C#	D#m	E#m	F#	G#	A#m	B#dim
key of F#	F#	G#m	A#m	B	C#	D#m	E#dim.
key of B	B	C#m	D#m	E	F#	G#m	A#dim
key of E	E	F#m	G#m	A	B	C#m	D#dim
key of A	A	Bm	C#m	D	E	F#m	G#dim.
key of D	D	Em	F#m	G	A	Bm	C#dim.
key of G	G	Am	Bm	C	D	Em	F#dim.
key of C	C	Dm	Em	F	G	Am	Bdim.
key of F	F	Gm	Am	Bb	C	Dm	Edim.
key of Bb	Bb	Cm	Dm	Eb	F	Gm	Adim.
key of Eb	Eb	Fm	Gm	Ab	Bb	Cm	Ddim.
key of Ab	Ab	Bbm	Cm	Db	Eb	Fm	Gdim.
key of Db	Db	Ebm	Fm	Gb	Ab	Bbm	Cdim.
key of Gb	Gb	Abm	Bbm	Cb	Db	Ebm	Fdim.
key of Cb	Cb	Dbm	Ebm	Fb	Gb	Abm	Bbdim.

ascending root progression in fourths

	7	3	6	2	5	1	4
mode	Locrian	Phrygian	Aeolian	Dorian	Mixolydian	Ionian	Lydian
triad tones	dimin. 7-2-4	minor 3-5-7	minor 6-1-3	minor 2-4-6	major 5-7-2	major 1-3-5	major 4-6-1
seventh tones	m7b5 7-2-4-6	m7 3-5-7-2	m7 6-1-3-5	m7 2-4-6-1	7 5-7-2-4	ma7 1-3-5-7	ma7 4-6-1-3
ninth tones	not acceptable	not acceptable	m9 6-1-3-5-7	m9 2-4-6-1-3	9 5-7-2-4-6	ma9 1-3-5-7-2	ma9 4-6-1-3-5
secondary dominant	7 or 7b9	7 or 7b9	7 9 or 7#9	7 9 or 7#9	7 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E#m	A#m	D#m	G#	C#	F#
key of F#	E#dim.	A#m	D#m	G#m	C#	F#	B
key of B	A#dim	D#m	G#m	C#m	F#	B	E
key of E	D#dim	G#m	C#m	F#m	B	E	A
key of A	G#dim.	C#m	F#m	Bm	E	A	D
key of D	C#dim.	F#m	Bm	Em	A	D	G
key of G	F#dim.	Bm	Em	Am	D	G	C
key of C	Bdim.	Em	Am	Dm	G	C	F
key of F	Edim.	Am	Dm	Gm	C	F	Bb
key of Bb	Adim.	Dm	Gm	Cm	F	Bb	Eb
key of Eb	Ddim.	Gm	Cm	Fm	Bb	Eb	Ab
key of Ab	Gdim.	Cm	Fm	Bbm	Eb	Ab	Db
key of Db	Cdim.	Fm	Bbm	Ebm	Ab	Db	Gb
key of Gb	Fdim.	Bbm	Ebm	Abm	Db	Gb	Cb
key of Cb	Bbdim.	Ebm	Abm	Dbm	Gb	Cb	Fb

Harmonic Minor Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
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stepwise root movement

	1	2	b3	4	5	b6	7
mode	Aeolian	Locrian natural 6	Major #5	Dorian #4	Phrygian dominant	Lydian #2	Mixolyian #1
1	minor 1-b3-5	dimin. 2-4-b6	augmented b3-5-7	minor 4-b6-1	major 5-7-2	major b6-1-b3	dimin. 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7b5 2-4-b6-1	ma7#5 b3-5-7-2	m7 4-b6-1-b3	7 5-7-2-4	ma7 b6-1-b3-5	7 7-2-4-b6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7-2-4	m9 4-b6-1-b3-5	7b9 5-7-2-4-b6	not acceptable	not acceptable
secondary dominant	7, 7#5, 9 or 7#9	7, 7#5 or 7b9	7, 7#5 or 9	7, 9, 7#9 or 7#11	7#9 or 7#5	7 or 7#9	n/a
key of A#m	A#m	B#dim.	C# aug	D#m	E#	F#	G##dim
key of D#m	D#m	E#dim.	F# aug	G#m	A#	B	C## dim
key of G#m	G#m	A#dim.	B aug	C#m	D#	E	F## dim
key of C#m	C#m	D#dim	E aug	F#m	G#	A	B# dim
key of F#m	F#m	G#dim.	A aug	Bm	C#	D	E# dim
key of Bm	Bm	C#dim.	D aug	Em	F#	G	A# dim
key of Em	Em	F#dim.	G aug	Am	B	C	D# dim
key of Am	Am	Bdim.	C aug	Dm	E	F	G#dim
key of Dm	Dm	Edim.	F aug	Gm	A	Bb	C# dim
key of Gm	Gm	Adim.	Bb aug	Cm	D	Eb	F# dim
key of Cm	Cm	Ddim.	Eb aug	Fm	G	Ab	B dim
key of Fm	Fm	Gdim.	Ab aug	Bbm	C	Db	E dim
key of Bbm	Bbm	Cdim.	Db aug	Ebm	F	Gb	A dim
key of Ebm	Ebm	Fdim.	Gb aug	Abm	Bb	Cb	D dim
key of Abm	Abm	Bbdim.	Cb aug	Dbm	Eb	Fb	G dim

ascending root progression in fourths

	7	b3	b6	2	5	1	4
mode	Mixolyian #1	Major #5	Lydian #2	Locrian natural 6	Phrygian dominant	Aeolian	Dorian #4
triad tones	dimin. 7-2-4	augmented b3-5-7	major b6-1-b3	dimin. 2-4-b6	major 5-7-2	minor 1-b3-5	minor 4-b6-1
seventh tones	7 7-2-4-b6	ma7#5 b3-5-7-2	ma7 b6-1-b3-5	m7b5 2-4-b6-1	7 5-7-2-4	m(ma7) 1-b3-5-7	m7 4-b6-1-b3
ninth tones	not acceptable	ma9#5 b3-5-7-2-4	not acceptable	not acceptable	7b9 5-7-2-4-b6	m9(ma7) 1-b3-5-7-2	m9 4-b6-1-b3-5
secondary dominant	n/a	7, 7#5 or 9	7 or 7#9	7, 7#5 or 7b9	7#9 or 7#5	7, 7#5, 9 or 7#9	7, 9, 7#9 or 7#11
key of A#m	G##dim	C# aug	F#	B#dim.	E#	A#m	D#m
key of D#m	C## dim	F# aug	B	E#dim.	A#	D#m	G#m
key of G#m	F## dim	B aug	E	A#dim.	D#	G#m	C#m
key of C#m	B# dim	E aug	A	D#dim	G#	C#m	F#m
key of F#m	E# dim	A aug	D	G#dim.	C#	F#m	Bm
key of Bm	A# dim	D aug	G	C#dim.	F#	Bm	Em
key of Em	D# dim	G aug	C	F#dim.	B	Em	Am
key of Am	G#dim	C aug	F	Bdim.	E	Am	Dm
key of Dm	C# dim	F aug	Bb	Edim.	A	Dm	Gm
key of Gm	F# dim	Bb aug	Eb	Adim.	D	Gm	Cm
key of Cm	B dim	Eb aug	Ab	Ddim.	G	Cm	Fm
key of Fm	E dim	Ab aug	Db	Gdim.	C	Fm	Bbm
key of Bbm	A dim	Db aug	Gb	Cdim.	F	Bbm	Ebm
key of Ebm	D dim	Gb aug	Cb	Fdim.	Bb	Ebm	Abm
key of Abm	G dim	Cb aug	Fb	Bbdim.	Eb	Abm	Dbm

Melodic Minor Scale-Tone Triads, Seventh and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
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stepwise root movement

	1	2	b3	4	5	6	7
mode	melodic minor	Dorian b2	Phrygian b1	Lydian dominant	Mixolydian b6	Aeolian b5	super Locrian
triad tones	minor 1-b3-5	minor 2-4-6	augmented b3-5-7	major 4-6-1	major 5-7-2	diminished 6-1-3	diminished 7-2-4
seventh tones	m(ma7) 1-b3-5-7	m7 2-4-6-1	ma7#5 b3-5-7-2	7 4-6-1-b3	7 5-7-2-4	m7b5 6-1-3-5	7#5, 7b5 or m7b5 7-2 or b3 -4-6
ninth tones	m9(ma7) 1-b3-5-7-2	not acceptable	ma9#5 b3-5-7-2-4	9 4-6-1-b3-5	9 5-7-2-4-6	m9b5 6-1-b3-5-7	9b5, 9#5 7-b3- 4 or 5-6
secondary dominant	7 or 9	7 9 or 7#9	7, 7#5 or 9	7 or 9	7, 7#5 or 7#9	7b5 9 or 7#9	7 with b5, #5, b9 or #9
key of C#m	C#	D#m	E aug	F#	G#	A# dim	B#dim
key of F#m	F#	G#m	A aug	B	C#	D# dim	E#dim.
key of Bm	B	C#m	D aug	E	F#	G# dim	A#dim
key of Em	E	F#m	G aug	A	B	C# dim	D#dim
key of Am	A	Bm	C aug	D	E	F# dim	G#dim.
key of Dm	D	Em	F aug	G	A	B dim	C#dim.
key of Gm	G	Am	Bb aug	C	D	E dim	F#dim.
key of Cm	C	Dm	Eb aug	F	G	A dim	Bdim.
key of Fm	F	Gm	Ab aug	Bb	C	D dim	Edim.
key of Bbm	Bb	Cm	Db aug	Eb	F	G dim	Adim.
key of Ebm	Eb	Fm	Gb aug	Ab	Bb	C dim	Ddim.
key of Abm	Ab	Bbm	Cb aug	Db	Eb	F dim	Gdim.
key of Dbm	Db	Ebm	Fb aug	Gb	Ab	Bb dim	Cdim.
key of Gbm	Gb	Abm	Bbb aug	Cb	Db	Eb dim	Fdim.
key of Cbm	Cb	Dbm	Ebb aug	Fb	Gb	Abm	Bbdim.

ascending root progression in fourths

	7	b3	6	2	5	1	4
mode	Locrian	Phrygian b1	Aeolian b5	Dorian b2	Mixolydian b6	melodic minor	Lydian
triad tones	dimin. 7-2-4	augmented b3-5-7	diminished 6-1-3	minor 2-4-6	major 5-7-2	minor 1-b3-5	major 4-6-1
seventh tones	m7b5 7-2-4-6	ma7#5 b3-5-7-2	m7b5 6-1-3-5	m7 2-4-6-1	7 5-7-2-4	m(ma7) 1-b3-5-7	ma7 4-6-1-3
ninth tones	not acceptable	ma9#5 b3-5-7-2-4	m9b5 6-1-b3-5-7	not acceptable	9 5-7-2-4-6	m9(ma7) 1-b3-5-7-2	ma7 4-6-1-3-5
secondary dominant	7 or 7b9	7, 7#5 or 9	7b5 9 or 7#9	7 9 or 7#9	7, 7#5 or 7#9	7 or 9	7 or 9
key of C#	B#dim.	E aug	A# dim	D#m	G#	C#	F#
key of F#	E#dim.	A aug	D# dim	G#m	C#	F#	B
key of B	A#dim	D aug	G# dim	C#m	F#	B	E
key of E	D#dim	G aug	C# dim	F#m	B	E	A
key of A	G#dim.	C aug	F# dim	Bm	E	A	D
key of D	C#dim.	F aug	B dim	Em	A	D	G
key of G	F#dim.	Bb aug	E dim	Am	D	G	C
key of C	Bdim.	Eb aug	A dim	Dm	G	C	F
key of F	Edim.	Ab aug	D dim	Gm	C	F	Bb
key of Bb	Adim.	Db aug	G dim	Cm	F	Bb	Eb
key of Eb	Ddim.	Gb aug	C dim	Fm	Bb	Eb	Ab
key of Ab	Gdim.	Cb aug	F dim	Bbm	Eb	Ab	Db
key of Db	Cdim.	Fb aug	Bbm	Ebm	Ab	Db	Gb
key of Gb	Fdim.	Bbb aug	Ebm	Abm	Db	Gb	Cb
key of Cb	Bbdim.	Ebb aug	Abm	Dbm	Gb	Cb	Fb

Harmonic Major Scale-Tone Triads, Sevenths and Ninths in All Keys

The color codes are:

major	minor	dominant	diminished	augmented
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stepwise root movement

	1	2	3	4	5	b6	7
mode	major b6	Dorian b5	super Phrygian	Lydian diminished	Mixolydian b2	Aeolian b1	Locrian bb7
triad tones	major 1-3-5 or aug. 1-3-b6	diminished 2-4-b6	minor 3-5-7 or aug. 3-b6-1	minor 4-b6-1 or dim. 4-b6-7	major 5-7-2	augmented b6-1-3 or dim b6-7-2	diminished 7-2-4
seventh tones	ma7 1-3-5-7	m7b5 2-4-b6-1 or dim7 2-4-b6-7	m7 3-5-7-2	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2	7 5-7-2-4	ma7 b6-1-3-#5 or dim7 b6-7-2-4	dim. 7 7-2-4-b6
ninth tones	ma9 1-3-5-7-2	m9b5 2-4-b6-7 or 1-3	not acceptable	m9(ma7) 4-b6-1-3-5	7b9 5-7-2-4-b6	not acceptable	not acceptable
secondary dominant	7 or 9	7b5 or 9b5	7 or 7b9	7 or 9	7b9 or 7#9	7, 7#5, 9 or 7#9	7 or 7b9
key of C#	C#	D# dim	E#m	F#m	G#	A aug or dim	B#dim
key of F#	F#	G# dim	A#m	Bm	C#	D aug or dim	E#dim.
key of B	B	C# dim	D#m	Em	F#	G aug or dim	A#dim
key of E	E	F# dim	G#m	Am	B	C aug or dim	D#dim
key of A	A	B dim	C#m	Dm	E	F aug or dim	G#dim.
key of D	D	E dim	F#m	Gm	A	Bb aug or dim	C#dim.
key of G	G	A dim	Bm	Cm	D	Eb aug or dim	F#dim.
key of C	C	D dim	Em	Fm	G	Ab aug or dim	Bdim.
key of F	F	G dim	Am	Bbm	C	Db aug or dim	Edim.
key of Bb	Bb	C dim	Dm	Ebm	F	Gb aug or dim	Adim.
key of Eb	Eb	F dim	Gm	Abm	Bb	Cb aug or dim	Ddim.
key of Ab	Ab	Bb dim	Cm	Dbm	Eb	Fb aug or dim	Gdim.
key of Db	Db	Eb dim	Fm	Gbm	Ab	Bbb aug or dim	Cdim.
key of Gb	Gb	Ab dim	Bbm	Cbm	Db	Ebb aug or dim	Fdim.
key of Cb	Cb	Db dim	Ebm	Fbm	Gb	Abb aug or dim	Bbdim.

ascending root progression in fourths

	7	3	b6	2	5	1	4
mode	Locrian bb7	super Phrygian	Aeolian b1	Dorian b5	Mixolydian b2	major b6	Lydian diminished
triad tones	diminished 7-2-4	minor 3-5-7 or aug. 3-b6-1	augmented b6-1-3 or dim b6-7-2	diminished 2-4-b6	major 5-7-2	major 1-3-5 or aug. 1-3-b6	minor 4-b6-1 or dim. 4-b6-7
seventh tones	dim. 7 7-2-4-b6	m7 3-5-7-2	ma7 b6-1-3-#5 or dim7 b6-7-2-4	m7b5 2-4-b6-1 or dim7 2-4-b6-7	7 5-7-2-4	ma7 1-3-5-7	m(ma7) 4-b6-1-3 or dim7 4-b6-7-2
ninth tones	not acceptable	not acceptable	not acceptable	m9b5 2-4-b6- 7 or 1-3	7b9 5-7-2-4-b6	ma9 1-3-5-7-2	m9(ma7) 4-b6-1-3-5
secondary dominant	7 or 7b9	7 or 7b9	7, 7#5, 9 or 7#9	7b5 or 9b5	7b9 or 7#9	7 or 9	7 or 9
key of C#	B#dim	E#m	A aug or dim	D# dim	G#	C#	F#m
key of F#	E#dim.	A#m	D aug or dim	G# dim	C#	F#	Bm
key of B	A#dim	D#m	G aug or dim	C# dim	F#	B	Em
key of E	D#dim	G#m	C aug or dim	F# dim	B	E	Am
key of A	G#dim.	C#m	F aug or dim	B dim	E	A	Dm
key of D	C#dim.	F#m	Bb aug or dim	E dim	A	D	Gm
key of G	F#dim.	Bm	Eb aug or dim	A dim	D	G	Cm
key of C	Bdim.	Em	Ab aug or dim	D dim	G	C	Fm
key of F	Edim.	Am	Db aug or dim	G dim	C	F	Bbm
key of Bb	Adim.	Dm	Gb aug or dim	C dim	F	Bb	Ebm
key of Eb	Ddim.	Gm	Cb aug or dim	F dim	Bb	Eb	Abm
key of Ab	Gdim.	Cm	Fb aug or dim	Bb dim	Eb	Ab	Dbm
key of Db	Cdim.	Fm	Bbb aug or dim	Eb dim	Ab	Db	Gbm
key of Gb	Fdim.	Bbm	Ebb aug or dim	Ab dim	Db	Gb	Cbm
key of Cb	Bbdim.	Ebm	Abb aug or dim	Db dim	Gb	Cb	Fbm

CHORD PROGRESSION USING A SINGLE SCALE

SUMMARY CHORD PROGRESSION

A commonality chord consists of three or more tones that are common to versions of two or more chords. When a commonality chord can represent the key of the song or the key of a section and can be part of most of the chords, it can be called a *summary chord*.

In a summary chord song, you can feature the tones of the summary chord by building themes around it and using scales and arpeggios that feature it. Knowingly or unknowingly, pop composers and improvisers create and perform chord progressions that take advantage of summary chords. If Am is the summary chord of a section of a song, you can largely “jam in A minor” during the section as if it is all an A minor chord.

Blues, R&B, funk, and most American pop music take advantage of the summary chord concept, making it easy for the listener to follow and predict the melody, basing the melody on a scale named after the summary chord.

See the chapter “[Core Melody on Triad Chord Progression](#)”.

Conceiving Many Versions of Chords

With a thorough knowledge of chord construction and chord types, you can consider each chord in a progression and the possibility of a proposed summary chord (usually a triad) for each of the chords in a progression. Spell each of the chords in the progression and consider the addition of the notes of the proposed summary chord. For each note of the summary chord, analyze what tone it would be in the chord you are considering and determine if that tone could be part of a currently acceptable version of the chord.

See [Chord Naming Conventions/Chord Qualities Not Currently Acceptable](#) and [Chord Archtypes](#).

songs with two or more summary chords

Songs sections often have a second summary chord for part of the section. The most common second summary chord is on the V chord of the key. More complex songs have more than two summary chords.

Songs with a Single Summary Chord (with Spotify links)

[Aeolian summary chord songs](#), based on a minor chord

[Dorian summary chord songs](#), based on a minor chord

[Mixolydian summary chord songs](#), based on a major chord

[major \(Ionian\) summary chord songs](#), based on a major chord

[Phrygian dominant summary chord songs](#), based on a major chord

Songs with Two Summary Chords

[Aeolian two summary chord songs](#)

[I Aeolian & V Phrygian dominant summary chord songs](#)

[Dorian two summary chord songs](#)

[major \(Ionian\) two summary chord songs](#)

[Mixolydian and Dorian summary chord songs](#)

Songs with Three or More Summary Chords

[Aeolian songs with 3 or more summary chords](#)

[Dorian songs with 3 or more summary chords](#)

[Major songs with 3 or more summary chords](#)

[Mixolydian songs with 3 or more summary chords](#)

7-3-6-2-5-1-4: ASCENDING ROOTS IN FOURTHS

The most common chord root movement is ascending perfect fourths. In any major scale the series of fourths is the number cycle “7-3-6-2-5-1-4”. With triads in C major, this is “Bdiminished-Em-Am-Dm-G-C-F”. With triads in F major, it is “E diminished-Am-Dm-Gm-C-F-Bb”.

Ascending chord roots in fourths produces the same root sequence as descending chord roots in fifths, which is the common “cycle of fifths” in reverse order. In numbers, ascending chord roots in fourths is 7-3-6-2-5-1-4. In the key of “C”, that is “B-E-A-D-G-C-F”,. The twenty-one letter series below includes “7-3-6-2-5-1-4” for every key. “7-3-6-2-5-1-4” for any one key is seven consecutive letter in the series where the next-to-last (sixth) of the seven is the name of the key (“1”).

B#-E#-A#-D#-G#-C#-F#-B-E-A-D-G-C-F-Bb-Eb-Ab-Db-Gb-Cb-Fb

See Learning Keys with Chord Progression/Scale-Tone Chord Progression/[Chord Progression in Stepwise and Fourths Order](#). In that section, a page is shown for every key. For the key featured on each page, the scale-tone chord progression in perfect fourths (7-3-6-2-5-1-4) is shown.

Seventh Chord Voice Leading

With predictable voice leading for four-note seventh chords with their roots ascending in fourths is to:

- ✦ descend the fifth and seventh of the current chord to become the root and third of the chord whose root is up a fourth
- ✦ retain the root and the third of the current chord to become the fifth and the seventh of the chord whose root is up a fourth

Study this in more detail in:

- ✦ Voice Leading/Perfect Fourth Quadrad Cadences/[Descend Five and Seven](#).
- ^ [Scale-Tone Seventh Progression/Major Scale-Tone Sevenths in Fourths, Descend Five and Seven, Bass on Fifth String](#)
- ^ [Scale-Tone Seventh Progression/Major Scale-Tone Sevenths in Fourths, Descend Five and Seven, Bass on Sixth String](#)
- ^ [Scale-Tone Seventh Progression/Major Scale-Tone Sevenths in Fourths, Descend Five and Seven, Bass on Fourth String](#)

Modes, Triads, Seventh Chords and Pentatonic Scales

for All Major Scales in Order of Fourths

scale tone →	7	3	6	2	5	1	4
mode →	Locrian mode	Phrygian mode	Aeolian mode	Dorian mode	Mixolydian mode	major scale	Lydian mode
mode formula →	1-b2-b3-4-b5-b6-b7	1-b2-b3-4-5-b6-b7	1-2-b3-4-5-b6-b7	1-2-b3-4-5-6-b7	1-2-3-4-5-6-b7	1-2-3-4-5-6-7	1-2-3-#4-5-6-7
mood →	dark, evil	dark, dramatic	dark, sad	dark, some bright colors (2 and 6)	bright, bluesy	bright, happy	bright, exotic
styles →	death metal, art rock	flamenco, middle-eastern	all styles	blues, latin rock	blues, funk, rock	all styles	jazz, progressive rock, art rock
triad →	diminished	minor	minor	minor	major	major	major
seventh chord →	min. seventh flat five	minor seventh	minor seventh	minor seventh	dominant seventh	major seventh	major seventh
pentatonic scale →	minor flat five	minor	minor	minor	major	major	major
parent scale ↓							
C major	B Locrian mode B dimin. chord Bm7b5 chord B min. pent. b5	E Phrygian E minor chord E minor 7 chord E minor pent.	A Aeolian mode A minor chord A minor 7 chord A minor pent.	D Dorian mode D minor chord D minor 7 chord D minor pent.	G Mixolydian mode G major chord G dom. 7 chord G major pent.	C Ionian mode C major chord C major 7 chord C maj. pent.	F Lydian mode F major chord F major 7 chord F maj. pent.
F major (one flat)	E Locrian mode E dimin. triad E m7b5 chord E min. pent. b5	A Phrygian mode A minor triad A minor 7 chord A minor pent.	D Aeolian mode D minor triad D minor 7 chord D minor pent.	G Dorian mode G minor triad G minor 7 chord G minor pent.	C Mixolydian mode C major triad C dom. 7 chord C major pent.	F Ionian mode F major triad F major 7 chord F maj. pent.	Bb Lydian mode Bb major triad Bb major 7 chord Bb maj. pent.
Bb major (two flats)	A Locrian mode A dimin. triad A m7b5 chord A min. pent. b5	D Phrygian mode D minor triad D minor 7 chord D minor pent.	G Aeolian mode G minor triad G minor 7 chord G minor pent.	C Dorian mode C minor triad C minor 7 chord C minor pent.	F Mixolydian mode F major triad F dom. 7 chord F major pent.	Bb Ionian mode Bb major triad Bb major 7 chord Bb maj. pent.	Eb Lydian mode Eb major triad Eb major 7 chord Eb maj. pent.
Eb major (three flats)	D Locrian mode D dimin. triad D m7b5 chord D min. pent. b5	G Phrygian mode G minor triad G minor 7 chord G minor pent.	C Aeolian mode C minor triad C minor 7 chord C minor pent.	F Dorian mode F minor triad F minor 7 chord F minor pent.	Bb Mixolydian mode Bb major triad Bb dom. 7 chord Bb major pent.	Eb Ionian mode Eb major triad Eb major 7 chord Eb maj. pent.	Ab Lydian mode Ab major triad Ab major 7 chord Ab maj. pent.
Ab major (four flats)	G Locrian mode G dimin. triad G m7b5 chord G min. pent. b5	C Phrygian mode C minor triad C minor 7 chord C minor pent.	F Aeolian mode F minor triad F minor 7 chord F minor pent.	Bb Dorian mode Bb minor triad Bb minor 7 chord Bb minor pent.	Eb Mixolydian mode Eb major triad Eb dom. 7 chord Eb major pent.	Ab Ionian mode Ab major triad Ab major 7 chord Ab maj. pent.	Db Lydian mode Db major triad Db major 7 chord Db maj. pent.
Db major (five flats)	C Locrian mode C dimin. triad C m7b5 chord C min. pent. b5	F Phrygian mode F minor triad F minor 7 chord F minor pent.	Bb Aeolian mode Bb minor triad Bb minor 7 chord Bb minor pent.	Eb Dorian mode Eb minor triad Eb minor 7 chord Eb minor pent.	Ab Mixo. mode Ab major triad Ab dom. 7 chord Ab major pent.	Db Ionian mode Db major triad Db major 7 chord Db maj. pent.	Gb Lydian mode Gb major triad Gb major 7 chord Gb maj. pent.
Gb major (six flats)	F Locrian mode F dimin. triad F m7b5 chord F min. pent. b5	Bb Phrygian mode Bb minor triad Bb minor 7 chord Bb minor pent.	Eb Aeolian mode Eb minor triad Eb minor 7 chord Eb minor pent.	Ab Dorian mode Ab minor triad Ab minor 7 chord Ab minor pent.	Db Mixolydian mode Db major triad Db dom. 7 chord Db major pent.	Gb Ionian mode Gb major triad Gb major 7 chord Gb maj. pent.	Cb Lydian mode Cb major triad Cb major 7 chord Cb maj. pent.
F# major (six sharps) same pitch as G# major	E# Locrian mode E# dimin. triad E# m7b5 chord E# min. pent. b5	A# Phrygian mode A# minor triad A# minor 7 chord A# minor pent.	D# Aeolian mode D# minor triad D# minor 7 chord D# minor pent.	G# Dorian mode G# minor triad G# minor 7 chord G# minor pent.	C# Mixolydian mode C# major triad C# dom. 7 chord C# major pent.	F# Ionian mode F# major triad F# major 7 chord F# maj. pent.	B Lydian mode B major triad B major 7 chord B maj. pent.
B major (five sharps)	A# Locrian mode A# dimin. triad A# m7b5 chord A# min. pent. b5	D# Phrygian mode D# minor triad D# minor 7 chord D# minor pent.	G# Aeolian mode G# minor triad G# minor 7 chord G# minor pent.	C# Dorian mode C# minor triad C# minor 7 chord C# minor pent.	F# Mixolydian mode F# major triad F# dom. 7 chord F# major pent.	B Ionian mode B major triad B major 7 chord B maj. pent.	E Lydian mode E major triad E major 7 chord E maj. pent.
E major (four sharps)	D# Locrian mode D# dimin. triad D# m7b5 chord D# min. pent. b5	G# Phrygian mode G# minor triad G# minor 7 chord G# minor pent.	C# Aeolian mode C minor triad C# minor 7 chord C# minor pent.	F# Dorian mode F# minor triad F# minor 7 chord F# minor pent.	B Mixo. mode B major triad B dom. 7 chord B major pent.	E Ionian mode E major triad E major 7 chord E maj. pent.	A Lydian mode A major triad A major 7 chord A maj. pent.
A major (three sharps)	G# Locrian mode G# dimin. triad G# m7b5 chord G# min. pent. b5	C# Phrygian mode C# minor triad C# minor 7 chord C# minor pent.	F# Aeolian mode F# minor triad F# minor 7 chord F# minor pent.	B Dorian mode B minor triad B minor 7 chord B minor pent.	E Mixolydian mode E major triad Eb dom. 7 chord E major pent.	A Ionian mode A major triad A major 7 chord A maj. pent.	D Lydian mode D major triad D major 7 chord D maj. pent.
D major (two sharps)	C# Locrian mode C# dimin. triad C# m7b5 chord C# min. pent. b5	F# Phrygian mode F# minor triad F# minor 7 chord F# minor pent.	Bb Aeolian mode Bb minor triad Bb minor 7 chord Bb minor pent.	E Dorian mode E minor triad E minor 7 chord E minor pent.	Ab Mixolydian mode Ab major triad Ab dom. 7 chord Ab major pent.	D Ionian mode D major triad D major 7 chord D maj. pent.	G Lydian mode G major triad G major 7 chord G maj. pent.
G major (one sharp) go up a fourth to C in the top row	f# locrian mode f# dimin. triad f# m7b5 chord f# min. pent. b5	Bb Phrygian mode B minor triad B minor 7 chord B minor pent.	E Aeolian mode A minor triad E minor 7 chord E minor pent.	A Dorian mode A minor triad A minor 7 chord A minor pent.	D Mixolydian mode D major triad D dom. 7 chord D major pent.	G Ionian mode G major triad G major 7 chord G maj. pent.	C Lydian mode C major triad C major 7 chord C maj. pent.

Popular Songs That Use Part of 7-3-6-2-5-1-4

iReal and streaming services like Spotify

More than half of the popular song repertoire uses part of 7-3-6-2-5-1-4 chord root movement. Looking at song examples that use common consecutive groups of two, three or four roots will be insightful.

Most of the songs on this list are available in iReal, a loopable, transposable rhythm track program (and over a thousand other songs and studies). It currently (2021) costs \$15 or \$20 for Mac, iOS or Android. Buy the \$5 Blues add-on. Here is a link to the [“All Favored”](#) iReal file, which has most of the songs on this list. Install it in iReal.

On Spotify, each of the playlists below (I-IV, IIm-V, etc.) are within the [jgleason6](#) profile.

I-IV

Angel from Montgomery - Bonnie Raitt
As - Stevie Wonder
Everybody Hurts - R.E.M.
Home - Phillip Phillips
Imagine - John Lennon
Late in the Evening - Paul Simon
Lovely Day - Bill Withers
Not Fade Away - The Rolling Stones
Start Me Up - The Rolling Stones
Tiny Dancer - Elton John
Why Does Love Got To Be So Sad? - Derek & The Dominos

See also Blues/[I7-IV7](#)

IIm-V

Cold Duck Time - Eddie Harris, Les McCann
Evenflow - Pearl Jam
Evil Ways - Santana
Fixing A Hole - The Beatle
From the Beginning - Emerson, Lake & Palmer
I Wish - Stevie Wonder
In Memory Of Elizabeth Reed
It's Too Late - Live At The Troubadour / 2007 - Carole King, James Taylor
Mad World (Feat. Michael Andrews) - Gary Jules, Michael Andrews
Mister Magic - Grover Washington, Jr.
Oye Como Va - Santana
Put It Where You Want It - The Crusaders
Put It Where You Want It - Live - Gene Harris
Red Baron - Billy Cobham
This Masquerade - George Benson

major I-IV-V (not blues)

Black Mountain Rag
Blitzkrieg Bop
Brown-Eyed Girl
Cast Your Fate to the Wind
Dead Flowers
Free Fallin'
Hard to Handle
I Am a Man of Constant Sorrow
La Bamba
Late in the Evening
Motherless Child
Rain
Rosie
Stir It Up
Sweet Jane
Hill Street Blues
Twist and Shout
Under the Boardwalk

minor Im-IVm-V (or Vm)

Major scale-tone VIm-IIIm-IIIm (Am-Dm-Em of the C major parent scale) is Im-IVm-Vm in the key of VI (Am is VIm of the C major parent scale). IIIm is often changed to III major

After Last Night
Fragile
Losing My Religion
Minnie the Moocher
St. James Infirmary
Summertime
This Love

VIm-IIIm, key on "VIm"

Affirmation
Footprints
I Shot the Sheriff
Miss You
Moondance
Things We Said Today

major IIm-V-I in one key

Blue Bossa
Here's That Rainy Day
Mack The Knife

Misty
Moose The Mooche
Somewhere Over the Rainbow
Tenderly
This Masquerade

minor II-V-I

Major scale-tone VIIIm7b5-III7-VIm7 (Bm7b5-E7-Am7 of the C major parent scale) is IIm7b5-V7-Im7 in the key of VI (Am is VIm of the C major parent scale).

Another Star
Greensleeves
It Don't Mean A Thing (If It Ain't Got That Swing)
Minor Swing
Moanin'
My Funny Valentine
Nature Boy
Summertime
Sunny
This Masquerade
Time In A Bottle
Topsy
Waltz, Op. 64: No. 2, in C-sharp Minor - Frédéric Chopin

major IIm-V-I in multiple keys

[See Multi-Key II-V-I](#)

I-VI-II-V, four beat per chord, pop

see [I-VIm-IIIm-V, four beat per chord, pop](#)

I-VI-IIm-V, four beat per chord, jazz

See [I-VI-IIm-V, four beat per chord, jazz](#)

I-VI-II-V, two beat per chord, pop

See [I-VI-II-V, two beat per chord, pop](#)

I-VI-IIm-V, two beat per chord, jazz

See [I-VI-IIm-V, two beat per chord, jazz](#)

VII-III-VI-II-V-I-IV

All the Things You Are

Autumn Leaves - Scalar Chromatics - see “Chromaticized Scales on Arpeggios”/Melodic Examples of Scalar-Chromaticized Arpeggios/[Autumn Leaves -Scalar Chromatics](#)

Black Orpheus (Manha De Carnaval <Morning Of The Carnival>)

Body and Soul

Europa (Earth’s Cry Heaven’s Smile)

Fly Me to the Moon

The Shadow of Your Smile

Spain

Still Got The Blues

Take Five

There Will Never Be Another You

Yardbird Suite

You Never Give Me Your Money

RHYTHM CHANGES (I-VI-II-V)

I-VI-II-V, Four-Beat-Per-Chord, Pop

King Of The Road - Jimmy Smith, Wes Montgomery

Lucky - Jason Mraz, Colbie Caillat

Up On The Roof - James Taylor

I-VI-II-V, Four Beat Per Chord, Jazz

Don't Get Around Much Anymore

Donna Lee

Have You Met Miss Jones

I'm Getting Sentimental Over You

Isn't She Lovely

It Don't Mean A Thing (If It Ain't Got That Swing)

I'm Getting Sentimental Over You

One Note Samba

St. Thomas

The Way You Look Tonight - Scalar Chromatics - see "Chromaticized Scales on Arpeggios"/Melodic Examples of Scalar-Chromaticized Arpeggios/[The Way You Look Tonight - Scalar Chromatics](#)

The Way You Look Tonight, Wes Montgomery style improv - [click to play](#)

Swing Eighth

♩ = 260

2 3 3 1 4 4 3 4 1 2 4 1 2 3 3 1 2 3 2 1 1 1 1 4 3 1 1 4 1 1 4 3 2 1 4 1 1 1 3 3 1

9/10 10 22 12 / 13 10 11 8 9 11 8 9 10 7 9 6 9 7 7 6 5 8 7 5 4 7 5 5 8 7 6 5 8 5 8 7 6 5 8 5 8 6 7

3 1 1 3 2 3 2 1 3 3 1 4 3 1 3 1 3 1 3 1 2 1 3 2 3 4 3 1 1 1 4 2 3

G harmonic minor
2 b3 1 7 b6 5 4 b3
5/6 8 7 8 7 5 8 7 5 8 6 8 6 8 5 7 6 8 7 8 9 8 6 6 5 8 6 7

16 Fmaj7 D7 Gm7 C7 Am7(b5) D7 Gm7 C7
1 4 1 3 1 4 1 2 1 1 1 2 3 2 3 1 3 4 4 1 3 1 4 1 3 1 1 3 3 1 1
F#°7 (D7b9nr) Ab9 with "2" PT
1 b3 b5 6 8 10 11 11 8 10 8 6 8 10 7 8 10 12 10 10

5 8 4 7 5 8 6 7 6 7 8 9 10 9 10 8 10 11 11 8 10 8 6 8 10 7 8 10 12 10 10

20 Fmaj7 D7 Gm7 C7

fingers 1 1 4

T 9/10 13 12 13 12 10 7 8 10 7 9 10 13 13 10 11 12 10

A B

24 Fmaj7 D7 Gm7 C7

fingers 1 4 3 1 1 3 4 2 1 4 4 2 1 4 3 1 1 4 3 1 3 3 2 1 3 1 1 4

T 8 11 10 8 7 9 10 8 7 11 10 8 7 10 9 7 5 8 7 5 7 7 6 4 6 4 3 6

A B

28 Cm7 F7 Bbmaj7 Eb9

3 3 2 3 1 2 3 1 2 4 3 3 1 2 2 3 2 1 1 1 4 2 4 3

F13b9 - Mixolydian b2

T 5 8 7 8 5 7 8 6 7 10 9 8 5 6 7 8 7 6 6 5 8 6 8 7

A B

32 Fmaj7 D7 Gm7 C7 Fmaj7 D7 Bbm7 Eb7

4 1 3 1 1 2 4 4 1 4 3 2 2 1 3 1 3 2 1 4

T 8 5 7 5 5 6 10 8 7 10 9 8/10 8 10 8 10 9 8 11

A B

36 Abmaj7 F7 Bbm7 Eb7

3 1 1 1 1 1 2 2 2 3 2 1 2 3 2 1 1 2 1

T 10 8 6/8 6/8 6 6 6 8 9 8 6 8 9 8 6 5 6 5

A B

40 Abmaj7 F7 Bbm7 Eb7

1 4 3 1 4 1 4 1 2 3 1 4 1 1 1 4 3 1 4 3 1 1 3 1 4 3 1 1

A13#11 Lydian dom.

T 3 6 5 3 6 5 8 5 6 7 5 8 5 6 6 9 8 6 9 8 5 5 7 5 8 7 5 4 6

A B

44 $A\flat maj7$ F^7 $B\flat m^7$ $E\flat^7$

3 2 1 3 2 1 2 2 1 3 4 1 2 1 3 4 3 4 1 3 4 1 3 1 1

5 6 3 6 6 5 4 7 6 5 8 9 8 10 11 8 9 8 5 6 5 6 3 5 6 3 5 3 4

48 $A\flat maj7$ $D\flat maj7$ Gm^7 $E\flat^7$

3 2 1 3 2 1 2 3 3 2 1 4 4 2 1 1 3 4 3 1 1 4 1 3 2 1 4 3 1 3 1

6 5 4 6 5 8 5 5/6 5 8 8 9 8 7 8 11 10 9 8 11 8 10 9 8 11 10 8 10 8

52 $Fmaj7$ D^7 Gm^7 C^7

2 3 17 15 18 16 15 15 14/15 13 12 14 13 11

9 10

56 $Fmaj7$ D^7 Gm^7 C^7 $B\flat^7$

14 12 15 12 8 7 8 7 6 8 7 9 10 8 7 10 9 12 13 13 12 11 14 11 14

15 12 8 7 6 8 7 9 10 8 7 10 9 12 13 13 12 11 14 11 14

60 Cm^7 F^7 $B\flat maj7$ $E\flat^9$

B13-Mixolydian numbered tones $B\flat$ Mixolydian numbered tones $B\flat$ Dorian numbered tones

6 1 2 1 $b7$ 6 5 5 4 3 6 $b7$ 5 $b3$ 2 1 $b7$ 5 5 $\sharp 4$ 5

10 13 8 8 6 10 8 9 7 9 7 10 9 7 6 8 7 8 9 10 6 5 8 6 8 8 7 8

64 $Fmaj7$ D^7 Gm^7 C^7 $Am^7(b5)$ D^7 G^7 C^7

7 10 9/10 9/10 9/10 9/10

Yardbird Suite

I-VI-II-V, Two-Beat-Per-Chord, Pop

All I Have to Do Is Dream - The Everly Brothers

Everyday - Single Version - Buddy Holly

Message In A Bottle - The Police

Surfer Girl - Remastered - The Beach Boys

I-VI-II-V, Two-Beat-Per-Chord, Jazz

Ain't Misbehavin'

Don't Get Around Much Anymore

The Flintstones

Georgia On My Mind

I Got Rhythm

Let's Fall In Love

Misty

Moonlight In Vermont

Moose The Mooche

Nobody Knows You When You're Down and Out

Stormy Weather

4-1-5-2-6-3-7: ASCENDING ROOTS IN FIFTHS

Ascending chord roots in fifths produces the same root sequence and descending chord roots in fourths. In numbers, it is 4-1-5-2-6-3-7. In the key of "C", it is "F-C-G-D-A-E-B". The twenty-one letter series below includes "4-1-5-2-6-3-7" for every key. "4-1-5-2-6-3-7" for any one key is seven consecutive letter in the series where the second of the seven is the name of the key ("1").

Fb-Cb-Gb-Db-Ab-Eb-Bb-F-C-G-D-A-E-B-F#-C#-G#-D#-A#-E#-B#

Chord root movement in descending perfect fourths is about as common as stepwise movement (see the next section). In any major scale the series of fifths is the number cycle "4-1-5-2-6-3-7". With triads in C major, this is "F-C-G-Dm-Am-Em-B diminished". With triads in F major, it is "Bb-F-C-Gm-Dm-Am-E diminished".

See Learning Keys with Chord Progression/Scale-Tone Chord Progression/[Chord Progression in Stepwise and Fourths Order](#). Fourths in reverse order is fifths. In that section, a page is shown for every key. For the key featured on each page, the scale-tone chord progression in perfect fourths (7-3-6-2-5-1-4) is shown. Play it in reverse order for fifths.

I-V, key on "I"

Hard to Handle

Iko Iko

Into the Mystic

VIIm-III, key on "VIIm"

Minnie the Moocher

Paint It Black

Road Song

St. James Infirmary

Summertime

VIIm-IIIIm, key on "VIIm"

Grenade

Losing My Religion

Take Five

Pairs of Chords in Ascending Fifths

Hotel California (verse: VI-III, V-II, IV-I, II-III; chorus: IV-I-II-VI-IV-I, II-III)

In the verse, each of the first three pairs of chords ascend their root by a fifth. The first, third and fifth chords of the verse (VI, V, V) descend their roots stepwise. In the chorus, each of the first two pairs of chords ascend their root by a fifth. The second and third chords of the chorus (I-II) ascend their roots stepwise.

STEPWISE ROOT MOVEMENT

Stepwise order is about as common as descendering roots in fourths (see the previous section). Roots ascend or descend in alphabetical order. With triads, all three notes ascend or descend one tone. The I major triad (C major) is constructed with scale tones 1-3-5 and the II minor triad (Dm) is constructed with scale tones 2-4-6. So the voice leading ascends each note one scale tone.

With seventh chords using stepwise root movement, there is one common tone to each pair of chords. The “C” note, scale tone “1” of the C major scale is both the root of the Ima7 and seventh of the IIIm7. Ima7 (Cma7: 1-3-5-7 or C-E-G-B) is 1-3-5-7 and IIIm7 (Dm7: 2-4-6-1 or D-F-A-C) is 2-4-6-1, share major scale tone “1”. See [Scale-Tone Seventh Progression/Major Scale-Tone Stepwise Seventh Chords](#).

Like a Rolling Stone - [click to play video](#)

♩ = 90

1

play 4 times

ascending stepwise

6

descending stepwise

12

play 6 times

Just Like a Woman

I-IIIm key on “I”

Albatross
Don't Let Me Down
Samba Pa Ti
Sun King

V-IV, key on “V”

See [Parallel Major Chords with I, bVII, bIII or bVI/Songs Based on I-bVII](#)

VIIm-V, key on “VIIm”

Beat It
Break On Through
Conga
Danger Zone
Paranoid
Smoke on the Water
The Sounds of Silence
Walking on the Moon
Working Class Hero

VIIm-V-IV, key on “VIIm”

Gimmie Shelter
Iris
Stairway to Heaven
Under My Thumb

VIIm-V-IV-V, key on “VIIm”

All Along the Watchtower
Carry on My Wayward Son
Dream On
Layla
What's Love Got to Do With It?

The Andausian Cadence

- Anji
- Another Star
- Babe, I'm Gonna Leave You
- California Dreamin'
- Desert Rose
- Don't Let Me Be Misunderstood
- Facinating Rhythm
- Feeling Good
- Good Vibrations
- Happy Together
- Hit the Road Jack
- I Like It Like That
- Knee Socks
- Master Blaster
- Mean Mr. Mustard (all sevenths, re-ordered)
- Minnie the Moocher
- Mr. Man
- Pinball Wizard
- Runaway
- Six Appeal
- Song for My Father
- Stray Cat Strut
- Sultans of Swing
- Swing to Bop
- Topsy - comping - [click to play](#)

Swing Eighths

♩ = 184

1

Cm

Cm/Bb

Ab7

G7

play 3 times

Cm

Cm/Bb

G7

C7

T

A

B

6

6

4

4

3

3

6

6

3

3

5

Fm

Fm/Eb

Db7

C7

Fm

Fm/Eb

Dm7(b5)

G7

Cm

Cm/Bb

Ab7

G7

Cm

G7

G7

Cm

T

A

B

4

4

6

6

4

4

6

6

6

6

6

6

4

4

3

3

3

3

13

C9

F9

F13

Eb9

G7

T

A

B

8

8

8

8

8

8

8

8

8

8

8

8

8

8

8

8

8

8

Chord progression: Cm, Cm/Bb, Ab7, G7, Cm, Cm/Bb, Ab7, G7.

Topsy - Django improv - [click to play](#)

Swing Eighthths

♩ = 184

Chord progression: Cm, Cm/Bb, Ab7, G7, Cm, Cm/Bb, Ab7, G7, Cm, Cm/Bb, Ab7, G7.

Chord progression: Cm, Cm/Bb, Ab7, G7, Cm, Cm/Bb, G7, C7.

Chord progression: Fm, Fm/Eb, Db7, C7, Fm, Fm/Eb, Dm7(b5), G7.

Chord progression: Cm, Cm/Bb, Ab7, G7, Cm, G7, Cm.

Chord progression: B at 1:07 C9.

Chord progression: F9, Eb7, G7.

Chord progression: Fb13, Eb7, G7.

The sheet music includes a melody line in treble clef and a bass line in bass clef, both with a key signature of two flats. Fingering numbers are provided for both hands. The tempo is marked as 184 beats per minute.

25

Cm Cm/B \flat A \flat 7 G7 Cm Cm/B \flat A \flat 7 G7

29

Cm Cm/B \flat A \flat 7 G7 Cm Cm/B \flat A \flat 7 G7

33

Cm Cm/B \flat A \flat 7 G7 Cm Cm/B \flat A \flat 7 G7

37

Cm Cm/B \flat A \flat 7 G7 Cm Cm/B \flat G7 C7

41

Fm Fm/E \flat D \flat 7 C7 Fm Fm/E \flat Dm7(b5) G7

45

Cm Cm/B \flat A \flat 7 G7 Cm G7 Cm

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49 C^9 F^9 $8va$

2 3 3 1 1 3 3 2 1 2 2 1 2 3 3 2 1 3 2 1 3 1 1 3 2 1 1 3 1 3 3 1 3 2 1 1 2 3 1 1 1 3 2 1 2 2

T 17 18 15 14 12 15 14 13 15 12 13 15 14 13 12 15 13 15/16 14 17 16 14 14 15 16 13 13 10 13 12 11 12 12

A 17 18 15 14 12 15 14 13 15 12 13 15 14 13 12 15 13 15/16 14 17 16 14 14 15 16 13 13 10 13 12 11 12 12

B 17 18 15 14 12 15 14 13 15 12 13 15 14 13 12 15 13 15/16 14 17 16 14 14 15 16 13 13 10 13 12 11 12 12

53 F^b13 E^b7 G^7

1 2 4 3 2 1 3 3 1 4 1 2 3 2 1 3 1 4 3 1 3 1 2 1 4 1 2 1 2 1

T 10 11 13 12 11 10 8 8 6 9 6 7 8 7 11 10 8 11 10 8 10 8 9 8 11 8 9 8 9 8

A 10 11 13 12 11 10 8 8 6 9 6 7 8 7 11 10 8 11 10 8 10 8 9 8 11 8 9 8 9 8

B 10 11 13 12 11 10 8 8 6 9 6 7 8 7 11 10 8 11 10 8 10 8 9 8 11 8 9 8 9 8

57 Cm Cm/B^b A^b7 G^7 Cm Cm/B^b A^b7 G^7

T 8 10 10 8 10 8 11 8 10 8 8 10 7 9 9 8 9 8 8 10 11 10 11 10

A 8 10 10 8 10 8 11 8 10 8 8 10 7 9 9 8 9 8 8 10 11 10 11 10

B 8 10 10 8 10 8 11 8 10 8 8 10 7 9 9 8 9 8 8 10 11 10 11 10

61 Cm Cm/B^b A^b7 Cm G^7 Cm Cm/B^b G^7 Cm

T 10 10 13 12 13 16 15 13 15 13 16 13 16 13 8 11 8 11 8 12 13

A 10 10 13 12 13 16 15 13 15 13 16 13 16 13 8 11 8 11 8 12 13

B 10 10 13 12 13 16 15 13 15 13 16 13 16 13 8 11 8 11 8 12 13

Walk Don't Run
Wild World

stepwise roots with contrary motion top voice - [click to play](#)

♩ = 75

Chord progression: Gmaj7, Am7, Bm7, C6, D7(sus4), Em9, F#m7(b5), Gmaj7

Chord progression: Gmaj7, F#m7(b5), Em7, D7(sus4), Cmaj7, Bm7, Am7, D7, G

Modes, Triads, Seventh Chords and Pentatonic Scales for All Major Scales in Stepwise Order

scale tone →	1	2	3	4	5	6	7
mode →	major scale	Dorian mode	Phrygian mode	Lydian mode	Mixolydian mode	Aeolian mode	Locrian mode
mode formula →	1-2-3-4-5-6-7	1-2-b3-4-5-6-b7	1-b2-b3-4-5-b6-b7	1-2-3-#4-5-6-7	1-2-3-4-5-b6-7	1-2-b3-4-5-b6-b7	1-b2-b3-4-b5-b6-b7
mood →	bright, happy	dark, some bright colors (2 and 6)	dark, dramatic	bright, exotic	bright, bluesy	dark, sad	dark, evil
styles →	all styles	blues, latin rock	flamenco, middle-eastern	jazz, progressive rock, art rock	blues, funk, rock	all styles	death metal, art rock
triad →	major	minor	minor	major	major	minor	diminished
seventh chord →	major seventh	minor seventh	minor seventh	major seventh	dominant seventh	minor seventh	min. seventh flat five
pentatonic scale →	major	minor	minor	major	major	minor	minor flat five
parent scale ↓							
C major	C Ionian mode C major chord C major 7 chord C maj. pent.	D Dorian mode D minor chord D minor 7 chord D minor pent.	E Phrygian E minor chord E minor 7 chord E minor pent.	F Lydian mode F major chord F major 7 chord F maj. pent.	G Mixolydian mode G major chord G dom. 7 chord G major pent.	A Aeolian mode A minor chord A minor 7 chord A minor pent.	B Locrian mode B dimin. chord Bm7b5 chord B min. pent. b5
F major (one flat)	F Ionian mode F major triad F major 7 chord F maj. pent.	G Dorian mode G minor triad G minor 7 chord G minor pent.	A Phrygian mode A minor triad A minor 7 chord A minor pent.	Bb Lydian mode Bb major triad Bb major 7 chord Bb maj. pent.	C Mixolydian mode C major triad C dom. 7 chord C major pent.	D Aeolian mode D minor triad D minor 7 chord D minor pent.	E Locrian mode E dimin. triad Em7b5 chord E min. pent. b5
Bb major (two flats)	Bb Ionian mode Bb major triad Bb major 7 chord Bb maj. pent.	C Dorian mode C minor triad C minor 7 chord C minor pent.	D Phrygian mode D minor triad D minor 7 chord D minor pent.	Eb Lydian mode Eb major triad Eb major 7 chord Eb maj. pent.	F Mixolydian mode F major triad F dom. 7 chord F major pent.	G Aeolian mode G minor triad G minor 7 chord G minor pent.	A Locrian mode A dimin. triad Am7b5 chord A min. pent. b5
Eb major (three flats)	Eb Ionian mode Eb major triad Eb major 7 chord Eb maj. pent.	F Dorian mode F minor triad F minor 7 chord F minor pent.	G Phrygian mode G minor triad G minor 7 chord G minor pent.	Ab Lydian mode Ab major triad Ab major 7 chord Ab maj. pent.	Bb Mixolydian mode Bb major triad Bb dom. 7 chord Bb major pent.	C Aeolian mode C minor triad C minor 7 chord C minor pent.	D Locrian mode D dimin. triad Dm7b5 chord D min. pent. b5
Ab major (four flats)	Ab Ionian mode Ab major triad Ab major 7 chord Ab maj. pent.	Bb Dorian mode Bb minor triad Bb minor 7 chord Bb minor pent.	C Phrygian mode C minor triad C minor 7 chord C minor pent.	Db Lydian mode Db major triad Db major 7 chord Db maj. pent.	Eb Mixolydian mode Eb major triad Eb dom. 7 chord Eb major pent.	F Aeolian mode F minor triad F minor 7 chord F minor pent.	G Locrian mode G dimin. triad Gm7b5 chord G min. pent. b5
Db major (five flats)	Db Ionian mode Db major triad Db major 7 chord Db maj. pent.	Eb Dorian mode Eb minor triad Eb minor 7 chord Eb minor pent.	F Phrygian mode F minor triad F minor 7 chord F minor pent.	Gb Lydian mode Gb major triad Gb major 7 chord Gb maj. pent.	Ab Mixo. mode Ab major triad Ab dom. 7 chord Ab major pent.	Bb Aeolian mode Bb minor triad Bb minor 7 chord Bb minor pent.	C Locrian mode C dimin. triad Cm7b5 chord C min. pent. b5
Gb major (six flats)	Gb Ionian mode Gb major triad Gb major 7 chord Gb maj. pent.	Ab Dorian mode Ab minor triad Ab minor 7 chord Ab minor pent.	Bb Phrygian mode Bb minor triad Bb minor 7 chord Bb minor pent.	Cb Lydian mode Cb major triad Cb major 7 chord Cb maj. pent.	Db Mixolydian mode Db major triad Db dom. 7 chord Db major pent.	Eb Aeolian mode Eb minor triad Eb minor 7 chord Eb minor pent.	F Locrian mode F dimin. triad Fm7b5 chord F min. pent. b5
G major (one sharp)	G Ionian mode G major triad G major 7 chord G maj. pent.	A Dorian mode A minor triad A minor 7 chord A minor pent.	Bb Phrygian mode Bb minor triad B minor 7 chord B minor pent.	C Lydian mode C major triad C major 7 chord C maj. pent.	D Mixolydian mode D major triad D dom. 7 chord D major pent.	E Aeolian mode E minor triad E minor 7 chord E minor pent.	F# Locrian mode F# dimin. triad F#m7b5 chord F# min. pent. b5
D major (two sharps)	D Ionian mode D major triad D major 7 chord D maj. pent.	E Dorian mode E minor triad E minor 7 chord E minor pent.	F# Phrygian mode F# minor triad F# minor 7 chord F# minor pent.	G Lydian mode G major triad G major 7 chord G maj. pent.	Ab Mixolydian mode Ab major triad Ab dom. 7 chord Ab major pent.	Bb Aeolian mode Bb minor triad Bb minor 7 chord Bb minor pent.	C# Locrian mode C# dimin. triad C#m7b5 chord C# min. pent. b5
A major (three sharps)	A Ionian mode A major triad A major 7 chord A maj. pent.	B Dorian mode B minor triad B minor 7 chord B minor pent.	C# Phrygian mode C# minor triad C# minor 7 chord C# minor pent.	D Lydian mode D major triad D major 7 chord D maj. pent.	E Mixolydian mode E major triad Eb dom. 7 chord E major pent.	F# Aeolian mode F# minor triad F# minor 7 chord F# minor pent.	G# Locrian mode G# dimin. triad G#m7b5 chord G# min. pent. b5
E major (four sharps)	E Ionian mode E major triad E major 7 chord E maj. pent.	F# Dorian mode F# minor triad F# minor 7 chord F# minor pent.	G# Phrygian mode G# minor triad G# minor 7 chord G# minor pent.	A Lydian mode A major triad A major 7 chord A maj. pent.	B Mixo. mode B major triad B dom. 7 chord B major pent.	C# Aeolian mode C# minor triad C# minor 7 chord C# minor pent.	D# Locrian mode D# dimin. triad D#m7b5 chord D# min. pent. b5
B major (five sharps)	B Ionian mode B major triad B major 7 chord B maj. pent.	C# Dorian mode C# minor triad C# minor 7 chord C# minor pent.	D# Phrygian mode D# minor triad D# minor 7 chord D# minor pent.	E Lydian mode E major triad E major 7 chord E maj. pent.	F# Mixolydian mode F# major triad F# dom. 7 chord F# major pent.	G# Aeolian mode G# minor triad G# minor 7 chord G# minor pent.	A# Locrian mode A# dimin. triad A#m7b5 chord A# min. pent. b5
F# major (six sharps)	F# Ionian mode F# major triad F# major 7 chord F# maj. pent.	G# Dorian mode G# minor triad G# minor 7 chord G# minor pent.	A# Phrygian mode A# minor triad A# minor 7 chord A# minor pent.	B Lydian mode B major triad B major 7 chord B maj. pent.	C# Mixolydian mode C# major triad C# dom. 7 chord C# major pent.	D# Aeolian mode D# minor triad D# minor 7 chord D# minor pent.	E# Locrian mode E# dimin. triad E#m7b5 chord E# min. pent. b5

ROOT MOVEMENT IN THIRDS

I-VIm-IV-IIIm

Can't Get It Out of My Head verse	I	VIm	I	VIm	IV	IIIm	IV	VIm-V
Exit Wounds chorus	I	VIm	IV	IIIm				
Redemption Song	I	VIm	IV-IV/7	IIIm				
Wonderful Feeling	I	VIm	IV-IIIm	IV-V				

NON-LINEAR DIATONIC CHORD PROGRESSION

Linear Chord Progression

These previous sections have covered diatonic chord progression in linear root order:

- ♦ [7-3-6-2-5-1-4: Ascending Roots in Fourths](#)
- ♦ [4-1-5-2-6-3-7: Ascending Roots in Fifths](#)
- ♦ [Stepwise Root Movement](#)
- ♦ [Root Movement in Thirds](#)

Non-Linear Chord Progression

Mixing these root orders can make interesting non-linear progressions like I-V-VIm-IV and I-VIm-IV-V with the key on “I” and VIm-IV-III with key on “VIm”. Explore many more chord progressions in the [JGleason6](#) profile on Spotify. See the playlists with roman numerals in the in the middle section of the profile.

I-V-VIm-IV

Beast of Burden
Body Like a Back Road
Bold As Love
Despacito
Flavor of the Week
Good News
I'm Yours
Let It Be
Life By the Drop
Look What You've Done
More Than a Feeling
No Woman, No Cry
Say You Won't Let Go
She Will Be Loved
Someone Like You
Soul to Squeeze
Take a Bow
Torn
Under the Bridge
When I Come Around
With or Without You

I-VIm-IV-V, four beat per chord

D'Yer Mak'er
Every Breath You Take
Oh, Pretty Woman
Perfect
Some Might Say

I-VIm-IV-V, two beat per chord

At Last
Beaucoup
Blue Moon
Island in the Sun
This Boy
Why Do Fools Fall in Love
You Send Me

IV-I-VIm-V, key on "I"

Fast Car
Learning to Fly
Saturday Nights

VIm-I-IV, key on "VIm"

Dirty Paws
Home

VIm-I-IV-I, key on "VIm"

Flake
Lost
New Slang

VIm-IV-III, key on "VIm"

Havana
Road Trippin'
Smooth
We Can Work It Out

RELATIVE MAJOR AND MINOR

Changing from I Major to VI Minor, or from VI Minor to I Major

This chord progression scheme changes from a key on I major (C) to a key on VI minor (Am). Or from a key on VI minor (Am) to a key on I major. A whole section of a song (verse or chorus, etc.) will be established in I major or VI minor and switch to the other in another section.

scale-tone triads and seventh chords in all keys

For each parent scale, “6” is the relative minor and “1” is the relative major.

scale tone →	1	2	3	4	5	6	7
triad →	major	minor	minor	major	major	minor	diminished
seventh chord →	major seventh	minor seventh	minor seventh	major seventh	dominant seventh	minor seventh	minor seventh flat five
parent scale ↓							
C major	C major triad C major 7	D minor triad D minor 7	E minor triad E minor 7	E minor triad E minor 7	G major triad G dom. 7	A minor triad A minor 7	B dimin. triad Bm7b5
F major (one flat)	F major triad F major 7	G minor triad G minor 7	A minor triad A minor 7	Bb major triad Bb major 7	C major triad C dom. 7	D minor triad D minor 7	E dimin. triad Em7b5
Bb major (two flats)	Bb major triad Bb major 7	Bb major triad Bb major 7	D minor triad D minor 7	Eb major triad Eb major 7	F major triad F dom. 7	G minor triad G minor 7	A dimin. triad Am7b5
Eb major (three flats)	Eb major triad Eb major 7	F minor triad F minor 7	G minor triad G minor 7	Ab major triad Ab major 7	Bb major triad Bb dom. 7	C minor triad C minor 7	D dimin. triad Dm7b5
Ab major (four flats)	Ab major triad Ab major 7	Bb minor triad Bb minor 7	C minor triad C minor 7	Db major triad Db major 7	Eb major triad Eb dom. 7	F minor triad F minor 7	G dimin. triad Gm7b5
Db major (five flats)	Db major triad Db major 7	Eb minor triad Eb minor 7	F minor triad F minor 7	Gb major triad Gb major 7	Ab major triad Ab dom. 7	Bb minor triad Bb minor 7	C dimin. triad Cm7b5
Gb major (six flats)	Gb major triad Gb major 7	Ab minor triad Ab minor 7	Bb minor triad Bb minor 7	Cb major triad Cb major 7	Db major triad Db dom. 7	Eb minor triad Eb minor 7	Eb minor triad Eb minor 7
G major (one sharp)	G major triad G major 7	A minor triad A minor 7	B minor triad B minor 7	C major triad C major 7	D major triad D dom. 7	minor triad E minor 7	F# dimin. triad F#m7b5
D major (two sharps)	D major triad D major 7	E minor triad E minor 7	F# minor triad F# minor 7	G major triad G major 7	A major triad A dom. 7	B minor triad B minor 7	C# dimin. triad C#m7b5
A major (three sharps)	A major triad A major 7	B minor triad B minor 7	C minor triad C# minor 7	D major triad D major 7	E major triad E dom. 7	F# minor triad F# minor 7	# dimin. triad G#m7b5
E major (four sharps)	E major triad E major 7	F# minor triad F# minor 7	G# minor triad G# minor 7	A major triad A major 7	B major triad B dom. 7	C minor triad C# minor 7	D# dimin. triad D#m7b5
B major (five sharps)	B major triad B major 7	C# minor triad C# minor 7	D# minor triad D# minor 7	E major triad E major 7	F# major triad F# dom. 7	G# minor triad G# minor 7	A# dimin. triad A#m7b5
F# major (six sharps)	F# major triad F# major 7	# minor triad G# minor 7	A# minor triad A# minor 7	B major triad B major 7	C# major triad C# dom. 7	D# minor triad D# minor 7	E# dimin. triad E#m7b5

the relative major and minor song list

Dust in the Wind - Kansas

Europa-Santana

Greensleeves - Jeff Beck

Let It Be - The Beatles

Little Lion Man - Mumford & Sons

Mirrors - Justin Timberlake

Mr. Jones - Counting Crows

One - U2 - Achtung Baby

Rhiannon - Fleetwood Mac

Under the Boardwalk - The Drifters

Us and Them - Pink Floyd

We Can Work It Out - The Beatles

When I'm Sixty Four - The Beatles

MULTIPLE MODES AND MULTIPLE KEYS

MULTI-KEY II-V OR II-V-I

Multi-Key II-V

Bossa Antigua

Body and Soul

Corcovado

Four

Groovin' High

Just Friends

Lady Bird

Nica's Dream

Satin Doll

Speak Low

The "Backdoor Progression" (IVm7-bVII7-I)

Even the Nights Are Better (Air Supply)

Get Out of Town

Groovin' High (second ending)

Just Friends (bars 3-5)

Lady Bird (bars 3-5)

Laurie (bars 11-13, using I9 in bar 13)

Love's Theme (substitute bVII7 for IVm6 in bar 12)

Misty (bars 4-5)

A Nightengale Sang in Berkeley Square (bars 6-7)

Smile (bars 11-13)

Speak Low (section B, bars 4-6)

Yardbird Suite (bars 2-3)

Multi-Key II-V-I

Afternoon In Paris

Alone Together

Angel Eyes

Black Nile
Black Orpheus
Blue Bossa
Blue Train
Blues for Alice
Bluesette
Body and Soul
Ceora
Confirmation
Don't Get Around Much Anymore
Donna Lee
Four on Six
The Gentle Rain
Giant Steps (and "Coltrane Changes")
God Bless the Child
Have You Met Miss Jones?
Here's That Rainy Day
How High the Moon
I'll Remember April
If I Should Lose You
If I Were A Bell
It Don't Mean a Thing (If It Ain't Got That Swing)
Joy Spring
Knocks Me Off My Feet
Like Someone in Love
Misty
Moment's Notice
Moonlight in Vermont
My Funny Valentine
Night in Tunisia
One Note Samba
Ornithology
Recordame
Road Song
'Round Midnight
The Shadow of Your Smile
Skylark
Solar
Somewhere Over the Rainbow
Speak Low
Stormy Weather
Tenderly
There Will Never Be Another You

This Masquerade

Waltz for Debby

Wave

The Way You Look Tonight

When Sunny Gets Blue

Witchcraft

Yardbird Suite

You Don't Know What Love Is

You Go To My Head

BLUES

See also [“Comping Design”/Blues Comping](#).

Blues Origins

Blues is based on field hollars, slave work songs, black fife and drum songs. Here are links to related Spotify playlists:

[favorite field hollars and work songs](#)

[field hollars and work songs](#) (larger collection)

[black fife and drum songs](#)

[revival rhythm](#)

Around 2010, suspecting the origin of the twelve-bar blue progression in black southern gospel music, a thorough examination of 686 hymns in the African American Heritage Hymnal (edited by Rev. Dr. Delores Carpenter and Rev. Nolan E. Williams Jr.) found no twelve-bar blues chord progressions. None!

Hymns may have influenced early blues (1900-1914) where it originated in the American south, especially in New Orleans and Memphis, but hymns were not a direct origin. Blues was also part of the development of ragtime music.

Blues largely originated with the call and response form in field hollars.

I7-IV7

I7 and IV7 (C7 and F7) are the important key scale part of a blues. I7 is usually treated as key major (C Mixolydian, based on a C major triad) with some flat three blue notes. IV7 (F7) is treated like key minor (C Dorian, based on a C minor triad).

A few songs are based on the I7-IV7 progression (see the list below) and are good to study improvising in preparation for longer blues progressions.

Feelin' Alright improv - [click to play](#)

♩ = 89

The score is divided into six systems, each with a treble staff and a bass staff. The bass staff includes fingerings and a 'full' marking. The treble staff includes a 'full' marking at measure 13. The score ends with a final measure at measure 25.

Three systems of guitar tablature for improvisation exercises. Each system includes a treble clef staff with a key signature of one flat (Bb) and a common time signature. Chord symbols C9, F7, and C9 are placed above the staff. The first system (measures 26-29) features eighth-note patterns with triplets and 'full' markings. The second system (measures 30-33) continues with similar patterns and includes a '1/2' marking. The third system (measures 34-38) shows a progression of chords with various fret numbers and a final double bar line. Tablature lines are labeled T, A, and B, with fret numbers written below them.

Jessica piano style improv - [click to play](#)

Three systems of guitar tablature for Jessica piano style improvisation. The first system starts with a tempo marking of quarter note = 214. The key signature is two sharps (F# and C#). Chord symbols A and D are placed above the staff. The second system continues the progression. The third system (measures 18-21) shows a progression of chords with various fret numbers and a final double bar line. Tablature lines are labeled T, A, and B, with fret numbers written below them.

[illegible]

Lenny

Mercy, Mercy, Mercy

You Can't Always Get What You Want - [click to play](#)

Swing Sixteenths

♩ = 92

= 92

First system of musical notation (measures 1-4). The staff shows a treble clef, key signature of one flat (B-flat), and a common time signature. The melody consists of eighth and sixteenth notes, with some triplets. The bass line is indicated by a three-part staff (T, A, B) with fret numbers.

Measures 1-4: Chords C, F, C, F. Fret numbers for T, A, B are provided below the staff.

Second system of musical notation (measures 5-8). The staff shows a treble clef, key signature of one flat (B-flat), and a common time signature. The melody consists of eighth and sixteenth notes, with some triplets. The bass line is indicated by a three-part staff (T, A, B) with fret numbers.

Measures 5-8: Chords C, F, C, F. Fret numbers for T, A, B are provided below the staff.

Third system of musical notation (measures 9-12). The staff shows a treble clef, key signature of one flat (B-flat), and a common time signature. The melody consists of eighth and sixteenth notes, with some triplets. The bass line is indicated by a three-part staff (T, A, B) with fret numbers.

Measures 9-12: Chords C, F, C, F. Fret numbers for T, A, B are provided below the staff.

Fourth system of musical notation (measures 13-16). The staff shows a treble clef, key signature of one flat (B-flat), and a common time signature. The melody consists of eighth and sixteenth notes, with some triplets. The bass line is indicated by a three-part staff (T, A, B) with fret numbers.

Measures 13-16: Chords C, F, D, F. Fret numbers for T, A, B are provided below the staff.

Fifth system of musical notation (measures 17-20). The staff shows a treble clef, key signature of one flat (B-flat), and a common time signature. The melody consists of eighth and sixteenth notes, with some triplets. The bass line is indicated by a three-part staff (T, A, B) with fret numbers.

Measures 17-20: Chords C, F, C, F. Fret numbers for T, A, B are provided below the staff.

Sixth system of musical notation (measures 21-24). The staff shows a treble clef, key signature of one flat (B-flat), and a common time signature. The melody consists of eighth and sixteenth notes, with some triplets. The bass line is indicated by a three-part staff (T, A, B) with fret numbers.

Measures 21-24: Chords C, E, C, F. Fret numbers for T, A, B are provided below the staff.

The image displays two staves of musical notation for guitar, each representing a 12-bar blues progression. The top staff features a progression of C, F, C, and F chords. The bottom staff features a progression of C, F, D, and F chords. Both staves include fretboard diagrams for the guitar, showing the fret numbers for each note in the progression.

See also [Pedal Point Chord Progression/I-IV-I7](#)

Twelve-Bar Blues

Twelve bar blues always starts with the I chord and usually ends with the V chord. It is commonly three four-bar phrases. Folk blues, Piedmont blues and blues rock begin the last four bar-phrase (bars nine and ten) with V and IV chords, while jazz blues (also called swing blues) use IIm and V for bars nine and ten. In the 1940's, songs that began electric blues often used IIm and V for bars nine and ten, but as electric blues split off into blues rock and jazz blues, the jazz blues used VI-IIm-V for bars eight through ten, while blues rock used I-V-IV for bars eight through ten.

The many variations of bars eleven and twelve used in blues rock can be seen in the chapter "[Twelve-Bar Blues Endings](#)".

Folk Blues and Blues Rock 12-Bar Blues Versions

Crosscut Saw - [click to play](#)

♩ = 125

1 Fm7 1 5 7 b3 5

5 Bbm7 1 5 7 b3 5

2 3 3 3

1 5 7 b3 5

TAB

piano right hand with open root

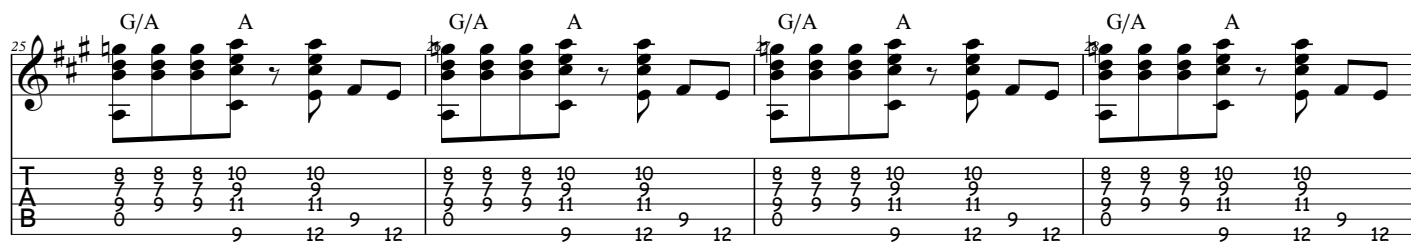
13 G/A A G/A A G/A A G/A A

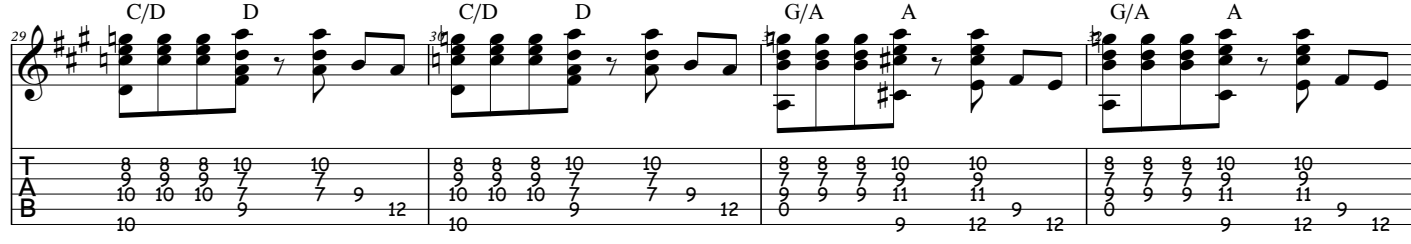
17 C/D D C/D D G/A A G/A A

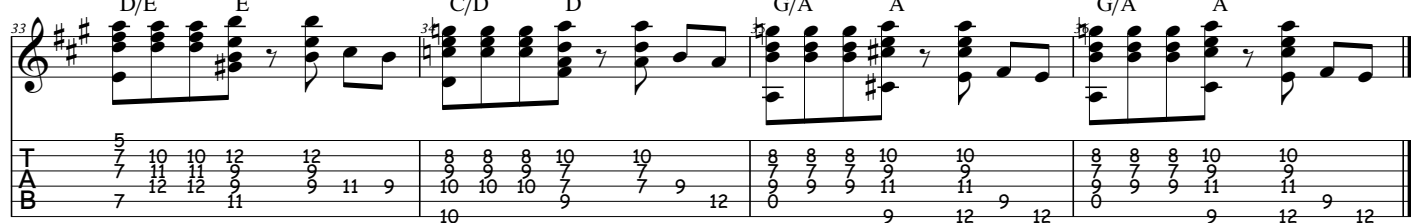
21 D/E E C/D D G/A A G/A A

TAB

bass and piano

25 

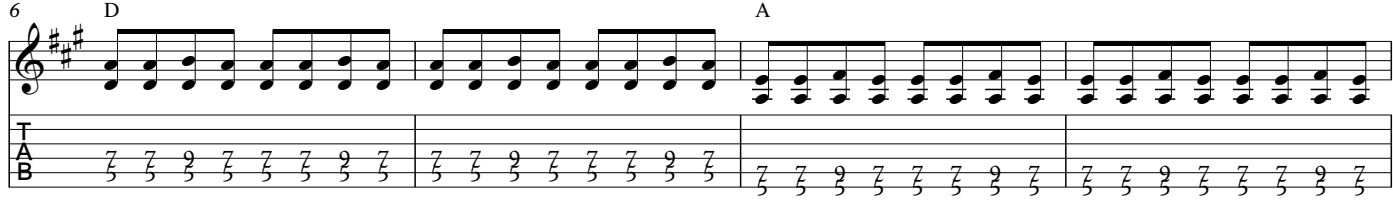
29 

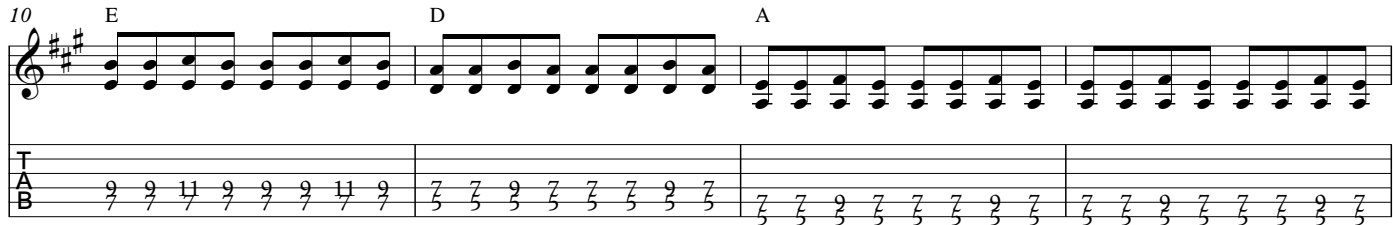
33 

Johnny B. Goode - [click to play](#)

♩ = 168

A intro solo

6 

10 

14 solo 1

The musical score for 'solo 1' is written for a guitar. It begins with a treble clef and a key signature of three sharps (F#, C#, G#). The tempo is marked '14'. The score is divided into four measures. The first measure contains a whole note chord of A2, A3, and A4, with a '1' below the staff. The second measure contains a whole note chord of D2, D3, and D4, with a '1' below the staff. The third measure contains a whole note chord of A2, A3, and A4, with a '1' below the staff. The fourth measure contains a whole note chord of A2, A3, and A4, with a '1' below the staff. Below the staff, there are four lines of tablature. The first line is labeled 'T' and contains a '1' under the first measure. The second line is labeled 'A' and contains a '1' under the first measure. The third line is labeled 'B' and contains a '1' under the first measure. The fourth line is labeled 'C' and contains a '1' under the first measure.

[illegible]

22 E A

26 solo 2

A D A

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

T Z Z Z Z

B 5 5 5 5 5

30

D A

T
A
B

7 7 9 7 7 7 9 7

34

E

A

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +

T

A

B

9 9 11 9 9 9 11 9 9 9 11 9 2 2 4 2 2 4 2 2 4 2 0 0 4 0 0 0 4 0

Killing Floor - [click to play](#)

♩ = 110

The score is divided into systems, each with a guitar staff, a bass staff, and a drum staff. Chord progressions are indicated by letters above the guitar staff. Improvisation lines are shown in the bass staff with fret numbers.

System 1 (Measures 1-5): Chord progression: A7. Improvisation: 9 9, 8 8, 9 9 9 7, 5 5, 5 5 5 7, 9 9, 8 8 9 7, 5 5, 10 10 10 12.

System 2 (Measures 6-10): Chord progression: D7, A7. Improvisation: 14 14, 13 13, 14 14 14 12, 10 10 X, 11 11 X, 5 5 5 7, 9 9, 8 8 9 7, 5 5.

System 3 (Measures 11-15): Chord progression: E7, D7, A7, E7(#9). Improvisation: 7 7, 7 7, 7 7, 7 7, 5 5, 5 5 5 7, 9 9, 8 8 9 7, 8 8, 8 8 8 7, 8 8, 8 8 8 7, 8 8.

System 4 (Measures 16-17): Chord progression: A7. Improvisation: 5 5, 4 5 5 5 6 7, 5 5, 4 5 5 5 6 7, 5 5, 4 5 5 5 6 7, 5 5, 4 5 5 5 6 7.

System 5 (Measures 18-21): Chord progression: D9, A7. Improvisation: 2 3 3 3 4 5, 2 3 3 3 4 4, 4 5 5 5 6 7, 4 5 5 5 6 7.

System 6 (Measures 22-25): Chord progression: E9, D9, A7. Improvisation: 4 5 5 5 6 7, 2 3 3 3 4 5, 4 5 5 5 6 7, 4 5.

Love In Vain - [click to play](#)

♩. = 64

1. G Em C G G7 D

5. G G7

9. C D D/F# G D/F# G G(sus4) G

13. D Em C G G7 1. D 2. D7 G7

Texas Flood - [click to play](#)

Swing Eighthths

1 G⁷ C⁹ G⁷ D⁷ G⁷ C⁹

TAB: 4 2 2 5 5 2 2 2 5 5 2 2 2 5 5 2 2 3 4 5 5 5 3 4 5 5 3 3 2 2 5 2 0 0 1 1 0 1 2

7 G⁷ C⁹ G⁷

TAB: 4 2 2 5 5 2 3 3 3 3 0 0 0 0 1 1 1 0 1 2 3 3 0 0 3 3 0 1 2 3 3 0 0 3 3 0 3 0 0 3 3 2 2 3 3 4 5 3 3 3 1 1 1 1 1 2 3 5 5 3 3 2 2 3 4 5

13 D⁷ C⁷ G⁷ C⁹ G⁷ D⁷

TAB: 5 4 4 4 4 7 7 6 7 5 5 3 3 0 0 1 1 0 1 2 4 2 5 4 3 0 1 2 4 2 3 4 5 5 5 3 4 3 2 3 4 5 5 5 3 4

TAB: 3 5 3 3 2 2 5 2 3 5 5 3 3 6 6 5 5 6 5 4 4 3 3 2 2 5 5 2 5 3 3 3 3 5 5 5 5 6 6 6 6 5 6 5 2

21 C⁹ G⁷ G⁹

TAB: 3 6 6 5 5 3 6 3 0 0 1 1 0 1 0 2 3 3 5 5 2 5 2 3 3 5 5 2 5 2

25 D⁷ C⁹ G⁷ C⁹ G⁷ D⁷

TAB: 5 2 2 3 3 5 4 3 0 0 1 1 0 0 1 2 3 3 2 2 2 2 3 3 3 3 4 5 3 5 5 5 2 3 4 5 5 5 5 5 3 4

29 G⁷ C⁷ G⁷

TAB

3	3	3	3	2	3	4	5	5	3	5	3	0	0	0	1	1	1	0	1	2	3	3	2	2	5	2	5	2	2	5	2	3	3	3	3	3	5	5	5	5	3	3	3	6	3	6
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

33 C⁷ G⁷

TAB

3	3	3	3	6	6	5	5	3	6	2	3	3	3	6	6	6	5	5	5	6	6	5	4	3	3	2	2	5	5	5	2	5	2	3	3	2	2	5	5	2	5	2	2	2	2
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

37 D⁹ C⁷ G⁷ C⁷ G⁷ D⁹

TAB

5	5	2	2	3	3	4	5	5	4	3	3	6	6	5	5	6	5	4	4	3	3	2	6	2	3	3	4	5	3	4	5	5	5	5	2	3	4	5	5	3	4	4
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

41 G⁷ C⁷ G⁷

TAB

3	3	3	3	3	2	3	4	5	5	3	5	3	0	0	0	1	1	1	0	1	2	3	3	2	2	5	2	5	2	2	5	2	3	3	3	3	3	3	5	5	5	5	3	3	3	6	3	6
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

45 C⁷ G⁷

TAB

3	3	3	3	6	6	5	5	3	6	2	3	3	3	6	6	6	5	5	5	6	6	5	4	3	3	2	2	5	5	5	2	5	2	3	3	2	2	5	5	2	5	2	2	2	2
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

49 D⁹ C⁷ G⁷ C⁷ G⁷ D⁷

TAB

5	5	2	2	3	3	4	5	5	4	3	3	6	6	5	5	6	5	4	4	3	3	2	2	6	2	3	3	3	4	5	3	4	5	5	5	5	2	3	4	5	5	3	4	4
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

53 G^7 C^7 G^7

57 C^7 G^7

61 D^7 C^7 G^7 C^7 G^7 A^b7 G^7

Walking Blues - [click to play](#)

Can't Buy Me Love

Heart of Stone

Peg

The Word

Yer Blues

R&B and Jazz Blues with I in Bar Eight

Blues by Five	I7	IV7	I7	I7	IV7	#IV°7	I7	I7	II7	V7	I7-VI7	IIIm7-V7
Jimmy's Blues	I7	IV7	I7	I7	IV7	IV7	I7	I7	IIIm7	V7	I7	I7
Parker's Mood	I7	IV7	I7	I7	IV7	IV7	I7	I7	IIIm7	V7	I7	V7
Things Ain't What They Used to Be	I7	IV7	I7	I7	IV7	IV7	I7	I7	IIIm7	V7	I7-VI7	IIIm7-V7
Trane's Blues	I7	IV7	I7	I7	IV7	IV7	I7	I7	IIIm7	V7	I7	I7

Jazz Blues and Swing Blues with VI in Bar Eight

Tenor Madness - click to play

♩ = 120

Swing Eighths

head comping

B \flat 13 1 B \flat 13

E \flat 9 B \flat 13 E \flat 9

T A B

5

E \flat 7 E \flat 7 B \flat 7 A7(b \flat 9) A \flat 9 G7(#9) C \flat m

T A B

9

C \flat m Gaug C \flat m7 F7 B \flat 13 G7(#9) C \flat m7 F7(sus4)

T A B

comp during solos

13

B \flat 9 E \flat 9 B \flat 9 B \flat 9 E \flat 9 E \flat 9

same fingering same fingering

T A B

17

$E\flat^9$ $E^{\circ 7}$ $B\flat^9$ $G^7(b9)$

21

Cm^7 F^{13} $B\flat^9$ $G^7(b9)$ Cm^7 F^{13}

Sonnymoon for Two - [click to play](#)

$\text{♩} = 180$
Swing Eighth

1 $B\flat^9$ $E\flat^9$ $B\flat^9$ Fm^7 $B\flat^9$ Fm^7 $E\flat^9$

5 $E\flat^9$ $B\flat^9$ Fm^7 $B\flat^9$ $G^7(b9)$

9 Cm^{11} F^7 $Faug$ $B\flat^9$ $G^7(b9)$ Cm^7 F^9

Stormy Monday improv - [click to play](#)

♩. = 65

Chord progression: G⁹ D⁺ G⁹ C⁹ G⁹ A^b9 G⁹ A^m7 B^m7 B⁷(#5)D⁷(b9) A^m11 G⁹ C⁹(#11) G⁹ A^b9 G⁹

Hesitation Blues - Starting with Four Bars of VIm

Hesitation Blues - [click to play](#)

Swing Eighth
♩ = 96



Am E N.C. Am E Am E N.C. C N.C. C7/G

6 F F⁶ F F⁶ Fm Fm⁶ Fm Fm⁶ N.C. C N.C. (A) A⁷/C[#] N.C.



10 D⁷ C⁷ C^{#7} D⁷ C⁷ C^{#7} D⁷ C⁷ D⁷ D⁹ (G) (Dm) (G) (G⁷)



14 Am E⁷ Am E Am E N.C. C⁷/B^b C⁷/G

same fingering

Minor Key 12-Bar Blues

Black Magic Woman - [click to play](#)

thumb bass, fingers pluck chord

10

Dm7 1 b7 b3 5

A7 1 3 b7 1

Dm7 1 b7 b3 5

T 10 10 10 10 10 10 10 10 10 10 10 10 10 10

A 10 10 10 10 10 10 10 10 10 10 10 10 10 10

B 10 10 10 10 10 12 12 12 12 10 10 10 10 10

26

Dm7 1 5 b7 b3

A7 1 b7 3 5

A7(#5) 1 b7 3 #5

T 6 6 6 6 6 6 6 6 5 5 5 5 6 6 6 6 5 5 5 5

A 6 6 6 6 6 6 6 6 5 5 5 5 6 6 6 6 5 5 5 5

B 6 6 6 6 6 6 6 6 5 5 5 5 6 6 6 6 5 5 5 5

30

Dm7 1 5 b7 b3

Gm7 b3 1 5 b7

T 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 8

A 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 8

B 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 8

34

Dm7 1 5 b7 b3

A7 1 b7 3 5

Dm7 1 5 b7 b3

T 6 6 6 6 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6

A 6 6 6 6 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6

B 6 6 6 6 5 5 5 5 6 6 6 6 6 6 6 6 6 6 6 6

Coming Home Baby - [click to play](#)

♩ = 125

System 1: Treble staff starts with a whole rest, then a series of eighth notes. Bass staff has a whole rest, then a series of eighth notes. Chord: Fm7. Fretboard diagram: 1 3 3 3 1.

System 2: Treble staff has a series of eighth notes. Bass staff has a series of eighth notes. Chord: Bbm7. Fretboard diagram: 1 5 1 b3.

System 3: Treble staff has a series of eighth notes. Bass staff has a series of eighth notes. Chord: Fm7. Fretboard diagram: 1 b7 b3 5.

System 4: Treble staff has a series of eighth notes. Bass staff has a series of eighth notes. Chord: Ab. Fretboard diagram: 1 3 5.

System 5: Treble staff has a series of eighth notes. Bass staff has a series of eighth notes. Chord: G. Fretboard diagram: 1 3 3 3 1.

Equinox - [click to play](#)

♩ = 135

head 1 Cm⁷

5 Fm⁷ Cm⁷

9 Ab⁹(#11) G⁷ Cm⁷

13 solos Cm⁷

17 Fm⁷ Cm⁷

21 Ab⁹ G⁷(#9) Cm⁷

The musical score for 'Equinox' is written in 4/4 time with a tempo of 135 BPM. The key signature has two flats (B-flat major). The score is divided into several sections: a head section (measures 1-4), a solo section (measures 13-16), and a final section (measures 21-24). The chords are: Cm⁷ (measures 1-4), Fm⁷ (measures 5-8), Cm⁷ (measures 9-12), Ab⁹(#11) (measures 13-16), G⁷ (measures 17-20), Fm⁷ (measures 21-24), and Cm⁷ (measures 25-28). The bass line is shown below the staff with fingerings and octaves.

Long Train Runnin' - [click to play](#)

Swing Sixteenths

$\text{♩} = 116$

Gm7

1 2 3 4 5

6 7 8 9

Gm7

10 11 12

Cm7

13 14 15 16 17 18

Eb7 Gm/D D7

1 Gm7 F/G

Gm7 F

19

The musical score is written for guitar in G minor (two flats: Bb and Eb). It is in 4/4 time with a swing feel, indicated by the 'Swing Sixteenths' tempo marking and the tempo of 116. The score is divided into five systems, each with a treble clef staff showing notes and rests, and a bass staff showing fret numbers for guitar. Chord symbols are placed above the staffs to indicate the harmonic structure. The progression starts with Gm7 and includes various other chords like Eb7, Gm/D, D7, F/G, and F. The score includes improvisation lines marked with 'x' and 'o' symbols. The piece concludes at measure 19.

Moonchild Blues - [click to play](#)

♩ = 113

The score is written for guitar and bass in 4/4 time, with a tempo of 113 bpm. The key signature has two flats (B-flat and E-flat). The guitar part is in standard notation, and the bass part is in tablature. Chord progressions are indicated above the staff.

Chord Progressions:

- Measure 1: Cm7
- Measure 2: Fm7
- Measure 3: Fm6
- Measure 4: Cm7
- Measure 5: Bb7(sus4)
- Measure 6: Abmaj7
- Measure 7: G7
- Measure 8: Cm7
- Measure 9: Abmaj7
- Measure 10: Fm7
- Measure 11: G7
- Measure 12: Cm7
- Measure 13: A7(#5)
- Measure 14: Abmaj7
- Measure 15: G7
- Measure 16: G7(#5)
- Measure 17: Cm7

Tablature Details:

- Guitar (T):** Standard notation with fret numbers and accidentals.
- Bass (B):** Tablature with fret numbers and accidentals.

Mr. P.C. - [click to play](#)

Swing Eighths

♩ = 160

The score is written in 4/4 time with a tempo of 160 beats per minute. The key signature has one flat (Bb). The melody line is in the treble clef, and the guitar accompaniment is in the bass clef. The guitar part includes a 12-string configuration (T, A, B) and a 6-string configuration (T, A, B). The chords and their positions are as follows:

- Measure 1: Cm7/11 (T: 4, A: 3, B: 3)
- Measure 2: Dm7/11 (T: 8, A: 6, B: 6)
- Measure 3: Cm13 (T: 8, A: 6, B: 6)
- Measure 4: Cm7/11 (T: 4, A: 3, B: 3)
- Measure 5: Dm7/11 (T: 4, A: 3, B: 3)
- Measure 6: Cm13 (T: 8, A: 6, B: 6)
- Measure 7: C7(#9) (T: 9, A: 7, B: 7)
- Measure 8: Fm7/11 (T: 9, A: 8, B: 8)
- Measure 9: Gm7/11 (T: 11, A: 10, B: 10)
- Measure 10: Fm13 (T: 13, A: 12, B: 12)
- Measure 11: Cm11 (T: 11, A: 10, B: 10)
- Measure 12: Dm11 (T: 11, A: 10, B: 10)
- Measure 13: Cm12 (T: 13, A: 12, B: 12)
- Measure 14: Dm11 (T: 11, A: 10, B: 10)
- Measure 15: Cm9 (T: 11, A: 10, B: 10)
- Measure 16: Ab9 (T: 9, A: 8, B: 8)
- Measure 17: G13(b9) (T: 9, A: 8, B: 8)
- Measure 18: G7(b9) (T: 9, A: 8, B: 8)
- Measure 19: Cm13 (T: 8, A: 6, B: 6)
- Measure 20: Eb9 (T: 11, A: 10, B: 10)
- Measure 21: D13 (T: 11, A: 10, B: 10)
- Measure 22: G7(b9) (T: 9, A: 8, B: 8)

Pawky - [click to play](#)

Swing Eighthths

♩ = 135

head 1 Dm9

Bb9(#11)

Dm9

Gm7

A7

break

Am7

Dm9

break

To Coda

solos

13 Dm^9 Gm^7 Dm^9

17 Gm^7 Dm^9

21 Gm^7 $A^7(\sharp 5)$ Dm^9 Bb^7 $A^7(\sharp 5)$

D.S. al Coda

\oplus Coda

25 Am^7 Dm^9

The Thrill Is Gone - [click to play](#)

♩ = 90
Swing Sixteenths

1 Bm7 2 3 4

5 Em7 Em6 Em7 Em6 Bm7 8

9 Gmaj7 10 F#7 11 Bm7

Eight-Bar Blues

Key to the Highway comping - [click to play](#)

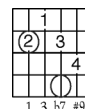
Swing Eighths

1 A⁶ E⁶ D⁶ D⁶

1 1 3 3 1 1 3 3

T
A
B

sixth fret



5 A⁶ E⁶ A A⁷ D Dm⁶ A E7(#9)

4 4 4 4 4 4 4 4 1 2 2 2

3 3 2 2 1 1 1 1

5 5 5 5 5 5 5 5

T
A
B

9 A⁶ A⁹ A⁶ E⁶ E⁹ E⁶ D D⁹ D⁶ D D⁶ D⁹ D⁶

4 4 4 4 4 4 4 4

7 5 7 5 7 5 7 5

5 5 7 7 6 4 5 6 4 2 4 5 5 4 2 4

T
A
B

13 A⁶ A⁶ A⁹ A⁶ E E⁶ E⁹ E⁶ A A⁷ A⁷ Bm⁷(b5) A E⁷

1 5 1 3 5 1 7 3 5 1 6 b3 b5 1 6 b3 b5 1 5 1 3 5

7 5 7 5 7 5 7 5 5 6 4 5 6 4 5 6 4 3 2 3 0

5 5 7 7 6 4 5 6 4 2 4 5 5 4 2 4

T
A
B

17 A^6 E^6 D^6 D^6

21 A^6 E^6 A A^9 D^9 $D^{\#07}$ E^7 B^b7 A^7

Chord diagrams for measures 17-24:

- A^6 : 1 5 1 3 5
- E^6 : 3 b7 2 5
- A : 1 3 b7 2 5
- A^9 : 1 3 b7 2 5
- D^9 : 1 3 b7 2 5
- $D^{\#07}$: 1 b5 6 b3
- E^7 : 1 3 b7 1
- B^b7 : 1 5 b7 3 5 1
- A^7 : 1 5 b7 3 5 1

I'm Gonna Find Another You - [click to play](#)

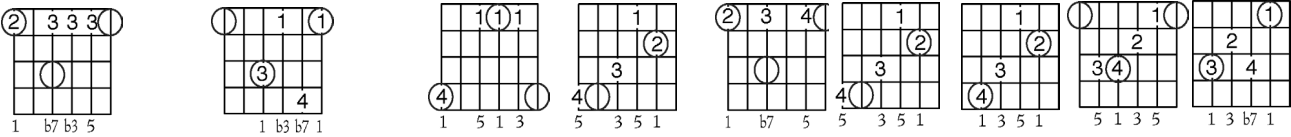
Chord diagrams for measures 1-4:

- A^7 : 1 b7 3 5
- A^9 : 3 b7 2 5
- D^9 : 1 3 b7 2
- $D^{\#07}$: 1 b5 6 b3

6 A^7 $F^{\#m7}$ Bm^7 E^7 A^7 D Dm A E^+

Chord diagrams for measures 6-9:

- A^7 : 1 b7 3 5
- $F^{\#m7}$: b3 1 5 b7
- Bm^7 : 1 b7 b3 5
- E^7 : 5 3 b7 1
- A^7 : 1 b7 3 5
- D : 1 5 1 3
- Dm : 1 5 1 b3
- A : 5 1 3 5
- E^+ : 1 3 #5 1



18 Bm^7 $F\#m^7$ B E B^7 E E A E^7

play 3 times

23 A^7 A^9 D^9 $D\#^7$

27 A^7 $F\#m^7$ Bm^7 E^7 $C\#m^7$ F^7 Bm^7 E^7 A

Need Your Love So Bad - [click to play](#)

$\text{♩} = 82$

1 A A^9 D^9 $D\#^7$

5 A^7 $F\#^7$ B^9 E^9 1. A^9 D^9 A^9 E^9

2. A^9 D^9 A^7 A^9 3. A^9 D^9 A^7 A^9

13 A A⁹ D⁹ D⁹7

17 A⁷ F⁷ B⁹ E⁹ A⁹ D⁹ A⁹ E⁹

21 A A⁹ D⁹ D⁹7

25 A⁷ G F⁷ B⁷ C⁷m7 D⁹7 B⁹/D⁷ E⁷ F⁷m7 G⁹ E⁷/G⁷

29 A⁷ D⁹ A⁷ B⁷ A⁷

Night Life - [click to play](#)

Someday After a While - [click to play](#)

♩. = 60

1

D⁹

T

A

B

10

10

10

5

D⁹

B⁷

Em⁹

A¹³

D⁷

G⁷

G⁷o⁷

1. D⁹

A¹³

2. D⁹

T

A

B

5

5

6

7

7

10

9

7

7

6

5

5

3

4

5

5

10

G⁷

D⁷

T

A

B

3

3

3

3

5

4

2

4

2

4

5

5

5

4

2

2

14

E

A⁷

T

A

B

0

0

5

5

17

3. D⁹

Eb⁹

D⁹

T

A

B

5

Bring It on Home to Me

Come on in My Kitchen

Come Back Baby

Georgia on My Mind

Grits Ain't Groceries

Minnie the Moocher

Nobody Knows You When You're Down and Out

Sea of Love

St. James Infirmary

Sitting On Top of the World (9 bars)

Sixteen-Bar Blues

Grinnin' In Your Face - [click to play](#)

Swing Eighths

♩ = 99

1 G

Am G

"jazz plagal" (reg. plagal is IV I: C G)

5

D

1/4

1/4

The Ballad of John
and Yoko
Chantilly Lace
I Put a Spell On You
I Saw Her Standing
There
Jailhouse Rock
My Babe
The Preacher
The Stumble
That's Enough
This Little Light of
Mine
Testify
Watermelon Man
When the Saints Go
Marching In

Twenty Four-Bar Blues

Fulsom Prison

Mustang Sally

Slow Down

PARALLEL MAJOR CHORDS WITH bVII, bIII OR bVI

Songs Based on I-bVII

All Night Long
Every Little Thing Is Magic
Fire
Get Together
Let It Rain
On Broadway
Red Rain
Rosie
Shapes of Things
Soul Man
Tequila
Well All Right

Songs Based on I-bVII-IV (Double Plagal)

Addicted to Love
All Right Now
Angel from Montgomery
Back in Black
Badge
Can't You Hear Me Knockin'
Cat's in the Cradle
Centerfold
Champagne Supernova
Cissy Strut
Dear Mr. Fantasy
Dig a Pony
Don't Stop
Flying High Again

Fortunate Son

Get Back

Gimmie Some Some Lovin'

Good Lovin' Gone Bad

Good Times, Bad Times

Got to Get Better in a Little While

Hard Sun

Hey Jude

Hurdy Gurdy Man

Hush

I Can't Explain

If I Were a Carpenter

The Last Time

Magic Bus

Magic Carpet Ride

More Than a Feeling

Night Moves (I-bVII-IV-bVII)

Nowhere to Run

Peace of Mind

Polythene Pam

Rikki Don't Lose That Number

Rock 'n' Me

Runnin' Down a Dream

(I Can't Get No) Satisfaction

Sharp-Dressed Man

She Said She Said

Southern Cross

Sugar Magnolia

Sweet Home Alabama

Sympathy for the Devil

Taxman

The Way It Is

We Are Family (I-bVII-IV-bVII)

We Can Work It Out

Whip It

With a Little Help from My Friends

Won't Get Fooled Again

You Never Give Me Your Money

You Wreck Me

Songs Based on I-IV-bVII-I

Good Lovin' Gone Bad

Lola

You Are So Beautiful

Songs Based on I-V-bVII-IV

I'm a Loser

Natural Woman

You've Got to Hide Your Love Away

Songs Based on I-bIII-IV

Back in the U.S.S.R. (I-IV-bIII-IV)

Born to Be Wild

Got to Get Better in a Little While (IV-bIII-I)

La Grange

On the Road Again (I-bIII-IV-I)

Purple Haze

Rock and Roll, Hootchie Koo (IV-bIII-I)

Sgt. Pepper's Lonely Hearts Club Band (includes I-II-IV)

I, bVII, bVI Included

All I Wanna Do

Black

Even Flow

Gimme Shelter

In Bloom

Kiss from a Rose

Lithium

Suffragette City

I, bVII, bIII, bVI Included

Black Hole Sun

Brown Sugar comping - [click to play](#)

♩ = 127

A

C/G G C F/C C C/G G C F/C C

B

E♭(add9) E♭ C C(sus4) C A♭ A♭(add9) A♭ A♭(add9) B♭(sus4) B♭ C(sus4) C E♭

verse

C F/C C F/C C F B♭/F F B♭/F F B♭/F F C

chorus

G C F/C C F/C C F/C C F/C

♩ = 127 A C/G G C F/C C C/G G C F/C C C/G G C F/C C C/G G C F/C C C/G G C F/C C Eb

tap twelve frets higher with the picking hand index finger

B Eb(add9) Eb C C(sus4) C Ab Ab(add9) Ab Ab(add9) Bb(sus4) Bb C(sus4) C Eb

tap the first of each three notes with the picking hand index finger, the pull-off each with the picking han index finger

picking hand tap full

picking hand pull-off full

verse C F/C C F/C C F F Bb/F F Bb/F F Bb/F F C

C F/C C F/C C F/C C Bb C F/C C

chorus G C F/C C F/C C F/C C F/C

G C F/C C F/C C F/C C F/C

The musical score for "The Wind" by John Williams is presented in a standard musical notation format. The key signature is G major (one sharp) and the time signature is 4/4. The score is divided into three main sections: A, B, and C#.

Section A: The guitar melody begins with a treble clef and a key signature of one sharp. The melody is characterized by a series of eighth and sixteenth notes, often with grace notes. The double bass accompaniment consists of a steady eighth-note pattern in the right hand and a bass line in the left hand. The section is marked with a piano (p) dynamic.

Section B: This section continues the melodic and harmonic themes established in Section A, with the guitar melody featuring more complex ornamentation and the double bass providing a consistent rhythmic foundation.

Section C#: The final section of the score, marked with a C# key signature, features a more active and varied melodic line for the guitar, while the double bass continues its accompaniment. The section concludes with a final chord and a double bar line.

The score includes various musical notations such as clefs, key signatures, time signatures, notes, rests, ornaments, and dynamic markings (piano, forte). The guitar part is written on a single staff, and the double bass part is written on a single staff. The score is presented in a clear and professional layout, suitable for a musical score book.

Polly

Rape Me

Unchained

Under the Bridge

I, bVII, bIII Included

Magic Bus

Old Man

Runnin' Down a Dream

The Word

I, bVI Included

Barracuda

Goldfinger

Honey Don't

It Won't Be Long

Peggy Sue

I, bVI, bIII Included

Smells Like Teen Spirit

Songs Based on bIII-bVII-IV-I (Triple Plagal)

Jumpin' Jack Flash

mayne I'm Amazed

Old Man

Summer Breeze

Songs Based on bVI-bIII-bVII-IV-I (Quadruple Plagal)

(IV minor pentatonic roots, key on V)

Crazy

A Day in the Life

Flower Punk

Here Comes the Sun

Hey Joe

Hush

I Am the Walrus (re-ordered)

I Can See for Miles (re-ordered)

[illegible]

Four or More Major Chords - Stax and Soul (parallel major)

Back On the Streets Again - [click to play](#)

♩ = 98

1 F 2 B \flat 3 F 4 F 5 Am 6 C 7 B 8 A \flat 9 A \flat 10 Am 11 C 12 C 13 C 14 F 15 A \flat 16 B \flat 17 C

Down to the Nightclub (sevenths and ninths, based on major) - [click to play](#)

♩ = 94

1 B \flat 2 B \flat 3 B \flat 4 B \flat 5 B 6 C 7 A \flat 8 A 9 B \flat 10 B \flat 11 B \flat 12 B \flat 13 B \flat 14 B \flat 15 B \flat 16 B \flat 17 B \flat 18 B \flat 19 B \flat 20 B \flat 21 B \flat 22 B \flat 23 B \flat 24 B \flat 25 B \flat 26 B \flat 27 B \flat 28 B \flat 29 B \flat 30 B \flat 31 B \flat 32 B \flat 33 B \flat 34 B \flat 35 B \flat 36 B \flat 37 B \flat 38 B \flat 39 B \flat 40 B \flat 41 B \flat 42 B \flat 43 B \flat 44 B \flat 45 B \flat 46 B \flat 47 B \flat 48 B \flat 49 B \flat 50 B \flat 51 B \flat 52 B \flat 53 B \flat 54 B \flat 55 B \flat 56 B \flat 57 B \flat 58 B \flat 59 B \flat 60 B \flat 61 B \flat 62 B \flat 63 B \flat 64 B \flat 65 B \flat 66 B \flat 67 B \flat 68 B \flat 69 B \flat 70 B \flat 71 B \flat 72 B \flat 73 B \flat 74 B \flat 75 B \flat 76 B \flat 77 B \flat 78 B \flat 79 B \flat 80 B \flat 81 B \flat 82 B \flat 83 B \flat 84 B \flat 85 B \flat 86 B \flat 87 B \flat 88 B \flat 89 B \flat 90 B \flat 91 B \flat 92 B \flat 93 B \flat 94 B \flat 95 B \flat 96 B \flat 97 B \flat 98 B \flat 99 B \flat 100 B \flat

Hold On, I’m Comin’ - [click to play](#)

♩ = 106

1

Ab

T

A

B

5

5

5

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I’ve Been Loving You Too Long

In the Midnight Hour

Sittin’ On the Dock of the Bay

You’ve Got It Bad Girl (parallel minor sevenths)

B SECTIONS AND BRIDGES

A bridge or B section is used to connect between verse and chorus (or between two verses), usually in a closely related key, as a diversion from the main key. They are commonly in the key of IV (“F” in the key of “C”), or in the key of “V” (“G” in the key of “C”).

Bridges and B sections provide a diversion from the main story. If the song has lyrics, the bridge or B section usually provides a “sidebar”, taking you aside to give you another perspective on the story. Bridges and B sections usually end with a chord progression that returns to the main key, such as “II-V-I”.

The *middle eight* is a type of bridge that usually occurs between two choruses (commonly between the second and third chorus) using different melody and usually different chord progression. The middle eight can chose from a wide variety of chord progression types.

“Sears and Roebuck” Bridge

Sears & Roebuck with dominant sevenths in fourths ([Spotify playlist](#))

All of Me	III7		VIm7		II7	II7	IIm7	V7
Anthropology	VI7		III7		II7		V7	
Caravan (sect. A Phry. dom.)	IV7		bVII7		bIII7		bVI	V7-bII7
Chasing the Bird	VII7		VI7		II7		IIm7	V7
Cottontail	III7		VI7		II7		V7	
Dig (sect. A is S&R bridge)	VI7		II7		V7		Ima7	
The Eternal Triangle (chr. II-V)	bIIm7	bV7	Im7	IV7	VIIIm7-III7	bVIIIm7-bIII7	VIm7-II7	bVIm7-bII7
Flintstones	VI7		II7		V7		I7	
Hipping the Hop	bVII9		VI13		bIII9		II7	V7
Oleo	III7		VI7		II7		V7	
Seven Come Eleven	VII		III7		VI7		II7	V7
Smokin’ Section	III7		VI7		II7		V7	
Straighten’ Up & Fly Right	III7		VI7		II7		V7	
Sunny Afternoon	I7		IV7		bVII7		bIII7	V7
Sweet Georgia Brown (section A is S&R)	VI7		II7		V7		Ima7-Ima7- IIm7-V7	Ima7-Ima7- VIIIm7b5III7
Swing to Bop	I7		IV7		bVII7		bIII7	IIø7-V7
Topsy	I7		IV7		bVII7		bIII7	IIø7-V7

Sears & Roebuck with IIm-V in fourths ([Spotify playlist](#))

the number after a slash is in the key of the chord root

Ain't Got Nothin' but the Blues	III7-#IVm7	Vdim7-III7/3	VI13		VIm9-II13#11	VIm9-II13#11	IIm7-I/3-IV-#IV°7	V7sus-V7#5#9
Alone Together	Vm7b5	I7b9	IVm6		IVm7b5	bVII7b9	bIIIma7	IIm7-V7b9
Daahound	Vm7	I7	IVma7		IVm7	bVII7	bIIIma7	IIm7-V7
Dexterity	VIIIm7-III7	VIIIm7-III7	IIIm7	VI7	VIm7	II7	IIm7	V7
The Eternal Triangle	bIIIm7	bV7	Im7	IV7	VIIIm7-III7	bVIIIm7-bIII7	VIm7-II7	bVIm7-bII7
I Didn't Know About You	Vm7-I7	Vm7-I7	IVma7-I7	IVma7	IVm7-bVII7	IVm7-bVII7	bIIIma7	II7-V7#5
I Got Rhythm	VIIIm7	III7	IIIm7	VI7	VIm7	II7	IIm7	V7
Lazy Bird	IIIm7	VI7	IIma7	bIIIm7 -bVI7	IIm7	V7	Ima7	bIIIm7 -bV7
Like Someone in Love	IVma7	VIIIm7- III7	VIma7		VIm7	II7	IIm7	V7
Moose the Moochie	VIIIm7	III7	IIIm7	VI7	VIm7	II7	IIm7	V7
Night in Tunisia	Vm7b5	I7b9	IVm7		IVm7b5	bVII7b9	bIIIma7	IIm7b5- V7b9
One Note Samba	IVm7	bVII7	bIIIma7		bIIIm7	bVI7	bIIIma7	IIm7b5- V7
Road Song (see One Note Samba)	IVm7	bVII7	bIIIma7	IIIm7 -VI7	bIIIm7	bVI7	bIIIma7	V7#9
Scraple from theApple	VIIIm7	III7	IIIm7	VI7	VIm7	II7	IIm7	V7
Segment (see Night in Tunisia)	Vm7b5	I7b9	IVm7		IVm7b5	bVII7b9	bIIIma7	IIm7b5- V7b9
Watch What Happens	IIIma7		IIIm7	VI7	IIma7		IIm7	V7
Wave	IVm7/ b3	bVII7/ b7	bIIIma7 /3		bIIIm7/b3	bVI7/b7	bIIIma7/3	V7b9
Yardbird Suite	IIIm7	#IVm7b5- VII7b9	IIIm7	VI7	IIm7	IIIm7b5- VI7	II7	IIm7-V7

Montgomery Ward (commercial) Bridge ([Spotify playlist](#))

Are You Lonesome Tonight	I7		IV		II7		V7	
From Me To You	Vm7	I7	IV		II7		V7	Vaug
Honeysuckle Rose	I7		IV		IIIm7		V7	
I Want to Hold Your Hand	Vm7	I7	IV	IIIm	Vm7	I7	IV	V (3 bars)
I'm Confessin' That I Love You (Monk version)	I9	I9-I9#5	IVma7	IV-IV7- III7-bIII7	II7	II7	IIIm7- V7	IIIm7- V7#5#9
the Night Before	Vm	I7	IV		VIm7	II7	V7	
On the Sunny Side of the Street	Vm7	I7	IVma7		VIm7	II7	IIIm7	V7
Samba De Orpheus	Vm7	I7	IVma7- IV6	IVma7	IVm7	bVII7	V7	
Satin Doll	Vm7-I7	Vm7-I7	IVma7		VIm7-II7	VIm7-II7	V7	
Somebody to Love (Queen) 1:37	I	I7	IV	IVm	II7		V7	
That's Life	I7		IV6		II7		V7	
Things We Said Today	I	I9	IV	bVII	VIm- IIIIm	VIm	VIm- IIIIm	VIm

Rock and Roll Bridge (bar 5 is IV, except Misery) ([Spotify playlist](#))

Ain't She Sweet (Beatles), All Shook Up, Chains, I'm Looking Through You, Rockin' Robin, Runaround Sue, Sea Cruise	IV		I		IV		V		
Heart of Glass, It's So Easy	IV		I		IV		II	V	
All I Have to Do Is Dream	IV	IIIIm	IIIm V	I	IV	IIIIm	II7	V7	
As (Always), sect. C	IVma7	Ima7	IVma7	bIIIIma7	IVma7	Ima7	IIIIm7	IVsus4-IV7 -IIIm7-V7	
Back in the U.S.S.R.	IV7		I7		IV-IV/7	IV/ b7-VI	V7	IV7	I II7-V7
Close to You	IV		IIIIm	VI9	IV		V		
Devil in Her Heart	IV	IVm	I	I7	IV	IVm	II7	V	
Glad All Over	bVI		I-IV	I	IV		V	Vaug	
Great Balls of Fire	IV7		I		IV7		V7		
I Will	IV-IIIIm	VIIm	IIIm7-V7	I-I7	IV-IIIIm	VIIm	II7	V7	
Lollipop	IV		I-IV	I	IV	II7	V		
Maybe Baby	IV		I-IV	I	IV		V		
Misery	VIIm		I		VIIm		V7		
Night Life B.B Apollo version 1	IV7	IVm7	I7		IV7	VI7	IIIm7	V7	
Night Life B.B Apollo version 2	IV7	I7	IIIm7-V7	I7	IV7- #IV°7	I7- VI7	IIIm7	V7	
This Boy	IV	III7	VIIm	I7	IV	II7	V7	V7	
World Without Love	IVm		I		IVm		IIIm7	bVI7-V7	

Rock and Roll Bridge (bar 5 is II) ([Spotify playlist](#))

Dream Lover, I'll Get You, One After 909, Return to Sender	IV		I		II7		V7	
Alley Cat	IV		I		I7		IIIm7	V7
I Call Your Name	IV7		VIIm		II7		bVI7	V7
Oh! Darling	IV	bVI	I	I7	II		V-bVI	V-Vaug
'Till There Was You	IV	IVm	I	VI9	IIIm- IIIm(ma7)	IIIm7- II7	V-V9	Vaug
What You're Doing	IV	VIIm	IV	VIIm	II		V	
You Won't See Me	IIIm	IVm	VII°7	I	II7		V9sus4	V7

King Porter Stomp (Dixieland Jazz) ([Spotify link](#))

the number after a slash is in the key of the chord root

King Porter Stomp	IV7-#IV°7	I7/5-I7	IV7-#IV°7	I7/5-I7	IV7-#IV°7	I7/5-VI7	II7	V7-I7
Jazz Blues bars 5-12 (Every Day I Have the Blues)	IV7	#IV7	I7	VI7	IIIm7	V7	I7-VI7	IIIm7-V7
Ain't Nobody's Business	IV7	#IV7	I7-VI7	IIIm7-V7	I-VI7	IIIm7-V7		
Baby Won't You Please Come Home	IV7-#IV°7	I-VI7	IIIm7-V7	I6-VI7	IIIm7-V7	I6		
Bewitched bars 5-9	IV7-#IV°7	I-VIm7	IIIm7 / V7 VI7	IIIm7	V7	IIma7		
Big Nick bars 6-9, Chasin' the Bird 6-9, Scrapple from the Apple 6-9, Smokin' Section 2-5, Tiger Rag 13-16	IV7-#IV°7	I-VI7	IIIm7-V7	I				
Blues No More sect. B	IV7	#IV7	I7-bVII7	VI7	IIIm7	bVII7	VI7-bVI7	V7
Cotton Tail bars 6-9	IV7-#IV°7	I-VIm7	IIIm7	V7	IIma7			
Django's Tiger 25-32	IV7	#IV7	I7	VI7	II7	V7	I7-bIII°7	IIIm7-V7
Entertainer sec. C, Tico Tico 13-16 of B	IV7-#IV°7	I/5	IIIm7-V7	I				
Georgia sect. A 3-8	IV7-#IV°7	I-VI7	II7-II7 -IIIm7-V7	bVII13#11- VI9	II7-V7			
Hallucinations 3-6	IV7-#IV°7	I7/5-VI7	II7/5 IIIm7 V7	I6				
I'm Gonna Find Another You bars 3-8	IV7	#IV7	I7-VIm7	IIIm7-V7	I7-I7-IV- IVm	I7-V7		
My Window Faces the South 9-16	IV7	#IV7	I7	VI7	IIIm7		V7	
Need Your Love sec. A 3-8	IV7	#IV7	I7-VI7	II7-V7	I7-IV7	I7-V7		
Need Your Love , sec. B	IV7	#IV7	I7-V7	I7	II7		V7-bVI7	V7
Night Life-B.B. Apollo sect. A ver.2 , bars 3-9	IV7	#IV7	I7-VI7	II7	IIIm7-IIIm7- V7-bVI7	V7-bII7	I7	
Nobody Knows You bars 5-8	IV7-#IV°7	I-VI7	IIIm7	V7				
Oh, Lady Be Good, sect. B	IV7	#IV7	IIma7	VIIIm7b5- III7	VIm7	II7	IIIm7x	V7
The Preacher 13-16, Beaumont Rag 13-16	IV7-#IV°7	I-VI7	IIIm7-V7	I6				
Same Old Blues 1-4	IV7-#IV°7	IbVII / VI7	IIIm7-V7	I-Vaug				
Someday After a While sect. A 3-8	IV7	#IV7	I7-VI7	I7	II7-V7			

SLASH CHORD PROGRESSION

“Slash” Chords Specify a Bass Note

“Cm/Bb” is a slash chord and specifies a C minor chord with a “Bb” bass note. Slash chords may or may not imply the indicated bass note in the part of the chord name preceding the slash (Cm). If the “Bb” note were included, the chord could be called “Cm7/Bb”. These are alternate names and both names, Cm/Bb and Cm7/Bb imply the same notes. With the “Cm7/Bb” version of the name, the chord without the bass note does not have to include the “Bb” note. The “Bb” note can optionally occur only in the bass.

A Single Chord with an Ascending or Descending Bass

ascending or descending scalar bass

Am-Am/G#-Am/G-Am-F# implies a series of chords that share the Am chord and use the bass sequence A (the root of Am)-G#-G-F#. Slash chords often have alternate names called chord synonyms, such as Am/F# and its alternate names Am6 and F#m7b5. Usually the common chord part of the name (Am) is used with all the chords to imply that part of the chord is preferably kept intact (keeping the notes in the same octave and voicing) and only changing the specified bass note.

ascending or descending arpeggio tones of the chord preceding the slash

This series is usually not specified in music notation, but is a conceptual manner of conceiving and playing inversions of a chord. Am7-Am7/C-Am7/E-Am7-G implies a series of Am7 chords with the root (“A”), third (“C”), fifth (“E”) and seventh (“G”). Note that the third of Am7 (“C”) is actually a flatted third in the key of the chord root (A major) and the the seventh of Am7 is actually a flatted seventh (“G”) in the key of the chord root (A major). It is common practice to refer to them as the “third” and “seventh” when it is understood that those notes would be altered.

Colorful Chord Qualities Produced with Specified Bass Notes

Usually producing a suspend chord of sorts, some specified bass notes in slash chords are not part of the continuous series of thirds in the part of the chord name preceding the slash. “A/B”, for example, could be called B9sus4 no fifth. These chords commonly use the second or fourth in the key of the chord name preceding the slash in the bass.

MODAL INTERCHANGE (CHANGE OF MODE)

When the tone center (C) remains on the same note while the mode (scale type) changes (C Mixolydian to C Aeolian), parallel keys are being used. Most commonly, major to Aeolian. With modulation, the tone center changes (C major to A minor or to G major).

Keys can occur on multiple modes of the same parent scale, in which case each mode is a different key (or temporary key).

Parallel Major and Minor Key Songs

(Come 'Round Here) I'm the One You Need

The Fool On The Hill - The Beatles

Happy Together - The Turtles

My Favorite Things - John Coltrane

While My Guitar Gently Weeps - The Beatles

You Don't Have to Say You Love Me - Dusty Springfield

Modal Parallel Key Songs

Mixolydian and Dorian

Norwegian Wood - The Beatles

Most I and IV chords in blues are I Mixolydian during the I7 and I Dorian during the IV7.

Mixolydian and Aeolian

Synchronicity II - The Police

Mixolydian and minor

Funkytown - Lipps, Inc. - minor section has no "6" nor "b6"

SUBSTITUTION AND AMBIGUITY

See “[Substitution](#)”/Categories of Substitute Chords.

Secondary Roots

Darkening

Secondary Dominants

Interchangeable II and V

Flat-Five Substitute

flat five substitute blues ending - [click to play](#)

Swing Eighths

♩. = 55

Chord progression: C7(#9) C7/Bb A7 Eb13 D7(#9) Ab7 G7(#9) Db7(b5) C

Fretboard positions (T, A, B strings):

Chord	T	A	B
C7(#9)	11	11	8
C7/Bb	11	13	10
A7	13	12	11
Eb13	13	12	11
D7(#9)	11	11	10
Ab7	13	11	13
G7(#9)	11	10	9
Db7(b5)	8	10	9
C	8	8	8

Hidden Roots

Negative Harmony

See a more thorough study of negative harmony in “[Substitution](#)”/Categories of Substitute Chords/[Negative Harmony](#).

Negative harmony (also called dualism) provides an alternate set of notes and chords to create tension and release with the notes of a diatonic scale such as the major scale. It is a perspective of harmonic

music theory that came from science and math studies. It determines an axis half-way between the tonic (C in C major) and the dominant (G in C major). From that axis, for each ascending interval, it mirrors the interval downward. This is calculated with frequency (cycles per second) and is approximated the twelve-tone equal tempermant system that we use.

You don't need to understand the scientific basis of this theory to use it. Use alternate chords this system provides as alternatives in composition and improv. Test all the negative harmony alternate chords you use. They are much less dependable and predictable than chords build on the major scale and its modes.

major scale-tone triads, sevenths and ninths with negative harmony

original key	C	C#	Db	D	Eb	E	F	F#	Gb	G	Ab	A	Bb	B	Cb
negative harmony	Ab	A	Bbb (A)	B	Cb	C	Db	D	Eb	E	Fb (E)	F	Gb	G	Abb (G)

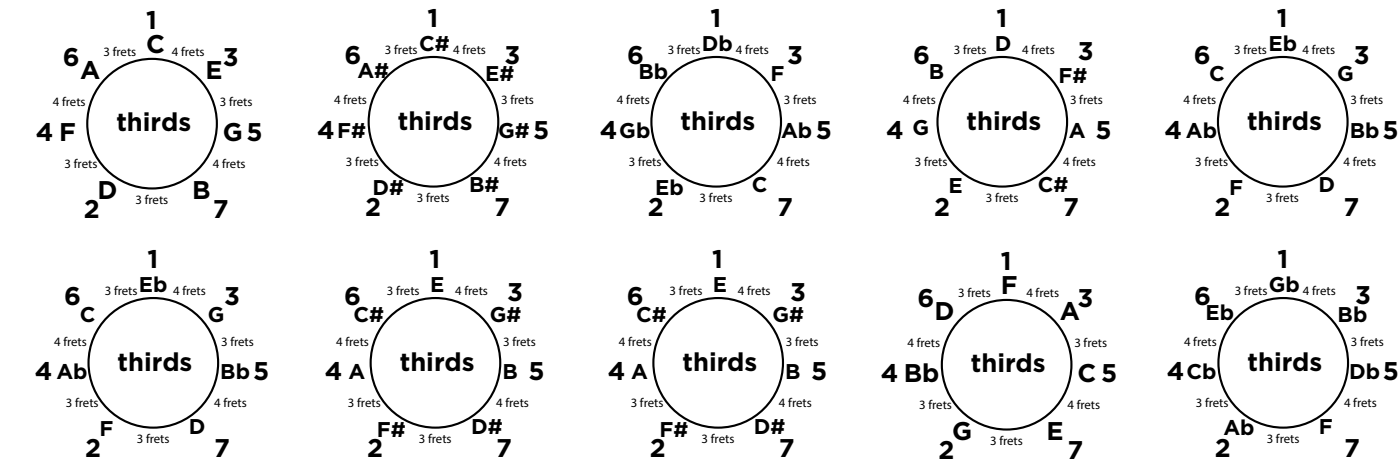
negative harmony chords by number

original	I		II		III		IV		V		VI		VII	
	original	negative harm.	original	negative harm.	original	negative harm.	original	negative harm.	original	negative harm.	original	negative harm.	original	negative harm.
triad	I _{ma}	I _m	II _m	bVII	III _m	bVI	IV _{ma}	V _m	V _{ma}	IV _m	VI _m	bIII	VII _{dim}	IIdim
seventh	I _{ma} 7	bVII _{ma} 7	II _m 7	V _m 7	III _m 7	IV _m 7	IV _{ma} 7	bIIIΔ7	V7	II _m 7b5	VI _m 7	Im7	VII _m 7b5	bVII7
ninth	I _{ma} 9	IV _m 9	II _m 9	n/a	n/a	n/a	IV _{ma} 9	Im9	V9	n/a	VI _m 9	bVIΔ9	n/a	n/a

negative harmony chords by letter

The table beow shows negative harmony triads, seventh chords and and ninth chords in C major by letter. The original major scale-tone chord is in the left of each counmn (C, C_{ma}7, C_{ma}9) and the respective negative harmony on the right (C_m, Ab_{ma}7, F_m9). The circle diagrams show chord tones for all keys. To spell each chord, use the circle diagrams. Triads use three consecutive notes, beginning with the root (letter name of the chord). Seventh chords use four consecutive notes. Ninth chords use five consecutive notes. See diagrams and tables for negative harmony in all keys in “[Substitution](#)”/Categories of Substitute Chords/[Negative Harmony](#).

original key cycles of thirds with the negative harmony key cycle of thirds below each



C major with Eb major negative harmony

C major	C		D		E		F		G		A		B	
triad	C	Cm	Dm	Bb	Em	Ab	F	Gm	G	Fm	Am	Eb	Bdim	Ddim
seventh	Cma7	Abma7	Dm7	Gm7	Em7	Fm7	Fma7	EbΔ7	G7	Dm7b5	Am7	Cm7	Bm7b5	Bb7
ninth	Cma9	Fm9	Dm9	n/a	n/a	n/a	Fma9	Cm9	G9	n/a	Am9	AbΔ9	n/a	n/a

Ambiguity

REMOTE MODULATION AND QUASI-DIATONIC CHORD PROGRESSION

The Parent Scale

The parent scale for the mode in use is one of the four harmonize-able seven-tone scales (major scale, harmonic minor, melodic minor and harmonic major). Major sharp five is the basis of harmonic minor and can be used as a parent scale. The parent scale for D Dorian is C major scale. The parent scale for A harmonic minor is C major sharp five. See the chapters "[Modes](#)" / Modes of Four Heptatonic Scales and [Key Signatures](#).

Remote Modulation

Changing to a key with many changes of sharps or flats (accidentals) and/or a change of mode is jarring to the listener and makes a *remote modulation*. The total number of changed accidentals can be (1) the total of added sharps and deleted flats or (2) the total of deleted sharps and added flats. B major, for example, has five sharps (F#, C#, G#, D#, A#) and F major has one flat (Bb), so changing from B major to F major is a change of six accidentals.

Up Or Down A Half Step Is Mildly Remote

When you change seven accidentals, the parent scale, the key is changing chromatically. This could be either (1) a total of seven added sharps and deleted flats or (2) a total of seven deleted sharps and added flats.

Shared Tones

More shared tones (but not none) between the original and new mode make the modulation less remote. Fewer shared tones (but not none) between the original and new mode make the modulation more remote. No shared tones makes the modulation chromatic.

remote modulation song examples

About a Girl

Baker Street

Californication

Don't Stand So Close to Me

Every Breath You Take

Five Hundred Miles High

Flying in A Blue Dream

Giant Steps

Good Day Sunshine

In Bloom

In Your Eyes

Love Theme (Bladerunner)

Never Gonna Let You Go

New Kid in Town

Oh, Pretty Woman

Penny Lane

Phase Dance

Smells Like Teen Spirit

Something

You're Going to Lose That Girl

SIMULTANEOUS MULTIPLE KEYS

See “[Substitution](#)”/[Secondary Keys](#).

CHROMATIC CHORD PROGRESSION

CHROMATIC ROOT MOVEMENT

Chromatic Passing Chords Between Stepwise Pairs of Chords of the Same Quality

major scale-tone stepwise chord pairs of the same quality

IV and V major triads can be connected with a chromatic passing chord: IV- \sharp IV-V or V- \flat V-IV.

II \flat m and III \flat m triads can be connected with a chromatic passing chord: II \flat m- \sharp II \flat m-III \flat m or III \flat m- \flat III \flat m-II \flat m.

II \flat m7 and III \flat m7 chords can be connected with a chromatic passing chord: II \flat m7- \sharp II \flat m7-III \flat m7 or III \flat m7- \flat III \flat m7-II \flat m7.

melodic minor scale-tone stepwise chord pairs of the same quality

IV and V major triads can be connected with a chromatic passing chord: IV- \sharp IV-V or V- \flat V-IV.

IV7 and V7 can be connected with a chromatic passing chord: IV7- \sharp IV7-V7 or V7- \flat V7-IV7.

IV9 and V9 can be connected with a chromatic passing chord: IV9- \sharp IV9-V9 or V9- \flat V9-IV9.

VI diminished and VII diminished triads can be connected with a chromatic passing chord: VI \dim 7- \sharp VI \dim 7-VII \dim 7 or VII \dim 7- \flat VII \dim 7-VI \dim 7.

VI \dim 7 \flat 5 and VII \dim 7 \flat 5 can be connected with a chromatic passing chord: VI \dim 7 \flat 5- \sharp VI \dim 7 \flat 5-VII \dim 7 \flat 5 or VII \dim 7 \flat 5- \flat VII \dim 7 \flat 5-VI \dim 7 \flat 5.

Diminished Seventh as a Chromatic Connecting Chord

descending dominant seventh bassline with chromatic diminished chords

see “[Building Cadences with Chromaticized Bass](#)” (the descending versions of most modes).

[click to play](#)

♩ = 90

Chord progressions and fingerings:

- F7: 1 2 3 4 5 (1)
- F°7: 1 6 b3 b5 (1)
- E°7: 1 6 b3 b5 (1)
- F7/Eb: 2 1 (1) 1 (1)
- D°7: 1 6 b3 b5 (1)
- Db°7: 1 6 b3 b5 (1)
- F7/C: 5 3 b7 1 (1)
- B°7: 1 6 b3 b5 (1)
- Bb°7: 1 6 b3 b5 (1)
- F7/A: 3 1 5 b7 (1)
- Ab°7: 1 6 b3 b5 (1)
- G°7: 1 6 b3 b5 (1)
- F7: 1 2 3 4 5 (1)

Big Nick - [click to play](#)

Swing Eighthths

♩ = 120

Chord progressions and fingerings:

- Gmaj7: 1 2 3 4 5 (1)
- Em7: 1 6 b3 b5 (1)
- Am7: 1 6 b3 b5 (1)
- D7: 1 2 3 4 5 (1)
- Gmaj7: 1 2 3 4 5 (1)
- Em7: 1 6 b3 b5 (1)
- Am7: 1 6 b3 b5 (1)
- D9/F#: 1 2 3 4 5 (1)
- Gmaj7: 1 2 3 4 5 (1)
- B°7: 1 6 b3 b5 (1)
- Cmaj7: 1 2 3 4 5 (1)
- C°7: 1 6 b3 b5 (1)
- G6/D: 1 2 3 4 5 (1)
- Em7: 1 6 b3 b5 (1)
- Am7: 1 6 b3 b5 (1)
- D9: 1 2 3 4 5 (1)
- Gmaj7: 1 2 3 4 5 (1)

Stormy Weather with chromatic diminished connecting chord - [click to play](#)

Swing Eighth
♩ = 63

Chord progression: Gmaj7, G#o7, Am11, D7, Gmaj7, G#o7, Am7, Am9, D9(#5), D9.

Chromatic Descending Minor

Chromatic Ascending Minor

Chromatic Descending Mixed Mode

CHROMATIC DIMINISHED CHORD PROGRESSION

The [Diminished Seventh as a Chromatic Connecting Chord](#) progression discussed in the previous section involved chromatic root movement. In other chromatic diminished chord progressions, chromatic voice movement may occur in voices other than the root. The root may stay the same during a pair of chords while the third or fifth move chromatically.

Michelle verse chromatic diminished - [click to play](#)

Swing Eighthths
♩ = 115

1 F 2 B \flat 7(\flat 9) 3 E \flat 6

4 D \flat 7 5 C 6 C

IV7-#IV°7-I7

IVm7-#IV°7-Im7

major Im7(b5)-#II°7-I

descending diminished

ascending diminished

II-bII-I

EXTENDED CHROMATIC VOICE LEADING

Voice leading to every chromatic top-voice note from every chromatic bass note. See [“Top Voice-Leading Cadences in Song Progressions”/Top-Voice-Lead Any Chord with Any Key Tone.](#)

Table of All Top-Voice Cadences

chord root , top-voice numbering and parent scales

The chord roots numbered at the top of the columns and the top-voice tones numbered at the left of each row are numbered in terms of the parent scale. See [Key Scales, Parent Scales and Chord Scales/Parent Scale](#). The top-voice numbers after a back slash (“\”) in each chord name are in the key of the chord root.

“back slash” (“\”) chords

The top voice tone for each chord in the table is shown by number after a backslash (“\”). “7b9\b2” is a seven flat nine chord with “b2” in the key of the chord root as the highest pitch. With the root on “C”, “7b9\b2” would be C7b9\Db specifying a chord with C-E-G-Bb-Db where “Db” is the highest pitch. Forward slash chords specify a bass note, where C7/Bb is a C7 chord with “Bb” in the bass. These two forms of slash can be combined. “C7/Bb\E” is a C7 chord with “Bb” in the bass and “E” as the highest pitch.

columns have roots ordered in fourths

Since columns organize the chord roots in perfect fourths, any three consecutive chords in a row can be used as a II-V-I cadence, where the third chord is the temporary key (or permanent key if the duration and emphasis is great enough).

secondary dominant (“SD”) rows and mood

Using alternate chords from the secondary dominant row makes a cadence more dramatic and stronger. See the Secondary Dominant chapter. The secondary dominant chords are darker in mood. Don’t change moods too frequently. A few dark consecutive altered dominant chords can move to a major seventh, sixth or other chord of a bright mood with a pleasing effect. A three-chords sequence with dark angry chord to bright happy chord to dark angry chord can be confusing, especially if the change is fast. The effect of mood changes is time-based, so take that into account in sequencing chords in an arrangement.

flat five substitute (“b5 sub.”) rows

Chords from the flat five substitute provide an alternate for the secondary dominant. The flat five substitute chords are usually dominant type or altered dominant chord with their chord root on a note a flattened fifth from the s secondary dominant chord. In some cases, they are 7sus4 or major seventh to accommodate the needed top voice tone.

	VII	III	VI	II	V	I	IV	bVII	bIII	bVI	bII	bV/#IV
1	n/a	n/a	m7\♭3	m7\♭7	7sus4\4	6\1	ma7\5	ma9\2	6\6	ma7\3	ma7\7	ma7#11\#4
SD	7♭9\♭9	7#5#9\#5	7#9\♭3	7\♭7	same ↑	7\1	7 or 9\5	7 or 9\2	13\6	7 or 9\3	n/a	9#11\#4
b5 sub.	IV7\5	bVII13\2	bIII13\6	bVI7\3	bIIma7\7	bV7♭5\♭5	VII7♭9\♭2	III7#5\#5	VI7#9\♭3	II7\♭7	V7sus4\4	I7\1
#1/♭2	9#5\2	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6\1	ma7\5
SD	9♭5\2	13(♭9)\6	7\3	n/a	7#11\#4	7♭9\♭2	7#5#9\#5	7#9\#2	7\♭7	7sus4\4	7\1	9\5
b5 sub.	IV7#5\#5	bVII7#9\♭3	bIII7\♭7	bVI7sus4\4	bII7\1	bV7\5	VII9\2	III13♭9\6	VI7\3	IIma7\7	V7♭5\♭5	I7♭9\♭2
2	m7♭5\♭3	m7\♭7	7sus4\4	m7\1	7\5	ma9\2	IV6\6	ma7\3	ma7\7	ma7#11\#4	n/a	n/a
SD	7♭5#9	7/♭7	same ↑	7\1	7 or 9\5	9\2	13\6	7 or 9\3	n/a	9#11\#4	7♭9\♭2	7#5#9\#5
b5 sub.	IV13\6	bVII7\3	bIIIma7\7	bVI7♭5\♭5	bII7♭9\♭2	bV7#5\#5	VII7#9\♭3	III7\♭7	VI7sus4\4	II7\1	V7\5	I9\2
#2/♭3	n/a	n/a	m7♭5\♭5	n/a	n/a	n/a	n/a	n/a	6\1	ma7\5	ma9\2	n/a
SD	7♭5\3	n/a	7♭5\♭5	7♭9\♭2	7#5#9\#5	7#9\♭3	7\♭7	7sus4\4	7\1	7 or 9\5	9\2	13♭9\6
b5 sub.	IV7\♭7	bVIIsus4\4	bIIIma7\1	bVI7\5	bII9\2	bV13\6	VII7♭9\3	n/a	VI7♭5\♭5	II7♭9\♭2	V7#5#\#5	I7#9\♭3
3	m7/11♭5\4	m7\1	m7\5	m7\2	13\6	6 or ma7\3	ma7\7	ma7#11\#4	n/a	n/a	n/a	n/a
SD	n/a	7\1	7\5	9\2	13#9\6	7\3	n/a	9#11\#4	7♭9\♭2	7#5#9\#5	7#9\♭3	7♭5\♭7
b5 sub.	IVma7\7	bVII7♭5\♭5	bIII7♭9\♭2	bVI7#5\#5	bII7#9\♭3	bV7\♭7	VII7sus4\4	III7\1	VI7\5	II9\2	V13\6	I7\3
4	m7♭5\♭3	n/a	n/a	m7\♭3	7/♭7	ma7sus4\4	6\1	ma7\5	ma9\2	IV6\6	ma7\3	n/a
SD	7♭5#9\♭3	7♭9\♭2	7#5#9\#5	7#9\♭3	same ↑	7sus4\4	7\1	9\5	9\2	13\6	7 or 9\3	n/a
b5 sub.	IV7\1	bVII7\5	bIII9\2	bVI13\6	bII7\3	bVma7\7	VII7♭5\♭5	III7♭9\♭2	VI7#5\#5	II7#9\#2	V7\♭7	I7sus4
#4/♭5	m7\5	m9\2	m6\6	7\3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
SD	7\5	9\2	13\6	7 or 9\3	n/a	7♭5\♭5	7♭9\♭2	7#5\#5	7#9\♭3	7\♭7	7sus4\4	7♭5\1
b5 sub.	IV7♭9\♭2	bVII7#5\#5	bIII7#9\♭3	bVI7\♭7	bII7sus4\4	bV7\1	VII7♭9\5	III9\2	VI 13\6	II7\3	n/a	I7♭5\♭5
5	n/a	m7\♭3	m7\♭7	m11\4	7 or 9\1	6 or ma7\5	ma9\2	6\6	ma7\3	ma7\7	ma7#11\#4	n/a
SD	7#5\#5	7#9\♭3	7 or 9\♭7	9sus4\4	same ↑	7 or 9\5	9\2	13\6	7\3	n/a	9#11\#4	7♭9\♭2
b5 sub.	IV9\2	bVII13\6	bIII7\3	bVIma7\7	bII7♭5\♭5	bV7♭9\♭2	VII7#5♭9\#5	III7#9\♭3	VI7\♭7	II7sus4\4	V7\1	I7\5
#5/♭6	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	ma7\5	n/a
SD	13♭5\6	7 or 7♭9\3	n/a	9#11\#4	7♭9\♭2	7#5\#5	7#9\♭3	7 or 9\♭7	7sus5\4	7 or 9\1	7\5	9\2
b5 sub.	IV7#9\♭3	bVII7\♭7	bIII7sus4\4	bVI7\♭1	bII7\5	bV9\2	VII 13♭9\6	III7\3	VIma7\7	II7♭5\♭5	V7♭9\♭2	I7#5\#5
6	m7♭5\♭7	m11\4	m7\1	m7\5	9\2	6\6	ma7\3	ma7\7	ma7#11\#4	n/a	n/a	n/a
SD	7♭5\♭7	9sus4\4	7\1	7 or 9\5	same ↑	13\6	n/a	n/a	9#11\#4	7♭9\♭2	7#5\#5	7#9\♭3
b5 sub.	IV7\3	bVIIma7\7	bIII7#11\#4	bVI7♭9\♭2	bII7#5\#5	bV7#9\♭3	VII7♭5♭9\♭7	III9sus4\4	VI7\1	II7\5	V9\2	I 13\6
#6/♭7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6\1	ma7\5	ma9\2	6\6	n/a
SD	n/a	7♭5\♭5	7♭9\♭2	7#5\#5	7#9\♭3	7\♭7	7sus4\4	13\1	7 or 9\5	9\2	13\6	7\3
b5 sub.	IV7sus4\4	bVIIma7\1	bIII7\5	bVI79\2	bII13\6	bV7\3	VII7♭9\♭2	III7♭5\♭5	VI7♭9\♭2	II7#5\#5	V7#9\♭3	I7\♭7
7	m7♭5\1	m7\5	m9\2	m6\6	7 or 9\3	ma7\7	ma7#11\#4	n/a	n/a	n/a	n/a	n/a
SD	7♭5\1	7 or 7♭9\5	9\2	13\6	same ↑	n/a	9#11\#4	7♭9\♭2	7#5\#5	7#9\♭3	7\♭7	7sus4\4
b5 sub.	IV7♭5\♭5	bVII7♭9\♭2	bIII7#\#5	bVI7#9\♭3	bII7\♭7	bV7sus4\4	VII9♭5\2	III7\5	VI9\2	II 13\6	V7\3	Ima7\7
	VII	III	VI	II	V	I	IV	bVII	bIII	bVI	bII	bV/#IV
parent scale	I major							bVII major	bIII major	bIII or bVI major	bII major	bII mel. min.

OTHER PROGRESSION AND TREATMENTS

DIMINISHED-SOUNDING DOMINANT CADENCES

See “[Voice Leading](#)”/[Diminished-Sounding Dominant Cadences](#).

CHORD PROGRESSION WITH QUARTAL AND QUINTAL HARMONY

See “[Quartal and Quintal Harmony](#)”.

ABBREVIATION AND CORE CHORD PROGRESSION

See [“Abbreviating and Elaborating Chord Progression”/Abbreviation](#).

ELABORATION

See “[Abbreviating and Elaborating Chord Progression](#)”/Elaboration.

THE VAMP

PEDAL POINT CHORD PROGRESSION

See “[Pedal Point Chord Progression](#)”.

I-IV-I7

All Blues
Cantaloupe Island
Change the World
Cold Duck Time
My Generation
Only You Know and I Know
Watermelon Man (Mongo Santamaria)

Pedal Point Triads

Cast Your Fate to the Wind
Fool on the Hill
Hill Street Blues Theme
Let It Rain
Milestones
Pinball Wizard

HARMONIZED BASSLINE

See “[Triad Bass Harmonization](#)” and “[Jazz Bass Harmonization](#)”.

HARMONIZED TOP VOICE

See “Voice Leading”, “Voice Leading Improv with Arpeggio Cadences”, “Core Melody with Baroque-Bebop Ornamentation”, “Voice Leading Improv with Substitute Chords” and “Top Voice-Leading Cadences in Song Progressions”.

Improv on Triad Chord Progression

- **Scale-Tone Triad Chord Progression**
- **Triad Progression Song List**

SCALE TONE TRIAD CHORD PROGRESSION

TRIAD PROGRESSION SONG LIST

Improv on Seventh Chord Progression

- **Basic Comping, Melody and Improv**
- **Seventh Chord Song List**
- **Parent Scale Chords and Arpeggios**
- **Summary Chord Songs**
 - Aeolian Summary Chord Songs
 - Dorian Summary Chord Songs
 - Mixolydian Summary Chord Songs
 - Major Summary Chord Songs
 - Mixolydian and Dorian Summary Chord Songs
 - Phrygian dominant Summary Chord Songs
- **IIIm-V (Im-IV) Songs**
- **I7-IV7 Songs**
- **Im-V7 Songs**
- **Andalusian Cadence Songs**
- **Songs with Major II-V-I in One Key**
- **Minor II-V-I Songs**
- **Songs with Major II-V-I in Three or More Keys**
- **1-6-2-5 Songs**
- **Modal Songs**
- **Blues Songs (Jazz)**
- **Harmonic Minor Cadence Songs**
- **Melodic Minor Cadence Songs**
- **Major Flat Six Songs**
- **7-3-6-2-5-1-4 Songs**

BASIC COMPING, MELODY AND IMPROV

Work up a version of comping and melody in a simple manner on each song. Use both auditory and print resources. Just because it is in print, doesn't mean its correct. First play the melody and comping separately. If you can combine them as a chord solo or some kind of arrangement, that's great, but don't let that prevent you from getting a working version of the comping and melody right away.

cycle through a short list of songs

Practice a few songs at a time to make it interesting. You also can study batches of songs that cover the same subject, such as the same type of chord progression, melodic or harmonic structure or technique. Make a list of three to ten songs, closer to three. Play them all in three stages.

Work an Element into Your Improv

practice a new element

Play a set of and element for a few minutes, then integrate them into free improv. Constantly look for areas of improvement and new ideas. Exercise a technique in a progressive manner with a few instances, like a set of bend exercises. Find a new [melodic cell](#) and practice it up and down a scale or arpeggio. Practice set of rhythms to use in your comping or soloing. See [Comping Rhythms](#) and "[be inventive rhythmically](#)".

work the element into your improv

Now improvise a guitar part in your existing style, without introducing the new element at first. After minute or two, work the new element into your improv. Spend as much time or more improvising than you did exercising.

within a couple days, use the integrated improv in jamming or performing with someone

At least, play in in performing state of mind, as if you are being heard by an audience. By practicing an element, then working it into your improv, now you need to use it in some sort of performance in the next few days, before it is lost. If you use it in performance soon enough, it can get integrated into your playing, and review effortlessly as you perform!

SEVENTH CHORD SONG LIST

The songs below were ordered according to the complexity of their chord progression. One “point” was given for each major II-V-I, minor II-V-I-bII, sequence of fourths cadence or complex key change (shown by an asterisk after the number of keys in the last column).

Minor Key Songs

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
The Work Song								
Eleanor Rigby								
St. James Infirmary								
House of the Rising Sun								
Caravan								
Minnie the Moocher								
The Thrill Is Gone								
My Favorite Things								
Road Song								
Summertime								
Sunny								
This Masquerade								

Andalusian Cadence Songs (parent VIm-V-IV-III)

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Hit the Road Jack								
Stray Cat Strut								
Walk Don't Run								
Topsy								
Feeling Good (Nina Simone)								
Song for My Father			1			Vim, V, IV, III	2	Real Book 6
Sultans of Swing								

Modal Songs

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Affirmation	1						2	New Real Book 1
Afro Blue			1			IIIm, IIIIm, IV	2	Real Book 6
Canteloupe Island							3*	Colorado Cookbook
Mercy, Mercy, Mercy							1	New Real Book 1
Moanin'		1	2				1	New Real Book 2
Put It Where You Want It	1				K bVII, I ^o 7, I7		1	New Real Book 1
Poinciana								Real Book 3
Killing Me Softly With His Song	1		1 (next-to-last chord)	2-5-1-4			2	New Real Book 1
Red Baron	1						1	

Blues

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
All Blues			1				1	Real Book 6
Au Privave	1			1-6-2-5			1	Real Book 6
Bag's Groove							1	Standards Real Book
Billie's Bounce	2			1-6-2-5 7-3-6-2- 5-1-4			1	Real Book 2
Bloomdido			1(bIIIm)	1-6-2-5			1	Real Book 2
Equinox			1				1	Real Book 6
Freddie Freeloader							1	Real Book 6
Mr. P.C.			1				1	Real Book 6
Sonnymoon for Two	1			1-6-2-5			1	Real Book 3
Tenor Madness	1			1-6-2-5			1	Real Book 2

Songs With Major II-V-I in One or Two Keys

	major II-V	minor II-V	bII (of target) (Lyd dom.)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Breezin'	1			6-2-5-1			1	
Chasing the Bird	2		1	3-6-2-5-1-4			5	Real Book 4
Dizzy Atmosphere		1	6	6-2-5-1	K bV-IV-III-bIII- II-bII-I		7	Real Book 6
Easy to Love	1	2		3-6-2-5-1-4	K IIIIm7=bIIIo7- IIIm7		2	Real Book 6
The Flintstones	5			3-6-2-5-1-4			5	Colorado Cookbook
The Girl From Ipanema	2		2	2-5-1			4	Real Book 6
Gypsy In My Soul	3			6-2-5-1-4			3	Real Book 6
Have You Met Miss Jones?	3			3-6-2-5-1-4				Real Book 6
I Got Rhythm	5			3-6-2-5-1-4			5	Standards Real book
Jelly Roll	1		4	6-2-5-1-4			1	Real Book 6
Let's Fall in Love	3			3-6-2-5-1-4			2	New Real Book 1
Moonlight in Vermont	3			6-2-5-1			3	Real Book 6
Moose the Moochie	5			3-6-2-5-1-4			5	Real Book 2
Oleo	5							Real Book 6
Scrapple From the Apple	4			3-6-2-5-1-4	K 3-4-#4-5 starts at bar 5.3		5	Real Book 6
Solitude	2			6-2-5-1-4-b7			2	Real Book 6
Somebody Loves Me	1	2	2	3-6-2-5-1-4			2	Real Book 6
Speak Low	5	2		6-2-5-1			2	Real Book 2
Stormy Weather	1			6-2-5-1-4	1-#1-2		3	New Real Book 1
Take the "A" Train	2			2-5-1-4			2	Real Book 6
Thanks for the Memory	2			6-2-5-1	1-#1-2		2	Real Book 6
What Am I Here For?	4		1	2-5-1-4	1-#1-2		3	Real Book 6

Minor II-V-I Songs

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Angel Eyes (minor key I VI II V)	4	1	1	minor 1-6-2-5			3	New Real Book 1
Autumn Leaves	1	1		7-3-6-2-5- 1-4			2	Real Book 6
Black Orpheus	1	2		7-3-6-2-5- 1-4			3	Real Book 6
Chopin Waltz Op. 64, No. 2	1	1					1	
Don't Get Around Much Anymore	1	2					2	Real Book 6
Gentle Rain	3	1	1	3-6-2-5-1			1	Real Book 1
My Funny Valentine	1	2	1		K/C 1,7,b7,6,b6		1	Standards Real Book
Night in Tunisia	1	3	1				3	Real Book 6
Round Midnight	4	4			C17b76			Standards Real Book
Softly As In A Morning Sunrise	1	1					2	Real Book 2
Sugar		1	2				1	Real Book 6
Valdez in the Country	3		1				1	Standards Real Book

Major II-V-I In Three or More Keys

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
500 Miles High	3	1					7	Real Book 1
Afternoon in Paris	3						3	Real Book 1
All the Things You Are	4	2		7-3-6-2- 5-1-4			3	Real Book 6
Bluesette	4	2					6	Standards Real Book
Dexterity	4		1	7-3-6-2- 5-1-4			5	Real Book 6
Donna Lee	3	1					2	Real Book 6
Four	5						1	New Real Book 1
God Bless the Child	3	1			K 1,7,b7,6		3	Real Book 6
Golden Lady	4				C 1,7,b7,6, b6,5	I,IIIm,IIIm	4	Real Book 6
Groovin' High	4				KIIIm,bIIIm, IIIm		1	Real Book 6
Here's that Rainy Day	4						4	New Real Book 1
How High the Moon	3	1	1				3	Real Book 6

One for My Baby	3 (two V IIm)		1			I, IIm, IIIIm; IIm, IIIIm, IV,V		New Real Book 1
Ornithology	4	1		3-6-2-5-1	K 3,b3,2,b2,1		3	Real Book 6
Round Midnight	4	4			C17b76			Standards Real Book
Skylark	4	1	3	1-6-2-5			3	New Real Book 1
Someday My Prince Will Come	3				K3,b3°7,2; KIV:4,#4°7,5		2	Real Book 6
Somewhere) Over the Rainbow	3	2	1 (bVII in fifth bar of A)	6-2-5-1	KIIIIm, bIII°7, IIm		2	New Real Book 1
Tune Up	3						3	New Real Book 1

1-6-2-5 Songs

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Angel Eyes (minor key I VI II V)	4	1	1	minor 1-6-2-5			3	New Real Book 1
Anthropology	2			1-6-2-5, 3-6-2-5	K 1#12,			Real Book 6
Au Privave	1			1-6-2-5	IV7#iV°7 I7		1	Real Book 6
Bag's Groove					IV7#iV°7 I7		1	Standards Real Book
Breezin'	1			1-6-2-5			1	
Donna Lee	3	1					2	Real Book 6
I Got Rhythm	1			1-6-2-5			3	Standards Real Book
In a Sentimental Mood	3	2		1-6-2-5	K/C 1,7,b7,6,b6		2	Real Book 6
Isn't She Lovely	1	1		6-2-5-1			2	
One Note Samba	2		2		K 3,b3,2,b2		3	Real Book 6
Misty	4			1-6-2-5				New Real Book 1
St. Thomas	2		2	1-6-2-5, 3-6-2-5	K 34#45			New Real Book 1
Stormy Weather	1			1-6-2-5, 3-6-2-5	K 1#12, 4#45, 5#56			New Real Book 1
Tenor Madness	1			1-6-2-5	IV7#iV°7 I7		1	Real Book 2
The Way You Look Tonight	3			1-6-2-5			2	New Real Book 1
Yardbird Suite	2	2	1	3-6-2-5-1			3	Real Book 2

3-6-2-5-1 Songs

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Anthropology	2			1-6-2-5, 3-6-2-5	K 1#12,			Real Book 6
Girl from Ipanema	4	1	1	3-6-2-5-1			4	Standards Real Book
Have You Met Miss Jones	5			3-6-2-5-1	K #4°7		5	Standards Real Book
The In Crowd	1			3-6-2-5-1				
It Don't Mean A Thing	2			3-6-2-5-1	^C 1,7,b7,6,b6,5		3	Real Book 6
Meditation	3	1		3-6-2-5-1	K 3,b3,2		2	Standards Real Book
Misty	5	1		3-6-2-5-1			2	New Real Book 1
St. Thomas	2		2	1-6-2-5, 3-6-2-5	K 34#45			New Real Book 1
Stormy Weather	1			1-6-2-5, 3-6-2-5	K 1#12, 4#45, 5#56			New Real Book 1
Yardbird Suite	2	2	1	3-6-2-5-1			3	Real Book 2

7-3-6-2-5-1-4

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
All the Things You Are	4	2		7-3-6-2-5-1-4			3	Real Book 6
Autumn Leaves	1	1		7-3-6-2-5-1-4			2	Real Book 6
Billie's Bounce	2			1-6-2-5 7-3-6-2-5-1-4			1	Real Book 2
Black Orpheus	1	2		7-3-6-2-5-1-4			3	Real Book 6
Confirmation	4	2		7-3-6-2-5-1-4			3	Real Book 6
The Days Of Wine and Roses	3	2	1 (second chord is b5 of fourth chord)	7-3-6-2-5-1-4			1	Standards Real Book
Fly Me to the Moon	2	2		7-3-6-2-5-1-4			1	New Real Book 2
Georgia on My Mind	5	1	1	7-3-6-2-5-1-4			2	
Scapple from the Apple	1	1		7-3-6-2-5-1-4	K 4,#4°7,5		1	Real Book 6
Take Five	1	1		7-3-6-2-5-1-4			2	Standards Real Book
There Will Never Be Another You	3	1		1-6-2-5			2	Real Book 1

Harmonic Minor Cadence

(see common minor key scales and arpeggios)

	major II-V	minor II-V	bII (of target) (mel.min. IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Autumn Leaves	1	1		7-3-6-2-5-1-4			2	Real Book 6
Black Orpheus	1	2		7-3-6-2-5-1-4			3	Real Book 6
Blue Bossa	1	1					2	Real Book 6
Caravan	1	1	1	1-6-2-5			2	Real Book 2
Fly Me to the Moon	2	2		7-3-6-2-5-1-4			1	New Real Book 2
My Funny Valentine	1	2	1		K/C 1,7,b7,6,b6		1	Standards Real Book
Nature Boy		2						New Real Book 1
Road Song	5	1					3	Real Book 6

Melodic Minor Cadence

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Footprints	1		2				1	Real Book 6
Glass Onion	1		1				1	
I Want You (intro/chorus)			1				1	
Moanin'		1	2				1	New Real Book 2
One Note Samba	2		2		K 3,b3,2,b2		3	Real Book 6
Pawky			1				1	
Song for My Father			1			Vim, V, IV, III	2	Real Book 6
Sugar		1	2				1	Real Book 6
Sunny		1	1				1	Standards Real Book
This Masquerade	3		1		K/C 1,7,b7,6		3	New Real Book 1
Tenderly	4	1			K4#45		1	New Real Book 1
Willow Weep for Me	5	2			K2#234			New Real Book 1

Major Flat Six

	major II-V	minor II-V	bII (of target) (mel.min.IV)	fourths	chromatic K=key voice C=chord voice	stepwise 3 or more	keys	favorite fake book
Sleepwalk							1	
Poinciana								Real Book 3

PARENT SCALE CHORDS AND ARPEGGIOS

chords

E form root

VIIIm7b5 precedes I or III	VII dim. 7 precedes I or III	Ima7	bII7 precedes I	IIIm7	II7	bIII7 precedes II
1 b7 b3 5	1 6 b3 b5	1 7 3 5	1 b7 3 5	1 b7 b3 5	1 b7 3 5	1 b7 3 5

C form root

1 b3 b7 1	b3 6 1 b5	1 3 5 7	1 3 b7 1	1 b3 b7 1	1 3 b7 1	1 3 b7 1

A form root

1 5 b7 b3 5	1 b5 6 b3	1 5 7 3	1 5 b7 3	1 5 b7 b3 5	1 5 b7 3	1 5 b7 3

arpeggios

E form parent

VIIIm7b5	VII dim7	Ima9/6	bII 13#11	IIIm11	II9	bIII 13#11
7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	b1 b7 b3 b5	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
1 4 5 1	1 4 5 1	1 4 5 1	b2 b1 b6 b2	1 4 5 1	1 4 5 1	1 4 5 1
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	b3 b6 b2 b7 b3	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2

D form parent

7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	b3 b6 b2 b7 b3	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
1 4 5 1	1 4 5 1	1 4 5 1	b1 b7 b3 b5	1 4 5 1	1 4 5 1	1 4 5 1
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	b2 b1 b6 b2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2

C form parent

7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	b3 b6 b2 b7 b3	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
1 4 5 1	1 4 5 1	1 4 5 1	b1 b7 b3 b5	1 4 5 1	1 4 5 1	1 4 5 1
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	b2 b1 b6 b2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2

A form parent

7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	b3 b6 b2 b7 b3	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
1 4 5 1	1 4 5 1	1 4 5 1	b1 b7 b3 b5	1 4 5 1	1 4 5 1	1 4 5 1
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	b2 b1 b6 b2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2

G form parent

7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	b3 b6 b2 b7 b3	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
1 4 5 1	1 4 5 1	1 4 5 1	b1 b7 b3 b5	1 4 5 1	1 4 5 1	1 4 5 1
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	b2 b1 b6 b2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2

chords

E form root

IIIIm7	III7b9 precedes VI	IV7 precedes III	IVma7	bV7 precedes IV	V7	bVI7 precedes V
1 b7 b3 5	b7 3 5 b2	1 b7 3 5	1 7 3 5	1 b7 3 5	1 b7 3 5	1 b7 3 5

C form root

1 b3 b7 1	1 3 b7 b2	1 3 b7 1	1 3 5 7	1 3 b7 1	1 3 b7 1	1 3 b7 1

A form root

1 5 b7 b3 5	b2 5 b7 3	1 5 b7 3	1 5 7 3	1 5 b7 3	1 5 b7 3	1 5 b7 3

arpeggios

E form parent

IIIIm7	III7b9	IV 13#11	IVma9/6	bV 13#11	V9	bVI 13#11
7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2

D form parent

7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2
3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3
4 1 4	4 1 4	4 1 4	4 1 4	4 1 4	4 1 4	4 1 4
7 3 6	7 3 6	7 3 6	7 3 6	7 3 6	7 3 6	7 3 6

C form parent

7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3
4 1 4	4 1 4	4 1 4	4 1 4	4 1 4	4 1 4	4 1 4
5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5
5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5

A form parent

7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
4 1 4	4 1 4	4 1 4	4 1 4	4 1 4	4 1 4	4 1 4
5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5	5 1 4 2 5
6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6
7 3 6	7 3 6	7 3 6	7 3 6	7 3 6	7 3 6	7 3 6

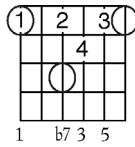
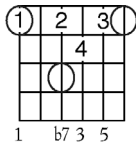
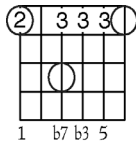
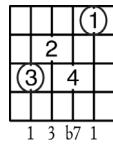
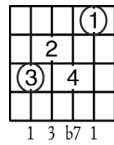
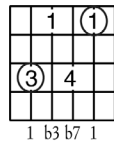
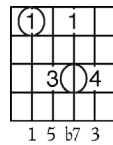
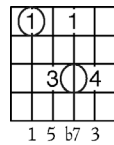
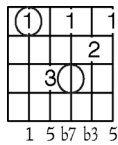
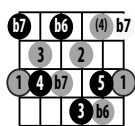
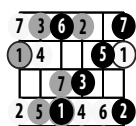
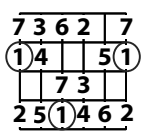
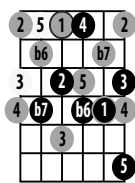
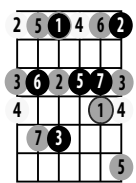
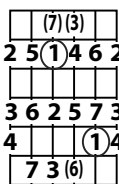
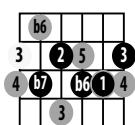
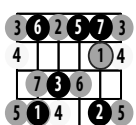
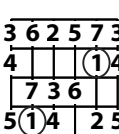
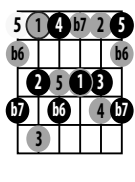
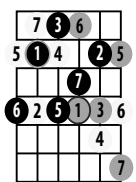
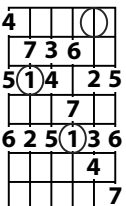
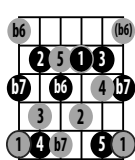
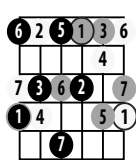
G form parent

7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7	7 3 6 2 7
6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6
7 3 6	7 3 6	7 3 6	7 3 6	7 3 6	7 3 6	7 3 6
1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2

Parent Scale Chords and Arpeggios (continued)

chords**VIm7****VI7****bVII 7**

precedes VI

E form root**C form root****A form root****arpeggios****VIm11****VI9****bVII 13#11****E form parent****D form parent****C form parent****A form parent****G form parent**

SUMMARY CHORD SONGS

AEOLIAN SUMMARY CHORD SONGS

Do I Wanna Know

chords

Gm7	Ebm7	Cm7	D7b9
1 b7 b3 5	1 7 3 5	1 b7 b3 5	b7 3 5 b2
1 b3 b7 1	1 3 5 7	1 b3 b7 1	1 3 b7 b2
1 5 b7 b3 5	1 5 7 3	1 5 b7 b3 5	b2 5 b7 3

arpeggios

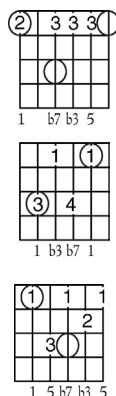
	Gm triad, Gm pent., G Aeolian	Gm11	Ebm9/6	Bbm11	D7b9
Bb major parent	"6" of Bb major scale	"6" of Bb major scale	"4" of Bb major	"2" of Bb	"3" of Bb major sharp five
E form parent					
D form parent					
C form parent					
A form parent					
G form parent					

Eleanor Rigby

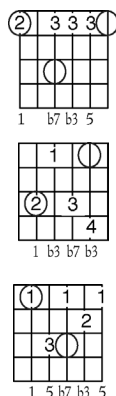
E Aeolian (G major scale, with "E" on "6") can be used melodically throughout by avoiding sustain and repetition of the "C" note during the Em6 chord. The Em6 has a "C#", which we want to avoid combining with "C" (avoid the "4" of the parent G major scale). After mastering that approach, *then* work at changing to the E Dorian scale during the Em6 chord.

chords

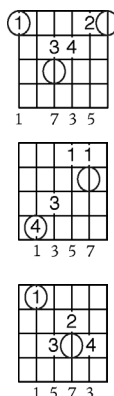
Em7



Em6



Cma7



arpeggios

Em triad, Em pent., E Aeolian

"6" of G major scale

Em11

"6" of G major scale

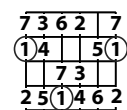
Em11

"2" of D major

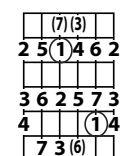
Cma9/6

"4" of G major

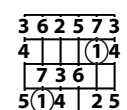
E form parent



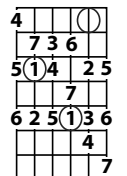
D form parent



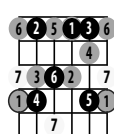
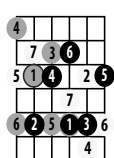
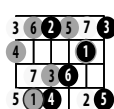
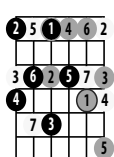
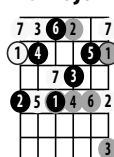
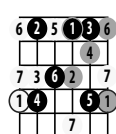
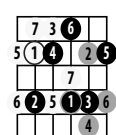
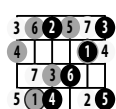
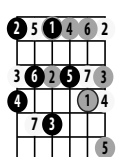
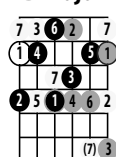
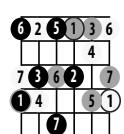
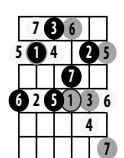
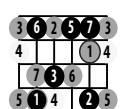
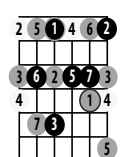
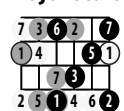
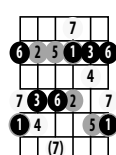
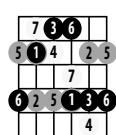
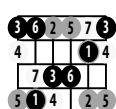
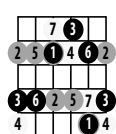
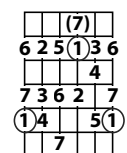
C form parent



A form parent



G form parent



Sunny in Am

chords

Am7	C7	Fma7	III7b9 precedes VI	bVII 7 precedes VI	VIIIm7b5 precedes I or III
1 b7 b3 5	1 b7 3 5	1 7 3 5	b7 3 5 b2	1 b7 3 5	1 b7 b3 5
1 b3 b7 1	1 3 b7 1	1 3 5 7	1 3 b7 b2	1 3 b7 1	1 b3 b7 1
1 5 b7 b3 5	1 5 b7 3	1 5 7 3	b2 5 b7 3	1 5 b7 3	1 5 b7 b3 5

arpeggios

Am triad, Am pent., A Aeolian	Am11	C9	Fma9/6	III7b9	bVII 13#11	VIIIm7b5
C major parent "6" of G major scale	"6" of C major scale	"5" of F major	"4" of C major	"4" of C major #5	"4" of F major b3*	"7" of C major
E form parent						
D form parent						
C form parent						
A form parent						
G form parent						

The Thrill Is Gone

chords

Bm7	Em7	Gma7	G7 (darker)	F#7b9
1 b7 b3 5	1 b7 b3 5	1 7 3 5	1 6 b3 b5	b7 3 5 b2
1 b3 b7 1	1 b3 b7 b3	1 3 5 7	b3 6 1 b5	1 3 b7 b2
1 5 b7 b3 5	1 5 b7 b3 5	1 5 7 3	1 b5 6 b3	b2 5 b7 3

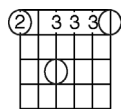
arpeggios

Bm triad, Bm pent., B Aeolian	Bm11	Em11	Gma9/6	G 13#11	F#7b9	
D major parent	"6" of D major scale	"2" of D major	"4" of D major	"4" of D mel. min.	"3" of D major #5	
E form parent						
D form parent						
C form parent						
A form parent						
G form parent						

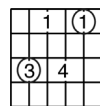
The Work Song

chords

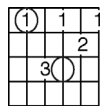
Fm7



1 b7 b3 5

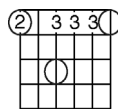


1 b3 b7 1

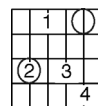


1 5 b7 b3 5

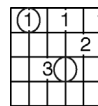
Bbm7



1 b7 b3 5

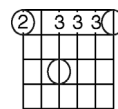


1 b3 b7 b3

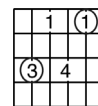


1 5 b7 b3 5

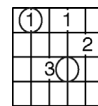
Gm7b5



1 b7 b3 5

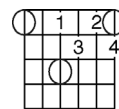


1 b3 b7 1



1 5 b7 b3 5

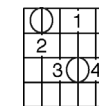
C7b9



b7 3 5 b2



1 3 b7 b2



b2 5 b7 3

arpeggios

Fm triad, Fm pent.,

Fm11

Bbm11

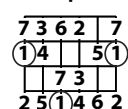
Gm7b5

C7b9

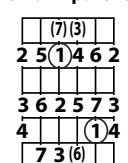
F Aeolian

F major parent

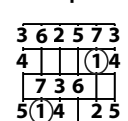
E form parent



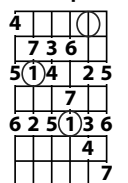
D form parent



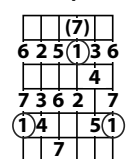
C form parent



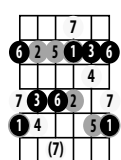
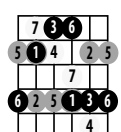
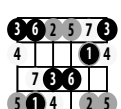
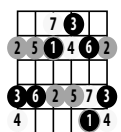
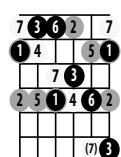
A form parent



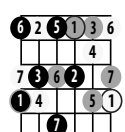
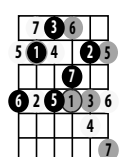
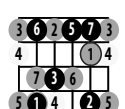
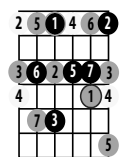
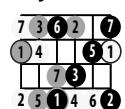
G form parent



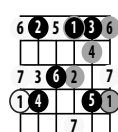
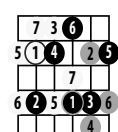
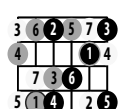
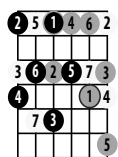
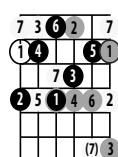
"6" of Ab major scale



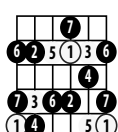
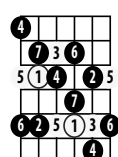
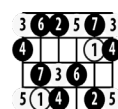
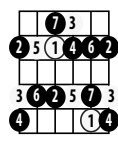
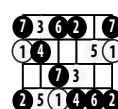
"6" of Ab major scale



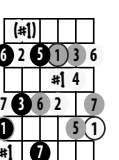
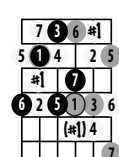
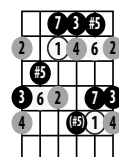
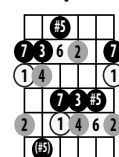
"2" of Ab



"7" of Ab



"3" of Ab major sharp five



* F major flat three is F melodic minor

St. James Infirmary

House of the Rising Sun

Minnie the Moocher

My Favorite Things

Road Song

Summertime

This Masquerade

DORIAN SUMMARY CHORD SONGS

MIXOLYDIAN SUMMARY CHORD SONGS

MAJOR SUMMARY CHORD SONGS

MIXOLYDIAN AND DORIAN SUMMARY CHORD SONGS

PHRYGIAN DOMINANT SUMMARY CHORD SONGS

IIm-V (Im-IV) SONGS

IIm-V Will Be Referred to as “Im-IV”

In terms of the parent scale (C, for example), we are discussing “IIm-V” (Dm-G). Since the tone center will be on IIm, in Dorian mode. IIm (Dm) will be called Im (Dm), thinking in the Dorian (D Dorian) key on “II” of the parent scale. The “V” (G) chord in the original IIm-V would then be numbered “IV” (G is IV of D).

IIm-V (Im-IV) Songs to Improvise On

“IR” in the “IR” column indicates that the song is in the [All Favored iReal Pro](#) (link) playlist (download the playlist to be able to open it in iReal Pro). Titles followed by “*” elaborate a little on the Im-IV progression. Titles followed by “**” elaborate a little on the Im-IV progression. Use this [Spotify playlist](#).

beats per chord	BPM	title and link	key	backing track link	IR	comping link
4-Im, 4-IV	78	Use Me	Em	MFLy Music	IR	
4-Im, 4-IV	97	This Masquerade	Fm	TopBackingTracks	IR	
4-Im, 4-IV	102	Mister Magic	Cm	Yevgeniy Kuzmov	IR	
4-Im, 4-IV	128	Oye Como Va	Am	SmzGuitar	IR	
4-Im, 4-IV	60	Rivierva Paradise*	Em	TopBackingTracks	IR	
4-Im, 4-IV	117	Fixing A Hole*	Fm	The Backing Tracks	IR	
4-Im, 4-V	127	From the Beginning**		GMIL 1959	IR	
4-Im, 4-IV	85	Mad World**	Fm	Paris Music	IR	
4-Im, 4-IV	105	It's Too Late**	Am	Kara Fun Karaoke	IR	
		starts on Am, in C				
2-Im, 2-IV	70	Montuno Funk		Juan Manuel	IR	
2-Im, 2-IV	105	I Wish	Ebm	MFLy Music	IR	
2-Im, 2-IV	118	Evil Ways	Gm	Backtrack Professional Karaoke	IR	
6-Im, 2-IV	108	A Go-Go	Cm	Backing TracksFor-Guitar	IR	
6-Im, 2-IV	115	In Memory of Elizabeth Reed	Am	Weeping Willow	IR	
1.5-Im, 2.5-IV	85	Red Baron	Gm	Backing Tracks GuitarBarry	IR	

click to play video

A⁷ A^7

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linear pentatonic beginning the beat with current chord tones, with YOUR filler

3

Swing Sixteenths

♩ = 78

29

Em⁷ A⁷ Em⁷ A⁷

starting on root of Im⁷ starting on root of IV⁷ starting on b3 of Im⁷ starting on 5 of IV⁷

34

Em⁷ A⁷ Em⁷ A⁷

starting with a push on 5 of Im⁷ starting on 3 of IV⁷ starting with a push on b7 of Im⁷ starting on b7 of IV⁷

38

Em⁷ A⁷ Em⁷ A⁷ Em⁷

starting with a push on b7 of Im⁷ starting on root of IV⁷ starting on b3 of Im⁷ starting on 3 of IV⁷

* linear Dorian beginning the beat with current chord tones, with Dorian and Im pentatonic filler

Swing Sixteenths

♩ = 78

43

Em⁷ A⁷ Em⁷ A⁷

starting with a "rest" push on root of Im⁷ starting with a push on 5 of Im⁷ starting on b7 of IV⁷ starting with a push on b3 of Im⁷ starting with a push on b7 of IV⁷ starting on 3 of IV⁷

48

Em⁷ A⁷ Em⁷ A⁷

starting with 5 of Im⁷ starting with a push on root of IV⁷ b7 of IV⁷ root of IV⁷ 9 (2) of IV⁹

52

Em⁷ A⁷ Em⁷ A⁷ Em⁷

starting with a push on root of Im⁷ starting with a push on 9 (2) of Im⁹ starting on 9 (2) of IV⁹ starting with a push on 3 of IV⁷ starting on 9 (2) of Im⁹ starting on 3 of IV⁷

C

see the links in the description below to Chromaticized Arpeggios and Chromaticized Scales on Arpeggios

[illegible]

Improvise on Use Me in the XI & XII Position Area on Em-A

[Use Me Link to Use Me backing track in Em](#) (MFLy Music). [Link to Use Me comping.](#)

Minor Pentatonic Licks

Im7 & IV7 Arpeggios

See [Prime Chords, Scales and Arpeggios/Quadrad Arpeggios](#)-E form form m7th arpeggio & A form 7th arpeggio. Practice this Im7-IV7 arpeggio exercise.

Four-Note Im Pentatonic Cells, Beginning on a Im7 Chord Tone

Practice ascending or descending I minor pentatonic from each of the Im7 chord tones (1-b3-5-b7), starting on the beat with four ascending or descending four sixteenth notes (or four eighth notes at a fast tempo) of the I minor pentatonic scale. Improvise through the remainder of Im7 and all of IV7. Segue the harmonic cells into and out of Im pentatonic licks.

Four-Note Im Pent. Cells, Beginning on a Im7 or IV7 chord tone

Play four-note linear sixteenth-note harmonic cells using I minor pentatonic, starting with Im7 tones beginning on beat one of Im7 and with IV7 tones beginning on the first beat of IV7.

Practice ascending or descending I minor pentatonic from each of the Im7 chord tones (1-b3-5-b7), starting on the beat. Practice ascending or descending I minor pentatonic from each of the IV7 chord tones starting on the beat. When you begin on the third (3) of IV7, continue by ascending or descending to the nearest tone of I minor pentatonic, then continue in Im pentatonic. Segue the harmonic cells into and out of Em pentatonic licks. Use rhythmic theme and variation by replaying the four note cell earlier or later in the bar and by syncopating it.

E Form, A Form and D Form Dorian Scale Fingerings with I7, I9, IV7 and IV9 Arpeggio Subsets

The preferred forms for minor arpeggios and minor pentatonic are E form, A form and D form. Dorian fingerings use major scale fingerings with the tone center on "2". See [Major Scale Summary/Fingerings](#). You may want to study all the E form examples below at once and practice improvising in E form, then do the same for the A form examples and for the D form examples.

black and grey color-coding in the diagrams below

In the seventh diagrams below, the black tones are the seventh arpeggio and the remaining tones complete the Dorian mode.

In the ninth diagrams below, each octave of the ninth arpeggio is shown in grey. The remaining "4" and "6" tones complete the Dorian mode.

In the "4-7" type pentatonic diagrams below, the triad is black tones and the grey tones are the added "4" and "b7" to complete the minor pentatonic arpeggio, while adding all the remaining tones completes the Dorian mode. 4-7 pentatonic scales are modeled after minor pentatonic which adds 4 and b7 to a minor triad.

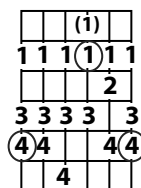
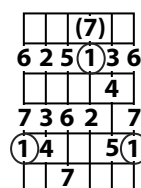

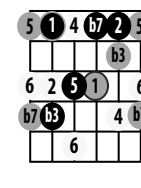
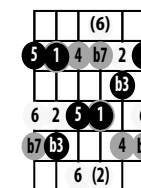
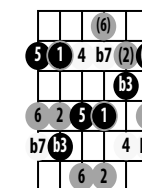


In the "2-6" type pentatonic diagrams below, the triad is black tones and the grey tones are the added "2" and "6" to complete the major pentatonic scale, while adding all the remaining tones completes the Dorian mode. 2-6 pentatonic scales are modeled after major pentatonic which adds 2 and 6 to a major triad.

The I Dorian scales are numbered in I Dorian, so the root of the Im7 or Im9 chord is "1" on the Dorian diagrams. The IV Mixolydian scales are numbered in IV Mixolydian, so the root of the IV7 or IV9 chord is "1" on Mixolydian diagrams.

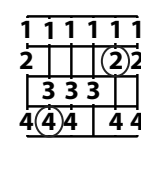
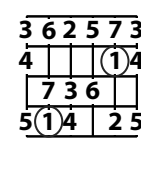
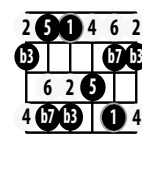
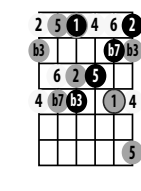
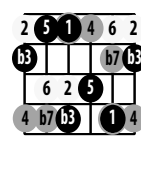
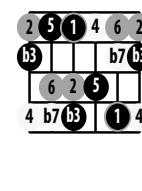
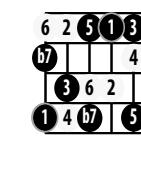
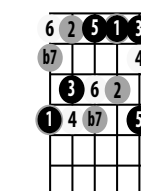
E form Dorian uses major scale fingerings 2 and 1/2

major fingering 2 by fingers	major fingering 2 by formula	I Dorian F2 and m7 by formula	I Dorian F2 and Im9 by formula	I Dorian F2 4-7 type pent. by formula	I Dorian F2 2-6 type pent. by formula	IV Mixo. F2 and 7th arp. by formula	IV Mixo. F2 and 9th arp. by formula
major fingering 1/2 by fingers	major fingering 1/2 by formula	I Dorian F1/2 and m7 by formula	I Dorian F1/2 and Im9 by formula	I Dorian F1/2 4-7 type pent. by formula	I Dorian F1/2 2-6 type pent. by formula	IV Mixo. F1/2 and 7th arp. by formula	IV Mixo. F1/2 and 9th arp. by formula

A form Dorian uses major scale fingering 6

major fingering 6 by fingers	major fingering 6 by formula	I Dorian F6 and m7 by formula	I Dorian F6 and Im9 by formula	I Dorian F6 4-7 type pent. by formula	I Dorian F6 2-6 type pent. by formula	IV Mixo. F6 and 7th arp. by formula	IV Mixo. F6 and 9th arp. by formula
							

D form Dorian uses major scale fingering 3

major fingering 3 by fingers	major fingering 3 by formula	I Dorian F3 and m7 by formula	I Dorian F3 and Im9 by formula	I Dorian F3 4-7 type pent. by formula	I Dorian F3 2-6 type pent. by formula	IV Mixo. F3 and 7th arp. by formula	IV Mixo. F3 and 9th arp. by formula
							

Linear Harmonic Cells

Practice ascending or descending I Dorian with four sixteenth notes (or four eighths at a fast tempo) from each of the Im7 chord tones (1-b3-5-b7) and starting on the beat at the beginning of the chord. Segue pentatonic and Dorian harmonic cells into and out of Im pentatonic licks. Do the same with six note cells per beat (or two triplets during two beats).

Octatonic and Hextatonic Scales

Octatonic (eight-tone) scales can be used to play linearly and assure that you are playing a chord tone of a particular seventh chord on every beat. Hextatonic (six-tone) scales can be used to play linearly and assure that you are playing a chord tone of a particular triad on every beat. Learn octatonic and Hextatonic scales to be able to start on a particular note and ascend or descend linearly through the entire range of the scale and change direction at any time.

build octatonic scales

Octatonic scales are made by adding a sharp five to a mode that has a six or by adding a natural seven to a mode that has a b7. By adding the #5 or 7, you can play linearly up and down and have a chord tone on every beat. You can change direct at any time. #5 puts sixth chord on the beat and 7 puts seventh chord tones on the beat. You can add 7 to Dorian to play linearly with chord tones on the beat. By thinking of tone four of Dorian as a tone center, it becomes IV Mixolydian. In Mixolydian, you can add 7 (in the

key of IV Mixolydian to playing linearly with IV7 tones on the beat or add #5 of IV Mixolydian to play linearly with IV6 tones on the beat. You can combine octatonic with arpeggios, but when you resume the scale, make sure you begin with a chord tone on the beat.

build hexatonic scales

Hexatonic scales can be made by adding a “2” to a 4-7 type pentatonic (like minor pentatonic) or by adding a “4” to a 2-6 type pentatonic (like major pentatonic).

Rhythmic Exercises

Play Im7, Im9, IV7 and IV9 arpeggios with pickups, pushes, rhythmic displacement and anti-metric grouping.

Pivot Tone Exercises

Play the E Dorian scale with each tone of Em9 and A9 as a pivot tone (separately). Include versions with the pivot tone on the beat and off the beat.

Thirds and Sixths

Double Stops

Chromaticizing

Study the chapters [Chromaticized Arpeggios](#) and [Chromaticized Scales on Arpeggios](#) and add those melodic devices to your Dorian improv.

Seamlessly Blend The Content of These Studies with Your Improv

Improvise with your existing style and segue in and out of the phrases with the content above.

I7-IV7 SONGS

Im-V7 SONGS

ANDALUSIAN CADENCE SONGS

Topsy

chords

Dm7	Gm7	Em7b5	A7b9	VIIIm7b5	D7b9
1 b7 b3 5	1 b7 b3 5	1 b7 b3 5	b7 3 5 b2	1 b7 b3 5	b7 3 5 b2
1 b3 b7 1	1 b3 b7 b3	1 b3 b7 1	1 3 b7 b2	1 b3 b7 1	1 3 b7 b2
1 5 b7 b3 5	1 5 b7 b3 5	1 5 b7 b3 5	b2 5 b7 3	1 5 b7 b3 5	b2 5 b7 3

arpeggios

Dm11	Gm11	Em7b5	A7b9	Am7b5	D9
F major parent	"6" of F	"2" of F	"7" of F	Bb major parent	"7" of Bb
E form parent	E form parent	E form parent	E form parent	E form parent	E form parent
7 3 6 2 1 7	7 3 6 2 1 7	7 3 6 2 1 7	7 3 6 2 1 7	7 3 6 2 1 7	7 3 6 2 1 7
1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2
D form parent	D form parent	D form parent	D form parent	D form parent	D form parent
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2
3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3
4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5
7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2
C form parent	C form parent	C form parent	C form parent	C form parent	C form parent
3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3	3 6 2 5 7 3
4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5
7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2
2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2	2 5 1 4 6 2
A form parent	A form parent	A form parent	A form parent	A form parent	A form parent
4 1 4 5 1 4 2 5	4 1 4 5 1 4 2 5	4 1 4 5 1 4 2 5	4 1 4 5 1 4 2 5	4 1 4 5 1 4 2 5	4 1 4 5 1 4 2 5
6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6
7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2
4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5
G form parent	G form parent	G form parent	G form parent	G form parent	G form parent
6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6	6 2 5 1 3 6
7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2	7 3 6 2
4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5	4 1 4 5
1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1	1 4 5 1

Hit the Road Jack

Topsy

Feeling Good (Nina Simone)

Song For My Father

Stray Cat Strut

Sultans of Swing

Walk Don't Run (Johnny Smith)

SONGS WITH MAJOR II-V-I IN ONE KEY

Dizzy Atmosphere chords and arpeggios

chords

A7	Ab6	Fm7	Bbm7	Eb7	D7	Db7	C7	B7	Bb7

D down
half step

down
half

down
half

down
half

step
step

arpeggios

E form parent

A13#11	Abma9/6 (Am11)	Fm11	Bbm11	Eb9	(for next chord)	D9	Db9	C9	B9	Bb9

D form parent

A13#11	Abma9/6 (Am11)	Fm11	Bbm11	Eb9	(for next chord)	D9	Db9	C9	B9	Bb9

C form parent

A13#11	Abma9/6 (Am11)	Fm11	Bbm11	Eb9	(for next chord)	D9	Db9	C9	B9	Bb9

A form parent

A13#11	Abma9/6 (Am11)	Fm11	Bbm11	Eb9	(for next chord)	D9	Db9	C9	B9	Bb9

G form parent

A13#11	Abma9/6 (Am11)	Fm11	Bbm11	Eb9	(for next chord)	D9	Db9	C9	B9	Bb9

Take the "A" Train chords and arpeggios

chords

Cma7	D7b5	Dm7	G7	Fma7	D7

arpeggios

Cma9/6 (Am11)	D13#11	Dm9	G9	Fma9/6 (Dm11)	D9

Breezin'
Chasin' the Bird
Dexterity
Dizzy Atmosphere
Easy to Love
The Flintstones
The Girl From Ipanema
Gypsy In My Soul
Have You Met Miss Jones?
I Got Rhythm
Jelly Roll
Let's Fall in Love
Moonlight in Vermont
Moose the Moochie
Oleo
Scrapple From the Apple
Solitude
Somebody Loves Me
Speak Low
Stormy Weather
Take the "A" Train
Thanks for the Memory
What Am I Here For?

MINOR II-V-I SONGS

SONGS WITH MAJOR II-V-I IN THREE OR MORE KEYS

How High The Moon

bar 1 Gma7 G major scale	bar 2 Gma7	bar 3 Gm7 F major scale	bar 4 C7	bar 5 Fma7	bar 6 Fma7	bar 7 Fm7 Bb major scale	bar 8 Bb7
bars 9 Ebma7 G major scale	bar 10 Am7b5 D7	bar 11 Gm7 F major scale	bar 12 Am7b5 D7	bar 13 Gma7 G major scale	bar 14 Em7	bar 15 Bm7 Bb7	bar 16 Am7 D7 Bb major scale
bar 17 Gma7 G major scale	bar 18 Gma7	bar 19 Gm7 F major scale	bar 20 C7	bar 21 Fma7	bar 22 Fma7	bar 23 Fm7 Bb major scale	bar 24 Bb7
bars 25 Ebma7 Eb major scale	bar 26 Am7b5 D7 Bb, maj. (opt. #5)	bar 27 Gma7 G major scale	bar 28 Am7 D7	bar 29 Bm7 E7 G major scale	bar 30 Am7 D7	bar 31 Gma7 G major scale	bar 32 Am7 D7

Ornithology chords

bar 1 Gma7 G major scale	bar 2 Gma7	bar 3 Gm7 F major scale	bar 4 C7	bar 5 Fma7	bar 6 Fma7	bar 7 Fm7 Eb major scale	bar 8 Bb7
bars 9 Ebma7 Eb major scale	bar 10 Am7b5 D7 Bb major scale	bar 11 Gm7	bar 12 Am7b5 D7	bar 13 Bm7 G major scale	bar 14 Em7	bar 15 Am7	bar 16 D7
bars 17 Gma7 G major scale	bar 19 Gma7	bar 19 Gm7 F major scale	bar 20 C7	bar 21 Fma7	bar 22 Fma7	bar 23 Fm7 Eb major scale	bar 24 Bb7
bars 25 Ebma7 Eb major scale	bar 26 Am7b5 D7 Bb major scale	bar 27 Gma7 G major scale	bar 28 Am7 D7	bar 29 Bm7 E7	bar 30 Am7 D7	bar 31 G6	bar 32 Am7 D7

Tune Up chords

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Em7	A7	Dma7	Dma7	Dm7	G7	Cma7	Cma7
D major scale				C major scale			
bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Cm7	F7	Bbma7	Gm7	Em7	F7	Bbma7	A7
G major scale		F major scale		D major scale	Bb major scale		D major scale
bars 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Em7	A7	Dma7	Dma7	Dm7	G7	Cma7	Cma7
D major scale				C major scale			
bars 25	bar 26	bar 27	bar 28	bar 29	bar 30	bar 31	bar 32
Cm7	F7	Bbma7	Gm7	Em7	A7	Dma7	Dma7
G major scale		F major scale		D major scale			

Bluesette chords

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Bbma7	Bbma7	Am7b5	D7	Gm7	C7	Fm7	Bb7
Bb major scale				F major scale		Eb major scale	
bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Ebma7	Ebma7	Ebm7	Ab7	Dbma7	Dbma7	C#m7	F#7
Eb major scale		Db major scale		B major scale			
bars 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Bma7	Bma7	Cm7	F7	Dm7	G7	Cm7	f7
B major scale		Bb major scale		C major scale		Bb major scale	

Afternoon In Paris, bars 1-8 chords

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Cma7	Cm7 F7	Bbma7	Bbm7 Eb7	Abma7	Dm7 G7	Cma7	Dm7 G7
C major scale	Bb major scale		Ab major scale		C major scale		

All The Things You Are chords

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Fm7	Bbm7	Eb7	Abma7	Dbma7	Dm7 G7	Cma7	Cma7
Ab major scale					C major scale		
bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Cm7	F7	Bb7	Ebma7	Abma7	Am7 D7	Gma7	Gma7
Eb major scale					G major scale		
bars 17	bar 19	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Am7	D7	Gma7	Gma7	F#m7b5	B7	Ema7	C7
G major scale						E major scale	Ab major scale
bars 25	bar 26	bar 27	bar 28	bar 29	bar 30	bar 31	bar 32
Fm7	Bbm7	Eb7	Abma7	Dbma7	Dbm7	Cm7	Bdim7
Ab major scale					Cb major scale	Eb major scale	
bars 31	bar 32	bar 33	bar 34				
Bbm7	Eb7	Abma7	Gm7b5 C7				
Ab major scale							

Here's That Rainy Day chords

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
Gma7	Fm7 Bb7	Ebma7	Abma7	Am7	D7	Gma7	Dm7 C7
G major scale	Eb major scale			G major scale			F major scale
bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Cm7	F7	Bbma7	Ebma7	Am7	D7	Gma7 Em7	Am7 D7
F major scale	Bb major scale	F major scale		G major scale			
bars 17	bar 19	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Gma7	Fm7 Bb7	Ebma7	Abma7	Am7	D7	Gma7	Dm7 C7
G major scale	Eb major scale			G major scale			F major scale
bars 25	bar 26	bar 27	bar 28	bar 29	bar 30	bar 31	bar 32
Cma7	Am7 D7	Bm7 Em7	A7	Am7	D7	Gma7 Em7	Am7 D7
C major scale	G major scale		D major scale	G major scale			

1-6-2-5 SONGS

Breezin'

"rhythm changes"

Like I-IV-V blues, the I-VIm-IIIm-V chord progression in Breezin' is a foundation of jazz chord progression. I VIm IIIm V is commonly referred to as "rhythm changes", both because it is a common staple of a rhythm section and is the basis of the song from George Gershwin's American folk opera, *Porgy And Bess*, "I Got Rhythm".

standardizing chords

The chords are standardized to four-note seventh chords by elaborating smaller chords and abbreviating larger ones. A triad would be changed to the appropriate seventh chord type. If it is functioning as a I type chord, it would be a major seventh. If functioning as a VIm type chord, it would be a minor seventh. So, triads are elaborated to seventh chords.

Chords of five or more notes such as ninth chords can be abbreviated to seventh chords. With a ninth, simply omit the ninth. With a thirteenth, use only the seventh chord part of the thirteenth (root, third, fifth and seventh).

The A9sus.4 chord (or G/A) can be treated at first as A7, which would be the standardized version of A9. Afterward, you can go back to the progression and emphasize the "4" of the the A chord, making it suspended. This is treating the A7 as an Em7, the other component in a IIIm7-V7 chord change, where Em7 is the IIIm7 and A7 is the V7. Descending the seven of the Em7 one scale tone makes it A9 no root. See [Descend Seven](#) in the chapter, [Voice Leading](#).

original chord progression →	Dma7	Bm7	Em7	A9sus.4
standardized chord	Dma7 (as is)	Bm7 (as is)	Em7 (as is)	A7
original chord progression →	Dma9	G/A = A9sus4 no 5		
standardized chord	Dma7	A7		

seventh chords on secondary roots of I VIm IIIm V on string set 5-4-3-2

Each of these chords is acceptable as a ninth chord. The hypothetical IIIIm9 and VIIImb5b9 ninth chords on steps III and VII are not acceptable, since they would have flat ninths. We only find flat ninths acceptable on dominant chords (chords with a major third and flattened seventh). See All Scale Tone Chords/[Principles of Acceptable Dissonance](#) and Scale Ambiguity/Ambiguous Scales for Dominant Chords/[Comparing Dominants with Flat Nine](#).

Seventh chords of each ninth chord are shown below. To figure this out, you need to have the cycle of thirds in numbers memorized so you can figure out what is on the third of the current chord (see Note Sets, Structures and Design/Number and Letter Cycles/[Number Cycles](#)). You also need to know the

major scale-tone seventh chord qualities, so you can state the type of seventh chord on that note that is the third of the current chord. See Scale-Tone Seventh Progression/[Constructing Scale-Tone Seventh Chords](#).

Secondary roots are Ima9 is 1-3-5-7-2, so IIIIm7 (3-5-7-2) is on its third. VIm9 is 6-1-3-5-7, so Ima7 (1-3-5-7) is on its third. IIIm9 is 2-4-6-1-3, so IVma7 (4-6-1-3) is on its third. V9 is 5-7-2-4-6, so VIIIm7b5 (7-2-4-6) is on its third.

<i>roman-numbered seventh</i>	Ima7	VIm7	IIIm7	V7
<i>seventh chord by letter</i>	Dma7	Bm7	Em7	A7
<i>scale tones of D</i>	1-3-5-7	6-1-3-5	2-4-6-1	5-7-2-4
<i>roman-numbered ninth</i>	Ima9	VIm9	IIIm9	V9
<i>seventh chord by letter</i>	Dma9	Bm9	Em9	A9
<i>scale tones of D</i>	1-3-5-7-2	6-1-3-5-7	2-4-6-1-3	5-7-2-4-6
<i>seventh chord on third</i>	IIIIm7	Ima7	IVma7	VIIIm7b5
<i>seventh chord by letter</i>	F#m7	Dma7	Gma7	C#m7b5
<i>scale tones of D</i>	3-5-7-2	1-3-5-7	4-6-1-3	7-2-4-6

I VIm IIm V on string set 5-4-3-2

Dma7	Dma7 V 1 5 7 3	Dma7 VII 3 7 1 5	Dma7 XI 5 1 3 7	Dma7* XIV 7 3 5 1
Bm7	Bm7 II 1 5 b7 b3	Bm7 IV b3 b7 1 5	Bm7 VII 5 1 b3 b7	Bm7 XI b7 b3 5 1
Em7	Em7 IV b7 b3 5 1	Em7 VII 1 5 b7 b3	Em7 IX b3 b7 1 5	Em7 XII 5 1 b3 b7
A7	A7 II 3 b7 1 5	A7 VI 5 1 3 b7	A7 IX b7 3 5 1	A7 XII 1 5 b7 3

* Major seventh with the seventh in the bass is dissonant, but as part of a sequence as shown in the first row below, it can make sense to the listener.

alternate IIm7b5 for a minor II V cadence (Em7b5 to A7)

Em7b5	Em7b5 III b7 b3 b5 1	Em7b5 VII 1 b5 b7 b3	Em7b5 IX b3 b7 1 b5	Em7b5 XII b5 1 b3 b7
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secondary root sevenths of Dma9-Bm9-Em9-A9 on strings 5-4-3-2

F#m7	F#m7 II 5 1 b3 b7	F#m7 VI b7 b3 5 1	F#m7 IX 1 5 b7 b3	F#m7 XI b3 b7 1 5
Dma7	Dma7 V 1 5 7 3	Dma7 VII 3 7 1 5	Dma7 XI 5 1 3 7	Dma7* XIV 7 3 5 1
Gma7	Gma7 IV 5 1 3 7	Gma7* VII 7 3 5 1	Gma7 X 1 5 7 3	Gma7 XII 3 7 1 5
C#m7b5	C#m7b5 IV 1 b5 b7 b3	C#m7b5 VI b3 b7 1 b5	C#m7b5 IX b5 1 b3 b7	C#m7b5 XII b7 b3 b5 1

* Major seventh with the seventh in the bass is dissonant, but as part of a sequence as shown in the first row below, it can make sense to the listener.

alternate VII dim7 for secondary root on third of V7b9 (A7b9)

C#dim7	C#dim7 III 1 b5 6 b3	C#dim7 VI b3 6 1 b5	C#dim7 IX b5 1 b3 6	C#dim7 XII 6 b3 b5 1
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I VIm IIm V on string set 6-4-3-2

Dma7	Dma7 III 5 3 7 1	Dma7* VII 7 5 1 3	Dma7 XI 1 7 3 5	Dma7 XII 3 1 5 7
Bm7	Bm7 III b7 5 1 b3	Bm7 VII 1 b7 b3 5	Bm7 IX b3 1 5 b7	Bm7 XII 5 b3 b7 1
Em7	Em7 II b3 1 5 b7	Em7 V 5 b3 b7 1	Em7 VI b7 5 1 b3	Em7 XII 1 b7 b3 5
A7	A7 II b7 5 1 3	A7 V 1 b7 3 5	A7 VII 3 1 5 b7	A7 X 5 3 b7 1

* Major seventh with the seventh in the bass is dissonant, but as part of a sequence as shown in the first row below, it can make sense to the listener.

alternate IIm7b5 for a minor II V cadence (Em7b5 to A7)

Em7b5	Em7b5 II b3 1 b5 b7	Em7b5 V b5 b3 b7 1	Em7b5 VIII b7 b5 1 b3	Em7b5 XI 1 b7 b3 b5
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secondary root sevenths of Dma9, Bm9, Em9, A9 on strings 6-4-3-2

F#m7	F#m7 II 1 b7 b3 5	F#m7 IV b3 1 5 b7	F#m7 VII 5 b3 b7 1	F#m7 X b7 5 1 b3
Dma7	Dma7 III 5 3 7 1	Dma7* VII 7 5 1 3	Dma7 XI 1 7 3 5	Dma7 XII 3 1 5 7
Gma7	Gma7 III 1 7 3 5	Gma7 V 3 1 5 7	Gma7 VIII 5 3 7 1	Gma7* XII 7 5 1 3
C#m7b5	C#m7b5 II b5 b3 b7 1	C#m7b5 V b7 b5 1 b3	C#m7b5 VIII 1 b7 b3 b5	C#m7b5 XI b3 1 b5 b7

* Major seventh with the seventh in the bass is dissonant, but as part of a sequence as shown in the first row below, it can make sense to the listener.

alternate Vldim7 for secondary root on third of V7b9 (A7b9)

C#dim7	C#dim7 II b5 b3 6 1	C#dim7 V 6 b5 1 b3	C#dim7 VIII 1 6 b3 b5	C#dim7 XI b3 1 b5 6
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I VIm IIm V on string set 4-3-2-1

Dma7	Dma7 III 3 7 1 5	Dma7 VII 5 1 3 7	Dma7* X 7 3 5 1	Dma7 XII 1 5 7 3
Bm7	Bm7 III 5 1 b3 b7	Bm7 VII b7 b3 5 1	Bm7 IX 1 5 b7 b3	Bm7 XII b3 b7 1 5
Em7	Em7 II 1 5 b7 b3	Em7 V b3 b7 1 5	Em7 VIII 5 1 b3 b7	Em7 XII b7 b3 5 1
A7	A7 II 5 1 3 b7	A7 V b7 3 5 1	A7 VII 1 5 b7 3	A7 X 3 b7 1 5

* Major seventh with the seventh in the bass is dissonant, but as part of a sequence as shown in the first row below, it can make sense to the listener.

alternate IIm7b5 for a minor II V cadence (Em7b5 to A7)

Em7b5	Em7b5 II 1 b5 b7 b3	Em7b5 V b3 b7 1 b5	Em7b5 VIII b5 1 b3 b7	Em7b5 XI b7 b3 b5 1
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secondary root sevenths of Dma9-Bm9-Em9-A9 on strings 4-3-2-1

F#m7	<p>F#m7 II</p>	<p>F#m7 IV</p>	<p>F#m7 VII</p>	<p>F#m7 X</p>
Dma7	<p>Dma7 III</p>	<p>Dma7 VII</p>	<p>Dma7* X</p>	<p>Dma7 XII</p>
Gma7	<p>Gma7* III</p>	<p>Gma7 V</p>	<p>Gma7 VIII</p>	<p>Gma7 XII</p>
C#m7b5	<p>C#m7b5 II</p>	<p>C#m7b5 V</p>	<p>C#m7b5 VIII</p>	<p>C#m7b5 XI</p>

* Major seventh with the seventh in the bass is dissonant, but as part of a sequence as shown in the first row below, it can make sense to the listener.

alternate Vldim7 for secondary root on third of V7b9 (A7b9)

C#dim7	<p>C#dim7 II</p>	<p>C#dim7 V</p>	<p>C#dim7 VIII</p>	<p>C#dim7 XI</p>
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I-VIm-IIIm-V on string set 5-3-2-1

Dma7	<p>Dma7* II</p>	<p>Dma7 VII</p>	<p>Dma7 X</p>	<p>Dma7 XII</p>
Bm7	<p>Bm7 II</p>	<p>Bm7 IV</p>	<p>Bm7 VII</p>	<p>Bm7 XII</p>
Em7	<p>Em7 III</p>	<p>Em7 VII</p>	<p>Em7 VIII</p>	<p>Em7 XII</p>
A7	<p>A7 II</p>	<p>A7 V</p>	<p>A7 VII</p>	<p>A7 X</p>

* Major seventh with the seventh in the bass is dissonant, but as part of a sequence as shown in the first row below, it can make sense to the listener.

alternate IIIm7b5 for a minor II V cadence (Em7b5 to A7)

Em7b5	<p>Em7b5 III</p>	<p>Em7b5 VI</p>	<p>Em7b5 VIII</p>	<p>Em7b5 XI</p>
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secondary root sevenths of Dma9-Bm9-Em9-A9 on strings 5-3-2-1

F#m7	<p>F#m7 II</p> <p>5 b3 b7 1</p>	<p>F#m7 V</p> <p>b7 5 1 b3</p>	<p>F#m7 IX</p> <p>1 b7 b3 5</p>	<p>F#m7 XI</p> <p>b3 1 5 b7</p>
Dma7	<p>Dma7* II</p> <p>7 5 1 3</p>	<p>Dma7 VII</p> <p>1 7 3 5</p>	<p>Dma7 X</p> <p>3 1 5 7</p>	<p>Dma7 XII</p> <p>5 3 7 1</p>
Gma7	<p>Gma7 III</p> <p>5 3 7 1</p>	<p>Gma7 VII</p> <p>1 7 3 5</p>	<p>Gma7 X</p> <p>1 7 3 5</p>	<p>Gma7 XII</p> <p>3 1 5 7</p>
C#m7b5	<p>C#m7b5 III</p> <p>1 b7 b3 b5</p>	<p>C#m7b5 VI</p> <p>b3 1 b5 b7</p>	<p>C#m7b5 IX</p> <p>b5 b3 b7 1</p>	<p>C#m7b5 XII</p> <p>b7 b5 1 b3</p>

* Major seventh with the seventh in the bass is dissonant, but as part of a sequence as shown in the first row below, it can make sense to the listener.

alternate Vldim7 for secondary root on third of V7b9 (A7b9)

C#dim7	<p>C#dim7 III</p> <p>1 6 b3 b5</p>	<p>C#dim7 VI</p> <p>b3 1 b5 6</p>	<p>C#dim7 IX</p> <p>b5 b3 6 1</p>	<p>C#dim7 XII</p> <p>6 b5 1 b3</p>
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improv with scales

Practice improvising with D major pentatonic first, occasionally darkening with a b3. Practice D minor pentatonic with an optional major third and use it occasionally. Learn ninth arpeggios for each chord. See [Prime Scales, Chords and Arpeggios/Pentatonic Scales](#) and [Ninth Arpeggios](#).

Notice that the intro uses the I-VIm-IIIm-V “rhythm changes” from “I Got Rhythm”.

Design each arpeggio so you are moving by step to the next. If an arpeggio fingering is difficult to interface with another, consider using a few notes from a pentatonic or seven tone scale to connect.

modal double stops

Think in chord scale to work out double stops on each chord. When you actually improvise with them, work to keep focus on the key scale, D major. You probably want to use the double stops sparingly to retain more of a jazz style. They can be very useful in jazz though. You can hear them in Jim Hall’s playing, for example.

I Got Rhythm

First, prepare for improvising by abbreviating the chord progression. Record yourself playing the I-VIm-IIIm-V changes (Bbma7-Gm7-Cm7-F7). Simplify the progression with the arpeggios you practice by playing Gm9 over Bbma7-Gm7 and Cm9 over the Cm7-F7. Before playing with your track, play the arpeggios in a looped fashion that allows you to play nonstop for two bars each. Play with a metronome as you get started to make sure your performance of the arpeggios is strong rhythmically and consistent dynamically.

Next, change to one bar each arpeggio (still just Gm9 and Cm9).

Coordinate the transition from one arpeggio to another, so they change by step and not by skip.

When you’re ready to add more, start playing 1-2-3-5 on F7b9 of Bb harmonic minor to lead into Bb in the first bar. Target the root, third or fifth of Bb.

The most common chord root movement in jazz (and popular music in general) is perfect fourths: 7-3-6-2-5-1-4. In Bb, that is A-D-G-C-F-Bb-Eb. Memorize the sequence of fourths in letters: B-E-A-D-G-C-F. This is used for the accumulative order of flats and is the cycle of fifths backwards. You need to be able to consider a key signature, start on the seventh degree of the scale, recognize that seventh degree’s location in B-E-A-D-G-C-F, and cycle to the end and back from the beginning to include all seven letters. Of course, you must apply the key signature’s flats or sharps and associate the letters respectively with 7-3-6-2-5-1-4, having started on “7”.

In Bb, B and E are flat. The seventh degree of the scale is “A”. Cycling through the order of fourths from “A” and applying the key signature produces A-D-G-C-F-Bb-Eb, corresponding with the numbered tones as follows, including seventh qualities:

7	3	6	2	5	1	4
Am7b5	Dm7	Gm7	Cm7	F7	Bbma7	Ebma7

Bb-Gm-Cm-F, beginning on the Gm is 6-2-5-1

Eb6 in bar 6 is a IV chord in the same emotive family as Ebma7 (Ima7 type).

Edim7 is #IVdim7 and is commonly used during the later of the duration of the IV7 or IV9 chord. It a IV7 chord with a sharped root.

In bar 7, the perfect fourth root sequence is extended to begin on the III chord, Dm7. This makes the progression 3-6-2-5-1, D-G-C-F-Bb.

Yardbird Suite chords

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
C6	Fm7 Bb7	C7 Bb7	A7	D7	G7	Em7 A7	Dm7 G7
F major	Eb major	F maj. b3	F maj. (opt.#5)	C major scale			
bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
C6	Fm7 Bb7	C7 Bb7	A7	D7	G7	C6	F#m7b5 B7b9
Bb major scale	F major scale		Ab major scale	F major scale			G maj. (opt.#5)
bars 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Em7	F#m7b5 B7b9	Em7	A7	Dm7	Em7b5 B7b9	D7	Dm7 G7
G major	G maj. (opt.#5)	G major scale	F maj. (opt.#5)	F major scale		C major scale	
bars 25	bar 26	bar 27	bar 12	bar 13	bar 14	bar 15	bar 16
C6	Fm7 Bb7	C7 Bb7	A7	D7	G7	C6	F#m7b5 B7b9
Bb major scale	F major scale		Ab major scale	F major scale			G maj. (opt.#5)

1-6-2-5 in Bb with Harmonic Minor Cadences

Bb7

Bma6/9, Bb7/11

Bb Misolydian

Bb13, Gm7, Dm7b5

Bb major sharp five

D7b9

G7

Bb7/11#1

Bb Mixo. #1 (C har. min.)

G7b9

Cm7

Cm7/11

C Dorian

Cm13, Ebma7

C Phrygian major

C7b9, Edim7

F7

F Mixolydian

F13, Am9b5

F Phrygian major

F7b9, Edim7

1625 in Bb with Melodic Minor Cadences

Use these on any song in the [1-6-2-5](#) category.

Bb7

Bma6/9, Bb7/11

Bb Misolydian

Bb13, Gm7, Dm7b5

Eb melodic minor

Ab13#11, D7±9±5, Cm9b5

G7

Bb7/11#1

Bb Mixo. #1 (C har. min.)

G7b9

Ab melodic minor

Db13#11, G7±9±5, Fm9b5

Cm7

Cm7/11

C Dorian

Cm13, Ebma7

Db melodic minor

Gb13#11, C7±9±5, Bbm9b5

F7

F Mixolydian

F13, Am9b5

Gb melodic minor

Cb13#11, F7±9±5, Ebm9b5

3-6-2-5-1 Songs

MODAL SONGS

On each modal song, use these two standard layered steps. They build on one another and can be used simultaneously. You can come back to them later and add harmonic minor, melodic minor and arpeggios.

Layer One - Pentatonic Scales

Establish a blues or swing basis. Elaborate with chromatics, using minor pentatonic with chromatics between four and five. See [Movable Pentatonic Scales With One Chromatic](#).

Optionally, microtonal bends on the flatted third. If the chord you are using the microtonally bent flat third on is a minor chord, make the bend slight, so it doesn't make the chord sound major.

If the chord on the same root you are using a microtonally bent flat third on is major (such as a D minor pentatonic scale on a D major chord), the microtonal bend can go higher, but don't get too close to the natural third (without bending all the way to it), or your note may sound erroneously flat.

Layer Two - Pentatonic Scale Subsets of Modes

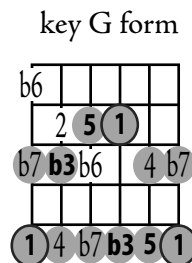
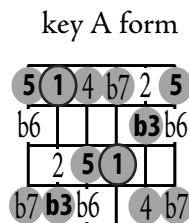
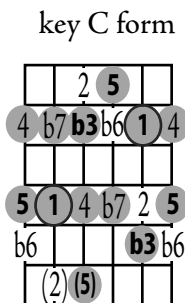
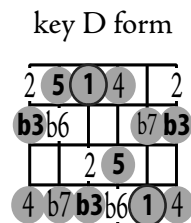
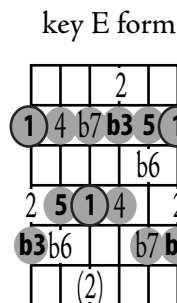
Complete the heptatonic (seven-tone) scale mode, such as F minor pentatonic as a subset of F Aeolian, where you would add the two and flat six to complete the mode.

Common Minor Key Scales and Arpeggios

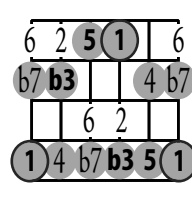
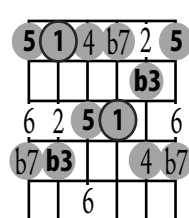
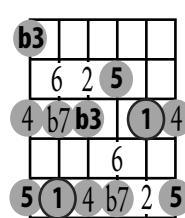
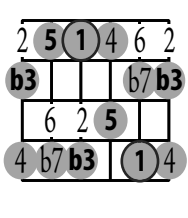
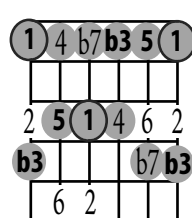
memorize one key form column at a time for each song

key shape →

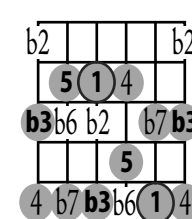
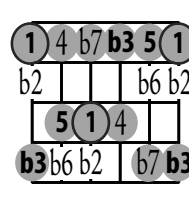
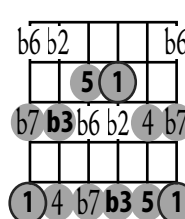
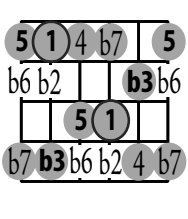
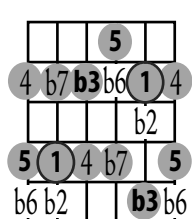
I Aeolian
and its Im7/11
pentatonic subset
(chromatic option)



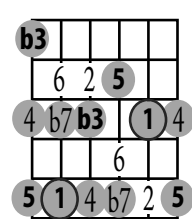
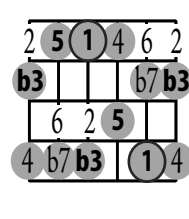
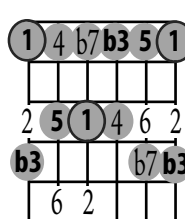
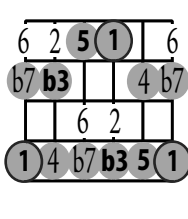
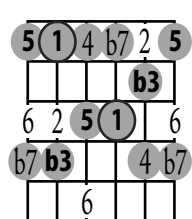
I Dorian
and its Im7/11
pentatonic subset
(chromatic option)



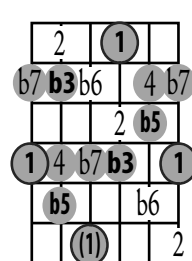
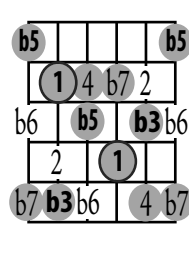
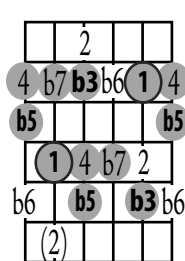
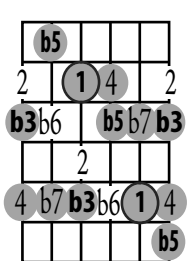
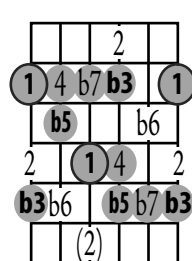
V Phrygian
and its Vm7/11
pentatonic subset
(chromatic option)



IV Dorian
and its IVm7/11
pentatonic subset
(chromatic option)



I Aeolian b5
and its Im7/11b5
pentatonic subset



Canteloupe Island

basic comping

See [Pedal Point Chord Progression / I IV I7: Thirds With Pedal Point "1"](#).

scales for improv

On the diagrams below, the black-backed notes are triad tones, the black and grey both make up the pentatonic scale and all of the notes make up the seven tone scale.

chord	contents of diagrams	E form key	D form key	C form key	A form key	G form key
Fm7	F minor triad in black, F minor pentatonic in black & grey, and F Dorian (all notes)	F Dorian XII 	F Dorian III 	F Dorian V 	F Dorian VII 	F Dorian X
Db9	F diminished triad in black, F minor pentatonic with b5 in black & grey, and F Aeolian b5 (all notes)	F Aeolian b5 XII 	F Aeolian b5 II 	F Aeolian b5 V 	F Aeolian b5 VII 	F Aeolian b5 IX
Dm7	F major triad in black, F major pentatonic in black and grey, and F major scale (all notes)	F Major XII 	F Major II 	F Major V 	F Major VII 	F Major IX

arpeggios for improv

On the diagrams below, the black-backed notes are triad tones, the black and grey both make up the pentatonic scale and all of the notes make up the seven tone scale.

chord	contents of diagrams	E form key (F)	D form key (F)	C form key (F)	A form key (F)	G form key (F)
Fm7	Fm11, black in main octave, grey in other(s) and F Dorian (all notes)	Fm11 & F Dorian XIII	Fm11 & F Dorian II	Fm11 & F Dorian IV	Fm11 & F Dorian VIII	Fm11 & F Dorian X
Db9	Fm11b5, black in main octave, grey in other(s). F Aeolian b5 (all notes).	Fm11b5 & F Aeolian b5 XIII	Fm11b5 & F Aeolian b5 II	FFm11b5 & F Aeolian b5 IV	Fm11b5 & F Aeolian b5 VII	Fm11b5 & F Aeolian b5 X
	Db13#11 black in main octave, grey in other(s). Db Lydian dominant (all notes).	Db13#11 & Db Lyd. dom. XIII	Db13#11 & Db Lyd. dom. II	Db13#11 & Db Lyd. dom. V	Db13#11 & Db Lyd. dom. VIII	Db13#11 & Db Lyd. dom. X
Dm7	Dm11 black in main octave, grey in other(s). F major scale (all notes).	Dm11 & F major scale XII	Db13#11 & Db Lyd. dom. II	Db13#11 & Db Lyd. dom. V	Db13#11 & Db Lyd. dom. VII	Db13#11 & Db Lyd. dom. X

Afro Blue

chord(s)	pentatonic scales	major scale modes
Fm7 Gm7 Abma7	Fm7/11	F Aeolian (Ab major)
Eb7	Cm7/11	C Phrygian (Ab major)
Dm7	F ma6/9	F major

Poinciana chords

bars 1	bar 2	bar 3	bar 4	bar 5	bar 6	bar 7	bar 8
G7sus	G7sus	G7sus	G7sus	G7sus	G7sus	C6	C6
F major scale						C major scale	
bars 9	bar 10	bar 11	bar 12	bar 13	bar 14	bar 15	bar 16
Cma9	Cma9	Cm7	F7	Bb9sus4	Bb9	C6	C6
G major scale		Bb major scale		Eb major scale		C major scale	
bars 17	bar 18	bar 19	bar 20	bar 21	bar 22	bar 23	bar 24
Fm9	Fm9	G	Gsus G	Fm9	Fm9	Dm7	G7
C major scale		Bb major scale		G major scale		C major scale	

repeat bars 1-8

Song for My Father

chord(s)	pentatonic scales	major scale modes
Fm7, Cm7 C7	Fm7/11	F Aeolian (Ab major)
Db7	Fm7/11b5	F Aeolian b5 (Ab major b3 = Ab melodic minor)
Eb7	Cm7/11	C Phrygian (Ab major)

BLUES SONGS (JAZZ)

Use these standard four layers in blues without harmonic minor nor melodic minor. They build on one another and can all be used simultaneously. Make these a basis of your harmonic minor improv. Blues with harmonic minor and melodic minor will be approached later in the sections on each of those subjects, [Harmonic Minor Cadence Songs](#) and [Melodic Minor Cadence Songs](#).

For now, the third layer will make major scale modes more complex by darkening, using a mode with flatted notes.

Layer One - Pentatonic Scales

Establish a blues or swing basis. Elaborate with chromatics, using minor pentatonic with chromatics between four and five. See [Movable Pentatonic Scales with One Chromatic](#).

Optionally, microtonal bends on the flatted third. If the chord you are using the microtonally bent flat third on is a minor chord, make the bend slight, so it doesn't make the chord sound major.

If the chord on the same root you are using a microtonally bent flat third on is major (such as a D minor pentatonic scale on a D major chord), the microtonal bend can go higher, but don't get too close the the natural third (without bending all the way to it), or your note may sound erroneously flat.

Layer Two - Pentatonic Scale Subsets of Major Scale Modes

Complete the major scale mode, such as D minor pentatonic as a subset of D Aeolian, where you would add the two and flat six to complete the mode.

Layer Three - Darkening Modes

This layer will complex what is done in layer two on blues by using modes with flatted tones, especially flat three and flat seven. These tones darken the mood and are the essence of African American coloration of European harmony.

The development of blues and jazz added Dorian and Mixolydian modes to the previous Ionian (major, such as a "C" major tone center with a "C" major scale) and Aeolian (major mode VI, such as an "A" tone center with a C major parent scale). Previous to the development of American blues and jazz [the relative major and minor system](#) used major scale tones one and six as the common tone centers. Mixolydian darkens major by flatting the seventh step of the major scale.

Flatting notes makes scales sadder or bluesier in mood. The mood of a "C" major scale is darkened with a flatted seventh is "C" Mixolydian and further darkened with Dorian, which has both a flatted third

and flatted seventh. See [Modes](#), [Modes On I IV V Blues](#), [Modes On Jazz Blues](#) and [The Expressive Use Of Modes](#).

Major chords are happy and bright in mood, minor chords dark and sad. The emotive character of a scale is based on its tonic triad, made up of its first, third and fifth steps. In major and Mixolydian modes, built on the first and fifth steps of a major scale, the tone triad is major, therefore bright and happy in mood. In Dorian and Aeolian modes, built on the second and sixth steps of a major scale, the tonic triad is minor, therefore dark and sad in mood.

Major and Mixolydian differ with their seventh. Mixolydian has a flatted seventh, which darkens it. The four-note tonic seventh chord in Mixolydian is dominant seventh. It has a disrturbing, dissonant flatted fifth interval between its third and seventh. At the same time, it has a bright-mooded major triad as its basis (root, third and fifth). The triad comprised of its third, fifth and seventh is diminished, a very dark (depressed) mood. This makes a troubled hybrid of happy, depressed and angry moods.

The major seventh chord built on the first step of Ionian mode (major scale mode one, such as a “C” tone center with a “C” major scale) is a hybrid of moods also. The triad built on its third, comprised of its third, fifth and seventh is a minor. Combined with the major triad built on its root, it has the romantic hybrid of happy and sad.

Dorian mode (major scale mode two, such as a “D” tone center with a “C” major scale) differs from Aeolian mode (major scale mode six, such as an “A” tone center with a “C” major scale) in that Dorian has a brighter-mooded major sixth. Aeolian’s flat sixth is darker in mood.

We have heard alot more Aeolian melody than Dorian. So much more that we can accept Aeolian melody played when the chord progression directs Dorian, as long as the flatted sixth (the distinguishing note) is not sustained too long. Usually two seconds is the limit for notes that disagree with the harmony. See [The Two Second Rule](#) in [Melodically Superimposed Cadences](#) and [The One To Two Second Rule](#) in [Melodic Cells](#).

Layer Four - Arpeggio Cadences

Learn the arpeggios for each of the chords in the song you are preparing to improvise on. See [Scale-Tone Seventh Chord Progression](#). It is very useful to first express the chord progression with chord fingerings, then with arpeggios and look at the nature of [voice leading](#). See [descend five and seven](#) and [descend seven](#).

Common Jazz Blues Scales and Arpeggios

layer 1

key shape →

key E form

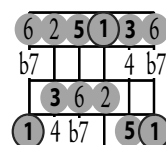
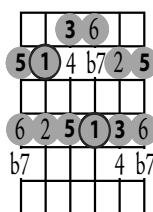
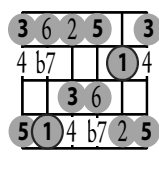
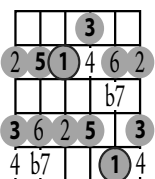
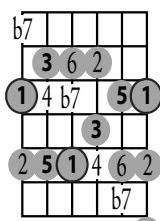
key D form

key C form

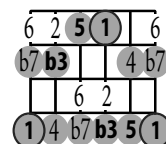
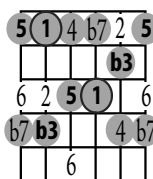
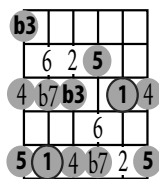
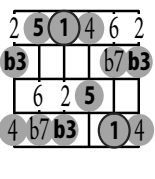
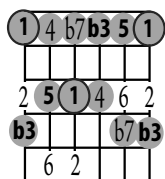
key A form

key G form

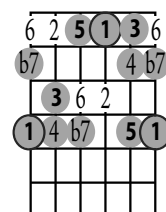
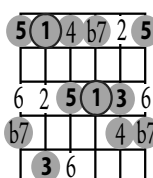
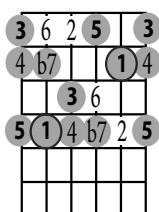
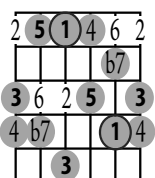
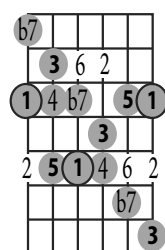
Ima6/9 pentatonic
subset of I Mixolydian
(chromatic option)



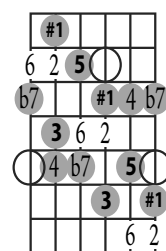
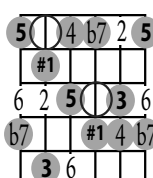
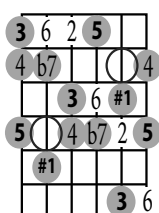
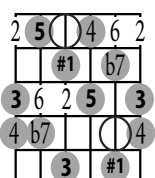
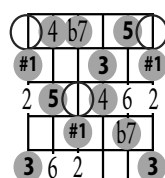
Im7/11 pentatonic
subset of I Dorian
(chromatic option)



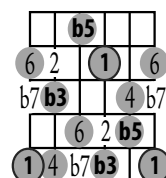
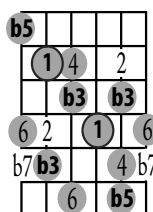
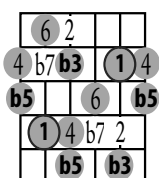
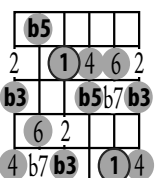
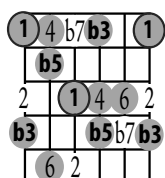
I (dom.) 7/11
pentatonic subset of I
Mixolydian
(chromatic option)



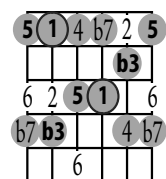
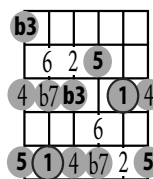
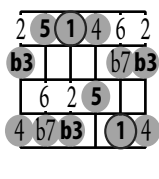
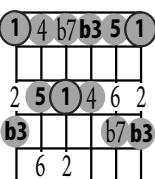
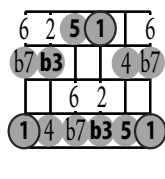
I7/11#1 pentatonic
subset of I Mixolydian
#1 (= II harmonic
minor). The tone "I"
that names the key is
located in the "empty"
circle.



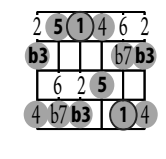
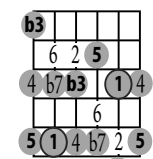
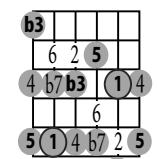
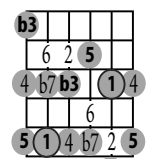
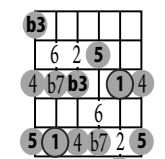
Im6/11b5 pentatonic
subset of I Dorian b5
(bVII major b6)
(chromatic option)



IIIm7/11 pentatonic
subset of IV
Dorian
(chromatic option)



Vm7/11 pentatonic subset
of V Dorian.
"1" is "5" on a fingering in the
key of "I", such as Ima6/9 or
Im7/11 above
(chromatic option)



layer 2 refer to each mode as need above as shown with its pentatonic subset

layer 3 darken major with Mixolydian
darken Mixolydian with Dorian
darken Dorian with Dorian b5

layer 4 key shape →

	key E form	key D form	key C form	key A form	key G form
I9 arpeggio					
IV9 arpeggio					
V9 arpeggio					
IIIm9 arpeggio					
VIIm9 arpeggio					

Freddie Freeloader

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: darkened modes	layer 4: arpeggios
Bb6 Bb9	Bb ma6/9	Bb Mixolydian (Eb major)	Bb Dorian (Ab major)	Bb6, Bb9, Bb13
Eb6 Eb9	Bbm7/11	Bb Dorian Ab major)	Bb Dorian b5 (Ab major b6)	Eb6, Eb9, Eb13
F7	Fm7/11	F Mixolydian (Bb major)	F Dorian (Eb major)	F9, F13
Ab7	Fm7/11	Ab Mixolydian	Bb Mixolydian b6 (Eb melodic minor)	Ab9, Ab13#11

modal pedal point

The feature of Freddie Freeloader and All Blues from Miles Davis' Kind Of Blue is pedal point progression. They are uncommon cases where the head is based on the accompaniment. Each uses an accompaniment figure that was used long before Kind Of Blue.

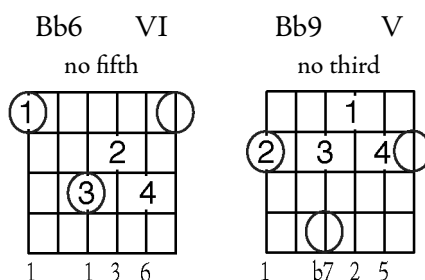
Modal pedal point triads, as used on Freddie Freeloader work best from the root of each chord, since other chord tones would suggest a different root.

Modal pedal point thirds, as used on All Blues can be built on root, third, fifth or seventh. They produce a rich library of chords, including many cool dissonant ones where the lower tone of the third is an upper or lower neighbor to the chord tone.

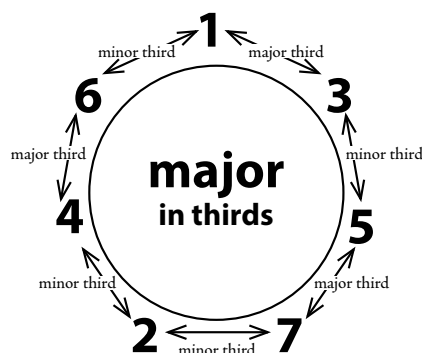
the six nine chord progression in Bb

Freddie Freeloader uses triads with a pedal tone. It features the I and IV chords (Bb and Eb), each with the root retained in the bass with a VIIm triad moving to a Vm triad. These are part of Bb6 and Bb9 chords, so I call the pair a "six nine" chord progression.

During Bb, play VIIm to Vm (Gm to Fm) over Bb bass.



Bb6 is steps 1-3-5-6 of a Bb major scale (see the cycle of thirds below). Without the fifth, the tones “6-1-3” make a VIIm chord in Bb major. So, VIIm can be thought of as the first chord in this “six nine” chord voicing.



Gm and Fm are IIIIm and IIIm triads in Eb major.

first inversion Eb major scale-tone triads on string set 432 (third in bass)

the second row of numbers (3-5-1, 4-6-2, etc.) show numbers tones of the parent Eb major scale

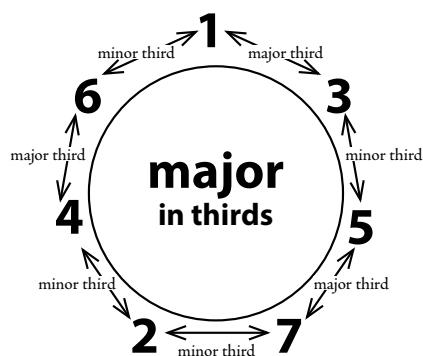
I major 3-5-1	II minor 4-6-2	III minor 5-7-3	IV major 6-1-4	V major 7-2-5	VI minor 1-3-6	VII diminished 2-4-7	I major 3-5-1
Eb III	Fm V	Gm VII	Ab VIII	Bb X	Cm XII	D dim. XIII	Eb XV

Notice the fingering strategy in this linear string set of triads is that the third finger is retained on the fourth string. This facilitates faster chord changing. Similarly, the redundant barre in both the second inversion and root position below (after the circular diagram) allow faster chord changing.

As you can see, the notes above on strings 4-3-2 are those of Gm and Fm, the VIIm and Vm chords in the key of Bb (see below). In the parent scale Eb (see [Modes Of I IV V Blues](#)), Gm and Fm are IIIIm and IIIm chords. Doesn't that make sense, given that IIIIm and IIIm are the two consecutive minor chords built on a major scale?

Gm VII	Fm V

Bb9 is steps 57246 of an Eb major scale (see the cycle of thirds below). In terms of the key of the chord root Bb, those tones (57246) are the root, third, fifth, flatted seventh and ninth of Bb9. The last three tones are “246” the parent scale Eb, the fifth flatted seventh and ninth of Bb9 and comprise a IIIm chord of the parent scale Eb. So.....Bb9 without a root and without a fifth is Fm, a Vm of Bb and a IIIm of Eb (the parent scale).



Here are alternate fingerings on string set 4-3-2. Now we've covered all three inversions: root, third and fifth in the bass. These are called *root position*, *first inversion* and *second inversion*, respectively. Notice that the sets don't necessarily start with the I major triad, but with whatever is at the lower end of the fretboard, since each set will span twelve frets from around the third to fifteenth position. This mimics the pianists ability to go up and down the inversions of a chord. It is more complicated for the guitarist, since we have six linear systems (strings) instead of one (the piano keyboard). For guitarists run up and down the inversions, we need to memorize more graphic shapes that the piano player does. See the inversions of the Eb major and Fm triads, below.

second inversion Eb major scale-tone triads on string set 4-3-2 (third in bass)

the second row of numbers (2-5-7, 3-6-1, etc.) show the numbered tones of the parent Eb major scale

this fingering set uses a "redundant barre"

V major 2-5-7 Bb III	VI minor 3-6-1 Cm III	VII dim. 4-7-2 D dim VI	I major 5-1-3 Eb VIII	II minor 6-2-4 Fm VIII	III minor 7-3-5 Gm X	IV major 1-4-6 Ab XIII	V major 2-5-7 Bb XV
5 1 3	5 1 b3	b5 1 b3	5 1 3	5 1 b3	5 1 b3	5 1 3	5 1 3

root position Eb major scale-tone triads on string set 4-3-2 (root in bass)

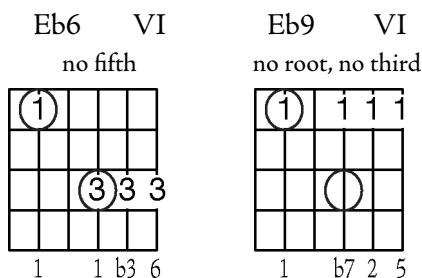
the second row of numbers (246, 357, etc.) show the numbered tones of the parent Eb major scale

this fingering set uses a "redundant barre", except for the retained third finger on the D diminished triad

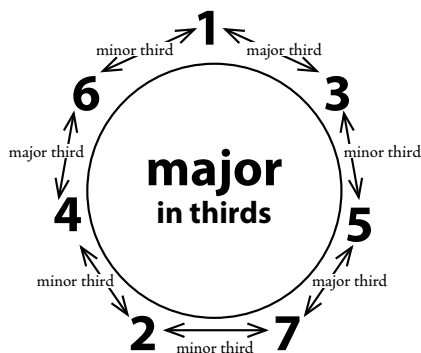
II minor 2-4-6 Fm I	III minor 3-5-7 Gm III	IV major 4-6-1 Ab IV	V major 5-7-2 Bb VI	VI minor 6-1-3 Cm VIII	VII dim. 7-2-4 D dim IX	I major 1-3-5 Eb XI	II minor 2-4-6 Fm XIII
1 b3 5	1 b3 5	1 3 5	1 3 5	1 b3 5	1 b3 b5	1 3 5	1 b3 5

the six nine chord progression in Eb

During Eb, play VI_m to V_m (C_m to B_bm) over Eb bass.



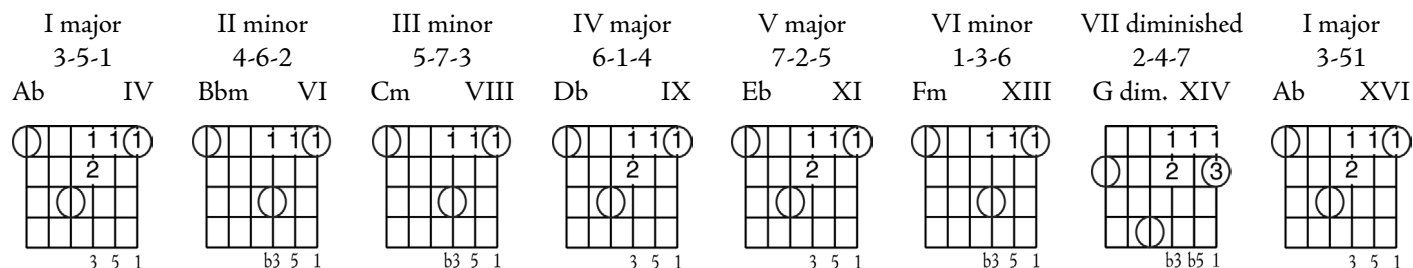
Eb6 is steps 1-3-5-6 of a Eb major scale (see the cycle of thirds below). Without the fifth, the tones “6-1-3” make a VI_m chord in Eb major. So, VI_m can be thought of as the first chord in this “six nine” chord voicing.



Cm and Bbm are III^m and II^m triads in Ab major.

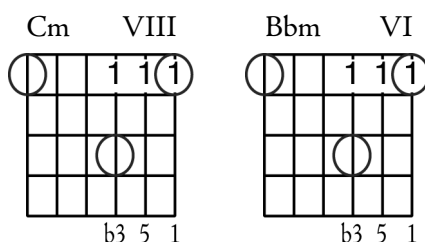
first inversion Ab major scale-tone triads on string set 3-2-1 (third in bass)

the second row of numbers (3-5-1, 4-6-2, etc.) show numbers tones of the parent Eb major scale

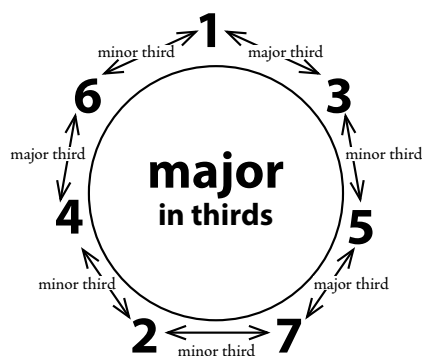


Notice that the fingerings above facilitate faster chord changing with a redundant barre.

As you can see, the notes above on strings 3-2-1 are those of Cm and Bbm, the VI^m and V^m chords in the key of Eb (see below). In the parent scale Ab (see [Modes Of I IV V Blues](#)), Cm and Bbm are III^m and II^m chords (III^m and II^m are the two consecutive minor chords built on a major scale).



Eb9 is steps 5-7-2-4-6 of an Ab major scale (see the cycle of thirds below). In terms of the key of the chord root Eb, those tones (5-7-2-4-6) are the root, third, fifth, flatted seventh and ninth of Eb9. The last three tones are “2-4-6” the parent scale Ab, the fifth flatted seventh and ninth of Eb9 and comprise a II^m chord of the parent scale Ab. So....Eb9 without a root and without a fifth is Cm, a V^m of Eb and a II^m of Ab (the parent scale).



See [Pedal Point Chord Progression / “Six Nine” VI^m V^m Triads With Pedal Point “1”](#), and especially [Scale-Tone Triads Of Four Heptatonic Scales](#) for fingerings (in this case, the major scale fingerings).

second inversion Ab major scale-tone triads on string set 3-2-1 (third in bass)
 the second row of numbers (2-5-7, 3-6-1, etc.) show the numbered tones of the parent Eb major scale
 this fingering set uses a “redundant barre”

I major 2-5-7 Eb III	II minor 3-6-1 Fm IV	III minor 4-7-2 G dim. VI	IV major 5-1-3 Ab VIII	V major 6-2-4 Bbm IX	VI minor 7-3-5 Cm XI	VII diminished 1-4-6 Db XIII	I major 2-5-7 Eb XV

root position Eb major scale-tone triads on string set 4-3-2 (root in bass)
 the second row of numbers (1-3-5, 2-4-6, etc.) show the numbered tones of the parent Eb major scale
 this fingering set retains the third finger on the third string

II minor 2-4-6 Bbm I	III minor 3-5-7 Cm III	IV major 4-6-1 Db IV	V major 5-7-2 Eb VI	VI minor 6-1-3 Fm VIII	VII diminished 7-2-4 G dim. IX	I major 1-3-5 Ab XI	II minor 2-4-6 Bbm XIII

Consider using neighboring scale-tone triads to enhance the six nine progression. Just before the parent scale III^m triad, use a parent scale IV major triad, or just before the parent scale II^m triad, use the parent scale I major triad.

By learning all three inversions of the triads on a string set, you can then combine them within a confined area, such as this group of Eb parent scale triads to be used over a Bb root. Eb to Bb (the last two chords) forms a plagal cadence, while Cm to Bb forms what I call the “gospel” plagal cadence, a cool modern version. Each progression is shown with triads, then with the Bb pedal point included.

Gm VII	Fm V	Eb III	Bb III

<p>Bb6 VI</p> <p>1 1 3 6</p>	<p>Bb9 V</p> <p>1 b7 2 5</p>	<p>Eb/Bb III</p> <p>5 3 5 1</p>	<p>Bb III</p> <p>1 5 1 3</p>
<p>Gm VII</p> <p>b3 5 1</p>	<p>Fm V</p> <p>b3 5 1</p>	<p>Cm IV</p> <p>5 1 b3</p>	<p>Bb III</p> <p>5 1 3</p>
<p>Bb6 VI</p> <p>1 1 3 6</p>	<p>Bb9 V</p> <p>1 b7 2 5</p>	<p>Cm/Bb IV</p> <p>b7 5 1 b3</p>	<p>Bb III</p> <p>1 5 1 3</p>

more major scale-tone triad inversions

To more thoroughly study the major scale-tone triad inversions, see these sections of Pedal Point Progression:

[major scale-tone triads on string set 4-3-2](#)

[major scale-tone triads on string set 4-3-1](#)

[major scale-tone triads on string set 5-4-3](#)

the six nine chord progression in Ab (using Eb melodic minor)

Miles didn't use the six nine progression on Ab7 in the first ending, but could have. By treating Ab7 as a IV7 type of an Eb melodic minor parent scale, the VIIm and VIm (Fm and Ebm) chords of the chord scale Ab could be used. These are IIm and Im in the parent scale Eb melodic minor.

I minor b3-5-1 Ebm III	II minor 4-6-2 Fm V	III augmented 5-7-b3 Gb aug. VII	IV major 6-1-4 Ab VIII	V major 7-2-5 Bb X	VI diminished 1-b3-6 C dim. XI	VII diminished 2-4-7 D dim. XIII	I minor b3-5-1 Ebm XV
b3 5 1	b3 5 1	3 #5 1	3 5 1	3 5 1	b3 b5 1	b3 b5 1	b3 5 1

Fm V	Ebm III
b3 5 1	b3 5 1
Ab6 IV	Ab9 III
1 1 3 6	1 b7 2 5

Also experiment with neighboring triads:

Fm V	Ebm III	Gb aug. VII	Fm V	Ebm III
b3 5 1	b3 5 1	3 #5 1	b3 5 1	b3 5 1

more melodic scale-tone triad inversions

To more thoroughly study the major scale-tone triad inversions, see these sections of Pedal Point Progression:

[melodic scale-tone triads on string set 4-3-2](#)

[melodic minor scale-tone triads on string set 3-2-1](#)

[melodic minor scale-tone triads on string set 5-4-3](#)

All Blues

(C is an ignored passing chord)

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: darkened modes	layer 4: arpeggios
G7	G7/11	G Mixolydian (Eb major)	G Dorian (F major)	Bb6, Bb9, Bb13
Gm, Gm7	Bbm7/11	Bb Dorian Ab major)	Bb Dorian b5 (Ab major b6)	Eb6, Eb9, Eb13
D7#9, D7#5#9	Dm7/11	D Aeolian (F major)	D Aeolian b5 (F melodic minor)	Dm9, D9
Eb7#9	Gm7b5	G Aeolian b5	n/a	Ebm9, Eb9

See [Pedal Point Chord Progression/I-IV-I7: Thirds and Sixths with Pedal Point](#) and [Modes/Modes Of Four Heptatonic Scales](#).

Mr. P.C.

standardized chords

Like with Breezin' standardize all these chords to sevenths.

original chord progression →	Cm7	Cm7	Cm7	Cm7
standardized chord	Cm7 (as is)	Cm7 (as is)	Cm7 (as is)	Cm7 (as is)
original chord progression →	Fm9	Fm9	Cm7	Cm7
standardized chord	Fm7	Fm7	Cm7 (as is)	Cm7 (as is)
original chord progression →	Ab13#11	G7b13	Cm7	Cm7
standardized chord	Ab7	G7	Cm7 (as is)	Cm7 (as is)

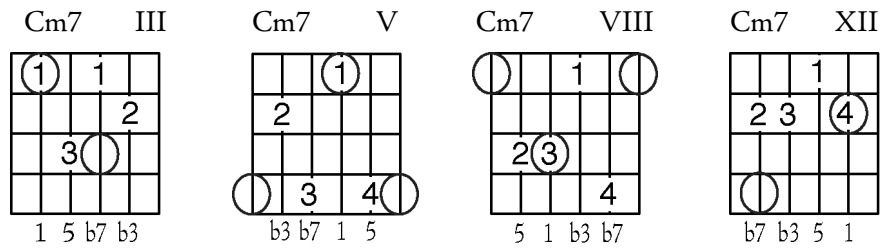
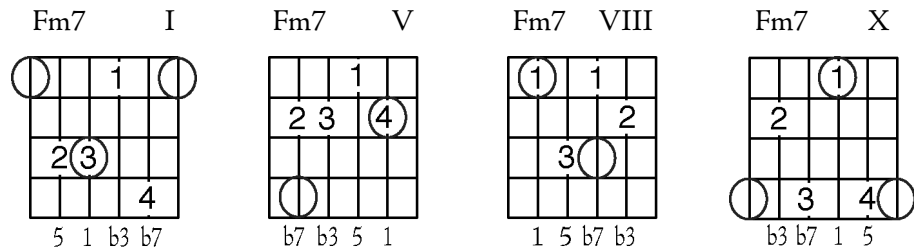
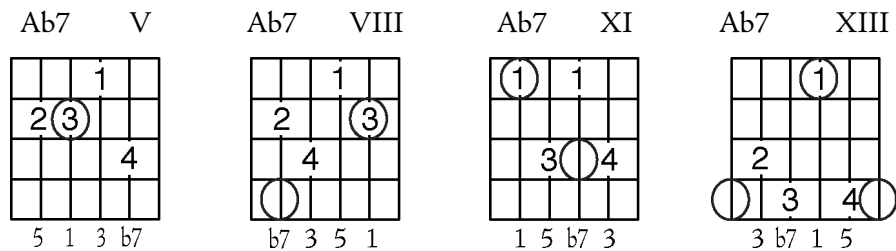
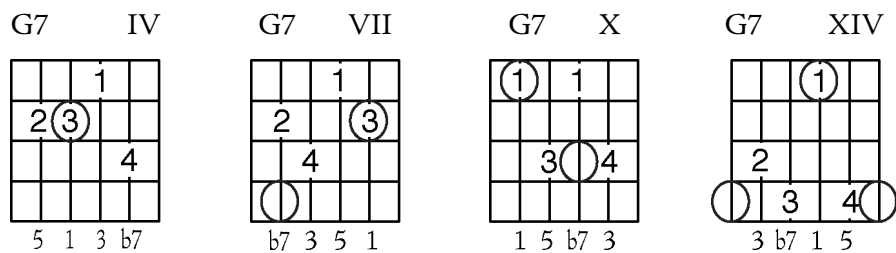
seventh chord inversions

The inversions are shown below for Cm7, Fm7, G7 and Ab7. Use a comping rhythm with four chords every two bars, like the Evil Ways chorus/Charleston:

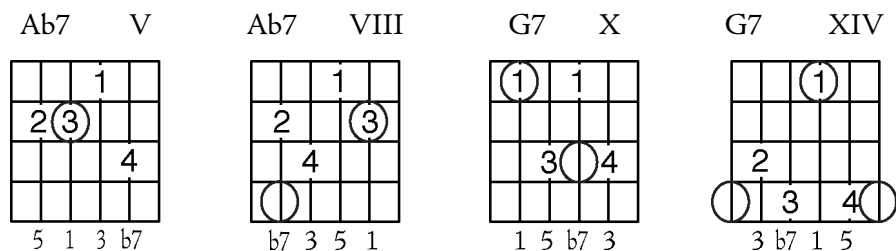
[Evil Ways/Charleston](#) (swing eighths)

1 + 2 + 3 + 4 + 1 + 2 + 3 + 4 +



Mr. P.C. string set 5-4-3-2**Cm7****Fm7****Ab7****G7**

Combine Ab7 and G7 to make a four chord sequence during two bars:

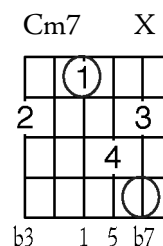
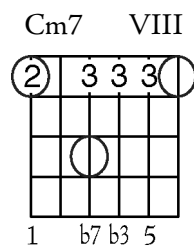
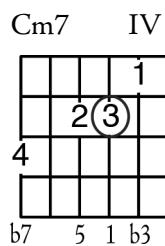
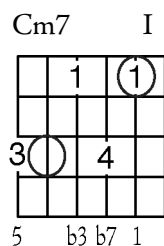
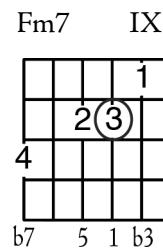
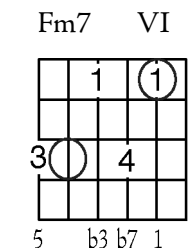
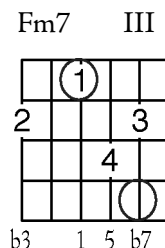
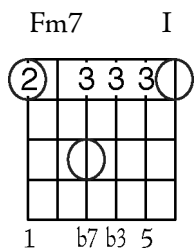
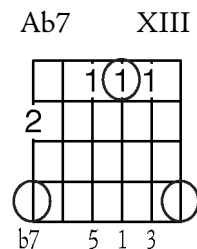
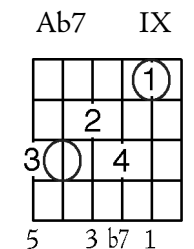
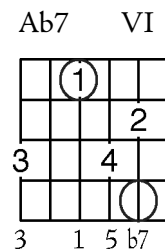
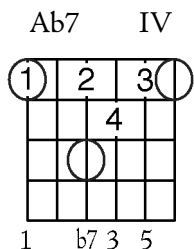
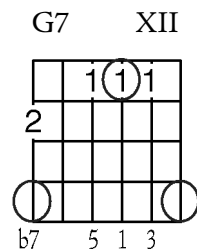
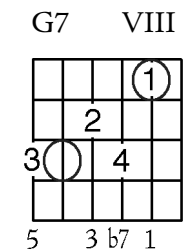
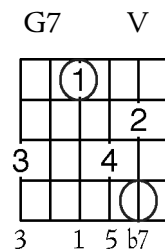
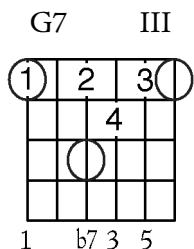
Ab7

Mr. P.C. string set 4-3-2-1

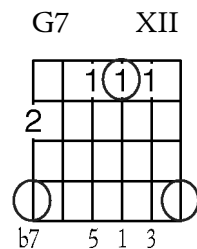
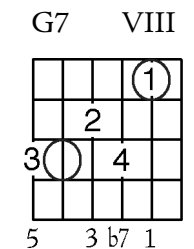
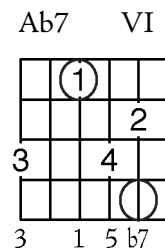
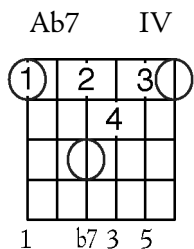
Cm7	Cm7 IV 	Cm7 VIII 	Cm7 X 	Cm7 XIII
Fm7	Fm7 III 	Fm7 VI 	Fm7 IX 	Fm7 XIII
Ab7	Ab7 IV 	Ab7 VI 	Ab7 IX 	Ab7 XIII
G7	G7 III 	G7 V 	G7 VIII 	G7 XII

Combine Ab7 and G7 to make a four chord sequence during two bars:

Ab7	Ab7 IV 	Ab7 VI 	G7 VIII 	G7 XII
------------	------------	------------	-------------	------------

Mr. P.C. string set 6-4-3-2**Cm7****Fm7****Ab7****G7**

Combine Ab7 and G7 to make a four chord sequence during two bars:

Ab7

Mr. P.C., scales for improv

Use key minor pentatonic (C minor pentatonic). Its preferable to use key b6 on the IVm chord (Fm7). Use parts of Im9, IVm9 bVI9 and V7b9 (Cm9, Fm9, Ab9 and G7b9). Its best at this point to learn the arpeggios here: [Minor Pentatonic To Five Ninth Arpeggio Types](#).

Using key (F) Aeolian b5 on the bVI7 (Ab7) chord retains the key. In terms of chord scale, it is bVI Lydian b7 (Ab Lydian b7) and in terms of parent scale, it is bIII (Eb) melodic minor.

In melodic minor, the triads on steps one and two are minor (Im and IIm). The six nine (“[Six Nine](#)” [VIm Vm Triads With Pedal Point “1”](#)) progression can be used on the Ab7 chord, since the VIm and Vm of Ab are the IIm and Im in Eb melodic minor.

Explore subsets of Ab13#11: Ab7 (Ab Lydian b7), Cm7b5 (C Aeolian b5), Ebm9[ma7] (Eb melodic minor) and Fm6, and D7#9b9#5b5 (D super Locrian). The family of bVI13#11 (Ab13#11) chords is paralleled by the II7#9b9#5b5 family (D#9b9#5b5, “Swiss army” seventh) which is II super Locrian (D super Locrian). See [Modes Of Four Heptatonic Scales](#). Ab13#11 and D7#9b9#5b5 are [flat five substitutes](#) of one another.

HARMONIC MINOR CADENCE SONGS

These four layers build on one another and can all be used simultaneously. Make these a basis of your harmonic minor improv.

Layer One - Pentatonic Scales

Establish a blues or swing basis. Elaborate with chromatics, using minor pentatonic with chromatics between four and five. See [Movable Pentatonic Scales With One Chromatic](#).

Optionally, microtonal bends on the flatted third. If the chord you are using the microtonally bent flat third on is a minor chord, make the bend slight, so it doesn't make the chord sound major.

If the chord on the same root you are using a microtonally bent flat third on is major (such as a D minor pentatonic scale on a D major chord), the microtonal bend can go higher, but don't get too close the the natural third (without bending all the way to it), or your note may sound erroneously flat.

Layer Two - Pentatonic Scale Subsets of Major Scale Modes

Complete the major scale mode, such as D minor pentatonic as a subset of D Aeolian, where you would add the two and flat six to complete the mode.

Layer Three - Harmonic Minor Modes and Subsets

Determine the relative major key for the minor key in which you wish to use harmonic minor. Use the relative major scale as a parent scale. Modify the parent major scale by sharpening its fifth and put the tone center on its sixth.

When using harmonic minor on chords that have a flatted seventh, such as Am7 in the key of "A", de-emphasize the natural seven (G#, which is sharp five of the parent scale). See the [table of major sharp five scales](#) in all keys, showing the harmonic minor scales they create on their sixth step.

Layer Four - Arpeggio Cadences

Learn the arpeggios for important cadences in the minor key, most commonly IIm7b5-V7b9-Im. Elaborate on the cadences with neighboring and passing scale tones. Take a look at major sharp five scale-tone seventh chords, especially the [Major Sharp Five Scale-Tone Seventh Chords](#) in the chapter on [Scale-Tone Seventh Chord Progression](#).

Descending five and seven of the IIm7b5 becomes V7. Descending only the seven becomes V7b9, no root. See [descend five and seven](#) and [descend seven](#).

Common Minor Key Scales and Arpeggios

	key shape →	key E form	key D form	key C form	key A form	key G form
layer 1	I m7/11 pentatonic subset of I Aeolian (chromatic option)					
	V m7/11 pentatonic subset of V Phrygian (chromatic option)					
	IV m7/11 pentatonic subset of IV Dorian (chromatic option)					
layer 2	fingering →	6	7	1/2	3	4
	major scale					
	Aeolian mode					
layer 3	harmonic minor					

key shape →	key E form	key D form	key C form	key A form	key G form
layer 4					
IIIm7b5 arpeggio subset of IIIm7/11b5					
IIIm711b5 subset of Locrian (Aeolian II)					
IIIm7/11b5 subset of Locrian nat. 6 (harmonic minor II)					
V7b9 arpeggio subset of Phrygian major					
V7/11 subset of Phrygian major					

"3" (above) can
be played on the
first or second
string

1-6-2-5 in Bb with Harmonic Minor Cadences

Bb7 Bma6/9, Bb7/11 Bb Misolydian Bb13, Gm7, Dm7b5	Bb major sharp five D7b9	G7 Bb7/11#1 Bb Mixo. #1 (C har. min.) G7b9	
Cm7 Cm7/11 C Dorian Cm13, Ebma7	C Phrygian major C7b9, Edim7	F7 F Mixolydian F13, Am9b5	F Phrygian major F7b9, Edim7

Sultans of Swing (verse)

See also [Flake and Sultans Of Swing](#) in Rock Improv Commentary.

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
Dm C Bb	Dm7/11	D Aeolian (F major)	D harmonic minor (F major sharp five)	Em7b5 A7b9 to Dm
A	Am7/11	A Phrygian (F major)	C Phrygian major (F major sharp five)	Dbma7

I Want You, Verse

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
Am7 Am C	Am7/11	A Aeolian (C major) or A Dorian (Gmajor)	A harmonic minor (C major sharp five)	Bm7b5 E7b9 to Am
Dm7 Dm F	Dm7/11	D Aeolian (F major) or D Dorian (C major)	D harmonic minor (F major sharp five)	Em7b5 A7b9 to Dm
E7b9	E7/11	E Phrygian (C major)	E Phrygian major (C major sharp five = A harmonic minor)	Bm7b5 to E7b9

Baja Nights

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
Am7	Am7/11	A Aeolian (C major)	A harmonic minor (C major sharp five)	Bm7b5 E7b9 to Am
Dm7	Am7/11	D Dorian (C major)	A harmonic minor (C major sharp five)	Bm7b5 E7b9 to Am
E7b9	E7/11	E Phrygian (C major)	E Phrygian major (C major sharp five = A harmonic minor)	Bm7b5 to E7b9

Caravan

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
C	Cm7/11	C Phrygian (Ab major)	C Phrygian major (Ab major sharp five)	Gm7b5 C7b9 to Fm
Db	Cm7/11	C Phrygian	C Phrygian major	Dbma7
Fm	Fm7/11	F Aeolian (Ab major)	F harmonic minor (Ab major sharp five)	Fm9(11)
before F7	Cm7/11 b3 to 3	C Phrygian (Ab major)	C Phrygian major	Gm7b5 C7b9 to F7
F7	F7/11 b3 to 3	F Mixolydian	n/a	F9
before Bb7	Fm7/11 b3 to 3	F Phrygian (Ab major)	F Phrygian major	Cm7b5 F7b9 to Bb7
Bb7	Bb7/11 b3 to 3	Bb Mixolydian	n/a	Bb9
before Eb7	Bbm7/11 b3 to 3	Bb Phrygian (Ab major)	Bb Phrygian major	Fm7b5 Bb7b9 to Eb7
Eb7	Eb7/11 b3 to 3	Eb Mixolydian	n/a	Eb9
before Ab6	Eb7/11 b3 to 3	Eb Phrygian (Ab major)	Eb Phrygian major	Bbm7b5 Eb7b9 to Ab6
Ab6	Ab7/11 b3 to 3	Ab Mixolydian	n/a	Ab6, Ab9

Blue Bossa

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
Cm	Cm7/11	C Aeolian (Eb major)	C harmonic minor (Eb major sharp five)	Dm7b5 G7b9 to Cm
Fm	Cm7/11	C Aeolian (Eb major)	C harmonic minor (Eb major sharp five)	Fm9
Dm7b5	option 1: treat Dm7b5 to G7b9 as all G7b9 (see below)			
Dm7b5	Dm7/11b5	D Locrian (Eb major)	C harmonic minor (Eb major sharp five)	Dm11b5b9
G7b9	Gm7/11	G Phrygian (Eb major)	G Phrygian major (Eb major sharp five = C harmonic minor) and G7/11 subset	G7b9
Db will be treated like Bbm and Bb Aeolian. Ebm7 and Ab7 will be treated like IV Dorian of Bb Aeolian.				
chord	pentatonic scales	major scale modes	harmonic minor mode	arpeggios
Ebm7	Ebm7/11	Eb Dorian (Db major)	n/a	Ebm9
Ab7	Ebm7/11	Eb Dorian (Db major)	n/a	Ab9 Ebm7b5 Ab7b9 to Bbm7 (=Db6)
Dbma7	Bbm7/11 (= Dbma6/9)	Bb Aeolian (Db major)	Bb harmonic minor (Db major sharp five)	

Autumn Leaves

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
Cm7	Cm7/11	C Dorian (Bb major)	C harmonic minor (Eb major sharp five)	Dm7b5 G7b9
F9	Cm7/11	C Dorian (Bb major)	C harmonic minor (Eb major sharp five)	Dm7b5 G7b9
Bbma7	Gm7/11	G Aeolian (Eb major)	G harmonic minor (Bb major sharp five)	Gm11 (Bbma7/G)
Ebma7	Cm7/11	Bb major	n/a	Cm11 (Ebma7/C)
Am7b5	A m7/11b5	A Locrian	n/a	Cm11
D7	Dm7/11	D Phrygian	D Phrygian major	D7b9
Gm7	Gm7/11	G Aeolian	G harmonic minor	Gm11 (Bbma9/G)
Gb7	Gbma6/9	Gb Lydian dominant	n/a	Gb9
Fm7	Fm7/11	F Dorian	n/a	Fm9
E7	Ema6/9	E Lydian dominant	n/a	E9

Road Song

	chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
A	Gm7	Gm7/11	G Aeolian (Bb major)	G harmonic minor (Bb major sharp five)	Am7b5 D7b9
	D7#9 Am7 D7	Dm7/11	D Phrygian (Bb major)	G harmonic minor (Bb major sharp five)	Am7b5 D7b9
	Gm7, Fm7, Ebma7 and Cm7	Gm7/11	G Phrygian (Eb major)	C harmonic minor (Eb major sharp five)	Cm11
	Em7b5 =Gm6	Gm6/11	G Dorian (F major)	n/a	Em7b5
B	Cm7 (bar 9)	Cm7/11	C Dorian (Bb major)	n/a	Cm11
	F7	Cm7/11	C Dorian (Bb major)	n/a	F13
	Bbma7	Bbma6/9 and Dm7/11	Bb major scale	n/a	Gm11 (Bbma9/G)
	Bm7	Bm7/11	B Dorian	A major scale	Bm11
	E7	Bm7	B Dorian	A major scale	E13
	Bbm7	Bbm7/11	Bb Dorian (= Ab major)	n/a	Bbm11
	Eb7	Bbm7/11	Bb Dorian (= Ab major)	n/a	Eb13
	Abma7	Fm7/11	F Aeolian (= Ab major)	F harmonic minor (Ab major sharp five)	Fm11

Jazz Blues, using Harmonic Minor

for bars 7-10 and 11-2, use add this to the above 1-6-2-5 information

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
I7 bright	I ^{ma} 6/9 or I ^m 7 ⁶ /11	I Mixolydian (IV major)	VI harmonic minor (I major #5)	I ^{Im} 7 V7 (bII7) I ^{ma} 7
I7 (bluesy)	I ^m 7/11	I Dorian (bVII major)		I ^{Im} 7 V7 (bII7) I7
IV7	V ^{Im} 7/11	VI Aeolian (I major)		V ^m 7 I7 (bV7) IV7
#IV°7	I ^m 6/11b5	I Dorian b5 (bVII major b6)	n/a	#IVdim 7
#IV7 Escherian* (imply V ^m part of I9 in bar 7)	I ^m 7/11b5	V Aeolian (bVII major)	V Aeolian (bVII major)/V har- monic minor hybrid	V ^{Im} 7b5 II7b9 to V ^m = I9 nr, n3

* Escherian cadence: see [Melodically Superimposed Cadences/Escherian Cadence](#)

How High the Moon

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: harmonic minor mode	layer 4: arpeggios
Gma7	Gma6/9 Bm7/11	G major	G har. min. just before Gm	Am7 D7 (Ab7) Gma7 D7b9 just before Gm
Gm7	Gm7/11	G Dorian (F major)	n/a	Gm9
C7	Gm6/11	G Dorian (F major)	F har. min. just before F	C9 C7b9 just before F
Fma7	Fma6/9 Am7/11	F major	F har. min. just before Fm	Gm7 C7 (Gb7) Fma7 C7b9 just before Fm
Fm7	Fm7/11	F Dorian (Eb major)		Fm9
Bb7	Fm6/11	F Dorian (Eb major)	Eb har. min. just before Eb	Bb9 Bb7b9 just before Eb
Ebma7	Ebma6/9 Gm7/11	Eb major	n/a	Ebma9
Am7b5	Am7/11b5	G Aeolian (Bb major)	n/a	Am7b5
D7b9	Am6/11b5	G Aeolian (Bb major, bluesy)	G harmonic minor (Bb major #5)	D7b9
Gm7	Gm7/11	G Aeolian (Bb major)	G harmonic minor (Bb major #5)	Gm9
Em7	Em7/11	E Aeolian (G major)	E harmonic minor (G major #5)	Em9
Bm7	Bm7/11	E Aeolian (G major)	n/a	Bm7
Bb7	Bb9	F melodic minor (E super Locrian)	n/a	Bb13#11
Am7	Am7/11	A Dorian (G major)	n/a	Am7b5
D7	Am6/11	A Dorian (G major)	G har. min. just before Gma7	D7b9

MELODIC MINOR CADENCE SONGS

On each song, use these standard four layers. Make these a basis of your improv.

Modes of melodic minor are typically used in jazz to create cadences to target chords. They primarily use bII13#11 (Db13#11) of the target or V7 super-altered (G7#9b9#5b5) of the target (Cma7, C7 or Cm7). Sometimes, Lydian dominant, the scale version of 13#11 is used as a temporary target. Rarely, it is even used as a tonic chord, as in the Simpson's Theme.

melodic minor modes for setup chords

Setup chords in a cadence lead to the target chord. See [Target Chords And Setup Chords](#) in [Melodically Superimposed Cadences](#).

modes of Ab melodic minor scale used for a C target chord

tone of target	bVI	bVII	I	bII	bIII	IV	V
tone of mel. m.	I	II	bIII	IV	V	VI	VII
	Ab melodic minor	Bb Dorian flat two	C Phrygian flat one (Cb)	Db Lydian flat seven (Lydian dominant)	Eb Mixolydian flat six	F Aeolian flat five	G Locrian flat four (super locrian)

Three Most Usable Melodic Minor Modes

which mode should study first?

Study either Aeolian flat five or Lydian dominant first. Aeolian flat five is a familiar context for both improvisers and listeners. Lydian dominant harmonizes well. Lydian dominant also voice-leads well to the target. If you have not experienced improvising with either, choose Aeolian flat five. If you *are* experienced with Lydian dominant, start with it.

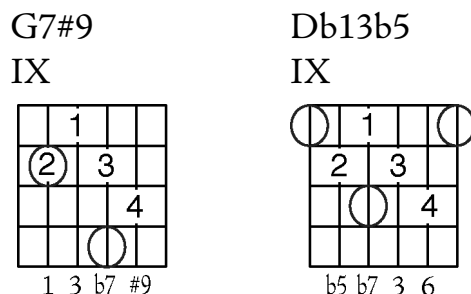
tension-release with V super Locrian

Super Locrian is the basis of the use of melodic minor in jazz. It creates super-altered V chords which create a lot of tension before resolving to the target I. It doesn't harmonize well, though. Aeolian flat five is much more conducive in making melodic phrases, with its strong relationship to dark minor melodies.

the flat five substitute

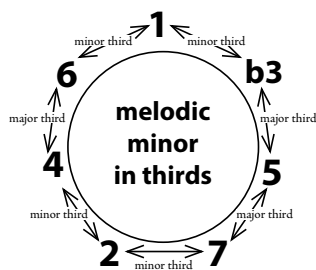
Chord synonyms share the same notes but have different names. Chords built in Lydian dominant (Lydian flat seven) are synonyms of those built in super Locrian. The basis of these synonyms is bII7b5 and V7b5, which have exactly the same notes. In the key of C, bII7b5 is Db7b5, and is a subset of bII (Db) Lydian dominant. In C, V7b5 is G7b5, and is a subset of V G) super Locrian.

Many other chords that are part of the bII13#11 chord (Db13#11, built from Db Lydian dominant) are synonyms of chords that are part of V7#9b9#5b5 (G7#9b9#5b5, built from G super Locrian). The G and Db chords below for example use the same notes, so could be played with either a “G” or “Db” bass note (on bass guitar or stand-up bass).



the dark minor blues sound of Aeolian flat five

Aeolian flat five can be very familiar, especially when based on minor pentatonic with a flat five (m7/11b5). It bears a strong relationship to Lydian dominant. Chords built in thirds in Lydian dominant *without* the root are synonyms of chords built in thirds in Aeolian flat five. Aeolian flat five works very effectively, but really functions as a part of chords built in Lydian dominant.



Ab melodic minor scale

I	II	bIII	IV	V	VI	VII
Ab	Bb	Cb	Db	Eb	F	G

A ninth chord is a five-note chord built with every-other note of a seven-tone scale, such as melodic minor. The ninth chord built on the fourth step of melodic minor using scale-tone numbers 4, 6, 1, b3 and 5 and is a IV dominant ninth or IV9 (Db9). A seventh chord is a four-note built with every other note of a seven-tone scale. The seventh chord built on the sixth step of a melodic minor scale uses scale-tone numbers 6-1-b3-5 and is a VI minor seventh flat five or VIm7b5 (Fm7b5). Without its root (“4”), the IV9 chord has the same notes as the VIm7b5 chord.

Using the table of numbered and lettered scale tones in the Ab melodic minor scale, you can see the letter names of the notes used to build a Db9 chord are Db, F, Ab, Cb and Eb, scale-tone numbers 4-6-1-b3-5. The Fm7b5 chord uses the same letters and numbers without the Db (“4”), 6-1-b3-5.

Inspect the Db9 chord below to see that it has the letters Db, F, Ab, Cb and Eb. The Fm7b5 chord has the same letters without Db.

Db9

III

	F		
Db		Cb	Eb Ab

Fm7b5

III

	F		
		Cb	Eb Ab

Elaborating the VIm7b5 (Fm7b5) chord with other tones of IV (F) Aeolian flat five of the target chord makes the same harmonic sounds as bII (Db) Lydian dominant chords but without the root (Db). It is a common practice to sound a part of a chord that makes another chord, such as the Fm7b5 and Db9 above. This can be studied extensively in [Secondary Roots](#), in the chapter on [Substitution](#). The elaboration of secondary roots with scales is discussed in [Secondary Tonics](#).

Lydian dominant, the most harmonizable melodic minor mode

The entire thirteenth sharp eleven (Db13#11) chord built on Lydian dominant is usable as an arpeggio. Its root, third and fifth voice-lead very well to the triad of the target chord. Aeolian flat five chords built on its third are [Secondary Roots](#) and provide a good alternative to Lydian dominant.

Aeolian Flat Five in Four Layers

layer one - pentatonic scales

Establish a dark minor blues basis with IV minor pentatonic with a flat five (Fm7/11b5). Resolve to the triad tones of the target chord.

Alternately, think of the IVm7/11b5 (Fm7/11b5) pentatonic scale as II major pentatonic with a flat three (Dm6/9). Play this scale in a swing style, particularly emphasizing its sixth ("B"). Optionally, Use major 6/9 fingerings in [Movable Pentatonic Scales With One Chromatic](#) with a flatted third.

layer two - m7/11b5 scale subset of Aeolian flat five

Elaborate the m7/11b5 pentatonic with Aeolian flat five. Fm7/11b5 is a subset of F Aeolian.

layer three - Aeolian flat five as a secondary tonic on Lydian dominant

Thinking of the IVm7b5 (Fm7b5 for a "C" target) as a secondary root chord on the third of Lydian dominant (Db Lydian dominant for a C target), think of IV (F) Aeolian flat five as being a mode built on the third of bII13#11 (Db13#11). See [Secondary Roots](#) and [Secondary Tonics](#).

layer four - arpeggio Cadences

Learn the arpeggios for the target ninth chord with no root. This will make a seventh chord on its third. See [Secondary Root On The Third](#). Resolve the IVm7b5 to that chord. For a C7 target chord, this is Fm7b5 to Em7b5 (C9 no root is Em7b5). For Cma7, it is Fm7b5 to Em7. For Cm7, its Fm7b5 to Ebma7.

Elaborate on the cadences with neighboring and passing scale tones. Study [Harmonic Clusters in the Tonal Layers chapter](#) and [Harmonic Clusters in the Double Stops chapter](#).

Lydian Dominant in Four Layers

layer one - pentatonic scales

Establish a swing-based bII major pentatonic melody (Dbma6/9 for a C target), especially emphasizing the sixth and use syncopated rhythm. Optionally, use chromatics for either scale as shown in [Movable Pentatonic Scales With One Chromatic](#).

layer two - bII major pentatonic subsets of bII Lydian dominant

Elaborate the bII major pentatonic with Lydian dominant, adding the sharp four and flat seven.

layer three - Aeolian flat five as a secondary tonic on Lydian dominant

Thinking of the IVm7b5 (Fm7b5 for a “C” target) as a secondary root chord on the third of Lydian dominant (Db Lydian dominant for a C target), think of IV (F) Aeolian flat five as being a mode built on the third of bII13#11 (Db13#11). See [Secondary Roots](#) and [Secondary Tonics](#). This is the same third layer as for Aeolian flat five, intentionally.

layer four - arpeggio Cadences

Learn the arpeggios for the bVIm(ma7) - bII9 - I (or Im) cadence. For a “C” target chord, this is Abm(ma7) - Db9 to Cma7, C7 or Cm7.

Elaborate on the cadences with neighboring and passing scale tones. Study [Harmonic Clusters](#) in the [Phrases Build With Core Melody, Cell Elaboration and Filler](#) chapter and [Harmonic Clusters in the Double Stops](#) chapter. Take a look at melodic minor scale-tone seventh chords, especially the [Melodic Minor Scale-Tone Seventh Chords](#) in the chapter on [Scale-Tone Seventh Chord Progression](#).

Descending five and seven of the Im(ma7) in melodic minor becomes IV7. These are respectively used for bVIm(ma7) and bII7 in the key of the target chord. Descending only the seven becomes IV9, no root in melodic minor (bII9 no root in the key of the target). See [descend five and seven](#) and [descend seven](#).

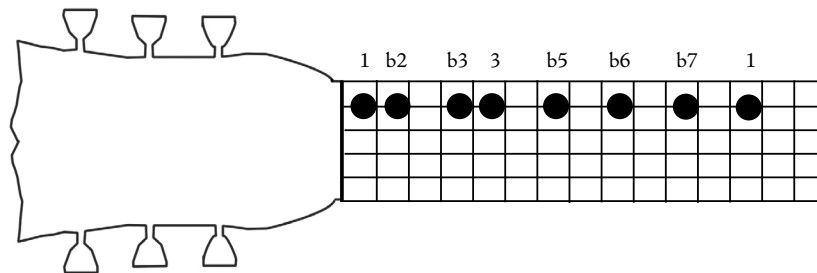
Super Locrian in Four Layers

layer one - half/whole/half

Of course, all of the melodic minor modes have these same scalar intervals, but super Locrian feels most like a seven tone scale. Aeolian flat five has more of a relation to the IVm7b5 chord and IVm7/11b5 pentatonic scale and Lydian dominant has more of a harmonic relation to the bII13#11 chord.

The half whole half sequence has a distinct jazz/middle eastern feeling.

The fingering for super Locrian is half-whole-half steps, followed by five notes each a whole step apart from its neighbor. The formula for super Locrian is 1, b2, b3, b4, b5, b6, b7. Thinking of flat four as natural three, there is a note a half step above the tone center ("b2" is a half step above "1") and a note a half step below three (b3 is a half step below b4, which is 3). From three ("b4") up to one, it is five notes in whole steps: 3, b5, b6, b7 and 1. On a single string, it looks like this (from the players perspective, looking down at their own guitar):



The half/whole-half part of the scale is common to harmonic minor (7-1,-2-b3), melodic minor (also 7-1-2-b3) the hybrid Aeolian harmonic minor (7-b7-b6-5) and two instances in melodic minor resolving to a target chord.

Both of these melodic minor instances descend a half step, then a whole step. One instance starts on b6 of the target makes a half/whole/half sequence if it resolves on down to the major third of the target. In "C", this is the note sequence "Ab-G- F-E". The other instance works on any target chord with a perfect fifth. In "C" the second instance is "Cb("B")-Bb-Ab-G".

layer two - five notes in whole steps

The five tones in whole steps sound sort of wacky/weird, like the [whole tone scale](#). (see also [Emotive Qualities of Chords and Scales](#)/Chord Qualities Expressed by Scales/Whole Tone Scale). The whole tone scale divides the octave into six equal intervals of a whole step. Melodic minor has five of the six notes in the whole tone scale. That portion of melodic minor can get the same wacky/weird sound.

layer three - think super Locrian in connecting bII#11 tones

Use the middle-eastern half/whole/half and the wacky whole step regions of the super Locrian scale to connect tones of the bII#11 chord.

layer four - use clusters of tones from altered V chords

Arpeggiate altered V chords, not only in terms of the notes of a held chord, but also thinking of chord tones on a single string, especially V chord tones #9 - b9 resolving to the fifth of the target (Bb-Ab-G for a C target chord) and V chord tones #5 - b5 resolving to the root of the target (Eb-Db to C for a C target).

1-6-2-5 in Bb with Harmonic Minor Cadences

Bb7 Bma6/9, Bb7/11 Bb Misolydian Bb13, Gm7, Dm7b5	Bb major sharp five D7b9	G7 Bb7/11#1 Bb Mixo. #1 (C har. min.) G7b9	
Cm7 Cm7/11 C Dorian Cm13, Ebma7	C Phrygian major C7b9, Edim7	F7 F Mixolydian F13, Am9b5	F Phrygian major F7b9, Edim7

1-6-2-5 in Bb with Melodic Minor Cadences

Bb7 Bma6/9, Bb7/11 Bb Misolydian Bb13, Gm7, Dm7b5	Eb melodic minor Ab13#11, D7±9±5, Cm9b5	G7 Bb7/11#1 Bb Mixo. #1 (C har. min.) G7b9	Ab melodic minor Db13#11, G7±9±5, Fm9b5
Cm7 Cm7/11 C Dorian Cm13, Ebma7	Db melodic minor Gb13#11, C7±9±5, Bbm9b5	F7 F Mixolydian F13, Am9b5	Gb melodic minor Cb13#11, F7±9±5, Ebm9b5

Common Melodic Minor Scales and Arpeggios

	key shape →	key E form	key D form	key C form	key A form	key G form
layer 1						
m7/11b5 on IV of target						
Aeolian b5 on IV of target						
ma6/9 on bII of target (chromatic option)						
ma6/9 on b2 of target, subset of Lydian dominant (chromatic option)						
layer 2	fingering →	7	2	3	4	6
major scale						
layer 3						
melodic minor						

	key shape →	key E form	key D form	key C form	key A form	key G form
layer 4						
bII9 of target subset of Lydian dominant						
bII13#11 of target						
Im(ma9) subset of melodic minor for I IV cadence						
super Locrian on V of target						

Kid Charlemagne, verse

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hepta- tonic mode	layer 4: arpeggios
C7#9	Cm7/11 (optional major 3)	C Dorian (Bb major) or C Mixolydian (F major)		Cm9, C7#9
Am G F	Am7/11	A Aeolian (Cmajor)	A harmonic minor (C major #5)	Am, G and F

Bb13#11	Bbma6/9		D Aeolian b5 (= Bb Lydian dominant = F melodic minor = E super Locrian = A Phrygian b1)	Fm(ma7) to Bb9
F G Am G	Am7/11	A Aeolian (Cmajor)	A harmonic minor (C major #5)	F, G, Am
Dm7 F6	Dm7/11	D Dorian (Cmajor)	n/a	Dm7 = F6
Em7	Em7/11	E Phrygian (Cmajor)	n/a	Em7
F7	Am7/11b5		A Aeolian b5 (C melodic minor)	F13#11
G7	G7	G Mixolydian	n/a	G9

Song for My Father

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hepta- tonic mode	layer 4: arpeggios
Fm7	Fm7/11	F Aeolian	F harmonic minor (de-emphasize natu- ral 7)	Fm9
Eb7	Cm7/11	C Phrygian (Ab major)	n/a	Eb9
Db7 bluesy	Fm7/11b5	n/a	F Aeolian b5 (= Ab melodic minor)	Db9
Db7 Lydian dominant	Dbma6/9	n/a	Db Lydian dominant (= Ab melodic minor)	Abm(ma7) Db9
C7sus.4	Cm7/11	C Phrygian (Ab major)	F harmonic minor (Ab major #5)	Gm7b5 to C7

Stray Cat Strut

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hepta- tonic mode	layer 4: arpeggios
Cm7	Cm7/11	C Aeolian (Eb major)	C harmonic minor (de-emphasize natu- ral 7)	Fm9
Bb7	Fm7/11	G Phrygian (Ab major)	n/a	Eb9
Ab7 bluesy	Cm7/11b5	n/a	C Aeolian b5 (= Ab melodic minor)	Db9
Ab7 Lydian dominant	Abma6/9	n/a	Ab Lydian dominant (= Eb melodic minor)	Abm(ma7) Db9
G7	Gm7/11	G Phrygian (Eb major)	C harmonic minor (Eb major #5)	Gm7b5 to C7
Fm7	Fm7/11	F Aeolian (Ab major)	F harmonic minor (de-emphasize natu- ral 7)	Fm9
Eb7	Cm7/11	C Phrygian(Ab major)	n/a	Eb9
Db7 bluesy	Fm7/11b5	n/a	F Aeolian b5 (= Ab melodic minor)	Db9
Db7 Lydian dominant	Dbma6/9	n/a	Db Lydian dominant (= Ab melodic minor)	Abm(ma7) Db9
C7	Cm7/11	C Phrygian (Ab major)	F harmonic minor (Ab major #5)	Gm7b5 to C7

1-6-2-5 Songs with Melodic Minor

use this on any song in the [1625 category](#)

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hep- tatonc mode	layer 4: arpeggios
I ^{ma} 7 or I7	I ^{ma} 6/9 or I7/11 (bluesy), optionally slur #2 to 3	I major	I Mixolydian (bluesy)	C major 7
bVI7 just before VIm7	bVII9 (arpeggio)		I Mixolydian b6 (= IV melodic minor)	bVII13#11
VIm7	VIm7/11	VI Aeolian (= I major)		IIIIm7 to VIm9
IIIm7	IIIm7/11	II Dorian (= I major)		VIm9 to IIIm9
bVI7 just before V	bVI9 (arpeggio)		bVI Lydian dominant (= bIII melodic minor)	bVI13#11
V7	Vm7/11, optionally slurring #2 to 3	Mixolydian		IIIm9 to V9
bII7 just before I	bII9 (arpeggio)		bII Lydian dominant (= bVI melodic minor)	bII13#11

1-6-2-5 in Bb with Melodic Minor Cadences

use these on any song in the [1625 category](#)

Bb7 Bma6/9, Bb7/11 Bb Misolydian Bb13, Gm7, Dm7b5		G7 Bb7/11#1 Bb Mixo. #1 (C har. min.) G7b9	
Eb melodic minor Ab13#11, D7±9±5, Cm9b5		Ab melodic minor Db13#11, G7±9±5, Fm9b5	
Cm7 Cm7/11 C Dorian Cm13, Ebma7		F7 F Mixolydian F13, Am9b5	
Db melodic minor Gb13#11, C7±9±5, Bbm9b5		Gb melodic minor Cb13#11, F7±9±5, Ebm9b5	

Sunny

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hepta- tonic mode	layer 4: arpeggios
Am	Am7/11	A Aeolian (C major)	A harmonic minor (C major sharp five)	Bm7b5 E7b9 to Am
C7	Cma6/9 (=Am7/11)	A Phrygian (F major)		Gm7 to C9
A7b9 just before F	C# dim. 7 arpeggio		C Mixolydian #1 (= D harmonic minor = F major #5)	A7b9 to Dm (Dm during F chord)
F bright	Am7/11	A Aeolian (C major)		Dm9 (Fma7/D)
F bluesy	Am7/11b5		A Aeolian b5 (C melodic minor)	Dm9 (Fma7/D)
Bm7b5	Bm7/11b5	B Locrian		Bm7b5
E7 dark	Em7/11	E Phrygian (= A Aeolian = C major)		Bm7b5 to Em9
E7 bright	E7/11		E Phrygian major (= C major #5 = A harmonic minor)	Am7b5 to D7b9
Bb7	Bb9 (arpeggio)		Bb Lydian dominant (= F melodic minor = D Aeolian b5 = E super Locrian = A Phrygian b1)	Fm(ma7) to Bb9

Glass Onion

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hepta- tonic mode	layer 4: arpeggios
Am	Am7/11	A Aeolian (C major)	A harmonic minor (C major sharp five)	Bm7b5 E7b9 to Am
F	Am7/11b5	A Aeolian (C major)	A Aeolian b5 (C melodic minor)	Dm9 (Fma7/D)
Gm7	Gm7/11	G Dorian	G harmonic minor (Bb major sharp five)	Am7b5 to D7b9
F7	Am7/11b5	A Aeolian (C major)	A Aeolian b5 = C melodic minor	F9
D7	Adim7/11		A Locrian natural 6 (= Bb major #5 = G harmonic minor)	Am7b5 to D7b9

I Want You chorus

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hepta- tonic mode	layer 4: arpeggios
Dm	Dm7/11	D Aeolian (F major)	D harmonic minor (major sharp five)	Dm9
E7b9 bluesy	Em7	E Phrygian (C major)	n/a	Bm7b5 to Em7
E7b9 bright	E7	E Phrygian (bluesy)	E Phrygian major	Bm7b5 to E7b9
Bb7#11	Dm7/11b5	D Aeolian b5 (F melodic minor)	Bb Lydian dominant = E super Locrian = F melodic minor	Fm(ma7) to Bb9
Aaug	A7#5 arpeggio	A Phrygian (Bb major)	A super Locrian (Bb melodic minor)	Bbm(ma7) to Eb9

Hurricane

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hepta- tonic mode	layer 4: arpeggios
Am	Am7/11	A Aeolian (C major)	A harmonic minor (C major sharp five)	Bm7b5 E7b9 to Am
F bright	Am7/11	A Aeolian (C major)		Dm9 (Fma7/D)
F bluesy	Am7/11b5		A Aeolian b5 (C melodic minor)	Dm9 (Fma7/D)
C	Cma6/9	C major	A harmonic minor (C major sharp five)	Bm7b5 E7b9 to Am (Am7 = C6)
Dm	Dm7/11	D Dorian (C major)	n/a	Dm7
E dark	Em7/11	E Phrygian	E Phrygian major	
E bright	E7/11	E Phrygian (C major), bluesy	E Phrygian major	Bm7b5to E7b9
G bluesy	Gm7/11	G Dorian (F major)		
G bright	G7/11	G Mixolydian (C major)	just before Am: G Mixolydian #1 (C major sharp five = A harmonic minor)	just before Am: Bm7b5 E7b9 to Am or B7b5 Bdim7 to Am

Only So Much Oil

|Gm7 |Eb7 |Gm7 |Eb7 |
 |Gm7 |C7 |Eb7 D7 |Gm7 D7 / / |

Gm7 uses G Aeolian is mode VI of Bb major.

Eb7 uses G Aeo. b5 = Bb mel min. = Bb maj b3 = Eb Lydian dominant

C7 uses G Dorian = F maj. scale = C Mixolyldian

D7 uses G har. min. = Bb major #5 scale = D7 Phrygian major.

Improv with G minor pentatonic. During the Eb9 chord, flat the fifth of Gm pentatonic (Db notes replace D notes). Incorporate the Eb13#11 arpeggio into bars 2 and 4.

chord	layer 1: pentatonic scales	layer 2: major scale modes	layer 3: complex hep- tatic mode	layer 4: arpeggios
Gm7	Gm7/11	G Aeolian (Bb major)	A harmonic minor (C major sharp five)	Bm7b5 E7b9 to Am
Eb7	Gm7/11b5		G Aeolian b5 (Bb melodic minor)	Bbm(ma7) to Eb9
D7 dark	Dm7/11	D Phrygian (= G Aeolian = Bb major)	A Locrian natural 6 (= Bb major #5 = G harmonic minor)	Am7b5 to Dm9
D7 bright	D7/11		D Phrygian major (= Bb major #5 = G harmonic minor)	Am7b5 to D7b9
C9	Gm7/11 or Gm6/11	G Dorian	G Lydian dominant	C9
Bbdim7	Gdim7/11		G Dorian b5 = F major b6	G dim 7

MAJOR FLAT SIX SONGS

Sleepwalk

C Cma6/9 C major D13, F#m11b5b9	Am Am11	Fm Fm7/11 C major b6 Fm6, Fm9(ma7)	G G7/11 C major G13, Dm7, Em7, Bm7b5
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play bars 1-4 twice more

C Cma6/9 C major D13, F#m11b5b9	F Fma69 Dm11	C Cma6/9 C major D13, F#m11b5b9	C7 C7/11 C Mixolydian C13, Gm7, Am7, Em7b5		
Fma7 Cma6/9 C major D13, F#m11b5b9	Fm(ma7) Fma69 Dm11	C Cma6/9 C major Cma13	F Dm11	C Cma6/9 C major Cma13	C7 C7/11 C Mixolydian C13
Fma7 Cma6/9 C major D13, F#m11b5b9	Fm(ma7) Fma69 Dm11	G G7/11 C major Cma13	Bb Gm7/11 C Miso. b6 Bb13#11	G G7/11 C major G13, Dm7, Em7, Bm7b5	

Wave (A section)

Dm9 Dm7/11 D Dorian Dm11	G13	Dm9 Dm7/11 D Dorian Dm11	G13		
Dma7 Dma6/9, F#m7/11 D major Dma13	Bb°7 (A13b9/Bb) Gm6/11b5 D major b6 A7b9, Gm9(ma7), Gdim7	Am7 Am7/11 D Mixolydian Am11	D7b9 (D13b9) Am7/11b5 D Mixolydian b2 D7b9, Cm9(ma7), Cdim7		
Gma7 Gma6/9, Bm7/11 D major Gma13#11	Gm6 Gm6/11 D major b6 Gm6, Gm9(ma7)	F#13 F#7/11 B har. minor F#7b9	F#7#5 B9 B7/11 B Mixo. B9	B7b9 B7/11 B Mixo. b2 B7b9	
Bm7/E Bm7/11 B Dorian Bm11	E7 Bm7/11 B Dorian E13	Bb7 Bb69,Dm711b5 D Aeolian b5 Bb13#11	A7#5 A7/11 D har. minor Dm11b5	Dm9 Dm7/11 D Dorian Dm11	G13 G13

7-3-6-2-5-1-4 SONGS

Improv by Comping Rhythm Family

- **[Comping Rhythm](#)**
- **[Comping Rhythm Family Song List](#)**

COMPING RHYTHM

COMPING RHYTHM FAMILY SONG LIST

Quizzes

- **The Best Way to Learn**
- **Tablature and Chord Diagrams**
- **Major Scales, Key Signatures and Modes**
- **Chords and Chord Progression Basics**
- **Voice Leading and Cadences**
- **Chord Progression Types**
- **Comping Rhythms**
- **Jazz Theory**
- **Harmony**
- **Being in a Band**
- **Playing Parts in a Band**
- **Technique**
- **Equipment Use and Maintenance**

THE BEST WAY TO LEARN

The best way to learn is to teach someone else in an interactive manner. The Greek Socrates used a constructive method of argument through question and answer dialog and assumed he always need to learn more and knew nothing (in an absolute sense. This manner of communicating is called the Socratic method.

Usually, the worst way to learn is to listen to a lecture.

TABLATURE AND CHORD DIAGRAMS

Does the top horizontal line on tablature represent the largest or smallest string? Which string is shown on the top line in tablature? Answer: the first and smallest string. See [Reading Tablature](#).

What do the numbers in the white space between the tablature and standard music notation indicate? Answer: fretting finger numbers, where index, middle, ring and little finger are respectively “1-2-3-4”. See [Reading Tablature](#).

What do the vertical lines on chord diagrams indicate, strings or frets? Answer: strings. Does the very top horizontal line on a chord diagram indicate the nut (the plastic or bone slotted piece that the strings rest on on the head of the guitar) or the first fret? Answer: the nut, unless a roman numeral is shown above the upper left of the chord diagram. The roman number sound indicate the fret number shown by the *next-to-top line* on the diagram. See [Reading Fretboard Diagrams](#).

If you play a note without fretting the string, it called an “open string” and the string vibrates to the nut. In tablature, should such a note be numbered “0” or “1”?

We press strings onto the narrow metal frets that are hammered into the fingerboard in order to vary the pitch of notes by changing the vibrating string length. We call the space between each pair of consecutive frets a “fret”, when it is actually a “fretting space”. Which fretting space is between the third and second fret? Answer: the third fret (or fretting space).

What do the numbers on the fretboard diagrams indicate?

For fretboard diagrams or tablature, which is the number for the index finger?

On a chord diagram, what does a small circle above the nut indicate? Large circles on my diagrams indicate the note that names the chord, which is sometimes a reference note not played. Notes shown by the large circles always share the same note name.

What does it mean when a string on a chord diagram has no number on it?

What are some things you can do to make sure a string does not sound?

MAJOR SCALES, KEY SIGNATURES AND MODES

Natural Notes, Sharps and Flats

How many unique letters are used in music. Answer: seven (A-B-C-D-E-F-G). Without modification, these lettered notes are called *natural notes*. Sharps and flats modify the natural notes. Which two pairs of natural notes are a half step (one fret apart, with no fret between them)? Answer E-F and B-C. What is the interval of the remaining pairs of notes alphabetically including G to A, where the musical alphabet starts over? Answer: a whole step (two frets, with an “empty fret” between them/).

How does a sharp modify a natural note? Answer: it raises its pitch by a half step, moving it one fret toward the body of the guitar.

How does a flat modify a natural note? Answer: it lowers its pitch by a half step, moving it one fret toward the head of the guitar.

Major Scales

How many unique tones are there in a single major scale by note name or by note number (A-B-C-D-E-F-G or 1-2-3-4-5-6-7)? Answer: seven.

In alphabetical order, most tones of a major scale are two frets apart (called a *whole step*), having one “empty fret” between them. There are two exceptions where the tones are one fret apart (called a *half step*), having no fret between them. In alphabetical order, each tone to the next is either a half step (one fret) or a whole step (two frets). Which numbered tones in a major scale are a half step apart? Answer: three to four and seven to eight (eight is where one reoccurs in the next higher octave).

How many unique major scales are there by pitch? Answer: twelve. How many major scales are there by name? Answer fifteen, Why are there more by name than by pitch? Answer: because of enharmonic names (synonym key names). F# and Gb major scales have the same pitch. C# and Db major scales have the same pitch. Cb and B major scales have the same pitch. Hypothetically, there are additional enharmonics with double flats and double sharps like G# major with the notes G#-A#-B#-C#-D#-E# and F## (F double sharp).

What is the purpose of sharps and flats in regard to major scales? Answer: They adjust the letter-to-letter intervals from each major scale tone to the next to preserve the rule that each tone ascends to the next by a whole step except three to four and seven to eight are each a half step. Why is C major the only key with no sharps nor flats? Because in C major, three to four are E-F, already a half step and seven to eight are B-C already half step.

Why is the B note flat in the key of F? Answer: to make the interval from three (A) to four (Bb) a half step and to make the interval from four (Bb) to five (C) a whole step.

Why is the F note sharp in the key of G? Answer: to make the interval from six (E) to seven (F#) a whole step and to make the interval from seven (F#) to eight (G) a half step.

Key Signatures

See: [Key Signatures](#).

the purpose of key signatures

What is the purpose of key signatures? Answer: to provide an organization of the sharp and flat compensations that conform all major scales to the rule that each numbered tone ascends to the next by whole step except three to four and seven to eight are a half step.

the accumulative orders of sharps and flats

The key signatures for most major scales conform to an accumulate order of sharps or flats. Which are the two exceptional major scales which don't conform to an accumulative order of sharps or flats and have to be memorized instead of using the rules below regarding sharp keys and flat keys? Answer: C major, which has no sharps nor flats and F major which has one flat, Bb.

What is the accumulative order of sharps in key signatures? Answer: F#-C#-G#-D#-A#-E#-B#.

How to you decode a key signature with sharps to name the major scale? Answer: raise the pitch of the last sharp in the key signature a half step. G major's key signature is "F#" and raising it's last (and only) sharp (F#) a half step produces "G". D major's key signature is "F#-C#" and raising it's last sharp (F#) (C#) a half step produces "D".

What is the accumulative order of flats in key signatures? Answer: Bb-Eb-Ab-Db-Gb-Cb-Fb.

decode a key signature to name the major scale

How to you decode a flat key signature to name the major scale? Answer: the name of the key is the literal name of the next to last flat. Bb major's key signature is "Bb-Eb" and its next-to-last flat is the key name "Bb". Eb major's key signature is "Bb-Eb-Ab" and its next-to-last flat is the key name "Eb".

conceive a key signature from the notes in a major scale

How can you conceive a key signature from the note names in a major scale? Answer: C major and F major must be memorized. For sharp keys, collect the sharps, put them in the order F#-C#-G#-D#-A#-E#-B# (whatever part of it they may use) and raise the last sharp a half step. For flat keys, collect

the flats, put them in the order Bb-Eb-Ab-Db-Gb-Cb-Fb (whatever part of it they may use) and name the key after the next-to-last flat.

relative minor according to the key signature

Each major key has a relative minor key with the same notes. How can you determine the relative minor key? Answer: once you determine the major key, the relative minor is on its sixth step. Count down two scale tones, from “one” to “seven” to “six”. Go down two letters alphabetically and conform to the key signature. For “A” major, for example, go down two letters to “F” and remember to follow the A major key signature (F#-C#-G#) and determine the relative minor as F# minor.

Modes of Four Heptatonic Scales

What is a mode? Answer: one of the synonym scales created by using one of the tones of the scale as the key or focal point. For most scales, a different mood or mode is created on each scale tone.

See: [Modes](#).

What is a heptatonic scale? Answer; a seven-tone scale, usually made with step-to-step intervals of half steps (one fret, with no note between), whole steps (two-frets, with an “empty fret” between) and more rarely minor third intervals (three frets, with two “empty frets” between).

What is a “harmonize-able” heptatonic scale? Answer: it is one of only four heptaonic scales that can produce chords on each scale step by combining three or more notes in an every-other-note pattern (thirds).

four harmonize-able heptatonic scales

What are the four harmonize-able heptatonic scales? Answer: major, harmonic minor, melodic minor and harmonic major. Traditionally, melodic minor is major scale flat three ascending and Aeolian (major scale flat 3, 6 and 7 descending. This course refers to the jazz and modern version of melodic minor that is major flat three ascending and descending.

What is a mode formula? Answer: it is a set of seven numbers that represent the comparison between a chord, scale or melody. C major scale is 1-2-3-4-5-6-7 and has all natural notes (C-D-E-F-G-A-B). C Mixolydian, by comparison has a “Bb” note instead of a “B”, so the formula for Mixolydian is 1-2-3-4-5-6-b7.

What are the names of the modes built on a major scale? Answer: modes 1-2-3-4-5-6-7 are respectively major (Ionian)-Dorian-Phrygian-Lydian-Mixolydian-Aeolian and Locrian. In order with the traditional Roman-numbered tone on which they are built, they are I major (Ionian), II Dorian, III Phrygian, IV Lydian, V Mixolydian, VI Aeolian and VII Locrian

How can you figure out the modes built on each of the steps of the other three harmonize-able heptatonic scales? Answer: (1) Conceive harmonic minor as major scale sharp five and harmonic minor will be

the mode on its sixth step; (2) conceive melodic minor as major scale flat three; (3) conceive harmonic major as major scale flat six; (4) use a descending number series in comparing each mode side-by-side with a major scale mode on the same numbered scale tone as shown in the table below.

What is the descending number series in harmonize-able heptatonic modes other than major? Answer: In major sharp five, the descending number series is #5-#4-natural 3-#2-#1-natural 7-natural 6. In melodic minor (major flat three), the descending number series is b3-b2-flat one-b7-b6-b5-b4. In harmonic major (major flat six), the descending number series is b6-b5-b4-b3-b2-flat one.

	1	2	3	4	5	6	7
major mode altered tones	major none	Dorian b3,, b7	Phrygian b2, b3, b6, b7	Lydian #4	Mixolydian b7	Aeolian b3, b6, b7	Locrian b2, b3, b5, b6, b7
major sharp 5 mode altered tones	major #5 #5	Dorian #4 b3, #4, b7	Phrygian natural 3 b2, nat. 3, b6, b7	Lydian #2 #2, #4	Mixolydian #1 #1, b7	Aeolian natural 7 (harmonic min.) b3, b6, natural 7	Locrian natural 6 b2, b3, b5, natural 6, b7
melodic minor mode altered tones	major b3 b3	Dorian b2 b2, b3, b7	Phrygian flat one flat one, b2, b3, b6, b7	Lydian b7 (Lydian dominant") #4, b7	Mixolydian b6 b6, b7	Aeolian b5 b3, b5, b6, b7	Locrian b4 "super Locrian" b2, b3, b4, b5, b6, b7
harmonic major mode altered tones	major b6 b6	Dorian b5 b3, b5, b7	Phrygian b4 "super Phrygian" b2, b3,b4, b6, b7	Lydian b3 "Lydian diminished" b3, #4	Mixolydian b2 b2, b7	Aeolian flat one flat one, b3, b6, b7	Locrian bb7 b2, b3, b5, b6, bb7

The color codes are:

major	minor	dominant	diminished	augmented
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How can I identify one of the twenty eight modes of the four harmonize-able heptatonic scales from a collection of seven notes? Answer if it is one of the twenty eight modes, first identify the triad and dominant basis as shown by the colors on the table above. Then narrow it down by the remaining formula. **Major triad basis:** major, Lydian, major b6. **Minor triad basis:** Dorian, Phrygian, Aeolian, melodic minor (major b3), Dorian b2 and Lydian b3 (Lydian diminished). **Dominant seventh basis:** Mixolydian, Phrygian b3 (Phrygian dominant), Lydian b7 (Lydian dominant), Mixolydian b6, Phrygian b4 (super Phrygian) and Mixolydian b2. **Diminished triad basis:** Locrian, Mixolydian #1, Locrian natural 6, Aeolian b5, Dorian flat five and Locrian bb7 (double-flat seven). **Augmented triad basis:**

major #5, Phrygian flat one, Locrian b4 (super Locrian) and Aeolian flat one.

CHORDS AND CHORD PROGRESSION BASICS

The Basics of Chords and Chord Construction

Alphabetically, which notes are one fret apart? (Answer: [full-fretboard natural notes](#)).

What are the letter names of the notes on the fifth, tenth and twelfth frets, from sixth through first? Answers: [full-fretboard natural notes](#).

What is a chord root, semantically (according to the letter in the chord name) and aurally (the aural definition involves the imagination)? Answer: [chord roots](#).

Barre chords are typically formed by using the index finger as a virtual nut (or virtual capo) by barreing all the strings and forming virtual open position chords with the three remaining fingers. Give an example. Answer: [basic barre and power chords](#).

Demonstrate a major and minor barre chord rooted on the sixth string. Demonstrate a major and minor chord rooted on the fifth string. Answer: [basic barre and power chords](#).

The chords you demonstrated above use a design based on open position chords, named after their letter and have a root on one of the three bass strings in relatively the same location (same string and same fret above the “virtual nut” you make with the barre). Demonstrate E, A, C, G and D form major barre chords, being aware that D, A and G open position chords have an “empty” first fret. Answer: [Major Chords in Five Octave Shapes](#). See also: [Octave Shapes and Major Arpeggios](#).

How many different notes does a triad have? A quadrad? A pentad? A sextad? A heptad? Answers: a triad has three different notes, a quarad has four different notes, a pentad has five, a sextad has six and a heptad has seven.

What is the primary method of constructing triads with the major scale? Answer: every other note, called *thirds*. See [chord construction](#).

What is the order of major scale-tone numbers and letters in thirds (the tertian cycle)? Hint: use groups of odd and even numbers. Answer: [number and letter cycles](#).

What is the significance of the numbers 1-3-5 Answer: [chord construction](#)?

What are the numbered tones in the key of the chord root for major, minor? Answer: [triads](#).

Demonstrate Em, Am, Dm, Gm and Cm form minor barre chords. Answer: [Minor Chords In Five Octave Shapes](#).

What number does suspended 4 and suspended 2 replace in a major or minor triad? Answer: in a major triad, suspended 4 and suspended 2 replace 3 and in a minor triad, suspended 4 and suspended 2 replace a flat three.

Key Scale, Parent and Chord Scale

See [Key Scales, Parent Scales and Chord Scales/Key Scale, Parent Scale and Chord Scale](#).

key

What does that mean a song is said to be in a key? Answer: It means there is a main note that is the focal point of the whole piece of music. It can be defined in various ways, but a favorite is: “the root of the chord you would expect the piece to end on” (in a traditional sense, as in the common practice period of classical music from 1600 to 1900).

scale

What is a scale? A musical scale is a collection of two to twelve notes within the range of an octave, usually demonstrated by playing the notes up and down through the range of an octave. What are the most common numbers of notes in a scale? Answer: five-note pentatonic scales, seven-note heptatonic scales like major, Mixolydian, Dorian, Aeolian and harmonic minor and the twelve-note chromatic scale. See [Prime Scales, Chords and Arpeggios](#).

authentic and deceptive cadences

What is meant by “you would expect the piece to end on”? (Answer: That you expect the piece to end on a chord that sounds like a traditional ending. The classic tradition ending is the authentic cadence, as described below).

What is a cadence? (Answer: A cadence is a chord progression of two or three chords that establishes a key or temporary sense of key.)

What is an authentic cadence? (Answer: An authentic cadence sounds finished and progresses from a chord built on the fifth step of the key <G major> to one built on the first step <C major>).

What is a deceptive cadence? (Answer: A deceptive cadence can end on an unexpected chord, like ending on an “F” chord in the key of “C”. In a deceptive cadence, the melody usually ends on a note that is in the expected chord *and* in the alternate chord.)

What is an Escherian cadence? (Answer: a special kind of deceptive cadence. It seems to follow the logic of a traditional cadence, but uses an auditory illusion). See [Melodically Superimposed Cadences/Escherian Cadence](#).

Modes

What is relative major and minor? Answer: traditionally, a major tone center is on the first step of a major scale and the minor tone center is on the sixth step of a major scale and the relative major and minor relationship between them involves know the minor third (three frets, inclusively) interval between them. Using the C major scale, this would produce either C major or A Aeolian (also called A natural minor). A Aeolian is the *relative minor* of C major. Conversely, C major is the *relative major* of A Aeolian, although the term *relative major* is less common than relative minor. See [Establishing a Key/Relative Major and Minor Keys on Steps One and Six](#).

See [Modes/Modes: Alternative Tone Centers on a Scale](#).

What is a mode? Answer: Any tone of the major scale can be the key. To demonstrate that, seven examples are shown below, each using the notes of the C major scale, but each in a different key, with a key on each of the C major scale. The mode names originated in Greece. *Modus* means mood in Greek, so each mode represents its own mood.

All of these examples use the C major scale, but each one puts the focus or tone center on a particular note. D Dorian, for example, is the C major scale with the focus or tone center on "D".

table of modes of the C major scale

click the links below

to play an example

ascend or descend the notes in each row to sound the respective scale

C major (ionian)	C	D	E	F	G	A	B	C
D Dorian	D	E	F	G	A	B	C	D
E Phrygian	E	F	G	A	B	C	D	E
F Lydian	F	G	A	B	C	D	E	F
G Mixolydian	G	A	B	C	D	E	F	G
A Aeolian	A	B	C	D	E	F	G	A
B Locrian	B	C	D	E	F	G	A	B

Parent Scales, Key Scales and Chord Scales

See [Modes/Key Scale, Parent Scale and Chord Scale](#).

What are parent scales? Answer: A parent scale is the major scale (or other harmonize-able seven-tone scale) which is the origin of a key scale or chord scale. A *parent scale* is a reference scale from which a scale or mode was derived. Most commonly, a major scale is used as a parent scale. Any of the modes of the major scale would refer to that major scale (which was their source) as their parent scale. Other parent scales are *major #5*, *major b3* and *major b6*, each of which have seven modes like the major scale and are simple modifications of the major scale.

C major scale uses the notes C, D, E, F, G, A, B and C. Modes are constructed on each of the tones of the C major scale. In the chapter [Modes](#), the section [Discovering Major Scale Modes](#) demonstrates modes of the C major scale. Those modes all have the C major scale as their parent scale.

What are key scales? Answer: *Key scales* are named after the tone center. They may vary by type when used in a particular piece of music, but would have a tone center in common. A melody in the key of C may use C major, C Mixolydian and C Dorian. All three of these scales share the tone center, "C", so they would be *key scales* for the key of "C".

Do you have to know the key to determine a key scale. Answer: yes, otherwise there is no tone center as a point of reference to serve as "1".

What are chord scales?

What are the parent scale numbers in a II minor chord? (Answer: 2-4-6). What are the chord scale numbers in a II minor chord? Answer: 1-b3-5.

What are the parent scale and chord scale numbers in a III^m chord? Answer: The parent scale numbers are 3-5-7 and the chord scale numbers are 1-b3-5.

What are the parent scale and chord scale numbers in a IV major chord? Answer: The parent scale numbers are 4-6-1 and the chord scale numbers are 1-3-5.

What are the parent scale numbers in a IV minor chord? Answer: The parent scale numbers are 4-b6-1 and the chord scale numbers are 1-b3-5.

What are the numbers in a VI major chord? Answer: The parent scale numbers are 6-#1-3 and the chord scale numbers are 1-3-5.

What are the numbered tones for an add 9 chord in the key of the chord root? Answer: 1-2-3-5, where 2=9.

Demonstrate **major and minor triads built on steps one through six of C major and G major.**

Play the following progressions in C, G, D, A, E, Gb, Db, Ab and in Eb. For each key, name the chords by letter and quality: I-IV-V-I, I-V-IV-I, V-IV-I-V, I-VIm-IV-V, I-V-VIm-IV, I-VIm-IIImV and I-VIm-IV-V. Use open position chords whenever you can for now.

C and G major chords on steps one through six

key	I major	II minor	III minor	III major	IV major	V major	VI minor
C major	C I	Dm I	Em I	E I	F I	G I	Am I
G major	G I	Am I	Bm I	B7 I	C I	D I	Em I

VOICE LEADING AND CADENCES

What is that name for individual musical parts in an arrangement that is analogous to singers? Answer: “Voice”.

The Quartet as a Model for Ensembles

What are the names of the four voices in a vocal quartet? Answer: Soprano, alto, tenor, bass, from highest to lowest pitch.

When chords have more than four different notes, some notes are omitted to keep four as the total number of notes. What is the rule regarding which voices should *not* be omitted? Answer: Include the third, the seventh (if involved) and any note mentioned in the chord name. See [Chord Naming Conventions/Preferred Chord Tones](#).

If you were to choose one note from each chord in a series of four-note chords, what would be the assignment of the soprano, alto, tenor and bass voices? Answer: The soprano would be the top voice, alto next-to-top, baritone next-to-lowest and bass lowest.

What are the respective names for vocal ensembles of two through ten voices? Answer: Duet, trio, quartet, quintet, sextet, septet, octet, nonet and dectet.

How do you assign the soprano, alto, tenor and bass voices for duets or trios? Answer: You choose two of the four voices for a duet or three of the four voices for a trio.

How do you assign the soprano, alto, tenor and bass voices for ensembles of five or more voices? Answer: You double voices, sometimes in a different octave.

What are the roles of voices as melody and harmony (which voices are the melody and harmony)? Answer: Usually one of the voices is the focal point and is considered the melody and the remaining voices are harmonies.

Is there ever two melodies in a four-voice arrangement? Answer: Sometimes, two of the voices move in parallel thirds (each lower note of a voice accompanied by a note in an upper voice two scale tones higher, such as “A” below and “C” above) In this case of parallel thirds, both voices could be considered melody or one of them could be more strongly emphasized to assign it as the melody.

Which voice is the melody? Answer: The important voice (melody) is most commonly in the soprano (lead vocal, lead guitar etc.), but often in the bass (Jaco Pastorius, Ron Carter, Jack Cassidy, Geddy Lee, Paul McCartney). In traditional jazz ensembles the trumpet player is typically the melody player and the band leader (Louis Armstrong, Miles Davis, Dizzy Gillespie, Wynton Marsalis). Improvising trombone players often provide a strong secondary melody, especially in New Orleans. Check out this [Freddie Lonzo video](#).

Voice Leading and Counterpoint

What is voice leading? Answer: Any particular voice may move up or down or stay on the same note (if available) as the ensemble moves on to the next chord. The design of this succession of notes in a particular voice is *voice leading* and it results in a melodic line.

What is counterpoint? Answer: The combined design of the movement of all the voices.

How many types of counterpoint are there? Answer: There are five types of counterpoint, called *species*.

What are the five species of counterpoint? Answer: The first species is similar to what was described above, with the one note at a time in each voice, making a four-note harmony. In counterpoint, chord tones predominate, but passing and neighboring tones are used in addition to chord tones. Though there may be use of non-chordal tones in counterpoint, it's best to first conceive the simplest core melody with one note per chord. Second species counterpoint involves two notes in one or more voices during one note in the remaining voices. Third species counterpoint pits four notes against one, fourth species has the notes offset in time and fifth species mixes the other species in a free-form manner.

Which of the voices should use a simpler melodic line and which voices can be more complex? Answer: The less important voices (the harmony voices) should move by smaller intervals with regular rhythm and other predictable characteristics. Since the more important voices are the main focus for the listener, the more important voices can take more liberties with larger intervals, more complex rhythm and other elements that require more attention by the listener.

Should the range of pitch differ between the voices? Answer: Yes, Larger intervals should be used in the bass (in the low range of pitch) and smaller intervals in the treble (high range of pitch).

Target and Setup Chords

See the chapter [Melodically Superimposed Cadences/Target Chords](#) and [Setup Chords](#).

What are target chords? Answer: Target chords establish a sense of key, a tonal focal point and the feeling that ending on a target chord would sound final and complete. A target chord may be the tonic chord of the key (Am in the key of Am) or a chord establishing a temporary key using any significant chord with a duration of a bar or more.

What are setup chords? Answer: A setup chord is the last chord in a cadence before the target or tonic chord (or temporary tonic chord). See the chapter [Melodically Superimposed Cadences/Superimposed Cadence Voice Leading](#).

Cadences

What are cadences? Answer: Cadences are chord progressions, usually of two, three or four chords, are used to establish a key or temporary key. In each genre, listeners are familiar with certain cadences. “II-V-I”, for example is the basis of jazz chord progression and is common in other popular styles. In C major “II-V-I” is Dm7-G7-Cma7. In C minor, it is Dm7b5-G7-Cm7.

In improvising or composing melody, how do you represent setup chords and target chords? Answer: immediately before a target chord, you can represent a setup chord with an arpeggio, a decorated arpeggio (with scale-tone or chromatic neighbors) or with a pentatonic scale named after the setup chord.

What intervals are commonly used from setup chord root to target chord root? Answer: Stepwise, fourths, fifths or chromatic.

authentic (perfect) cadence and secondary dominant

What is the name of the cadence when the setup chord is a V chord (the dominant chord) of the key and the target chord is the I chord of the key (the tonic chord)? Answer: The authentic or perfect cadence.

What is secondary dominant? Answer: A secondary dominant is a major or seventh (dominant type) setup chord with its root on the fifth of the target chord, where the root of the setup chord moves up a perfect fourth (a five fret interval, like frets 3 to 8) to the root of the target chord.

Any chord with a duration of a few beats and with a temporary tonality can be a target chord. Preceding the target chord with a V of it is a secondary dominant. See the chapter [Secondary Dominant](#).

The *authentic* cadence is V-I. In a cadence to the chord C7 with Dm7-G7-C7, “C7” is the tonic chord. In the key of C, establishing “F7” as a temporary tonic, Gm7-C7-F7 could be used as a II-V-I cadence to the temporary key of F using a C7 as a secondary dominant.

An authentic cadence is a V setup chord to a I target chord but is always with the target as “I”. “I” could be called the “primary dominant.”

What chord qualities can be used for a secondary dominant? Answer: Usually, major or dominant seventh (1-3-5-b7). To make the cadence from the secondary dominant to the target chord more dramatic, it can be an altered seventh chord with optional sharp or flat five; sharp or flat nine.

When using a secondary dominant, is there any restriction as to the quality of the target chord? Answer: It is preferred that the target chord has a perfect fifth, implying a major, minor or suspended triad basis. A 7sus4 chord, for example has a sus 4 triad basis.

Can chord qualities of setup chord other than major and dominant be used to progress up a perfect fourth to a target chord root? Answer: Yes. The cadence would be less dramatic than with a major or dominant setup chord.

stepwise: upper or lower neighbor

What are examples of stepwise cadences? Answer: VII dim to I or IIm to I; Ima to IIm or IIIIm to IIm. The setup chord may have its root a scale tone above or below the target (G major or B diminished in the C major scale setting).

chromatic

What are examples of chromatic cadences? Answer: A sequence of chords that harmonizes a bass line involving chromatics, including these:

desc dim	I7 Idim7 IImb7b5 I (IIm7b5=IVm6)
1#125	I #Idim7 IIm V
1b325I	I bIIIdim7 IIm V
1#12#23	I #Idim7 IIm #IIdim7 IIIIm or I #Idim7 IIm #IIdim7 I/3
12#23	I IIm #IIdim7 IIIIm
134#45	I-I/3-IV-#IVdim7-V or I-I/3-IV-#IVdim7-I/5
3b325	IIIIm bIIIdim IIm V
4#41	IV #IVdim7 I

flat five substitute (tritone substitute) cadence

What is a flat five substitute cadence (also called a tritone substitute)? Answer: A flat five substitute for the authentic cadence is bII-I. Instead of progressing V-I (root up a fourth), it is bII-I (root down a half step. Using flat five substitutes makes chord root progression chromatic. VI-II-V-I becomes bIII-II-bII-I. See [“Substitution”/Flat Five Substitute](#) and see [“Melodically Superimposed Cadences”/Superimposed Cadence Voice Leading, Chromatic Chord Progression](#) and [flat five substitute chord progression](#).

plagal cadence (“amen” cadence)

What is a plagal cadence? Answer: Rather than the authentic V-I cadence, The plagal or “amen” cadence is IV-I. It cadences down in a perfect fourth, instead of up a perfect fourth. Perfect fourths are two and one half steps and are equivalent to the interval from the first to the fourth step of a major scale, or any pair in the series 4-1-5-2-6-3-7-#4-#1, etc.

minor plagal cadence

What is the minor plagal cadence? Answer: The minor plagal cadence is IVm-I. It sounds reverent, like the plagal cadence, but with a touch of sadness.

multiple plagal cadences

Can plagal cadences be used in a repeated manner, where each chord is the IV of the chord it precedes? Answer: Yes. Double, triple and quadruple plagal cadences have been used in pop music.

Multiple plagal cadences in the key of E (the links below go to Spotify playlists in various keys):

- ✦ [double plagal](#): D-A-E
- ✦ [triple plagal](#): G-D-A-E
- ✦ [quadruple plagal](#): C-G-D-A-E

What is a double plagal cadence? Answer: bVII-IV-I (Bb-F-C). With all major chords, each chord root is a perfect fourth above the next chord root. IV (F) is a perfect fourth above I (C), and in turn bVII (Bb) is a perfect fourth above IV (F).

What is a triple plagal cadence? Answer: bIII-bVII-IV-I. Examples are Comfortably Numb, Fly Away, Jumpin' Jack Flash, Old Man, Maybe I'm Amazed, Summer Breeze.

What is a quadruple plagal cadence? bVI-bIII-bVII-IV-I (C-G-D-A-E), such as Crazy (Seal), Day In The Life (or the "aah" middle section), Here Comes the Sun, Hey Joe, Hush (Joe South, popularized by Deep Purple).

half cadence (British: imperfect cadence)

What is a half cadence? Answer: In a half cadence, I, II, IV or VI progresses to V, sounding incomplete. It ends with the target chord on V. It is usually following by another cadence that does resolve to the tonic I chord, like an authentic cadence.

deceptive cadence

What is a deceptive cadence? Answer: Although the listener expects a song to end on the tonic chord, it doesn't have to. A song can end with a deceptive cadence, where the final chord is not the tonic chord. See [Establishing a Key/authentic and deceptive cadences](#).

Escherian cadence

What is an Escherian cadence? An Escherian cadence is a special kind of deceptive cadence. Maurits Cornelis Escher's drawings displayed relationships in perspective that defy logic. Each element seems to make sense in its own right, but shouldn't co-exist with related elements. Look at his art at www.mcescher.com, especially "Waterfall", "Ascending and Descending" and "Belevedere".

Like Escher's art, music can suggest one thing and do another, leading you along a path of audio logic that may take an unexpected turn. A chord progression can suggest movement to a particular chord

and go to another that uses a different mode or that contains the expected chord, but with a different root.

Expert magicians, like expert improvising musicians and composers are clever at distracting the audience while introducing something unexpected. A magician may distract you with one hand while sneaking something with the other. An improvising musician may use a familiar melodic phrase and by changing the right note, use the notes that will introduce an unexpected chord or key.

An Escherian cadence is a resolving chord progression that suggests a resolution to a particular mode then resolves to another. It may do this by resolving to a different mode of the same key, or to a chord that includes the implied chord, but has a different root, such as suggesting Am and resolving to Fma7, which contains Am.

CHORD PROGRESSION TYPES

COMPING RHYTHMS

Read [Accents](#) and [Varying Rhythms](#).

What is a push? (aural answer: [accent three](#), then [push three](#)).

What is a rest push (punchy) versus a sustain push (smooth)? Which would be typical of bossa nova and which typical of James Brown?

What is a pickup? (aural answer: [accent three](#), then [pickup to three](#)).

The three mathematical operations in musical rhythm: halving/doubling, dotting and tuplets.

Swing eighths use tuplets. They play on the first and third of three parts and can vocalized by saying “bah um bah” on each beat, spaced very evenly. Demonstrate. Next, sing “bah um bah” repeatedly on each beat and “fade out” the “um’s”. You should begin to hear the familiar swing rhythm that you have heard in blues. (aural answer: [swing eighths](#)).

The Charleston comping rhythm is in swing eighths and is two half notes with a push to the second half note. Demonstrate. (aural answer: [Charleston comping rhythm in swing eighths](#)).

Counting “1 + 2 + 3 + 4 +” perfectly even, clap a straight eighths version of the Charleston comping rhythm. (aural answer: [Charleston comping rhythm in straight eighths](#)).

Rhythmic “hits” are thematic accents placed at (metronomic) locations in time. The “back beat” is hits on beats two and four in 4/4 time. Count “one two three four” and clap on two and four to demonstrate. (answer: [back beat](#)).

Another way to vary a rhythm is to add a hit to an empty beat. Demonstrate adding a hit to the empty beat four in the Charleston comping rhythm, which makes the “Blues By Five” comping rhythm. (aural answers: [Charleston comping rhythm in swing eighths](#), [Charleston add four in swing eighths](#), [Charleston in straight eighths](#), [Charleston add four in straight eighths](#)).

JAZZ THEORY

What are the formulas (numbered tones in the key of the chord root) for major, minor, diminished, suspended fourth, suspended second and augmented chords? (answer: [triads](#))

Do you need to know triad names to understand larger chord names? (answer: [triad names in larger](#))

What are the three ways a chord name indicates b3? (answer: [thirds](#))

What does “7” (or 9, 11 or 13) indicate in a chord name? (answer: [sevenths, ninths, elevenths and thirteenths](#)). How would a chord name indicate two other versions of the number seven? (answer: [sevenths, ninths, elevenths and thirteenths](#))

What are the three ways to indicate the numbered tone b5 in a chord name? (answer: [altered fifths](#)). What are the three ways for a #5? (answer: [altered fifths](#)).

How many notes are in an eleventh chord? (answer: see the [major scale-tone chords by type](#) table)

Can the first number after the letter name in a chord name indicate more than one number? (answer: [sevenths, ninths, elevenths and thirteenths](#)).

Do secondary numbers after the letter names (such as the “b9” in “C7b9” or the “#5” and “#9” in “C7#5#9”) indicate more than one note for each number? (answer: [numbers after the letter name](#))

How many notes are in 9sus4? (answer: [chord formulas, suspended fourths](#)).

What are [parent scales, key scales and chord scales](#)?

Describe the method of figuring out a secondary root seventh chord (tertian quadrad) on the third of a ninth chord in numbers, using the parent scale (use the quality of the seventh chord on the third of the ninth chord)?

What number would you subtract from chord tones 9 through 13 to get the lower octave equivalents?

See [Modes / Modes Of Four Heptatonic Scales](#).

What are [key scales, parent scales and chord scales](#)?

What are the parent scales for C7, F7 and G7? (answer: [Modes On I-IV-V Blues](#)).

What are key scales for C7-F7-G7 for a blues in C (name the modes each of their parent scales in terms of the note “C”)?

What are the qualities of the tertian triads (three note chords built in thirds) and tertian quadrads (four-note seventh chords built in thirds) of each of the four usable heptatonic scales: major scale, major

sharp five scale (harmonic minor built on its sixth step), melodic minor scale, major flat six (harmonic major)?

What are the names of the largest acceptable chord and acceptable add tones (2, 4 and 6) on each of the seven steps of the each of the four usable heptatonic scales), excluding suspended chords?

What are the numbered tones of a V7 in terms of the parent scale? What would those numbers be without the root? Which numbered tone of the parent scale (5, 7, 2 or 4) is the third of a V7 chord? What is the numbers of the tones in a triad built on the third of the V7 chord? Is there any numerical difference (in terms of its parent scale) between the numbered tones of a triad built on the third of a V7 chord and the same V7 chord without a root?

What is the nature of the descending number in formulas that occurs in the ascending consecutive order of modes of major sharp five, melodic minor and major b6 (harmonic major)? (answer: see the “mode” row at the top of the table for each scale in [Modes Of Four Heptatonic Scales](#)).

Playing Mr. P.C. in the key of Cm, the Cm7 and Fm7 chords use an Eb major parent scale. What is the key scale for Cm7? What is the key scale for Fm7? What is the chord scale Fm7?

Playing Mr. P.C. in the key of Cm, the Ab13#11 parent scale is Eb melodic minor. What is the key scale for Ab13#11? In the same key of Cm, the G7b13 chord's parent scale is Eb major sharp five. What is the key scale for G7b13? What is another name for C Aeolian natural seven? (Answer: C harmonic minor).

How many notes are in G7b13? What is the lower-octave equivalent of b13? Does G7b3 effectively have two versions of a fifth?

What are the names of the largest acceptable chord and acceptable add tones on each of the seven steps of the major sharp five scale (harmonic minor will be constructed on its six), excluding suspended chords?

Answers To Jazz Theory

Yes, triad names are commonly the prefix immediately after a letter name and imply all the notes that the triad names as the basis of the larger chord.

HARMONY

Thirds are constructed by combining two notes in a major scale, usually sounded together What is the number of consecutive tones included in a scale-tone third?...in a scale-tone sixth?

What is the method of building thirds on the major scale? See *Heptatonic Thirds and Sixths and Thirds as Subsets of Major Scale-Tone Chords.pdf*

On which steps of the major scale do major thirds (above) occur? (Answer: one, four and five).

When you invert thirds by putting the lower note up an octave or the upper note down an octave, they become sixths. What happens to the qualities when thirds are inverted to sixths (major and minor)? (Implied answer: Major seconds, thirds, sixths and sevenths are named so because the upper note in each case is in a major scale named after the lower. A minor sixth would use a flatted version of the sixth step of the scale named after the lower note.)

BEING IN A BAND

General

How cool is it being in a band? ([being in a band answer](#)).

Are band politics like national politics? ([national politics ansswer](#)).

What lasts longer, a band or a marriage? ([marriage question](#)).

What do you get when you drop a piano down a mine shaft? ([mine shaft answer](#)).

Being A Guitarist

How many guitar players does it take to screw in a light bulb? ([light bulb answer](#)).

How do you get a guitar player to turn his volume down? ([volume down answer](#)).

Did you hear about the guitarist that was in tune? ([guitarist in tune answer](#)).

Why did the guitar player put drumsticks on his dashboard? ([drumsticks answer](#)).

What do you call a guitarist that breaks up with his girlfriend? ([breakup answer](#)).

What do you say to a guitarist in a three-piece suit? ([three piece suit answer](#)).

What's the difference between a guitarist and a savings bond? ([savings bond answer](#)).

How do you make a guitarists eyes light up? ([eyes light up answer](#)).

What's the parent's response to "When I grow up I want to be a guitar player!"? ([grow up answer](#)).

How can you tell if the stage is level? ([level stage answer](#)).

Answers To Being In A Band

general

Good question.

Yes, like national politics, band they are much healthier when they are democratically run.

A flat minor.

Only as cool as you are humble.

being a guitarist

Neither have I.

Homeless.

Now son, you can't do both.

Shine a flashlight in his ear.

Put some sheet music in front of him.

When the guitar player is drooling out of both sides of his mouth.

Eventually a savings bond will mature and earn money.

Will the defendant please rise.

So he could park in the handicap spot.

One to change it and a bunch more to say "I could do better than that".

PLAYING PARTS IN A BAND

notable ideas

See [Compatibility Of Parts](#), [Theme And Variation](#).

When is a musical part just “background”? (answer: [background part](#)).

How many significant musical ideas (that have to be thought about) can a listener typically understand at once? (answer: [how many musical ideas at once](#)).

What can we do to an arrangement when there are too many notable musical ideas going on at once? (answer: [too many parts solution](#)).

compatibility of parts

What is theme and variation? (answer: [theme and variation defined](#)).

In ensemble parts, is each part that makes of the ensemble on the same parts of the beats as another part? (answer: [parts of an ensemble and parts of the beat](#)).

What do different rhythmic levels have to do with making more parts understandable at once? (answer: [parts at different rhythmic levels](#)).

Playing Parts in a Band Answers

Usually only two or three.

When one musical part is at a different rhythmic level from another, such as one at two parts per beat and another at four parts per beat, it is easier for the listener to understand both at once. However, the relationship between the parts shouldn't be too complex. Four parts per beat in one part and three in another are challenging to hear at once, but can work if simple enough otherwise.

Combine some of the parts so they become a single idea with variation.

A duplication, elaboration or abbreviation of an existing part.

No, that's what makes them ensemble parts. Some parts of the ensemble are on different parts of the beats than others. They combine in a "gearlike" or "dovetail" fashion to make something more detailed.

When it doesn't require the listener's attention because it just keeps time or is something the listener is so familiar with they don't have to think about it.

TECHNIQUE

Playing Posture

Read [Playing Posture](#). Watch [Five Levels of Fretting Pressure](#).

What is the most common cause of stress, fatigue and injury for guitar players? (answer: [stress, fatigue and injury](#)).

Demonstrate five levels of fretting pressure. (answer: [Five Levels of Fretting Pressure](#)).

Demonstrate the posture for your upper body in playing guitar (answer: [upper body posture](#)).

What should the position of the head of the guitar be, in relation to the bridge? (answer: [head of guitar and bridge](#)).

How many degrees do I keep the neck in relation to the floor? (answer: [neck degrees to the floor](#)).

What is the rounded part of the guitar body for, where it curves in toward the middle of the guitar body? (answer: [rounded part of guitar body, curving toward middle](#)).

When sitting and playing the guitar, what should the relationship be between your knee and your hip? (answer: [knee and hip](#)).

When sitting and playing the guitar, should both feet be flat on the floor? (answer: [feet on floor](#)).

Is it okay to bend your fretting hand wrist? (answer: [bending fretting hand wrist](#)).

How far should you tilt the upper part of the guitar body back toward you? (answer: [tilt back upper part of guitar body](#)).

What part of the neck should you look at and how often? (answer: [look at neck](#)).

How far should the guitar be from your fretting hand shoulder? (answer: [distance from fretting hand shoulder](#)).

Should your fretting hand fingers be parallel to the frets. (answer: [finger angle to frets](#)).

Should sitting posture be much like standing posture? (answer: [sitting versus standing posture](#)).

How often should you take a break from sitting? (answer: [break from sitting](#)).

Fly Me to the Moon exercise

Using four-note seventh chords in, demonstrate these four steps:

1. Linear arpeggios stroke lengths of one half inch or less
2. Three-note seventh no fifth chords with bass (thumb) and two-note chords (index and middle)
3. Four note seventh chords in bass (thumb), mid (index), top (two high notes with middle and ring), mid (again).
4. Bass notes and three note chords

Technique Answers

You should avoid bending your fretting hand wrist and make it momentary when you do bend it.

Keep the lower back in its nearly straight, naturally-curved shape. Since you are reaching around in a circular manner (seen from an aerial view), your upper back is slightly rounded. The shoulders should not be forward of the clavicle by more than about a half inch.

No. Elevate your foot six to nine inches with a foot stool.

The knee should be the same height or slightly lower than your hip.

45°.

At least a five minute break every 20-30 minutes of playing. Stand and play if you like, for the break.

About one open-hand span.

Sitting posture should mimic standing posture in regard to the angle of the neck, distance from the fretting hand shoulder and distance tilting the guitar back from the imaginary vertical plane.

You should train yourself to only occasionally glance at the edge of the fretboard, so you can look at your audience or sheet music.

At least as high as the bridge.

About two to six inches.

Angled about 10°-20°, like a violinist.

To rest on your leg when sitting.

Tightening muscles that you don't need.

EQUIPMENT USE AND MAINTENANCE

picking up your guitar and setting it down

Is it okay to pick your guitar up by holding the strap? (answer: [pickup by strap](#)).

Should you lean your guitar against the wall or other vertical surface? (answer: [lean guitar](#)).

tone and volume control

The tone controls on a guitar are usually passive and don't have a built-in pre-amp. They always let the low (bass) frequencies go on to the amp, but attenuate the high (treble) frequencies the more you adjust the control to a lower number. So, you should think of the tone control as a *treble control*, since it only affects the treble.

Pickups closer to the neck produce more bass and pickups closer to the bridge produce more treble. Guitars with two or more pickups have a switch to select one or more pickups at a time. Turning the volume control down on a guitar usually decreases the treble a little along with decreasing the volume, unless the guitar has an uncommon *treble bleed circuit*.

How can you coarsely decrease the bass with your guitar pickup selection? (answer: [pickup select less bass](#)).

How can you discretely decrease the bass with your guitar volume controls on a guitar with two or more pickups and a volume control for each pickup (like a Gibson Les Paul, 335 or SG)? (answer: [pickup adjust less bass](#)).

Will adjusting your guitar's volume control affect the treble? (answer: [volume control and treble](#)).

guitar maintenance and adjustment

How should you tighten the nut on your guitar jack, if it becomes loose? (answer: [tighten nut on guitar jack](#)).

Should you adjust the trussrod yourself? (answer: [adjust trussrod](#)).

All of the following clearance issues require being able to fret every note on the guitar with reasonably hard picking without noticeable buzzing, including bent notes wherever you can. See [reasonable guitar specs](#).

What should the distance be between the twelfth fret and the sixth string? (answer: [twelfth fret clearance to sixth string](#)).

What should the distance be between the twelfth fret and the first string? (answer: [twelfth fret clearance to first string](#)).

What should the distance between the first fret and the sixth string be? (answer: [first fret clearance to sixth string](#)).

What should the distance between the first fret and the sixth string be? (answer: [first fret clearance to first string](#)).

While fretting the first and last frets at the same time (to create a “straight edge” with the string), what should the distance between the seventh fret and the sixth (largest) or first (smallest) string be? (answer: [seventh fret clearance](#)).

electrical connection to the amp

When the guitar is not making sound through the amp or the sound is intermittent, what is the path from the pickup to the speaker and how should I trouble-shoot it? (answer: [bad connection](#)).

Equipment Use and Maintenance Answers

You should usually take the mounting plate off (Fender) or remove the plate to access the electronics cavity (Les Paul, SG, Ibanez) and hold the guitar jack at its base while tightening the nut, so you don't spin the jack and break the wires loose.

The sum of the thickness of the sixth and fifth strings.

By choosing a pickup closer to the neck.

A distance equal to or less than the thickness of the third ("G") string.

Turning the volume down decreases the treble slightly, unless you have a treble bleed circuit, which is rare.

Ideally the same or less than the thickness of the second ("B") string or less. This can vary to as much as the thickness of the third string, but more will make the action (distance from the strings to the fretboard) too great for easy fretting.

The signal starts at the pickup goes to switches, then volume controls, then the jack, the guitar cable, finally the amp and its speaker. Go in that order. I've never had a pickup fail, only its connection.

First do something really basic: adjust the amp to your typical settings and see if you get sound by touching the tip of the guitar cable, plugged into the amp, not into the guitar. Don't touch the sleeve, only the tip. Touching the sleeve will ground out the signal and keep it quiet. If you hear a loud buzz when you touch the tip, that's a good sign. If so, proceed to check out the guitar (the following paragraphs). If you don't hear a loud buzz touching the tip, try another guitar cable, maybe the first one has a bad internal connection.

Start with the switches: change the pickup selection while sounding a chord on the guitar and see if the sound crackles. If it does, you can often flick the switch back and forth many times and the dirt and carbon will fall away from contacts in the switch and it will work properly. If not (and flicking the switch makes noise) try the correct kind of contact cleaner (see Dan Erlewine's book *How To Make Your Electric Guitar Play Great*). Sometimes switches fail and have to be replaced. Try everything else first, before going to a repair person (or changing it yourself if you know how).

Next the volume controls. Much the same as with a switch, if a volume control makes noise, you can rotate it many times to clean the contacts or use the correct kind of contact cleaner (see Dan Erlewine's book *How To Make Your Electric Guitar Play Great*). Sometimes volume controls (potentiometers) fail and have to be replaced. Try everything else first, before going to a repair person (or changing it yourself if you know how).

Is the guitar jack loose? If so, you should usually take the mounting plate off (Fender) or remove the plate to access the electronics cavity (Les Paul, SG, Ibanez) and hold the guitar jack at its base while tightening the nut, so you don't spin the jack and break the wires loose.

If you checked the cord first and touching the tip made sound you should have found some other problem by now. If not, double check all the steps. Still no?....get professional help.

It's usually better to use a guitar stand, guitar hanger, lean the guitar in a corner or pay someone to stand there and hold it for you.

The sum of the thickness of the fifth and fourth strings.

No! Pick the guitar up by the neck or body. A strap can come loose, especially when the guitar is not hanging from your shoulder by the strap.

Only if you're sure you know how. Get information in Dan Erlwine's book *How To Make Your Electric Guitar Play Great*. If you're not confident, take your guitar to a qualified repair person.

By having two or more pickups selected with the selector switch and turning the volume down on the one closer to the neck.

A distance equal to or less than the thickness of the fifth (next to largest) string.

